This report contains the recommendations of the Physician Consortium for significantly improving medical education and training to enhance the physician's role in early identification, treatment, and prevention of substance abuse. In addition, the consortium subcommittees report on their examination of substance abuse treatment needs of ethnic and racial minority groups and on the unique training needs that are especially germane to the care of adolescents and children. Recommendations address the need for changes in undergraduate medical education, graduate medical education, and continuing medical education; they also focus special attention on the concerns of adolescents and children and the multicultural issues in substance abuse education and training of physicians. The report concludes with background information on the problems of substance abuse in general and on certain specific substances—cocaine, marijuana, alcohol and tobacco products—in particular. Contains 32 references. (GLR)
POLICY REPORT
OF THE PHYSICIAN CONSORTIUM
ON SUBSTANCE ABUSE EDUCATION

1991
The views expressed in this document are solely those of the Physician Consortium on Substance Abuse Education and do not necessarily represent the views of the Health Resources and Services Administration nor of the United States Government.
POLICY REPORT
OF THE PHYSICIAN CONSORTIUM
ON SUBSTANCE ABUSE EDUCATION

David C. Lewis, M.D., Chairperson
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Supported by the
HEALTH RESOURCES AND SERVICES ADMINISTRATION
Bureau of Health Professions
Division of Medicine

Staffed by the
Special Projects and Data Analysis Branch
Special Projects Section

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service

Publication No. HRSA-P-DM-91-3
Dear Dr. Harmon:

I am pleased to submit to you the Policy Report of the Physician Consortium on Substance Abuse Education. This document contains the recommendations of the Physician Consortium for significantly improving medical education and training to enhance the physician's role in early identification, treatment and prevention of substance abuse. These recommendations address the need for changes in undergraduate medical education, graduate medical education, and continuing medical education; they also focus special attention on the concerns of adolescents and children and the multicultural issues in substance abuse education and training of physicians.

The Bureau of Health Professions' Division of Medicine has served as the Physician Consortium's organizer, facilitator and secretariat in producing this report. Through this effort the public and private sectors have worked together effectively to bring to the attention of medical educators the changes needed in medical education to improve medical care related to substance abuse. The Bureau recognizes the importance of health professionals in the struggle to ameliorate the suffering and lower the costs associated with the health problems stemming from substance abuse. As the recommendations of this report become implemented across medical education and physicians incorporate this new knowledge and skill in their practice, physicians will become ever more important in diagnosing, treating and preventing the health problems brought about through substance abuse in our society.

With the submission of the Policy Report of the Physician Consortium on Substance Abuse Education, the Physician Consortium brings to a successful conclusion its first major task. I want to thank personally each member of this group for contributing to this important effort. As the Director of the Bureau of Health Professions, I look forward to facilitating the continuing work of the Physician Consortium as it moves forward with its agenda to improve medical education in substance abuse.

Sincerely,

Fitzhugh Mullan, M.D.
Director
Assistant Surgeon General

Enclosure
ACKNOWLEDGEMENT

The preparation of this *Policy Report of the Physician Consortium on Substance Abuse Education* was assisted greatly by staff in the Health Resources and Services Administration. The Physician Consortium on Substance Abuse Education was supported by the Division of Medicine and staffed by the Special Projects Section of the Special Projects and Data Analysis Branch. Marilyn H. Gaston, M.D., Director, Division of Medicine, Bureau of Health Professions, served as Executive Secretary to the Consortium, and subsequently Janet B. Horan, M.P.H., R.N., C., served as the Acting Executive Secretary. Brenda E. Selser and Robert M. Politzer, M.S., Sc.D., served as Program Staff Liaisons to the Consortium. Ruth H. Carlsen Kahn, D.N.Sc., Health Manpower Education Specialist, Special Projects Section, Special Projects and Data Analysis Branch, and Carol Gleich, Ph.D., Chief, Special Projects and Data Analysis Branch, performed the final editorial work on the report.

Although the Consortium chairperson, vice chairperson, subcommittee chairpersons, and members accept all responsibility for this *Policy Report of the Physician Consortium on Substance Abuse Education*, the following professional staff members should be cited for their special contributions: Dona L. Harris, Ph.D., Scholar-in-Residence, Division of Medicine, Bureau of Health Professions; and professional staff of the Alcohol, Drug Abuse, and Mental Health Administration: Jo Brady, Chief, Training and Evaluation Branch, Office of Substance Abuse and Prevention; Frances Cotter, M.P.H., Chief, Health Professions Education Program, National Institute on Alcohol Abuse and Alcoholism; and Dorynne Czechowicz, M.D., Assistant Director for Medical and Professional Affairs, National Institute on Drug Abuse. Robert Petersen, Ph.D., provided technical and editorial assistance in the earlier draft report.

Particular acknowledgement is given to the fine administrative support provided by John Heyob, Deputy Director, Division of Medicine, and to the excellent secretarial assistance provided by Penny King, Branch Secretary, Special Projects and Data Analysis Branch, and Sandy Weaver, Section Secretary, Special Projects Section.

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PREFACE

The momentum for including substance abuse education within the mainstream of medical education has increased steadily over the past five years. Virtually every national medical professional society now has a task force or working group dealing with the issue. AMERSA, the national medical faculty organization for physicians and other health professional devoted to substance abuse education, has doubled its membership and tripled its national conference attendance over the last five years. Federal initiatives by Health Resources and Services Administration and ADAMHA (NIAAA, NIDA, OTI, and OSAP) have added to the momentum by supporting development of new medical school curricula, faculty development, and training opportunities for primary care physicians.

This report and the work of the Physicians Consortium on Substance Abuse Education are part of the momentum. It is an historic event in that it is the first time that representatives of so many national professional societies have convened and achieved a published consensus on this subject.

This work, however, is not without precedent. Both the Macy Foundation Report of 1972 and the Annenberg Center Conference of 1985 were its forerunners. The Macy Conference, about the same size as the Consortium, was made up of thirty leaders in academic medicine, rather than representatives of national organizations. While its advice received practically no notice at the time, it is still timely advice and quite consistent with current thinking.

"The absence in most teaching hospitals of specialized clinical facilities for treating drug abusers leaves the same gap in the training of today's medical students as in the past. After a brief didactic introduction to the problems of drug abuse in the basic pharmacology course, most students receive only accidental and sporadic reinforcement in their clinical years. The Conference postulated that the treatment and prevention of drug abuse should be taught systematically so that students can learn to approach the issue of drug abuse just as they learn to approach the problems of cardiovascular disease, cancer and mental illness." From Medical Education and Drug Abuse: Report of a Macy Conference.

The Annenberg Center Conference did have an impact. Its report, "Consensus Statement from the Conference-Alcohol, Drugs, and Primary Care Physician Education: Issues, Roles, Responsibilities," presaged a whole series of private and public initiatives to develop and introduce competency-based training into substance abuse medical education.

There has been general agreement for years about what needs to be done in medical education about substance abuse, but the level of accomplishment has fallen far short of the need. This report of the Physician Consortium on Substance Abuse Education is a working document, designed to make things happen. While its recommendations are neither original nor difficult to achieve, the measure of its success will be the action that it stirs. In a year, we plan to seek feedback from national professional societies, residency review committees, medical boards, medical schools, regulatory bodies, and government programs to assess the implementation of the Report's recommendations. We hope that the report will be useful to the organization and individuals who are ready to move ahead with us.

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I. EXECUTIVE SUMMARY

This Executive Summary of the Policy Report Of The Physician Consortium On Substance Abuse Education states the purpose of the Physician Consortium on Substance Abuse Education, presents the consensus statements of the findings, and reports the recommendations of the five subcommittees. These recommendations underscore the need for changes in medical education and training curricula in order to cope with the mounting problems of substance abuse. The Executive Summary also briefly describes the history, goal, three-year agenda, and the Consortium's approach to its work. The full text includes the complete reports of the five subcommittees, which detail the findings and recommendations for changes in medical education and training developed by each of the five subcommittees. The report concludes with background information on the problems of substance abuse generally.

Purpose of the Physician Consortium

The purpose of the Physician Consortium is to promote the role of the physician in prevention, early identification, and treatment of substance abuse by improving medical education and training.

The Physician Consortium on Substance Abuse Education is expected to make a major contribution to meeting the significant national medical education need of preparing the Nation's physicians to respond to the health problems related to alcohol and substance abuse. The Consortium has been asked to assess educational needs of physicians, to identify the barriers which prevent physicians from treating the problems associated with substance abuse, and to make recommendations for needed change in the education and training of physicians that would extend to curricula of medical schools and residency programs as well as continuing medical education. The Consortium's recommendations are intended to focus on improvements needed in medical education in order to enable physicians to intervene effectively in prevention, early identification, and treatment of substance abuse.

Consortium Consensus On Findings

Consortium members agreed by consensus that substance abuse education and training for all levels of medical education is markedly deficient. Medical education programs incorporating substance abuse problems of minority groups and youth are also seriously lacking. Although some medical education curricula focusing on substance abuse have been developed for specific medical specialties (general and family practice, pediatrics, internal medicine, obstetrics and gynecology, emergency medicine, and psychiatry), few of these are in widespread use. Substance abuse education and training continue to be poorly integrated into general medical education, and the minimal substance abuse training that does exist fails to take into account the special problems and needs of minorities. A basic difficulty repeatedly noted by each of the Consortium subcommittees is the need to overcome physician prejudice regarding substance abusers including the belief that abusers have a poor prognosis. A related problem is that of physician uncertainty about who has ultimate responsibility for substance abuse intervention with patients. One reason physicians may be reluctant to accept responsibility for intervention with patients is that existing medical treatment standards permit varying degrees of possible physician involvement. A second major area identified by all the subcommittees is the need to develop trained faculty who can provide appropriate education and training supervision and serve as role models in this area. Finally, a third concern identified is that of how to alter definitively the physicians' actual practice behavior, rather than simply construct medical education programs that add to general knowledge of substance abuse.

Physician Consortium Recommendations

The Physician Consortium On Substance Abuse Education recommends that:

Undergraduate Medical Education

- Undergraduate medical education programs should be developed to overcome the negative attitudes of faculty and students toward substance
abuse and to establish effective faculty role models for students, house staff, and attending physicians.

- Specific faculty should be identified, trained, and assigned responsibilities for substance abuse education in undergraduate medical education programs to ensure that the topic becomes an integral part of every medical student's education and training.
- Undergraduate medical education and training should introduce students to substance abuse problems of patients and communities at risk for substance abuse.
- Multidisciplinary community-based programs should be utilized to educate students in the entire range of substance abuse problems and interventions.
- On-campus confidential student and house staff impairment prevention policies and programs should be established to provide drug and alcohol prevention programs directed to medical students and physicians at risk.
- The Government's role as a funding source and facilitator in setting priorities for substance abuse medical education and training should be continued.
- Private foundations and public agencies should be encouraged to provide internships and other stipend-supported training opportunities for research, clinical and community-based medical training in chemical dependency.

Graduate Medical Education

- A basic graduate medical education faculty training course should be offered as the first level of training in substance abuse for five additional graduate medical education specialties: general internal medicine, general pediatrics, obstetrics and gynecology, emergency medicine and psychiatry. The Family Medicine Model represents a successful effort which could be adopted.
- A three-month interdisciplinary course in substance abuse education should be developed for training physician faculty of graduate medical education residency programs.
- A two-year fellowship program in substance abuse education should be developed to provide academic physician leadership in substance abuse education for graduate medical education.
- Ten "centers of excellence" in substance abuse education should be established nationwide which incorporate linkages of community-based substance abuse programs focusing on prevention and treatment with mental health centers and area health education centers. Two periods of training (a three-month course and a longer two-year fellowship program) for physician faculty of graduate medical education programs would be offered in the centers.
- All levels of faculty training in substance abuse should include content on cross-cultural and special population issues and information related to the changing demographics of our society.
- Graduate medical education residency programs should develop and implement specific substance abuse training requirements, and these requirements should be reflected in specialty board examinations.

Continuing Medical Education

- Substance abuse continuing medical education programs should be targeted to different physician audiences by tailoring programs to meet their actual needs, interests, and practice patterns.
- Physicians should be sensitized to the existence of alcohol and substance abuse problems in their patient population through continuing medical education programs.
- The existing skill repertory of physicians should be used as the foundation for new continuing medical education programs.
- A wide range of instructional methods should be utilized in the development of continuing medical education programs to alter physician attitudes toward substance abuse, to improve skills and to increase physician willingness to deal with substance abuse problems.
- Substance abuse related knowledge and skills should be included whenever practice standards, guidelines, parameters and protocols are being developed or revised by public agencies or private organizations.
Multicultural Issues

- A group of educators, physicians, and substance abuse experts should be convened to define knowledge, skills, and attitude requirements in the substance abuse area specific to ethnic and racial minorities and to identify appropriate methods and teaching strategies.
- All medical education and training programs in substance abuse should be required to explicitly include specific training modules focusing on the needs of ethnic and racial minority groups.
- The Secretary's Task Force on Black and Minority Health recommendations concerning substance abuse should be pursued.
- Substance abuse training programs linked with service programs which target racial and ethnic minority populations should include information from current research on minority use patterns and effective intervention.
- Substance abuse training specifically addressing issues relevant to ethnic minorities should be included during residency training in primary care disciplines.

Adolescents and Children

- Outpatient training settings along with psychiatric residential facilities should be utilized in order that the full spectrum of youthful drug abusers be represented.
- Faculty with a primary interest in adolescent medicine should be provided the opportunity to develop expertise in substance abuse issues and to convey that expertise to trainees. Training should be multidisciplinary and involve cooperation and coordination of education among the disciplines of family medicine, pediatrics, child and adolescent psychiatry, gynecology, and internal medicine.
- The use of screening devices for detecting drug abuse should be taught as an integral component of education programs that focus on adolescent substance abuse.
- Data on effective prevention strategies for adolescent substance abuse should be used in teaching programs and disseminated to those working with youthful populations.
- Legal and ethical issues of substance abuse should be incorporated in substance abuse education at all levels of training.

Consortium History

The Physician Consortium on Substance Abuse Education was organized in 1989 under the aegis of the Public Health Service, Health Resources and Service Administration, Bureau of Health Professions, Division of Medicine to examine substance abuse education for physicians at all levels of training. The establishment of the Physician Consortium was an outcome of earlier alcohol abuse initiatives of the Office of the Secretary, Department of Health and Human Services. In 1988 two meetings were held with physician representatives of medical organizations and representatives of the Federal Government to discuss the alcohol training and education needs of the physician community and the role of licensure examinations in assuring a minimum level of physician competence in the area of alcohol diagnosis and intervention. In 1989 the Director of the Bureau of Health Professions, working in collaboration with the American Medical Association, held an invitational conference to discuss the topic "The Primary Care Physician's Critical Role in Preventing Alcohol Abuse and Alcoholism". Also during this time period, the Public Health Service issued the "Year 2000 Draft Objectives for Reducing Alcohol and Other Drugs" and established a Task Force on Illicit Drugs. In response to the clearly identified need for better educated and trained health professionals, the Bureau of Health Professions established health professional consortia to focus on the education and training needs of practitioners in the area of substance abuse. The Physician Consortium on Substance Abuse Education was formed by expanding the membership of the previous work groups to include organizations responsible for physician training and education. This newly constituted group, which included representatives nominated by their medical associations, societies, specialty boards, and medical schools, met for the first time in June, 1989, under the auspices of the Bureau of Health Professions, Division of Medicine.
Consortium Goal

The Physician Consortium's goal is consistent with the Department of Health and Human Services' recently released Healthy People 2000, National Health Promotion and Disease Prevention Objectives (DHHS, 1991). These objectives aim to reduce sharply drug abuse and the high medical toll it now exacts. The Consortium expects that the Policy Report of the Physician Consortium on Substance Abuse Education will contribute to improved understanding of the physicians' role in medical issues associated with substance abuse. The Consortium also expects that physicians will more broadly and directly influence the medical problems of substance abuse when the changes recommended for medical education and training have been implemented.

Consortium Agenda and Approach to Work

The Policy Report of the Physician Consortium on Substance Abuse Education is the product of the Consortium's first year of work on a three-year projected agenda. The Policy Report presents in full the Consortium's findings on medical education in substance abuse and makes recommendations for improving the quality of medical education related to substance abuse. The Policy Report is intended for widespread circulation to national medical organizations and to Federal and State agencies for their use in overcoming barriers to the treatment of substance abuse through improved medical education. Also during this agenda time the Consortium through the assistance of the Division of Medicine developed and distributed to the Consortium members a catalog of educational materials on the prevention, diagnosis, and treatment of substance abuse. The second year of Consortium agenda will be devoted to fostering a dialogue among private and public organizations to encourage the establishment of new policies and programs consonant with the recommendations contained in the Policy Report. During the third year the Consortium will focus on changes that either will or have been implemented and on evaluation of the overall effort in bringing about improved understanding of substance abuse in medical education curricula.
II. THE PHYSICIAN CONSORTIUM ON SUBSTANCE ABUSE EDUCATION

Purpose, History and Goal

The Department of Health and Human Services' Healthy People 2000, National Health and Disease Prevention Objectives (DHHS, 1991) for Reducing Alcohol and Other Drug Problems, stresses the important role health professionals can play in the early detection, treatment and referral of persons with substance abuse problems.

The purpose of the Consortium is to promote the role of the physician in the prevention, early identification and treatment of substance abuse by improving medical education and training.

Many barriers to effective prevention and early identification of alcohol and other drug abuse have been recognized and reported. However, developing effective strategies to eliminate these barriers remains a difficult task. The gap between the awareness of substance abuse problems and effective medical intervention to cope with them continues to be significant.

Early in 1987, the Secretary of Health and Human Services set out to build on the work already accomplished in the alcohol abuse field by soliciting the support of health professionals and interested organizations to further raise the national awareness of alcohol-related problems. On behalf of the Secretary, two meetings were convened in August and October of 1988. One outcome of these meetings was a conference in February of 1989 on the role of the primary care physician in coping with alcohol and drug abuse problems. Participants in this meeting unanimously agreed that a group representing organizations responsible for physician training should be formed to address alcohol-related medical education issues. They also concluded that the membership of the group should be expanded and that the scope of work should include the entire spectrum of abused drugs. Also, the challenge to the profession of the alcohol-abusing patient was addressed by the Secretary of Health and Human Services and the American Medical Association (Bowens and Sammons, 1988).

The Public Health Service issued the "Year 2000 Draft Objectives for Reducing Alcohol and Other Drugs" and established a Task Force on Illicit Drugs. The Bureau of Health Professions was assigned the responsibility for establishing health professional consortia to meet the education and training needs of practitioners in the area of substance abuse. The Physician Consortium on Substance Abuse Education was formed by expanding the membership of the earlier work groups to include organizations responsible for physician training and education. This new 30-member consortium established by the Bureau of Health Professions included representatives from medical associations and societies, specialty boards, and medical schools selected by the respective organizations. The first meeting of this consortium convened in June of 1989 and was chaired by the Bureau Director. The second meeting in November 1989 was chaired by its current elected leadership. Bureau of Health Professions' staff serve as its secretariat.

The Consortium is a valuable link between the Federal Government and academic and professional organizations. Members work collaboratively, both within the Consortium and within their respective organizations, to build on the work that has already been done in the alcohol and drug abuse fields. They actively solicit the support of health professionals and organizations in eliminating barriers to effective prevention and early identification of substance abuse. One approach to the elimination of barriers is through the improvement of the quality of substance abuse medical education and training.

The Consortium interacts with other Public Health Service entities such as the Office of the Surgeon General and the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA). ADAMHA includes the National Institute on Drug Abuse (NIDA), the National Institute on Alcohol Abuse and Alcoholism (NIAAA), the National Institute of Mental Health (NIMH), and the newly established Office for Treatment Improvement (OTI). It also works with the Centers for Disease Control (CDC) and the Health Resources and Services Administration (HRSA) to achieve its objectives.

The Physician Consortium's goal is consistent with the Department of Health and Human Services' recently released Healthy People 2000, National Health Promotion and Disease Prevention Objectives (DHHS, 1991). These objectives aim to reduce sharply drug abuse and the high medical toll it now exacts. The Consortium anticipates that the Policy Report of the Physician Consortium on Substance Abuse Education will contribute to improved understanding of the physician's role in medical issues associated with substance abuse.
The Consortium also expects that physicians will more broadly and directly influence the medical problems of substance abuse with implementation of the changes recommended for medical education and training curricula.

Three-Year Agenda and Approach

The Consortium has initiated a three-year program. During its first year this Policy Report of the Physician Consortium on Substance Abuse Education has been completed for circulation to national medical organizations as well as to agencies in Federal and state governments. The Report includes recommendations to both private and public sector organizations of ways in which the quality of medical education concerning substance abuse can be improved. Also during the first year the members of the Consortium through the assistance of the Division of Medicine prepared a catalog of educational materials on the prevention, diagnosis, and treatment of substance abuse. During the second year the Consortium will encourage a dialogue among these organizations to encourage them to establish new policies and programs. The third year of this multifaceted agenda will be devoted to implementing the suggested policies and programs and to evaluating how successfully the public and private sectors have been in pursuing and achieving the Consortium's recommendations.

The work of the Consortium is summarized below:

- The Consortium requested that a resource document be compiled of current material on substance abuse education. The Bureau of Health Professions' Division of Medicine responded by developing a catalog of educational materials on substance abuse prevention, diagnosis and treatment. This catalog provides a brief description of educational materials available both to primary care physicians and for distribution to their patients.

- The Consortium established five subcommittees to address specific substance abuse training issues in undergraduate, graduate and continuing medical education as well as the education of physicians providing treatment for ethnic and racial minorities and of physicians caring for adolescents and children. Subcommittee members adopted a list of priority areas for specific consideration at their future meetings.

- A Steering Committee was established to define the role, organization and work of the Consortium. Members of this committee established the Consortium's subcommittee structure, leadership, direction, purposes and resources. They proposed the focus and content for the Policy Report. They prepared the agenda for the full Consortium meeting in November 1989. The Steering Committee recommended that the Consortium elect a chairperson and a vice chairperson from its membership.

- Subcommittees met separately during the next meeting to develop their findings and to frame their recommendations.

- Subcommittee chairpersons summarized the deliberations of their respective subcommittees, and subcommittee reports were drafted for the Consortium membership. In most instances the findings and recommendations of the subcommittee reports were based upon information from the professional literature. In some instances little or no published information was available, and the findings were derived by consensus of subcommittee member experts.

- Draft reports were circulated to members for review and comment.

- A draft final report composed of the revised individual subcommittee reports was developed in preparation for the first anniversary meeting of the full consortium, which was to be held in June 1990.

- Based on the review and comments of the Consortium members at the June meeting, a draft final report was prepared for the November meeting.

- At the November meeting of the Physician Consortium, the full report was reviewed and any changes made were agreed to by the full Consortium membership. This Policy Report of the Physician Consortium on Substance Abuse Education incorporates the changes made to the draft final report during the November meeting.

Section III of this report provides the complete reports of the findings and recommendations of the five subcommittees. Background information on the substance abuse problem is covered in Section IV.
III. FINDINGS AND RECOMMENDATIONS OF THE SUBCOMMITTEES

A. Undergraduate Medical Education

The subcommittee on undergraduate medical education agreed that current medical education fails to teach appropriately and adequately the subject of substance abuse despite the well-documented harmful effects of substance abuse on a significant portion of the population. The public health responsibilities of the medical profession require that this subject be taught at a basic educational level in our medical schools. Medical schools must recognize that chemical dependency is not simply a mental health concern, but also has broader health implications involving all medical specialties, particularly those providing primary care. The subcommittee also concluded that medical students need to be better sensitized to their own high personal risk of becoming substance abusers.

Substance abuse training is not universally integrated into medical school curricula and is not an integral part of primary care medical education. Medical schools and residency programs vary widely in the extent to which substance abuse units are integrated into their curricula. There is a lack of comprehensive substance abuse training in specialties that train primary care physicians. In the small percentage of schools where programs are integrated the units taught usually deal with the abuse of alcohol as well as of other drugs. Integrated training programs also frequently include provision of clinical experience with substance abusers. However, this approach represents an exception to the much more common medical school pattern of offering only electives in substance abuse to students especially interested in those problems (Davis et al., 1988). Traditionally, psychiatry was the only specialty area that routinely included substance abuse topics in its training. In the past, departments of psychiatry have been relied upon to provide a large portion of the substance abuse training received by medical students. The current trend toward including substance abuse training in other primary care specialties should lead to better integrated coverage of the topic. Training should stress the primary care physician's important role in preventing as well as in identifying, treating, or referring substance abusing patients.

Finding A-1. Alcohol and other drug abuse education is not an integral part of primary care medical education.

Medical schools and residency programs vary widely in the extent to which substance abuse units are integrated into their curricula. There is a lack of comprehensive substance abuse training in specialties that train primary care physicians. In the small percentage of schools where programs are integrated the units taught usually deal with the abuse of alcohol as well as of other drugs. Integrated training programs also frequently include provision of clinical experience with substance abusers. However, this approach represents an exception to the much more common medical school pattern of offering only electives in substance abuse to students especially interested in those problems (Davis et al., 1988). Traditionally, psychiatry was the only specialty area that

Finding A-2. The traditional emphasis on hospital-based, technologically complex diagnosis and treatment, on organ pathology, and on a cure-oriented approach to acute illness is ill-suited to dealing with chronic behavioral pathology that antedates the development of organ pathology in alcohol or drug abusers.

Teaching substance abuse content as though it primarily involves a constellation of drugs with specific pathological effects on various organ systems is appropriate in relatively discrete and well-defined areas. By contrast, teaching about substance abuse as a primary disease is atypical and content is seriously deficient (Kinney et al., 1984). Substance abuse is a disease state that intimately involves behavioral as well as more traditional medical aspects.

Along with an increasing appreciation of the importance of teaching about substance abuse, there is growing recognition that a combination of teaching methods and clinical settings is necessary. Using only inpatient settings for this training, especially in general medical facilities, is questionable. Relying on such settings should be reconsidered (Davis, et al., 1988). Training sites where students and residents are more likely to see the entire range of patients with substance abuse problems are preferable. Outpatient and community-based settings also provide significantly better opportunities to learn about prevention, early diagnosis, and intervention. These facilities offer students opportunities to take histories, perform physical examinations, and complete medical assessments of substance abusing patients. Involvement with community prevention projects and with substance abusing patients early in medical training can effectively introduce medical students to the health risks as well as to the
resources that can be mobilized for dealing with the problem. Specifically, students can participate in community activities by working with adolescent groups, in mental health units, as well as by attending self-help group meetings (e.g., Alcoholics Anonymous, physician impairment groups).

A major challenge in teaching substance abuse content is to stimulate medical students' active interest and involvement. Faculty need to identify the underlying reasons for students' limited interest in this area such as the absence of suitable role models for becoming involved. Greater emphasis must also be placed on "learner driven" teaching, which emphasizes experiential learning through case studies, interaction with expert researchers and clinicians, and the open discussion of physician attitudes toward substance abusing patients which interfere with their effective treatment (ADAMHA, 1988).

Greater attention should be paid to integrating substance abuse education into overall medical curricula and to teaching relevant preventive, diagnostic and treatment skills throughout the entire medical education system.

Finding A-3. Preparing a core group of faculty to teach substance abuse and to develop and implement curricula can facilitate recognition that substance abuse training is an integral part of all medical education.

The Consortium consensus is that faculty can encourage students to actively explore the implications of chemical dependence as a health problem as well as help them to recognize its importance in the total health care continuum. Early emphasis on, and exposure to, substance abuse education is likely to counter the perception that substance abuse is of only narrow specialist interest rather than a widely prevalent problem with profound health implications.

Finding A-4. Implementing an integrated substance abuse curriculum requires knowledgeable faculty with expertise in academic as well as community clinical settings, who are experienced in the prevention, diagnosis and treatment of substance abuse-related disorders and who are motivated to learn and to teach about those topics.

Finding A-5. Interdisciplinary training, as opposed to more narrowly focused emphasis on more specialized disciplines, can expedite curricular improvements and a more fundamental awareness of substance abuse problems.

The key to sustained change in medical education concerning substance abuse lies in providing individual and institutional role models for such training (Lewis, 1989). The limited availability of time to pursue curriculum issues is a serious problem which faces all medical educators. The amount of time available for the curriculum is finite, an increasing amount of information is mandatory, and there is constant pressure to introduce new material. Given the typical lack of faculty expertise concerning substance abuse, it is not surprising that this area is often neglected.

Collaboration of faculty in several departments as well as in community settings is likely to mobilize broad support for increasing the curriculum time devoted to substance abuse. Interspecialty curricula also provide multispecialty role models and encourage team building. These benefits are likely to improve treatment of drug abusers within the health care delivery system as well as to result in better teaching about substance abuse (Coggan, 1987).

Finding A-6. As members of the medical community, faculty and medical students are not immune from substance abuse problems, particularly from therapeutic agents and alcohol.

Medical students need to understand that they may be at increased risk of becoming substance abusers because of their membership in the medical profession. Some studies reflect medical students' heightened awareness of the dangers of abusing drugs. Recent studies indicate medical students' use of cocaine (Conrad et al., 1989) and of other illicit drugs (Conrad et al., 1988) is generally lower than that of their non-medical school peers, but medical student use of tranquilizers and of alcohol exceeds that of non-medical peers. Moreover, Conrad et al. (1988) found that most medical students view physician drug use as a serious matter and favor programs for impaired physicians which combine treatment with various professional sanctions. Studies also reflect the ambiguity of drug usage perceived by medical students. Medical students surveyed expressed le-
niency regarding occasional illicit or inappropriate drug use. Occasional use of drugs by physicians, like substance abuse in the larger society, has also increased over the past two decades (McAuliffe et al., 1986).

The personal stress under which physicians function is reflected in their higher divorce and suicide rates compared to their non-medical peers. Physicians who are members of a minority group are under still greater pressure in having to cope with institutional racism and the often rigid social standards and expectations of the minority community in addition to the usual stresses of medical practice (Carter, 1989). The substance abuse risk endemic to being a physician should be acknowledged early in the educational process. Heightened awareness helps to eliminate moralistic attitudes and encourages a more tolerant and objective approach. It also pays dividends for prospective physicians in overcoming their psychological barriers to treating substance abusers and helps physicians to acknowledge their own vulnerability more easily.

Medical schools should also examine practices of condoning or sponsoring school functions in which alcoholic beverage indulgence rather than moderation is encouraged. Careful consideration should be given to the ways in which students are placed at still greater risk of abusing drugs when inappropriate behavior of their role models or making light of heavy social drinking is accepted.

RECOMMENDATIONS

Recommendation A-1. Undergraduate medical education programs should be developed to overcome the negative attitudes of faculty and students toward drug abuse and to establish effective faculty role models for students, house staff, and attending physicians.

Physicians' interest, motivation, and skills must be enhanced in order to build confidence and to convince physicians that they should attend to substance abuse problems. Physicians must be persuaded to do something meaningful about the problems.

Recommendation A-2. Specific faculty should be identified, trained, and assigned responsibilities for substance abuse education to ensure that the topic becomes an integral part of every medical student's education and training.

Medical schools should draw from existing curricula and enhance faculty development programs currently underway. They should also utilize such resources as those of the American Academy of Psychiatrists in Addictions, the Association for Medical Education and Research in Substance Abuse, the American Society of Addiction Medicine, and the American Osteopathic Academy of Addictionology. Each medical school should identify appropriate full-time or community faculty whose responsibility will be to integrate the appropriate resources.

Recommendation A-3. Undergraduate medical education and training should introduce students to substance abuse problems of patients and communities at risk for substance abuse. Multidisciplinary community-based programs should be utilized to educate students in the entire range of substance abuse problems and interventions.

Providing substance abuse education in community, clinical, and didactic settings early in undergraduate medical education introduces all students from the beginning of their medical training to substance abuse problems and exposes students to patients and communities at risk for substance abuse. This is best done in a multidisciplinary setting. The Liaison Committee for Medical Education (LCME) and the American Osteopathic Association's Bureau of Professional Education should make certain this training experience occurs by making it one of their accreditation requirements.

Recommendation A-4. On-campus confidential student and house staff impairment prevention policies and programs should be established to provide drug and alcohol prevention programs directed to medical students and physicians at risk.

Early in their education physicians should be made aware that they are at risk of alcohol and drug abuse. By establishing student and house
staff impairment prevention policies and educational programs, medical schools will demonstrate their commitment to enhance this awareness.*

Recommendation A-5. The Government's role as a funding source and facilitator in setting priorities for medical education should be continued.

The Government should also examine how to improve third party payment coverage and how to eliminate reimbursement "disincentives" for treating substance abuse.

Recommendation A-6. Private foundations and public agencies should be encouraged to provide internships and other stipend-supported training opportunities for research, clinical and community-based medical training in chemical dependency.

B. Graduate Medical Education

Many of the findings and recommendations pertaining to undergraduate and continuing medical education are equally applicable to those settings in which graduate medical education is provided. Moreover, the consensus of the Consortium is that a continuum of substance abuse education from medical school through internship, residency and beyond is essential if physicians' practice behavior with respect to this area is to change fundamentally. This section will, however, emphasize those findings and recommendations that are unique to graduate medical education.

The majority of these recommendations focus on faculty development. While the Consortium recognizes the need to improve residency training as well, the consensus is that residency programs are unlikely to incorporate substance abuse training without better prepared faculty. Once trained faculty are in place, recommendations specific to programs can be implemented.

Finding B-1. Education regarding substance abuse is now primarily limited to the formal structural curricula of schools of medicine and public health. Substance abuse is not being adequately taught at the postgraduate and continuing education levels. It is essential that medical education at these levels include substance abuse education.

Finding B-2. The residency period is rarely used to reinforce previous alcohol and drug abuse training or to provide an expanded focus for developing clinical competency with a greater diversity of populations and modes of treatment.

The Consortium members agreed that the specialties of family medicine, internal medicine, pediatrics, psychiatry, emergency medicine, and obstetrics and gynecology have substance abuse training goals and curricula adequate for their intended purposes. However, this training has not been widely incorporated into residency programs. There are approximately 1600-1700 such programs. Each of these requires faculty to teach about prevention, substance abuse problem recognition, appropriate treatment, and referral choices.

Currently, the Society of Teachers of Family Medicine, in contract with the Federal government, is training faculty from the 180 Federally-funded family medicine residency programs across the country. This model is an acceptable one for introducing teaching skills on substance abuse to other departments and residency programs as well. Residency review committees need to develop requirements for each of their programs. The individual specialty curricula guidelines can be useful in providing a framework for developing such requirements.

Finding B-3. Faculty seldom make substance abuse teaching an integral part of their broader clinical and research responsibilities.

An effective way to gain both added curriculum time and to increase respect for substance abuse training is to emphasize its strong research base. Through the incorporation of recent research findings into clinical curriculum students are likely to gain an increased understanding that substance abuse is integral to other areas of medical science and clinical practice. Comorbidity is
another important area of research knowledge which needs to be highlighted in clinical training (ADAMHA, 1988).

RECOMMENDATIONS

Recommendation B-1. A basic faculty development course should be offered as the first level of training in substance abuse for five additional specialties: general internal medicine, general pediatrics, obstetrics and gynecology, emergency medicine and psychiatry. The Family Medicine Model represents a successful effort which could be adopted.

Participants should have some prior interest in substance abuse. This faculty development effort will establish working groups within each specialty in order to build an infrastructure and network for coordinating, supporting, and continuing faculty and resident education and training.

The proposed course could be supported by the Federal Government and/or receive private support.

Recommendation B-2. A three-month interdisciplinary course in substance abuse education should be developed for training physician faculty of graduate medical education residency programs.

This training should be conducted at the “ten centers of excellence” and would represent a second tier of faculty development. Funding for such a three-month training course would likely come from Federal sources. Other funding sources might include the use of confiscated drug dealer funds, money raised from selling dealers’ confiscated property, Medicare funds that were withdrawn from graduate medical education, private philanthropists, or the substance abuse treatment industry.

Recommendation B-3. A two-year fellowship program in substance abuse education should be developed to provide academic physician leadership in substance abuse education for graduate medical education.

This fellowship program should be developed as a third level of training at one of the ten centers of excellence to provide the Nation with academic leadership in substance abuse training and research. It should be coordinated with existing fellowships. In order to attract candidates, Federal and/or private support should be obtained to underwrite financial incentives such as scholarships, bonuses, and loan repayment arrangements. Incentives underwritten by the Federal Government would require service in the public sector.

Recommendation B-4. Ten “centers of excellence” in substance abuse education should be established nationwide which incorporate linkages of community-based substance abuse programs focusing on prevention and treatment with mental health centers and area health education centers.

The two longer periods of training (a three-month course and a two-year fellowship program) for physician faculty of graduate medical education programs would be offered in the centers. These centers should incorporate strong linkages with community health centers, community mental health centers, and area health education centers.

Recommendation B-5. All levels of faculty training in substance abuse should include content on cross-cultural and special population issues and information related to the changing demographics of our society.

This recommendation should be implemented by residency review committees, which would assure that such content would be included in graduate medicine education curricula.

Recommendation B-6. Graduate medical education residency programs should develop specific substance abuse training requirements.

These essential requirements will have to be developed by the respective residency review committees on accreditation. They will have to be phased in contingent upon availability of sufficient faculty resources to meet the new training requirements.
Recommendation B-7. Substance abuse content issues should be reflected in specialty board examination questions.

In the development of manuals for certification in the various specialties attention will have to be given to skills needed to diagnose and manage alcohol and drug problems.

C. Continuing Medical Education

Training deficiencies concerning alcohol and other drug dependencies have been amply documented at all levels of formal medical education (Lewis et al. 1987), and corrective measures have been proposed (Cotter and Callahan, 1987).

Less attention has been given to the ongoing information needs of the 500,000 U.S. physicians already in practice. For these physicians, whether recent medical school graduates or 40 years past formal training, providing effective patient counseling and intervention for substance abuse problems frequently competes unsuccessfully with the allocation of relatively scarce educational time and resources required by other areas of clinical concern.

Responsibility for meeting the continuing education needs of these physicians has fallen largely to medical associations and specialty societies at the national, state, and local levels. Whatever the site or sponsorship, designers of continuing education programs on alcohol and drug abuse topics have had to confront two major issues.

The first is attitudinal and is often expressed as uncertainty on the part of physicians about their responsibility for the clinical care of patients with alcohol or drug-related problems. Is it, for example, the duty of the primary caregiver to diagnose and then refer an alcohol-abusing patient for treatment? Should the physician remain involved as case manager and as the treater of medical complaints? Should the physician provide definitive treatment for all the patient's problems, including those associated with his or her alcohol or other drug abuse? This role confusion has probably been as great an impediment to physician involvement with patients' alcohol and drug-related problems as the more widely perceived barriers of negative stereotyping and hopelessness. Physicians tend to see their role as one of managing clearly defined illnesses, rather than dealing with more general problems related to lifestyle choices (Bowen and Sammons, 1988). Thus they are likely to treat only the medical complications of alcohol and drug abuse rather than to identify its underlying causative factors. Physicians' own drinking and drug use may also influence their attitudes, leading them to ignore or to minimize their patients' substance abuse problems.

The second major issue is strategic; that is, how to construct programs that will change physicians' actual practice behavior. Teaching programs that focus on alcohol and drug topics, like other subjects of continuing education, are challenged to demonstrate outcomes that go beyond merely conveying new information. Experience confirms that clinical knowledge often does not result in practice change, and when it does, the role of continuing medical education is often obscure (Wergin et al., 1988). According to one researcher, clinical training is a more important determinant of practice behavior than attitudes or knowledge (Warburg et al., 1987). The lack of supervised clinical experiences is also correlated with professional discomfort in caring for alcoholic patients (Delbanco and Barnes, 1987).

FINDINGS

Finding C-1. The Minimum Knowledge, Attitude, and Skills (KAS) Requirements are not in fact "minimum"; rather, they embrace all possible levels of involvement for physicians.

Evidence suggests that organized medicine clearly recognizes physicians' responsibility for dealing with alcohol and drug problems (Kenward & Wilford, 1988). There is no lack of policy statements, clinical guidelines, and other materials testifying to this commitment. Most notable are the statements of Minimum Knowledge and Skills Objectives for Alcohol and Other Drug Abuse Teaching recently published by the Ambulatory Pediatric Association, the American College of Emergency Physicians, the American College of Obstetricians and Gynecologists, the American Psychiatric Association, the Society of General Internal Medicine, and the Society of Teachers of Family Medicine.

However, the KAS requirements embrace all the possible levels of involvement. Practicing physicians may respond to these statements by
making individual judgments as to which activities fit into their particular practices, which activities they feel comfortable handling themselves, and which patients they will refer to more specialized sources of care. (Even practitioners in the same primary care specialty may make very different decisions in these areas.)

In 1979 the AMA determined that the primary message to be delivered by an effective program of continuing medical education on alcohol and other drug abuse must define the physician’s role and responsibilities. Guidelines developed by the AMA’s Council on Scientific Affairs were designed to deliver that message (AMA, 1979).

The 1979 guidelines, which for the AMA have the force of policy, affirm that physicians have a responsibility to meet the needs of alcohol and other drug abuse patients by providing care at one of three levels: (1) diagnosis and referral (designated as the minimum acceptable level of care), (2) acceptance of limited responsibility for treatment (e.g., restoration of the patient to the point of being able to participate in long-term treatment), and (3) complete care. The guidelines further specify the actions and knowledge required at each of these levels of involvement. Physicians who choose the minimum level of involvement are expected to have knowledge and skills in the following areas:

- Common terminology and diagnostic criteria.
- Epidemiology and natural history.
- Familial, sociocultural, genetic, and biologic risk factors.
- Basic pharmacology and pathophysiology.
- Patient evaluation techniques (including the personal, family and substance abuse history); selection and evaluation of laboratory tests; interpretation of physical findings; and strategies for overcoming denial.
- Referral techniques and appropriate referral resources.
- Long-term care needs.
- Legal and regulatory requirements about prescribing for and/or treating alcohol and drug abusing patients, release of information, and consent to care.

These skill statements are broadly comparable to those developed in ensuing years for specific specialty groups.

Finding C-2. Continuing medical education in alcohol and drugs currently targets only a small number of practicing physicians.

A large number of physicians are employed by agencies such as a clinic, a health maintenance organization (HMO), or a community health center (CHC). Accordingly, contacting such agencies may provide a useful means for gaining access to physicians.

Access to physicians can be gained by identifying them as:
- Members of specialty groups (e.g., pediatrics, obstetrics and gynecology, internal medicine, family medicine, emergency medicine, psychiatry).
- Practitioners in various settings (e.g., private office, HMO, hospital-affiliated, hospital-based, or public clinic).
- Practitioners in particular geographically-based settings (e.g., rural areas).
- Care providers for certain target populations (e.g., African Americans, Native Americans, Hispanics, adolescents, the elderly).

RECOMMENDATIONS

Recommendation C-1. Substance abuse continuing medical education programs should be targeted to different physician audiences by tailoring programs to meet their actual needs, interests, and practice patterns. Physicians should be sensitized to the existence of substance abuse problems in their patient population through continuing medical education programs. The existing skill repertory of physicians should be used as the foundation for new continuing medical education programs.

Physician involvement and decisions about the following considerations would influence the acceptability of educational programs:
- Determine what level of involvement is most suitable to physician interest and professional responsibilities.
- Determine what knowledge and skills are needed to support this level of involvement.
- Employ a wide range of approaches.
- Focus initially on the most interested, most reachable, and most enthusiastic physicians.
First, target individuals who have identified themselves as interested. Working with motivated individuals is likely to produce the greatest impact and benefit for effort expended, as well as to create positive and enthusiastic role models.

- Create other strategies to establish a minimum acceptable level of skills among all physicians.
- Devise specifically tailored programs for physicians who care for populations at greatest risk.
- Solicit the support of medical administrators of organizations that educate, represent and employ physicians. Established programs offered by AAPA, AMERSA, ASAM, and AOAM should be used as models whenever appropriate.

Recommendation C-2. A wide range of instructional methods in Continuing Medical Education should be utilized in the development of substance abuse education programs to alter physician attitudes toward substance abuse, to improve skills and to increase physician willingness to deal with the substance abuse problem. These programs should meet the physician's need for specific knowledge, attitudes, and skills (even the minimum level of skills) and enhance learning.

Examples of instructional methods follow.
- The opening segment of any educational program should relate the material to be presented to the physician's practice needs.
- Training in interviewing and other fundamental techniques should build on skills already available to the clinician.
- Role-playing is one example of a useful means to enlarge such skills.
- Specific information can be conveyed through "stand-alone media" (e.g., capsule sheets, computer-assisted learning, brochures, audiotapes and videotapes, books). Skills that involve physician-patient interviewing are best taught in face-to-face interactions or at least through some visual medium.
- When practice is required to gain mastery of a skill, small-group sessions may be needed, with time allowed for non-threatening feedback on the individual's performance.

- Reference materials should be used to reinforce and supplement the educational program.
- An information exchange or clearinghouse should be created to collect and disseminate information about educational opportunities and techniques.

Recommendation C-3. Substance abuse related knowledge and skills should be included whenever practice standards, guidelines, parameters and protocols are being developed or revised by public agencies or private organizations.

D. Multicultural Issues

People of similar ethnic or cultural origins share a common sense of identity and behavioral standards. Ethnic differences are therefore of practical concern in preventing and treating many medical problems. Awareness of these differences is especially important when patients and care providers come from different ethnic or cultural backgrounds. The difficulties that care providers confront when dealing with patients with alcohol and drug use problems are still further compounded when the providers have had different cultural origins and experiences from those of their patients. This section addresses multicultural issues that are frequently overlooked.

FINDINGS

Finding D-1. Minimum knowledge and skill objectives for alcohol and drug abuse teaching have been identified, but issues that are particularly relevant to ethnic and racial minorities have not been included.

Finding D-2. A comprehensive assessment of the current tools available for teaching substance abuse has been accomplished, but educational materials on substance abuse relevant to ethnic and racial minorities have been rarely identified.

Finding D-3. Appropriate, sensitive, and effective teaching strategies for use in minority substance abuse education have not been developed.

The National Institute on Alcohol Abuse and Alcoholism and the National Institute on Drug Abuse contracted with six professional organizations to identify minimum knowledge and skills
objectives for alcohol and other drug abuse teaching. The specialties of pediatrics, emergency medicine, obstetrics and gynecology, psychiatry, general internal medicine, and family medicine all developed objectives appropriate to their respective disciplines. However, none of these disciplines considered issues specifically relevant to treating ethnic and racial minorities. The educational process must specify strategies of prevention, diagnosis, and treatment of substance abuse specific to minority populations. Differences in cultural norms, modes of communication and in acceptable patterns of care provider intervention are all critical aspects of working with minority populations. It is imperative that curricular materials and educational strategies sensitive to dealing with substance abuse in ethnic and racial minorities be developed.

The medical specialty organizations comprehensively assessed curriculum products and techniques available for teaching about substance abuse (Davis et al., 1988). Few references to specific issues involving ethnic and racial minorities were noted. Resource materials that addressed the education of health providers on this topic were not identified.

Substance abuse has been identified as one of the major syndromes contributing to the poor health status of ethnic and racial minorities (DHHS, 1985). Improving physician education about caring for ethnic and racial minorities is an important aspect of improving the health status of ethnic and racial minorities (PHS, 1989).

Finding D-4. Basic and essential information necessary to understanding the rate and extent of substance abuse among ethnic and racial minorities is generally lacking.

Finding D-5. The inability of physicians to gain access for their patients to substance abuse treatment will influence the physicians' attitudes when physicians are asked to improve their knowledge and skills related to substance abuse.

Part of the difficulty in determining what to teach about minority substance abuse stems from the lack of information on ways to prevent, assess, and treat substance abuse in ethnic and racial minority groups. Basic and essential information that is necessary to understand the rate and extent of drug abuse among ethnic and racial minority groups is generally lacking. In addition, little is known about specific etiologic factors which play a role in the initiation and maintenance of drug abuse in these groups (DHHS, 1987).

There has also been a lack of long term follow-up research assessing the impact of culturally specific treatment programs to determine whether they are more effective than more conventional approaches. Further epidemiologic and treatment research is needed to define subpopulations within racial and ethnic minority groups that are at greatest risk for substance abuse. This information is essential if better targeted prevention, early intervention, and treatment programs are to be developed which have a greater likelihood of success. To be responsive to the needs of ethnic and racial minorities, programs should have staff of similar ethnic and racial backgrounds familiar with the languages of the groups, have access to care facilities within their local communities, be able to assess sociocultural factors impacting upon a patient's risk for and successful treatment of substance abuse, and overcome socioeconomic barriers to seeking and acceptance of treatment.

RECOMMENDATIONS

Recommendation D-1. A group of educators, physicians from the primary care disciplines, and substance abuse experts should be convened to define knowledge, skills, and attitude requirements in the substance abuse area specific to ethnic and racial minorities and to identify appropriate methods and teaching strategies.

Available resources should be identified, suitable teaching methods determined, and strategies recommended for for improving the ability of physicians to work with ethnic and racial minority groups.

Invittees should include, but not be limited to, representatives of the six specialty organizations who developed the minimum knowledge and skills in substance abuse teaching (emergency medicine, pediatrics, obstetrics and gynecology, psychiatry, family medicine and internal medicine). Representatives from the National Medical Association, the Association of American Indian Physicians, the National Association of Alcohol and
Drug Abuse Counselors, the Indian Health Service, NIDA, NIAAA, and medical school faculty responsible for undergraduate education should also be included. Minority consumer groups should be invited to participate and to help shape culturally sensitive training goals.

Recommendation D-2. All medical education and training programs in substance abuse should be required to explicitly include specific training modules focusing on the needs of ethnic and racial minority groups.

The Health Resources and Services Administration, the National Institute of Drug Abuse, the National Institute of Alcohol and Alcohol Abuse and other appropriate agencies of the Department of Health and Human Services should require that any proposal funded for training health professionals include topics specific to ethnic and racial minority groups. Requests for proposals for health professional training should be monitored to determine if substance abuse training concerning racial and ethnic minority groups is included as one of the requirements.

Recommendation D-3. The Secretary's Task Force on Black and Minority Health recommendations concerning substance abuse should be pursued.

Those recommendations included:
- Reviewing the Department's health professions training programs to ensure inclusion of education about substance abuse in curricula.
- Providing assistance to appropriate organizations of health care professionals to ensure that substance abuse is included in their curricula and that the training includes the diagnosis and prevention of substance abuse in a variety of patient populations including ethnic minorities.
- Referring patients to appropriate settings and providing direct services and treatment that is relevant to specific minority patients.
- Encouraging private sector organizations to train minority research scientists and health care providers in substance abuse research, diagnosis and treatment.

Assistance should be obtained from the Office of Minority Health to determine which of the recommendations have been implemented. Organizations represented in the Consortium should also identify ways they can help implement these recommendations.

Recommendation D-4. Substance abuse training programs linked with service programs that target racial and ethnic minority populations should include information from current research on minority use patterns and effective interventions.

Recommendation D-5. Substance abuse training specifically addressing issues relevant to ethnic minorities should be included during residency training in primary care disciplines.

The Council on Graduate Medical Education (COGME) and the Committee on Postdoctoral Training (COPT) (e.g. osteopathic) should review the requirements for substance abuse training specifically addressing issues relevant to ethnic minorities during residency training in primary care disciplines. Reports from COGME and COPT about the feasibility of requiring substance abuse training in graduate medical education programs should be requested.

E. Adolescents and Children

The strategies necessary to overcome shortcomings in education about substance abuse among children and adolescents are not specific to this age group nor to the cohort of physicians providing care for these young people. Initiatives to improve substance abuse education for physicians in undergraduate, graduate and continuing medical education settings should also simultaneously examine skills, attitudes and knowledge needed to care for youth. Therefore, this section will not duplicate the previous sections of this Policy Report, but instead focus on physician training issues particularly germane to working with children and adolescents.

FINDINGS

Finding E-1. Inpatient pediatric units represent inadequate training sites for substance abuse education, particularly for those physicians treating adolescents and children. Inpatient and outpatient psychiatric and community-based chemical dependency programs represent adequate training sites.
The Consortium members agreed that drug abuse by children and adolescents now rarely leads to their being treated in an inpatient pediatric or family medicine facility. This situation is in some contrast to an earlier era when the physiologic consequences of substance abuse in adolescents, especially those associated with opiate and barbiturate abuse, more often led to hospitalization. In contrast to adult inpatient services, where significant numbers of individuals are hospitalized for effects of their long term alcohol and other drug abuse, children and adolescents are rarely hospitalized primarily for those reasons. Pediatric inpatient units are, as a result, particularly inadequate training sites for physician substance abuse education. Psychiatric and community-based programs are appropriate sites where there are significant numbers of children and adolescents being treated for alcohol and other drug abuse.

Finding E-2. Pediatric departments are less likely to be able to include faculty members whose sole subspecialty interest is in substance abuse. Psychiatric departments are more likely to include faculty members with this subspecialty.

Most departments of pediatrics have at most a single member of the department with specific training in adolescent medicine. It is extremely unlikely that such departments will be able to fund an attending physician whose sole interest is in substance abuse. The bio-psycho-social nature of substance abuse contributes to the presence of faculty members in psychiatric departments with this orientation.

Finding E-3. Education regarding adolescent drug abuse needs to be provided for all primary care disciplines.

Only a minority of adolescents in the United States receive their primary care from pediatricians. Most are seen by other primary care specialists such as internists, family practitioners, emergency room physicians, or obstetricians and gynecologists. All physicians who treat adolescents need training and education concerning substance abuse in this age group.

Finding E-4. Screening instruments useful in diagnosing substance abuse among adults are not generally applicable to young people.

Most screening instruments for detecting drug abuse have been developed for use with adults. These instruments are often of little value in identifying the factors or behaviors which should alert the practitioner to high risk in young persons. However, there are ongoing efforts to create screening instruments for young persons. The development and evaluation of screening instruments specific to young people will provide not only an aid in diagnosis but also a training tool.

Finding E-5. Concepts of drug abuse primary prevention are almost exclusively applied to child and adolescent age groups.

Most drug abuse, including that of tobacco and alcohol, has its onset during late childhood and adolescence. Primary prevention must therefore begin in the pre-teen years and continue during the transition period from childhood to adulthood. Rather specific primary prevention techniques have been developed for use with children and youth.

Finding E-6. Addressing drug abuse among youth requires an understanding of adolescent psychosocial and physiologic development.

The onset of drug abusing behavior needs to be understood within the context of other developmental issues that are part of the child’s evolution to an adult. Such issues include: separating from family influences, the emergence of the peer group as an important behavior determinant, and normal adolescent risk taking. In addition, drug abuse has specific implications for the somatic and cognitive development of the adolescent.

Finding E-7. Providing care to young people who are abusing drugs requires an age-specific knowledge of legal and ethical issues with respect to confidentiality and consent.

Handling issues of confidentiality and consent particular to the adolescent must be taught in order to facilitate the involvement of health professionals in the care of young people. While similar considerations have little applicability to adult populations, they are critical to the medical care of adolescents.
Finding E-8. Evaluation and management of young people who abuse drugs will require knowledge not only of the personal and familial factors which place youth at particular risk but also an understanding of the skills necessary to deal with the drug abusing child or adolescent as part of a family unit.

Far more than adults, children and adolescents need to be treated as part of their family units. Particular skills and knowledge will be needed not only to identify familial risk factors for drug abuse, but also to assist patients' families in confronting substance abuse issues.

Finding E-9. Determining the impact of drug abuse upon the fetus and the mother herself, and upon the newborn requires a specific knowledge base.

Drug abuse during pregnancy raises complex legal, ethical, and patient management issues which require very specific educational preparation. The diagnosis of the congenital sequelae of maternal drug use during pregnancy and the diagnosis and management of neonatal addiction and abstinence syndromes also require specialized training.

RECOMMENDATIONS

Recommendation E-1. Outpatient training settings along with psychiatric residential facilities should be utilized in order that the full spectrum of youthful drug abusers be represented during the training of physicians.

There may be a need to encourage the use of nontraditional health care settings which have a high incidence of substance abuse as training sites. These include juvenile detention centers and school-based clinics. The responsibility for training initiatives will lie with directors of ambulatory programs, training directors, and department chairpersons. Monitoring responsibility will lie with the residency review committee.

Recommendation E-2. Faculty with a primary interest in adolescent medicine should be provided the opportunity to develop expertise in substance abuse issues and to convey that expertise to trainees. Training should be multidisciplinary and involve cooperation and coordination of education among the disciplines of family medicine, pediatrics, child and adolescent psychiatry, gynecology, and internal medicine.

Recommendation E-3. The use of screening devices for detecting drug abuse should be taught as an integral component of education programs that focus on adolescent substance abuse.

Recommendation E-4. Data on effective prevention strategies for adolescent substance abuse should be used in teaching programs and disseminated to those working with youthful populations.

Recommendation E-5. Legal and ethical issues of substance abuse should be incorporated in substance abuse education at all levels of training.
IV. BACKGROUND ON THE SUBSTANCE ABUSE PROBLEM

Substance abuse continues to be one of the most serious threats to the health and well-being of Americans. Abuse of tobacco, alcohol and other drugs is common. Tobacco use is responsible for more than one of every six deaths in the United States and is the most important single preventable cause of death and disease in our society. Yet, nearly one-third of all adults in the United States continue to smoke (OSH, 1989). The most recent (1990) National Household Survey found 31.5 percent of young adults continue to smoke despite widely publicized health hazards of tobacco use (NIDA, 1991). While cigarette smoking has remained nearly constant among high school seniors (12.1 percent) (Johnson et al, 1991), there has been a decrease (0.4 percent) in smoking among adults ages 18-25 (NIDA, 1991).

Although use of marijuana, cocaine and PCP among high school seniors has been steadily declining since it peaked in 1978, use of those illicit drugs is still common. The percentage of Americans 12 years of age or older who have used, at some time in their lives, illicit drugs is: marijuana 14.8 percent, hallucinogens 3.3 percent, cocaine 2.6 percent, heroin 0.7 percent, or a tranquilizer drug for nonmedical purposes 2.7 percent (NIDA, 1991).

Alcohol use among high school students is pervasive. More than 89.5 percent of high school seniors in the Class of 1990 reported having tried alcohol. Some 57.1 percent of seniors had drunk alcohol in the past month; 3.7 percent had done so on a daily basis. More than 40 percent reported having smoked marijuana in their lifetime; 2.2 percent did so on a daily basis (Johnston et al, 1991). It is particularly disquieting that earlier high school survey data found that most children's initial experiences with cigarettes, alcohol and marijuana occur before entry to high school (Johnston et al. 1987).

The National Drug Control Strategy, the 1990 report of the Bush Administration, outlines the latest in a series of Federal initiatives to combat the persistent problem of illicit drugs (White House, 1990). A new cabinet-level office, the Office of National Drug Control Policy has been formed to oversee these efforts. The national goal is clear: reduce the number of people reporting current illicit drug use and the number of drug-related emergency room incidents by 15 percent in two years, by 55 percent in ten years. The Healthy People 2000, National Health Promotion and Disease Prevention Objectives (DHHS, 1991) are equally explicit. These objectives include:

- Reduce cigarette smoking to a prevalence of no more than 15 percent among people aged 20 and older, and among pregnant women to less than 10 percent.
- Reduce by 50 percent or more the use of alcohol, marijuana, and cocaine among young people 12 to 25 years of age.
- Increase the proportion of high school seniors who perceive social disapproval associated with the heavy use of alcohol to 70 percent, social disapproval associated with occasional use of marijuana to 85 percent, and social disapproval associated with trying cocaine once or twice to 95 percent (DHHS. 1991).

These initiatives are intended to diminish tobacco, alcohol and drug use and to better cope with social and health problems related to their use.

Analysis of the data reported in the 1990 National Household Survey on Drug Abuse (NIDA, 1991) has revealed the following trends:

- Current prevalence rates for use of any illicit drug among persons 12 years of age and older continued to decrease from 23 million drug users (12.1%) in 1985, to 14.5 million users (7.3%) in 1988 to 13 million users (6.4%) in 1990.
- The number of current cocaine users decreased significantly from 2.9 million (1.5%) in 1988 to 1.6 million (0.8%) in 1990, continuing a previous decline. This represents a 72% decrease in the number of current cocaine users since 1985, when there were an estimated 5.8 million (2.9%) current cocaine users.
- Current cigarette use dropped from 32% in 1985 to 29% in 1988, and presently stands at 27%, representing a significant decrease from 1988. This represents a 3.5 million decrease in the number of cigarette smokers in the last two years. The previous three year period, 1985-88, experienced a 3.2 million decrease, for a total decrease of 6.7 million persons since 1985.
- There were 102.9 million current drinkers of alcoholic beverages in 1990 compared with 105.8 million in 1988, and 113.1 million in 1985. The
alcohol use rates in 1985, 1988, and 1990, for those aged 12 and over, are 59%, 53%, and 51%, respectively.

- The overall current 1990 (past month) prevalence rate for any illicit drug use (12 years old and over) was 6.4%. Rates for males and females are 7.9% and 5.1%, respectively. In addition to males, other demographic subgroups with rates in excess of the overall rate are those for blacks (8.6%), large metro areas (7.3%), those living in the West region (7.3%), and the unemployed population (14.0%). The Household Survey (NIDA, 1991) data specific to 1990 revealed:
  - Overall in 1990, 74.4 million Americans age 12 or older (37 percent of the population) had tried marijuana, cocaine or other illicit drugs at least once in their lifetime.
  - Almost twenty-seven million Americans (13.3%) used marijuana, cocaine or other illicit drugs at least once in the past year.
  - Among youth (12 to 17 years old), 15.9% used an illicit drug in the past year and 8.1% used an illicit drug at least once in the past month. Comparable rates for young adults (18-25 years old) are 28.7% and 14.9%, respectively; and for adults 26 years old and over the rates are 10.0% and 4.6% respectively.
  - Over 4.8 million or 8 percent of the 60.1 million women 15-44 years of age (the height of childbearing years) used an illicit drug in the past month. Slightly over one-half million or 0.9% used cocaine and 3.9 million (6.5%) used marijuana in the past month.
  - Among 18-34 year old full-time employed Americans, 24.4% used an illicit drug in the past year, and 10.5% used an illicit drug in the past month. Of these full-time workers, 9.2% used marijuana, and 2.1% used cocaine in the past month.

Marijuana

- Marijuana remains the most commonly used illicit drug in the United States. Approximately 66.5 million American (33.1%) have tried marijuana at least once in their lives. Nearly three million youth, over 15 million young adults, and in excess of 48 million adults aged 26 and older have tried marijuana.
- In 1990, the lifetime rate of marijuana use for youth was 14.8% while the rate for young adults was 52.2%. These rates have been steadily decreasing since 1979, when they were 31% and 68%, respectively.
- Rates of past month use of marijuana did not change significantly between 1988 and 1990, decreasing slightly from 5.9% to 5.1%. Rates were highest for males (6.4%), blacks (6.7%), and the unemployed (12.3%).

Cocaine

- Among the 6.2 million people who used cocaine in the past year (1990), 662,000 (10.6%) used the drug once a week or more and 336,000 (5.4%) used the drug daily or almost daily throughout the year. While the number of past year and past month cocaine users has decreased significantly since the peak year 1985, frequent or more intense use has not decreased. Of the 12.2 million past year cocaine users in 1985, an estimated 647,000 used the drug weekly and 246,000 used it daily or almost daily.
- Rates for use of cocaine in the past year declined for youth (12-17 years old) from 4.0% in 1985, to 2.9% in 1988 to 2.2% in 1990. For young adults (aged 18-25), the rates for 1985, 1988, and 1990, are 16.3%, 12.1% and 7.5%, respectively. These decreases between 1985 and 1990 were statistically significant for both age groups.
- The 1990 rate of current (past month) cocaine use was 0.8% overall, a significant decrease from the 1988 rate of 1.5. The rate of current cocaine use for males (1.1%) was over twice as high as that for females (0.5%). Other demographic subgroups for which the rates of current cocaine use are high were the unemployed (2.7%), blacks (1.7%) and Hispanics (1.9%).
- Approximately 1.4% of the population 12 years old and over have used crack at some time in their lives, and one-half of one percent used crack during the past year. These rates changed very little from those in 1988. This translates to about one million past year crack users for each year, 1988 and 1990. Past year use in 1990 is highest among males (0.8%), blacks (1.7%), and the unemployed (1.3%). By age group, the highest rate is for young adults 18-25 years old (1.4%).

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Of the 20.5 million people who used marijuana (at least once) in the past year in 1990, over one-quarter or 5.5 million, used the drug once a week or more.

**Alcohol and Tobacco Products**

- The decline in the rates of lifetime alcohol use seen between 1985 and 1988 (from 56% to 50%) for youth continued in 1990 to 48%. Past year use was 41% in 1990, and has experienced a steady decline since 1979. In 1990 less than 25% of youth have had at least one drink during the past month. This is similar to 1988 survey results.
- For young adults, the prevalence of alcoholic beverage use is substantially higher than for youth: 88% have tried alcohol, 80% have used alcohol in the past year, and 63% have used alcohol during the preceding month. Although this represents little change from 1988, drinking alcohol has steadily declined since 1985. The 1990 rates for drinking among young adults in the past year and past month are significantly lower than those reported in 1985 (87% and 71%, respectively).
- Of the 133 million people age 12 and older (66% of the population) who drank (alcohol) in the past year, nearly one-third, or 42 million, drank at least once a week.
- Nearly three-quarters of the American population (73.2%) have tried cigarettes, and slightly over a quarter (26.7%) are past month (current) smokers, a decrease from 28.8 percent in 1988. Current use among youth of cigarettes is almost 12%; 32% among young adults; and 28% among adults 26 and over.

**Other Drugs**

- Hallucinogens include such drugs as LSD, PCP, mescaline, and peyote. Past year prevalence rates for hallucinogens decreased significantly between 1988 and 1990 (1.6% versus 1.1%). Males (1.7%) exhibit the highest prevalence rates. Although 1990 past year prevalence is highest among two age groups, 12-17 (2.4%) and 18-25 (3.9%), lifetime prevalence is highest among the 26-34 old population (15.7%).
- In 1990 past month nonmedical use of psychotherapeutic drugs, i.e., sedatives, tranquilizers, stimulants, and analgesics, has stabilized at the 1988 rate of under 2% from the higher (3.2%) rate in 1985. A significant decrease was noted for past year use for the age groups 18-25 and 26-34. In 1988 the rates were 11% and 10%, respectively. For 1990 they decreased to 7% and less than 6%. This dramatic reduction translates to nearly 3 million fewer past year users in these two age groups.
- Other studies confirm the seriousness of our national problems.
  - Hospital emergency rooms reporting to the Nation's DAWN system treated four times as many cocaine-related emergencies in 1988 compared to 1985 (42,145 versus 10,248) (Adams et al., 1990).
  - More than half the AIDS-related deaths in New York City have been related to intravenous drug abuse (Joseph, 1988); four out of five children with AIDS in New York City have a parent who abuses IV drugs (DesJarlais and Friedman, 1988).
  - Although the exact extent of illicit drug use during pregnancy is not known, there is now good evidence that illicit drug use is associated with low birth weight and other more serious neonatal health complications (Hutchings, 1989).
  - Tobacco use is not only hazardous in itself, but is also highly correlated with use of marijuana and cocaine. For example, young adults who are daily smokers are over ten times more likely to have used marijuana and cocaine than those who have never smoked cigarettes (NIDA, 1990).

Alcohol abuse and alcoholism continue to be serious health problems in the United States, viz.:

- Large numbers of underage youth drink heavily and consistently. More than a third of high school seniors drink heavily at least occasionally, and a third also see no great risk in consuming as many as four or five drinks daily. Nearly one in ten seniors first used alcohol by the sixth grade (Johnston et al., 1987).
- Alcohol abuse and alcoholism are estimated to cost society over $128 billion annually, more than any other public health problem (NIAAA, 1990).
- Nearly half of all accidental deaths, suicides and homicides are alcohol related (NIAAA, 1990).
- Alcohol use creates problems for an estimated 18 million persons 18 years old and older, ranging from dependence to various negative personal consequences (Hilton, 1987).
The public health burden of substance abuse in our society falls most heavily on minority group members. Although most illegal drug users are white, the most serious health consequences affect minority group members to a greater extent than the general population. For example, black males are at much higher risk for alcohol-related illnesses than white males (Herd, 1989). Black and Hispanic intravenous drug abusers represent 51 and 30 percent respectively of the AIDS cases associated with IV drug use (Curran et al., 1988).

Drinking patterns vary greatly among ethnic and racial groups. For example, abstinence among blacks is more common than in white groups. Black men who drink are less likely than white men to drink heavily. However, the incidence of alcohol-related medical problems, especially liver cirrhosis and cancer of the esophagus, is very high among blacks, with a mortality rate twice as high as that in the white population. Hispanic American men have a higher rate of alcohol use and abuse than the general population and have a higher rate of mortality from cirrhosis (DHHS, 1990). Both individual and collective strategies are needed if Americans' use and abuse of illicit substances are to be reduced. Healthy People 2000, National Health Promotion and Disease Prevention Objectives (DHHS, 1991) to reduce alcohol and other drug problems, stresses the important role primary care physicians can play in the prevention, identification and referral or treatment of substance abuse problems.

Because more than half of all persons with substance abuse disorders obtain all of their care from the general medical sector, a great potential exists in primary care for prevention, detection, treatment, and referral of these patients (Kamerow et al., 1986). A recent study of physicians revealed that they recognize the magnitude of the substance abuse problem (AMA, 1988); and nine out of ten practicing physicians consider alcohol abuse a major national problem. However, primary care physicians are also ambivalent about substance abuse problems and feel inadequate to deal with such problems. Physicians acknowledge that their failure to recognize substance abuse-related health problems is the result of knowledge and skill limitations. Physicians have identified several factors which play a role in their professional inadequacies in this area. They are: inadequate training, negative attitudes and prejudices concerning alcohol and drug abusers, skepticism regarding treatment effectiveness, and limitations of their medical education. Physicians have also highlighted major deficiencies of the treatment reimbursement system which discourage them from engaging in health promotion activities. Time spent talking with patients about possible substance abuse problems is simply not adequately reimbursed (Kamerow et al., 1986).

There is good evidence that education can effectively modify negative physician attitudes as well as providing them with much needed skills to diagnose and treat substance abuse (Warburg et al., 1987). Nevertheless, many physicians fail to appreciate the potential impact they can have on their patients' health and well-being by dealing more effectively with substance abuse problems. Although some progress has been made, especially in the past decade, much remains to be done if medical education is to enable physicians to better cope with substance abuse problems.

Primary care training programs vary widely in the extent to which substance abuse units have been integrated into their curricula; 42% of programs surveyed reported specific training in substance abuse (Davis et al., 1988). Comprehensive substance abuse training is also often absent in specialty training. A 1988 report noted that psychiatry was the only medical specialty in which training in substance abuse was nearly universal. Thus, to that time, departments of psychiatry provided most of the medical education in substance abuse (Davis et al., 1988). Rapid developments since 1988 have placed substance abuse training within family medicine programs.
REFERENCES


