



Improving the Quality of Health Care for Mental and Substance-Use Conditions: Quality Chasm Series

Committee on Crossing the Quality Chasm: Adaptation to Mental Health and Addictive Disorders

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Increasing Workforce Capacity for Quality Improvement

Summary

The health care workforce treating mental and/or substance-use (M/SU) conditions is not equipped uniformly and sufficiently in terms of knowledge and skills, cultural diversity and understanding, geographic distribution, and numbers to provide the access to and quality of M/SU services needed by consumers. This has long been the case and has been persistently resistant to change despite recurring acknowledgments of the problems and repeated recommendations for major improvements to address them.

Although similar to those that afflict the general health care workforce, these problems require special attention in the M/SU workforce not only because of the high prevalence and serious consequences of M/SU problems and illnesses (see Chapter 1), but also because of the great variation in the types of clinicians licensed to diagnose and treat M/SU conditions and substantial variations in their training. In contrast to general health care, in which the diagnosis and treatment of medical conditions are typically provided by physicians, individuals licensed to diagnose and treat M/SU problems and illnesses include a wide range of practitioners—psychologists, psychiatrists, primary care and specialist physicians, social workers, psychiatric nurses, marriage and family therapists, addiction therapists, and a wide variety of counselors (e.g., psychosocial rehabilitation, school, addiction, and pastoral counselors), many of whom are licensed to provide M/SU services in independent

practice. These practitioners are trained apart from each other—in different schools by different faculties, with curriculums encompassing few if any core competencies and little interdisciplinary training. Further, despite the wide variety of theories and therapies that have been developed to deal with M/SU problems and illnesses (see Chapter 4), there are no mechanisms in place to ensure that any given clinician has been adequately educated and trained to offer any specific therapy. Such a process is essential to the provision of safe, effective, and efficient care. The wide variety of provider types and treatments makes it difficult to provide consumers of M/SU health care with information on the competencies of any particular practitioner and to assist them in finding the right clinician for help, a key element of patient-centered care. Variations in state licensing requirements further complicate efforts to reduce inappropriate variations in care.

There is a long history of short-lived and unheeded commissions, expert panels, reports, and recommendations to improve the capacity and quality of the M/SU workforce. Reports dealing with the general health care workforce typically have failed to address the unique issues in M/SU health care. Those that have done so have addressed either mental health or substance use, but not both. Substance use, despite its magnitude and high rate of comorbidity with mental health problems, is often neglected in the professional training of all the major mental health disciplines and the training received by primary health care practitioners as well. Training does not sufficiently emphasize the advances made in evidence-based practice for treatment of mental and substance-use conditions, nor does it include enough content on self-help groups, community systems of support, and social services. Teaching methods across all the schools in which the M/SU disciplines are trained vary substantially as well, reflecting little cognizance of the advances that have been made in evidence-based teaching methods and lifelong learning.

Past recommendations calling for changes in the curriculums and methods for educating and training M/SU practitioners have typically been ignored. As a result, there continues to be a large gap between what is known, what is taught, and therefore what is done in practice. Sustained, multiyear attention and resources have been applied successfully to the education and training of physicians and nurses through the Council on Graduate Medical Education and the National Advisory Council on Nurse Education and Practice. A similar sustained, multiyear strategy, as well as action by institutions of higher education, licensing boards, accrediting

bodies, the federal government, and purchasers, is needed to increase the M/SU workforce's competencies to deliver high-quality care.

CRITICAL ROLE OF THE WORKFORCE AND LIMITATIONS TO ITS EFFECTIVENESS

Previous reports of the Institute of Medicine (IOM) and other authoritative bodies have documented the critical roles played by the health care workforce in the delivery of high-quality health care. *Crossing the Quality Chasm* identifies the health care workforce as the health system's most important resource, and critical to improving the quality of care (IOM, 2001). All of the recommendations of the previous chapters—providing patient-centered, safe, effective, and coordinated care and taking advantages of the opportunities offered by information technology—require a workforce sufficient in numbers, with the necessary competencies, and enabled by the environments in which they practice to deliver care consistent with these competencies. However, the entire health care workforce—including those who provide care for mental and substance-use conditions—faces numerous obstacles to delivering high-quality care. These include a shortage and geographic maldistribution of workers (see Box 7-1), work environments that thwart clinicians' delivery of quality health care (AHRQ, 2003; IOM, 2004b), a lack of ethnic diversity and cultural expertise (IOM, 2004a) (see Box 7-2), outdated education and training content and methods (IOM, 2003), state-to-state variation in scopes of practice and assurance of competency, and concerns about legal liability (IOM, 2001).

Although the M/SU health care workforce faces all of the same problems as the health care workforce overall, building its capacity to deliver higher-quality care for M/SU conditions is particularly problematic because of the greater variety of types of M/SU health care providers and an even greater variation in how they are educated, licensed, and certified/credentialed for practice. While recognizing the importance of such problems as workforce shortages, geographic maldistribution, and insufficient diversity that afflict the M/SU and general health care workforces alike, this chapter focuses on the special problems resulting from the greater diversity of the M/SU health care workforce, their varying education and training, and the difficulties of delivering high-quality patient care in the solo practices that are more typical among those who treat M/SU conditions.

GREATER VARIATION IN THE WORKFORCE TREATING M/SU CONDITIONS

Caregivers who provide care to individuals with M/SU problems and illnesses, like those who care for those with general health care problems

BOX 7-1 Workforce Shortages and Geographic Maldistribution

Shortages and maldistribution of M/SU treatment professionals, as in the general health care workforce, are a major and long-recognized problem. In 1999, the Surgeon General's report on mental health stated: "The supply of well-trained mental health professionals is inadequate in many areas of the country, especially in rural areas. Particularly keen shortages are found in the numbers of mental health professionals serving children and adolescents with serious mental disorders, and older people" (DHHS, 1999:455). Echoing this statement, in 2003 the President's New Freedom Commission on Mental Health reported: "In rural and other geographically remote areas, many people with mental illnesses have inadequate access to care [and] limited availability of skilled care providers. . ." (New Freedom Commission on Mental Health, 2003:51).

Despite recognition of the problem and various attempts to motivate people to work in underserved areas, however, little progress has been made. In the east south central region of the United States (Alabama, Kentucky, Mississippi, and Tennessee), for example, there are 8.2 psychiatrists per 100,000 population, compared with 22.1 per 100,000 in the mid-Atlantic region (New Jersey, New York, and Pennsylvania). Similarly, there are 53.0 psychologists per 100,000 people in New England, compared with 14.4 per 100,000 in the west south central states, such as Arkansas, Oklahoma, and Texas (Duffy et al., 2004). Shortages of clinicians with expertise in caring for certain groups, such as children and adolescents (Koppelman, 2004) and older adults (New Freedom Commission on Mental Health, 2003), also persist nationwide. This variation reflects the historical tendency of highly skilled professionals to locate in urban areas (Morris et al., 2004).

Similar problems in the substance-use treatment workforce have been documented. Low salaries are accompanied by high turnover rates in both managerial and clinical positions (McLellan et al., 2003). This situation can compromise continuity of care for patients and also threatens to leave the field without a leadership infrastructure through which advances in care can be infused. Moreover, the stigma experienced by individuals with substance-use illnesses is sometimes felt by their treatment providers (Kaplan, 2003).

and illnesses, include licensed clinicians; unlicensed, paid providers (both certified and uncertified); volunteers; and the patient's family and informal supports. The roles of patients and their families in care and illness management, as well as those of individuals in recovery who offer peer and recovery support services, are addressed in Chapter 3. In this chapter we focus on the role of the licensed M/SU treatment workforce.¹

¹Although the role of unlicensed and voluntary care providers is substantial and important, the committee focuses here on licensed caregivers because the education and oversight structures for unlicensed voluntary caregivers are less well developed at present. Moreover, the committee believes that a well-trained and -educated licensed and credentialed workforce, through its leadership and modeling of best-care practices such as patient-centered care, can do much to strengthen the knowledge, skills, and abilities of the unlicensed workforce and volunteer supports.

BOX 7-2 Insufficient Workforce Diversity

Like the health care workforce overall (IOM, 2004a), the M/SU workforce does not reflect the increasing ethnic and cultural diversity of the population it serves. At the beginning of the 1900s, only one of every eight Americans identified himself or herself as a race other than "white." At the end of the century, one of four did so, as the white population grew more slowly than every other racial/ethnic group. Increasing diversity accelerated in the latter half of the century. From 1970 to 2000, the population of races other than "white" or "black" grew considerably, and by 2000 was comparable in size to the black population. The black population represented a slightly smaller share of the total U.S. population in 1970 than in 1900, while the Hispanic population more than doubled from 1980 to 2000. The racial/ethnic composition of the U.S. population according to the 2000 census was as follows: 75.1 percent white, 12.3 percent black, 3.6 percent Asian or Pacific Islander, 0.9 percent American Indian or Alaska Native, 5.5 percent claiming a race other than those already cited, and 2.4 percent claiming two or more races. Individuals (of any race) claiming Hispanic origin constituted 12.5 percent of the U.S. population (Hobbs and Stoops, 2002).

Despite this increasing diversity and decades of concern about the failure of the health care workforce to reflect it, there are still far too few minority M/SU professionals. The 2001 supplement to the Surgeon General's report on mental health, *Mental Health: Culture, Race, and Ethnicity*, stated: "Racial and ethnic minorities continue to be badly underrepresented, relative to their proportion of the U.S. population, within the core mental health professions—psychiatry, psychology, and social work, counseling, and psychiatric nursing" (DHHS, 2001:167). The President's New Freedom Commission on Mental Health echoed that observation: "Racial and ethnic minorities are seriously under-represented in the core mental health professions [and] . . . many providers are inadequately prepared to serve culturally diverse populations, and investigators are not trained in research on minority populations" (New Freedom Commission on Mental Health, 2003:50). Similarly, members of the substance-use treatment workforce do not reflect the gender, racial, and ethnic composition of those they treat (Mulvey et al., 2003).

As noted above, clinicians licensed to diagnose and treat M/SU problems and illnesses are uniquely varied. Although the diagnosis and treatment of general health conditions are typically limited to physicians, advanced practice nurses, and physician assistants,² M/SU health care clinicians include psychologists, psychiatrists, other specialty or primary care physicians, social workers, psychiatric nurses, marriage and family therapists, addiction therapists, psychosocial rehabilitation therapists, sociologists, and a variety of counselors with different education and certifications

²Dentists, chiropractors, and podiatrists also are licensed to diagnose and treat, but typically within prescribed domains.

(e.g., school counselors, pastoral counselors, guidance counselors, and drug and alcohol counselors), each with differing education and training.

The effect on clinical practice of this variation in provider types and in the corresponding education and training is unknown; however, variation in the education and training of different types of physicians who deliver care for mental illnesses has been shown to result in variations in the quality of care (Young et al., 2001). Also, although many different therapies have been developed for M/SU problems and illnesses (see Chapter 4), there is no mechanism in place to ensure that any given clinician has been adequately educated and trained to offer any specific therapy. Such a process is essential to the delivery of safe, effective, and efficient care. The wider variety of provider types also has implications for the ability to provide consumers with the information they need to select a clinician to help them—a key element of patient-centered care—as it is difficult to provide consumers with information on the competencies of any individual practitioner and to guarantee a uniform, safe level of abilities across all types of clinicians.

In spite of this, no mechanisms exist for routinely capturing adequate information on the characteristics of the M/SU workforce comparable to, for example, the National Sample Survey of Registered Nurses regularly conducted by the National Advisory Council on Nurse Education and Practice. Moreover, administrative data routinely collected as part of health care claims or billing do not include a code for provider type. Although it may not be necessary to capture this information in general health care, in which the great majority of billing clinicians are physicians, the failure to do so for M/SU services neglects a substantial opportunity to learn about the M/SU workforce and its patterns of care. The Substance Abuse and Mental Health Services Administration (SAMHSA) has organized periodic efforts to collect data on mental health practitioners (see Table 7-1) (Duffy et al., 2004), but the information collected is incomplete, collected inconsistently across professions, and insufficient for policy and workforce analysis. This and the few other available data sources provide only limited information about specialty and general health care clinicians providing M/SU treatment services.

Specialty Mental Health Providers

Specialty mental health providers include psychiatrists, psychologists, and psychiatric nurses possessing formal graduate degrees in mental health. They also include social workers, counselors, nurses, and therapists who either have received additional, specialized training in treating mental problems and illnesses prior to their professional practice, or have chosen to practice in a mental health care setting and gained advanced knowledge in treating mental problems and illnesses through experience (West et al.,

TABLE 7-1 Estimated Number of Clinically Active (CA) or Clinically Trained (CT) Mental Health Personnel and Rate per 100,000 Civilian Population in the United States, by Discipline and Year

Discipline	Number	Rate per 100,000 U.S. Civilian Population	Reporting Year
Counseling	111,931 (CA)	49.4	2002
Psychosocial Rehabilitation	100,000 (CT)	37.7	1996
Social Work	99,341 (CA)	35.3	2002
Psychology	88,491 (CT)	31.1	2002
Marriage and Family Therapy	47,111 (CA)	16.7	2002
Psychiatry ^a	38,436 (CT)	13.7	2001
School Psychology	31,278 (CT)	11.4	2003
Psychiatric Nursing	18,269 (CT)	6.5	2000
Pastoral Counseling	Data not available		

^aBased on clinically active psychiatrists in the private sector; excludes residents and fellows.
 SOURCE: Duffy et al., 2004.

2001). Individuals with more severe mental illnesses are more likely to receive care from specialty mental health providers (Wang et al., 2000). Psychiatrists, for example, are likely to treat individuals with illnesses such as schizophrenia and bipolar disorder (West et al., 2001). SAMHSA’s most recent estimates of the numbers of clinically trained and clinically active³ mental health personnel are shown in Table 7-1.

Specialty Substance-Use Treatment Providers

Data on the specialty substance-use treatment workforce overall are sparse; no database systematically collects such data (Kaplan, 2003). SAMHSA’s 1996–1997 Alcohol and Drug Services study (Phase I) published in 2003 (SAMHSA, 2003) collected data on the credentials of staff working in a national inventory of hospital, residential, and outpatient substance-use treatment facilities and programs (Mulvey et al., 2003). However, subsequent national surveys of substance-use treatment services have not collected data on staff licensure and certification (SAMHSA, 2004), and in studies of the health care workforce overall, “the addiction treatment workforce is generally overlooked” (McCarty, 2002:1). Experts also note the paucity of data on the preparation of this workforce (Morris et al., 2004).

³“Clinically trained” personnel include those who, because of formal training and experience, could provide direct clinical care for mental health conditions, whether or not they do so. “Clinically active” personnel are those actively providing such care.

It is known, however, that the specialty substance-use treatment workforce includes individuals from all of the above mental health professions (IOM, 1997) but is predominantly composed of counselors (McLellan et al., 2003). In 1998 approximately half of the staff delivering substance-use treatment services in about 13,000 outpatient clinics was licensed as substance-abuse counselors. The remainder were about equally composed of unlicensed counselors and “other” professionals who were predominantly master’s-level social workers, mental health counselors, marriage and family therapists, and psychologists with no certification or licensure as substance-use treatment providers; these “other” professionals also included psychiatrists and specialty-certified primary care physicians and nurses (Harwood, 2002). A more recent 2003 survey of 175 directors of inpatient/residential, outpatient, and methadone maintenance programs across the nation also found that apart from counselors, very few professional disciplines were represented among the treatment staff of these programs. With respect to program directors, 15 percent had no college degree; 58 percent had a bachelor’s degree, and 20 percent had a master’s degree. One program was under the direction of a physician (McLellan et al., 2003).

General Medical/Primary Care Providers

M/SU problems and illnesses are also treated by general internists, family medicine physicians, pediatricians, other medical specialists, and advanced practice nurses who have not been certified as mental health or substance-use treatment specialists and are delivering primary or specialty health care in office-based practices, clinics, acute general hospitals, and nursing homes. These providers are often the first point of contact for many adults with mental problems or illnesses. There is also some evidence that they are consumers’ preferred point of first contact for care: the majority of consumers initially turn to their primary care providers for mental health services (Mickus et al., 2000), and use of general medical providers for treatment of M/SU problems and illnesses increased more than 150 percent between 1990–1992 and 2001–2003—a significant shift away from other sectors of care (Kessler et al., 2005). An equal (DHHS, 1999) or greater (Wang et al., 2000) number of adults with M/SU problems and illnesses receive care from general medical providers relative to specialty mental health providers in a given year. Primary care physicians and physician specialists other than psychiatrists also prescribe the majority of psychotropic medications (Pincus et al., 1998). However, there also is evidence that the care provided by general, primary care physicians is less often consistent with clinical practice guidelines than that provided by psychiatrists (Friedmann et al., 2000; Young et al., 2001).

The diversity of professions and disciplines within the M/SU workforce has implications for quality of care. First, it is difficult for consumers to know which type of clinician has the best knowledge and skills to provide them with the safest, most effective, and most efficient care. This might not be a problem if all types of practitioners had a minimum level of competency and the special added competencies of the different types of clinicians were reliably known. This however, is not the case, as discussed in the next section. Professional licensure and ongoing assurance of competencies in specific therapies involve many different bodies. Experts in the education of the M/SU workforce report that prelicensure education is uneven, as are licensure standards and the use of postlicensure competency evaluation mechanisms (Daniels and Walter, 2002; Hoge, 2002; Hoge et al., 2002).

PROBLEMS IN PROFESSIONAL EDUCATION AND TRAINING⁴

Providers in the above multiple disciplines, many of whom are licensed to practice independently, differ in the amounts of education and training they receive prior to professional practice. The content of the education they receive and the places in which they are educated also differ. This section reviews these variations, as well as deficiencies in the professional education of the M/SU workforce overall.

Variation in Amounts and Types of Education

Psychiatry

Eligibility for board certification in psychiatry requires 4 years of college, 4 additional years of medical education leading to a medical degree, followed by a minimum of 4 years of residency training.

Psychology

Although the doctoral degree in psychology is the standard educational path for independent clinical practice, individuals with a master's degree in psychology also can practice under the direction of a doctorally prepared

⁴This section incorporates content from a paper commissioned by the committee on "Workforce Issues in Behavioral Health," by John A. Morris, MSW, Professor of Clinical Neuropsychiatry and Behavioral Science at the University of South Carolina School of Medicine; Eric N. Goplerud, PhD, Research Professor at the School of Public Health and Health Services at George Washington University Medical Center; and Michael A. Hoge, PhD, Professor of Psychology (in Psychiatry) at Yale University School of Medicine.

psychologist, or independently as school psychologists or counselors (American Psychological Association, 2003; Duffy et al., 2004). To become a licensed clinical psychologist, graduates from doctoral programs also must complete supervised postdoctoral training (Olvey and Hogg, 2002). Practicing as a school psychologist requires a minimum of a master's degree, followed by additional training leading toward certification or licensure at the state level or nationally by the National Association of School Psychologists (Morris et al., 2004).

Social Work

Although social workers can practice with a bachelor's, master's, or doctoral degree, the Master of Social Work (MSW) is considered the routine degree for practitioners and is the most common academic requirement for licensure. Obtaining an MSW degree usually requires 2 years of postundergraduate study and field placements/practica (Morris et al., 2004).

Psychiatric Nursing

Individuals may become a registered nurse (RN) through three different educational pathways: a 2-year program leading to an associate's degree (AD) in nursing, a 3-year program (usually hospital-based) leading to a diploma in nursing, or a 4-year college or university program leading to a bachelor's degree in nursing. Those completing all of these programs are eligible to take the RN licensing examination after graduation. Psychiatric nurses may have this basic level of education or a graduate degree. Specialty certification for psychiatric nurses at all levels is provided by the American Nurses Credentialing Center. Psychiatric nurses are certified at both the basic ("C" after RN) and advanced ("CS" or "BC" after RN) levels. The majority of psychiatric nurses are prepared at the basic level of education; advanced-level certification requires that the nurse have either a master's or doctoral degree. Many nurses working in psychiatric settings do not have advanced certification in psychiatric nursing (Morris et al., 2004).

Counseling

The master's degree is the most common practice degree in counseling and enables licensure as a counselor. Accredited graduate programs require a minimum of 72 quarter hours or 48 semester hours of postundergraduate study leading to a master's degree. Doctoral degree programs usually require a minimum of 2 additional years of study (Morris et al., 2004).

Marriage and Family Therapy

Marriage and family therapists are trained in three different ways: master's degree (requiring 2–3 years of postundergraduate training); doctoral program (requiring 3–5 years of postundergraduate training); or a postgraduate clinical training program following training in psychology, psychiatry, social work, nursing, pastoral counseling, or education (Morris et al., 2004).

Pastoral Counseling

Persons credentialed as clinical pastoral counselors are either ordained or otherwise recognized by identified groups of religious faith and have completed a course of study approved by the Association for Clinical Pastoral Counseling. There are only 2,812 certified pastoral counselors nationwide, making them one of the smallest specialty provider groups in mental health (Morris et al., 2004).

Psychosocial Rehabilitation

Psychosocial rehabilitation is an approach to working with individuals with severe mental illnesses to teach them the skills they need to achieve their goals for living in the community. This type of care typically includes some combination of residential services, training in community living skills, socialization services, crisis services, case management, vocational rehabilitation, and other related services. Educational options for psychosocial rehabilitation workers are diverse and range from training following high school to an associate's, bachelor's, master's, or doctoral degree in psychosocial rehabilitation. Recent statistics indicate that 2 percent of these workers have a doctoral degree, 24 percent a master's degree, 13 percent some college or an associate's degree, and 22 percent a high school diploma (Duffy et al., 2004).

Substance-Use Treatment Counseling

As described above, most of the substance-use treatment workforce consists of counselors. The composition of this workforce is shifting from those whose expertise is experience-based (from their personal experience with substance-use problems or illnesses and recovery) to those with more formal education at the graduate level (McCarty, 2002). However, a representative survey of all state-recognized substance-use treatment programs found that 26 percent of counselors did not have a bachelor's degree, 32 percent possessed a bachelor's degree only, and 42 percent possessed a

master's degree (none possessed a doctoral degree). And 39 percent of these counselors were clinically supervised by individuals who themselves lacked a graduate degree. This survey did not distinguish between counselors with and without a license/certification (Mulvey et al., 2003). A 1998 survey of staff delivering substance-use treatment services in approximately 13,000 outpatient clinics nationally found that 54 percent of unlicensed counselors had fewer than 4 years of college; in contrast, a master's degree was possessed by 56 percent of licensed counselors and 82 percent of "other behavioral health professionals" (Harwood, 2002). This higher level of formal education may not necessarily provide greater knowledge and expertise in providing effective care, however. Graduate programs in social work and psychology, for example, often do not provide specialized training in treatment of alcohol- and other drug-use problems and illnesses (Straussner and Senreich, 2002) and have a number of other limitations.

Deficiencies in Professional Education

The education of all health professionals is deficient in a number of areas and has not kept pace with advances in knowledge and changes in the delivery of health care (IOM, 2001, 2003), despite an IOM call that:

All health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches, and informatics (IOM, 2003:3).

Leaders in the education of clinicians to treat M/SU conditions testify that the educational preparation of this workforce does not address many of these areas adequately. For example, not all M/SU clinicians are educated about evidence-based care or receive training in the use of evidence-based clinical practice guidelines (Manderscheid et al., 2001). Without education in the use of such guidelines, these clinicians may be more committed to schools of practice than to providing the best therapy for a given patient (Jackim, 2003). The varying education of the different provider types discussed above results in differences in clinicians' theoretical orientations and therapeutic approaches, as well as in the professional journals they read and the professional organizations to which they belong. The result is little cross-fertilization of knowledge and skills across provider types, and few common standards of care and agreed-upon core competencies that transcend the borders of the separate schools of thought in which M/SU health care clinicians are trained.

Experts in the education of M/SU clinicians also report that graduate education is inadequately grounded in the scientific evidence base for treat-

ments and that some professional education and training programs have been reluctant to incorporate clinical practice guidelines in traditional classroom content as well as clinical education placements (Hoge et al., 2002). Moreover, quality improvement strategies have received little attention in M/SU education (Morris et al., 2004). Similarly, despite the need for interprofessional collaboration described in Chapter 5, graduate training in M/SU health care continues to be conducted in single-discipline silos with little interdisciplinary coordination. Multispecialty training, such as that involving both mental health and primary care providers, also remains infrequent (Hoge et al., 2002).

Further, available information shows that there is no agreed-upon level of competency within any profession (or across professions) with respect to providing M/SU health care. Graduate training has not kept pace with changes in health care delivery, and the achievement of expected educational outcomes has not been demonstrated (Hoge et al., 2002). Recent changes in the licensing examination for nurses have decreased the content devoted to psychosocial issues, which some fear will encourage nursing schools to weaken mental health content in their curriculums (Poster, 2004). There also is strong evidence that education of all clinicians inadequately addresses substance-use problems and illnesses despite their high rates of co-occurrence with mental problems and illnesses.

Little Assurance of Competencies in Discipline-Specific and Core Knowledge

A primary concern regarding M/SU clinicians' education and training is the general absence of clearly specified competencies that students are to develop and a process for routinely assessing whether those competencies have actually been achieved. Leaders in the education of M/SU health care clinicians cite a historical reluctance in some professional education and training programs to require students to demonstrate competence in specific treatments, and note that general M/SU graduate education does not guarantee competence in advanced or specialized skills. As a result, it is recommended that training programs specify the minimum competencies expected of their graduates and verify that these competencies have been achieved (Hoge et al., 2002).

Multiple organizations are in various (mainly early) stages of developing discipline-specific, population-specific, or subject matter-specific competencies for clinicians providing health care for mental or substance-use conditions. However, these competencies have not yet been adopted as standards of professional practice, and together represent a not-yet-finished "patchwork quilt" of competencies. Moreover, still less attention has been directed to developing and implementing strategies for assessing the extent

to which students and current members of the workforce possess or practice these competencies (Hoge et al., 2005a).

Leaders in M/SU education and clinical care also have called for certain knowledge, skills, and attitudes (i.e., core competencies) to be addressed by the education of *all* clinicians providing M/SU health care. Such competencies include, for example, detecting co-occurring mental and substance-use problems and illnesses, and avoiding the stigmatizing attitudes and practices of health care providers that obstruct patients' self-management of their illness and recovery, as described in Chapter 3. Several initiatives have been undertaken to develop and implement core competencies, including two for those treating substance use and one for those treating mental conditions. But these initiatives (described below) have not yet fully taken hold.

Addiction Counseling Competencies: The Knowledge, Skills, and Attitudes of Professional Practice In 1995, the National Curriculum Committee of the Addiction Technology Transfer Center program, a nationwide training system supported by SAMHSA's Center for Substance Abuse Treatment (CSAT), reached agreement on core competencies for addiction counseling across professional groups that may treat people with substance-use problems and illnesses. The resulting document, *Addiction Counseling Competencies: The Knowledge, Skills, and Attitudes of Professional Practice*, identifies the basic knowledge and attitudes required for all disciplines in the addiction field, as well as those necessary for the professional practice of addiction counseling (clinical evaluation; treatment planning; referral; service coordination; counseling; client, family, and community education; documentation; and professional and ethical responsibilities, each with its own set of competencies). The goal is for every addiction counselor and every specialty treatment facility to possess every competency, regardless of setting or treatment model (Addiction Technology Transfer Centers National Curriculum Committee, 1998; Hoge et al., 2005a).

Interdisciplinary Project to Improve Health Professional Education in Substance Abuse This 5-year cooperative project of the Health Resources and Services Administration (HRSA), the Association for Medical Education and Research in Substance Abuse (AMERSA), and CSAT produced (1) a strategic plan for interdisciplinary faculty development to prepare the general health professions workforce to provide care for substance-use problems and illnesses, (2) an interdisciplinary faculty development program to improve the educational curriculums for general health care professionals, and (3) an infrastructure to support faculty development in substance-use treatment. The initiative also produced a set of core and discipline-specific knowledge, attitudes, and competencies needed by health professionals to

effectively identify, intervene with, and refer patients with substance-use problems and illnesses (Haack and Adger, 2002). Transmission of this set of knowledge, attitudes, and competencies to the workforce was initiated by the Multi-Agency INitiative on Substance abuse TRaining and Education for AMerica (Project MAINSTREAM), which provided trainers to train interdisciplinary faculty (Samet et al., 2006). The students trained by these faculty enter the workforce with the knowledge and skills needed to provide care for individuals and communities dealing with substance-use problems and illnesses.

Annapolis Coalition on Behavioral Health Workforce Education The Annapolis Coalition on Behavioral Health Workforce Education (Annapolis Coalition) grew out of a 2001 conference convened by the American College of Mental Health Administration and the Academic Behavioral Health Consortium, with funding from SAMHSA and the Agency for Healthcare Research and Quality (AHRQ). The Annapolis Coalition distilled recommendations from a substantial number of peer-reviewed publications addressing the need for training reform in the M/SU treatment field and subjected those recommendations to further vetting by experts in the field by preparing and distributing for comment of a series of review papers (Daniels and Walter, 2002; Hoge et al., 2002), as well as discussing the recommendations at a national summit of experts on workforce development (Hoge and Morris, 2002). The result was a series of 10 recommended best practices for improving the quality and relevance of workforce education (Hoge et al., 2005a).

Paucity of Content on Substance-Use Care

Despite the frequency of co-occurrence of general medical, mental, and substance-use problems and illnesses, many providers in each of these areas receive little or no education in the others and their effects on the presenting condition. According to the congressionally mandated study of the prevention and treatment of co-occurring substance-use and mental conditions (SAMHSA, undated:15), “Perhaps one of the most significant program-level barriers, noted by consumers and family members as well as by providers. . . is the lack of staff trained in treating co-occurring disorders.” The limited content of substance-use education in most health professions is evidence of this.

Physician education Medical students can be educated about substance-use problems and illnesses in a variety of settings. During the first 2 years of medical school, however, the subject is often integrated into standard coursework; and separate courses on addiction medicine are rarely taught.

During the final 2 years of medical school, students also may have some experience with substance-use health care during required or elective clinical rotations in internal medicine, family medicine, neurology, or psychiatry. Overall, however, dedicated training in substance-use problems and illnesses is rarely offered in medical schools. A 1998–1999 survey of the Liaison Committee on Medical Education found that of the 125 accredited U.S. medical schools, 95 percent provided training in substance-use health care as part of a larger required course, 8 percent had a separate required course, and 36 percent offered an elective course (Haack and Adger, 2002). This current level of exposure of medical students to substance-use health care issues has not given recent medical school graduates the confidence to screen, assess, or provide needed interventions for these patients (Miller et al., 2001; Saitz et al., 2002; Vastag, 2003).

With respect to residency training, a 1997 national survey of residency program directors found that the percentage of programs with required training in care for substance-use problems and illnesses ranged from 32 percent in pediatrics to 95 percent in psychiatry, with an average of 56 percent across all emergency medicine, family medicine, internal medicine, obstetrics/gynecology, osteopathic medicine, pediatrics, and psychiatry residency programs. However, the survey found that even when there was required curriculum content in substance-use health care, the median number of curriculum hours dedicated to the subject varied greatly, ranging from 3 (emergency medicine and obstetrics/gynecology) to 12 (family medicine). Psychiatry residency programs reported an average of 8 hours devoted to substance-use health care in their curriculums (Isaacson et al., 2000). Even in preventive medicine residency training, most of the alcohol-, tobacco-, and other drug-use training focuses solely on tobacco (Abrams Weintraub et al., 2003).

Psychologist education Psychologists typically receive very little training in or preparation for dealing with substance-use problems and illnesses. Results of a 1994 survey indicated that although 91 percent of psychologists encountered substance-use problems or illnesses in their daily work, 74 percent had received no formal undergraduate or graduate coursework in the subject, and slightly more than half (54 percent) had received no training in substance-use conditions during their internships. Although few had received such training as part of their formal education, 86 percent subsequently acquired training in substance-use conditions through workshops, supervision, and other sources (Aanavai et al., 1999).

Social work education The Interdisciplinary Project to Improve Health Professional Education in Substance Abuse found that most schools of social work failed to provide students with a basic knowledge of alcohol-

and drug-use issues. Moreover, when graduate schools of social work offered a concentration or elective courses in the treatment of alcohol- and drug-use problems and illnesses, most students did not take these courses, and only a few schools of social work offered postgraduate training programs covering services for substance use. A significant factor contributing to this is that the Council on Social Work Education, the national policy-making body for social work education, does not mandate that curriculums contain substance-use content (Straussner and Senreich, 2002).

Nursing education Data on the amount of education in substance-use health care provided to nurses use are highly limited. The report of the Interdisciplinary Project to Improve Health Professional Education in Substance Abuse (Naegle, 2002) includes only information from two surveys conducted in 1987. The first found that undergraduate nursing curriculums typically offered 1–5 hours of instruction in substance-use problems and illnesses over 2–4 years of study, usually combined with other course content, and focused primarily on definitions and descriptions of the phenomena surrounding substance use and their health consequences. The second study likewise found little content on substance-use problems and illnesses incorporated into psychiatric nursing programs. A systematic review of studies of chemical dependency training within schools of nursing, covering the period 1966–1996, also found only a small number of studies, which frequently were methodologically flawed. Despite these shortcomings, the investigators concluded from the available data that schools of nursing generally provided minimal exposure to important concepts related to alcohol and drug dependence. Few classroom hours were dedicated to alcohol and drug issues, and individual courses devoted to substance-use problems and illnesses were rare. Clinical training also was neglected. “Neither the scope nor intensity of clinical instruction was sufficient to ensure that graduating nurses could effectively intervene with chemically dependent patients” (Howard et al., 1997:54).

Counselor education Even among substance-use treatment counselors, the duration and content of preprofessional training received by certified substance-use counselors varies widely. A large proportion of alcohol and other drug treatment counselors report receiving their counseling education through associate’s degree and certificate programs at 2-year community colleges. Little information exists on the quality of these programs, or on programs offering higher levels of education. These programs typically operate with little or no external review and accreditation (McCarty, 2002). However, a 2000–2001 review of undergraduate programs based on published catalogues and Internet sites found 260 programs listed on the website of the National Association of Alcohol and Drug Abuse Counselors

(NAADAC) as offering formal education in preparation for working as a substance-use treatment practitioner. Approximately 55 percent of these programs were at the community college or 2-year level, 13 percent at the bachelor's degree level, and 32 percent at the graduate level. Undergraduate programs varied in their titles, the types of degrees awarded, the numbers of credits and courses required for a degree, and in whether program graduates are prepared to function as counselors and be certified by states (Edmundson, 2002).

Inadequate Faculty Development

Training health professionals to provide them with the knowledge and skills needed to treat M/SU problems and illnesses requires not just strong curriculum content, but also high-quality faculty to present that curriculum who are well trained and knowledgeable about current effective M/SU therapies, contemporary practice, and interdisciplinary care (Haack and Adger, 2002; Hoge et al., 2002). Yet past deficiencies in the education of those serving in faculty positions, particularly generalist clinicians (e.g., physicians, nurses), have resulted in insufficient numbers of qualified generalist faculty to teach about M/SU health care issues even when curriculums concerning these issues exist.

The Career Teachers Program (1972–1982), sponsored by the National Institute on Alcohol Abuse and Alcoholism and the National Institute on Drug Abuse, was one of the first multidisciplinary faculty development programs in substance use health care for health professionals (Galanter, 1980). Over the course of this program's existence, 59 career teachers (faculty in medical and public health schools) were challenged to enhance substance-use treatment education within their own professional schools. This program was followed by faculty development programs sponsored by federal agencies for medical, nursing, social work, public health, and psychology faculty. Projects associated with these programs enriched the curriculums of their respective schools and demonstrated that training providers, either community clinicians or emergency medicine residents, could increase the extent to which they addressed patients' unhealthy alcohol use (D'Onofrio et al., 2002; Saitz et al., 2000). The continuing need for faculty training programs is evident in the ongoing faculty development efforts of the Association for Medical Education and Research in Substance Abuse (Samet et al., 2006).

Summary

The above discussion illustrates that even when well-developed sets of competencies (such as those of the Interdisciplinary Project to Improve

Health Professional Education in Substance Abuse) exist, they often are not incorporated into education programs. Licensing and credentialing are two mechanisms used to assure the public that health care professionals are competent to deliver services once they have completed their preprofessional education. However, many of the core and discipline-, subject matter-, or population-specific professional competencies discussed above have not been adopted or incorporated into training programs, licensing standards, or certification requirements. Until this happens, the promulgation of competencies is likely to have limited impact (Hoge et al., 2005a). The variation in competencies resulting from differences in preprofessional education is compounded by state-to-state variation in licensing and credentialing, discussed next.

VARIATION IN LICENSURE AND CREDENTIALING REQUIREMENTS

Licensing standards for the health professions are set by the states and typically specify minimum standards for competency. In addition, the different health professional associations, such as NAADAC—the Association for Addiction Professionals, and the American Nurses Association, frequently establish independent certification or credentialing processes that formally recognize an individual's knowledge or competency in a specialized area. The latter standards often go beyond the requirements for state licensure, although there is some overlap as some states mandate credentialing as a part of licensure for certain professions (IOM, 2003).

Taking psychologists as an example, all but four states require a doctoral degree to practice clinical psychology independently; Alaska, Oregon, Vermont, and West Virginia also license master's-level clinicians to practice independently. All states except California and Pennsylvania require degrees to be from schools accredited by regional accrediting bodies; the two exceptions accept degrees recognized by state law. Mississippi and Oklahoma require the degrees to be from programs accredited by the American Psychological Association. All states further require supervised experience prior to independent practice, but the number of hours required varies. Most states require 1,500–2,000 postdoctoral hours, but Delaware requires 3,000 and Michigan and Washington 4,000 (Olvey and Hogg, 2002). Moreover, there are variations in how individuals with a master's degree in psychology can practice across states. Twenty-six states and the District of Columbia do not license master's-level psychologists to practice independently. In the other states, licensed master's-level psychologists are variably restricted in their scope of practice and amount of required supervision. Titles used in the states for these licensed and master's-prepared clinicians also vary; they include

psychological associate, psychological technician, psychological assistant, registered psychological assistant, licensed master's-level psychologist, certified psychological associate, psychological examiner, licensed psychological practitioner, psychologist associate, and others. The amount of supervision required varies from none to supervision of all practice activity. Requirements for supervised experience pre- and postlicensure also vary (Association of State and Provincial Psychology Boards, 2000).

Considerable variation exists as well in the certification of specializations provided by professional associations. Only a few state certification boards, for example, use SAMHSA's addiction counseling competencies as the basis for their education and training requirements (Hoge et al., 2005a). Although a number of states (e.g., New York, New Mexico, Arizona) are moving toward the establishment of a required basic level of competency for M/SU treatment providers who are offering integrated services, there remain no uniform standards of competency across states.

The above variations in licensure standards and credentialing processes contribute to the varying capacity of the M/SU workforce to deliver high-quality health care.

INADEQUATE CONTINUING EDUCATION

Beyond the variations in education, licensing, and credentialing discussed above, the rapidly expanding evidence base and broad range of specialized populations and treatment settings make it unlikely that all clinicians (especially those newly licensed) will come to their place of employment possessing the knowledge and skills needed to practice at a high level of expertise (Hoge et al., 2002). Prelicensure or preemployment education cannot provide sufficient frequency and diversity of experience (and sometimes offer no experience) in the performance of every therapeutic intervention appropriate for every clinical condition seen in patients, especially as the breadth of knowledge and technology expands. Practitioners, therefore, come to their initial place of employment as novices without certain skills and knowledge—their limited skill and expertise reflecting the limitations of time and experience in their academic education and the sheer number of effective therapies. Moreover, it is obviously impossible for prelicensure education to teach students about diagnostic and therapeutic advances not yet invented (IOM, 2004b). Many of the health professions are thus grappling with the need to ensure the continuing competency of licensed health professionals (IOM, 2003). Like professional practice education, however, continuing education for health professionals has been found lacking in content, methods, financing, and organizational support.

Content

Continuing education focuses on refining existing and developing new skills, as well as mastering changes in the knowledge base and treatment approaches. Unlike preservice education, which is organized around a formal curriculum, continuing education is commonly self-directed by the practitioner, who selects areas of interest to pursue (Daniels and Walter, 2002).

Few standards or guidelines govern the continuing education content that providers choose to study. Continuing education requirements are set principally by licensing and certification bodies, many of which are controlled by the states. These requirements are generally nonspecific, outlining only the number of hours of continuing education that must be completed during a specified number of years in order to maintain licensure or certification. While some states and disciplines mandate continuing education in specific content areas, such as professional ethics (Daniels and Walter, 2002), “the general absence of standards or guidelines regarding content raises concern that many practitioners may never become educated about critical, emerging issues in the field, such as patient safety” (Morris et al., 2004:18), illness self-management (see Chapter 3), or the Chronic Care Model (see Chapter 5).

A 2001 survey of the continuing education requirements for M/SU disciplines set by the states for licensure renewal found a striking lack of consistency in the requirements for a given professional discipline across states, as well as in the requirements for different mental health disciplines within states. The requirements for psychologists, for example, range from zero hours of continuing education (11 states), to 12 hours per year (Alabama), to 50 hours per year (Kansas) (Daniels and Walter, 2002).

Methods

As usually provided (i.e., in single-session events such as conferences, lectures, workshops, and dissemination of written materials), continuing education has been found to have little effect in changing clinical practice (Davis et al., 1999). Teaching adult learners clearly requires different approaches; moreover, research has shown that not everyone learns the same way. While many individuals learn well through reading, for example, others learn better through approaches that allow them to use their motor skills. Clinicians also can benefit from being taught individually, rather than in a group, at a pace suited to their particular learning style (Lazear, 1991). Empirical support exists as well for education strategies such as interactive sessions (role playing, discussion groups, and experiential problem solving); academic detailing, in which trained experts meet with providers in their practice setting; audit and feedback (Morris et al., 2004); use

of information technology (IT) (IOM, 2003); and learning through decision support at the point of care delivery.

The IOM's report on health professions education (IOM, 2003) identifies utilizing information technology to communicate, manage knowledge, mitigate error, and support decision making as a core competency that should be possessed by all health professionals. Proficiency in using IT can also be an effective vehicle for continuing education. CD-ROM-based and text-based programs can be used to provide individualized learning during times when the clinician is not involved in direct patient care. Online learning also presents new opportunities for continuing education, and many state licensing boards accept completion of online courses as satisfying at least part of the continuing education requirements for license renewal (Flanagan and Needham, 2003).

Learning can take place as well through clinical decision-support software that integrates information on individual patients with a computerized knowledge base to generate patient-specific assessments or recommendations, thereby helping clinicians or patients make clinical decisions. In general health care, clinical decision-support systems assist clinicians in applying new information to patient care through the analysis of patient-specific clinical variables. These systems vary in complexity, function, and application; some but not all are computer based. According to AHRQ's evidence-based report *Making Health Care Safer: A Critical Analysis of Patient Safety Practices*, the preponderance of evidence suggests that these systems are at least somewhat effective, especially with respect to the prevention of medical errors (Trowbridge and Weingarten, 2001). Although such software is common in general health care, however, it is not highly developed or widely available in M/SU health care (Morris et al., 2004). Other decision supports (some "low tech") include using memory/cognition aids, such as protocols and checklists, and clinical pathways.

Financing

The financing of continuing education for M/SU practitioners has been identified as a critical issue (Daniels and Walter, 2002). Pharmaceutical companies have been a major source of funding for continuing education in M/SU health care, but that support is being curtailed. Provider organizations, which historically have financed a large share of the continuing education for their employees, also have substantially scaled back their training departments, staff, and programs, as well as travel support for continuing education conferences, as a result of severe budgetary pressures (IOM, 2004b; Morris et al., 2004).

The IOM report *Keeping Patients Safe: Transforming the Work Environment of Nurses* shows that the issue of continuing worker education

and training is not unique to the health care industry. In many industries, the ongoing acquisition and management of knowledge by employees is increasingly recognized as an essential responsibility of the employing organization. Organizations need to play an active role in managing their learning process and transferring knowledge quickly and efficiently to their employees. This organizational role is critical to supporting the continuing growth of clinicians' knowledge and skills (IOM, 2004b).

In general health care, for example, hospitals with high retention of nurses in the face of nursing shortages ("magnet hospitals") are characterized by the provision of high levels of postemployment training and education of nursing staff, beginning with orientation and lasting several weeks to months (McClure et al., 2002). Developing and managing human skills and intellect—more than managing physical and capital assets—is increasingly recognized as a dominant concern of managers in successful companies (Quinn, 1992). Given the career-long need for clinicians to maintain competency through the acquisition of new knowledge and skills and the essential role of health care organizations in helping to meet this need, *Keeping Patients Safe* recommends that all health care organizations routinely dedicate a defined portion of budgetary resources to support for staff in their ongoing acquisition and maintenance of knowledge and skills (IOM, 2004b).

Organizational Support

Extensive research has demonstrated that an individual's possession of required competencies by itself is not sufficient for safe and effective performance in the workplace (IOM, 2004b). When the organization in which an individual works does not support and reward competency, the worker is not likely to display competency on an ongoing basis (Hoge et al., 2005b; IOM, 2004b). In patient care, what matters is the clinician's *performance*, rather than the *possession* of necessary competencies. In the performance of clinical competencies, organizational characteristics are equally or more influential than individual education, training, and other characteristics (IOM, 2004b). Advances in education for M/SU clinicians therefore need to be coupled with efforts to help the organizations in which they work provide the culture and other practice supports that allow and promote competent performance (Hoge et al., 2005b).

In addition to the many problems discussed above, M/SU clinicians' ability to provide high-quality care is compromised by their frequent isolation from their peers and colleagues from other disciplines as a result of working in individual, or solo, practices (discussed next). Solo practice does not facilitate building the infrastructure needed to take up new knowledge and store, collect, and share the clinical information required to deliver high-quality collaborative patient care.

TABLE 7-2 Percentage of Clinically Trained Specialty Mental Health Personnel Reporting Individual Practice as Their Primary or Secondary Place of Employment

Discipline	Primary Employment	Secondary Employment	Reporting Year
Psychiatry	37.0	18.0	1998
Psychology	38.0	28.0	2002
Social work	18.5	27.1	2000
Counseling	15.1	21.6	2002
Marriage/family therapy	34.9	28.5	2000

SOURCE: Duffy et al., 2004.

MORE SOLO PRACTICE

Many mental health clinicians report that individual practice is either their primary or secondary⁵ employment setting (Duffy et al., 2004) (see Table 7-2).

Solo practice may impede the uptake of evidence-based practices and other changes needed in treatment settings. For example, as discussed in Chapter 6, the size of health care organizations has been shown to be related to the uptake of IT. Use of electronic health records (EHRs), for instance, is typically found in larger health care organizations (Brailer and Terasawa, 2003), and the size of a practice has been found to be the main determinant of IT adoption for five clinical functions—obtaining treatment guidelines, exchanging clinical data with other physicians, accessing patient notes, generating treatment reminders for physicians, and writing prescriptions. Indeed, physicians in solo or two-person practices are more than three times likelier to have limited IT support for patient care compared with large group practices of more than 50 physicians (Reed and Grossman, 2004). Observations from experts in the use of information systems by managed behavioral health care organizations support this conclusion.

With respect to administrative (as opposed to clinical) IT applications, smaller M/SU providers lag behind in the use of electronic claims submission (Trabin and Maloney, 2003). Likewise, a random sample of 175 directors of inpatient/residential, outpatient, and methadone maintenance pro-

⁵Many mental health practitioners work in multiple settings. For example, 60 percent of full-time psychiatrists reported working in two or more settings in 1998, as did 50 percent of psychologists, 20 percent of full-time counselors, and 29 percent of marriage/family therapists in 2002. Rates were higher for part-time counselors (Duffy et al., 2004).

grams across the nation found that approximately 20 percent of the programs had no information systems of any type, e-mail, or even voice mail for their phone system. In contrast, most of those that were part of larger hospital or health systems had access to well-developed clinical information systems, e-mail, and Internet services (McLellan and Meyers, 2004). Most public and private substance-use treatment programs are outside the purview of medical facilities where such technology might be more available. To the extent that other M/SU clinicians also provide care in solo or small group practices, low adoption of IT to support clinical care may also be present. Differences in IT uptake are theorized to reflect differences in provider size: larger groups and health maintenance organizations (HMOs) have readier access to capital and administrative support staff and the ability to spread acquisition and implementation costs among more providers (Reed and Grossman, 2004).

Knowledge uptake and application require other resources for timely identification of scientific advances and innovations. For example, as described in Chapter 4, SAMHSA's National Registry of Evidence-based Programs and Practices contains such information, but if no one in the care delivery organization has the time or responsibility to review this registry of effective practices and provide the information to the organization, improvements in care delivery are less likely to occur. Large organizations may have more capital resources and greater ability to create mechanisms for carrying out such activities; solo or smaller practices may need to band together to achieve the economies of scale required for this purpose (Berwick, 2003). In a study of the adoption of clinical practice guidelines for treatment of attention deficit hyperactivity disorder (ADHD), for example, having a solo practice was found to be associated with a reduced likelihood of adopting the practice guidelines (Rushton et al., 2004).

Evidence shows that an organization will assimilate innovations more readily if it is large, mature, functionally differentiated (i.e., divided into semiautonomous departments and units), and specialized, with foci of professional knowledge; if it has flexible resources to channel into new projects; and if it has decentralized decision-making structures. Size is almost certainly a proxy for these characteristics (Greenhalgh et al., 2004).

USE OF THE INTERNET AND OTHER COMMUNICATION TECHNOLOGIES FOR SERVICE DELIVERY

In addition to the telephone, communication technologies such as video conferencing and the Internet are increasingly being used to evaluate, diagnose, and provide M/SU services to people who lack face-to-face access to such services (Benderly, 2005) or prefer these other approaches. At a mini-

mum, advances in use of Internet-mediated and other communication technologies require research on their effectiveness, specialized training of clinicians in their use, additional protection of consumer information, and mechanisms for ensuring the competencies of those who provide such forms of care.

Like consumers of general health care services (Baker et al., 2003), many consumers of M/SU health care are already turning to the Internet to obtain information and support from peers to help them manage their M/SU problems and illnesses (Lamberg, 2003). Indeed, the Internet may be especially useful to consumers of M/SU health care as a source of clinical treatment. As some assert, “while face-to-face contact with patients is certainly desirable, the primary medium of treatment, psychotherapy, requires no direct physical contact; many assessment and treatment services could potentially be delivered, at least in part, over the Internet” (Flanagan and Needham, 2003:312).

However, use of the Internet to deliver M/SU health care carries several risks. One is the issue of the privacy and confidentiality of information transmitted by patients over the Internet—information that, when transmitted face to face and incorporated into the patient’s health record, is subject to greater privacy protections than exist for general health care (see Chapter 5 and Appendix B). Other concerns relate to questions about the safety and effectiveness of Internet-based therapy compared with traditional face-to-face therapy, especially since the practitioner is unable to observe the physical behaviors of the patient, which can inform experienced clinicians. Moreover, practitioners providing face-to-face care must be licensed by the state in which they practice—typically the same state in which the patient resides. If a counselor in California delivers care to an individual in Mississippi over the Internet, how is such a provider to be credentialed—by the state in which he or she resides, in which the patient resides, or both? The Internet makes delivery of services by a single practitioner to individuals in all 50 states feasible. Should licensing be required in all 50 states (Copeland and Martin, 2004; Flanagan and Needham, 2003)? At present, “consumers are able to find licensed, and for that matter unlicensed, professionals offering therapy. . .online” (Flanagan and Needham, 2003:313).

Despite these issues, there is no question that the communication technology exists to provide M/SU care and that people are willing to use it. For the Internet, as for the telephone and video conferencing, providing care that is clinically appropriate, therapeutically productive, and socially supportive requires that practitioners address issues of the technological parameters of electronic service delivery, requisite systems for credentialing and credential verification, and the appropriate balance between face-to-face and electronic communications.

LONG HISTORY OF WELL-INTENTIONED BUT SHORT-LIVED WORKFORCE INITIATIVES

Most of the issues discussed above are not new; they have been acknowledged for many years—some for decades. They have also been the subject of many short-lived, ad hoc initiatives that overall have failed to provide the sustained leadership, attention, resources, and collaboration necessary to resolve them. A chronology of these efforts is provided below. In the next section, the committee calls for a sustained, multiyear, collaborative initiative to address these issues, modeled after those created for the physician and nursing workforces.

1956. The American Psychiatric Association Committee on Medical Education proposes a curriculum for teaching psychiatry in medical schools and recommends that physician training develop “well-rounded physicians, who, in their relationships with all patients, recognize the importance of unconscious motivation, the role of emotional maladjustment in the ideology and chronicity of illness, the emotional and personality problems engendered by various illnesses; and who habitually see the patient in his family and general environmental setting” (APA Committee on Medical Education, 1956:128). The committee also recommends that during the first 2 years, all medical students be exposed to themes of personality growth, development, structure, and integration; adaptive needs; social and cultural forces affecting personality and behavior; the role of language and mentation; the role played by emotions and physiological functioning; and psychopathology.

1961. In the final report of the Joint Commission on Mental Illness and Health, titled *Action for Mental Health*, the commission makes the following recommendation: “Child specialists offer a considerable potential for helping emotionally disturbed children, but in many cases lack sufficient psychiatric orientation to capitalize on this potential. The National Institute of Mental Health should provide support for resident training programs in pediatrics that make well-designed efforts to incorporate adequate psychiatric information as a part of the pediatrician’s graduate training. It should also provide stipends for pediatricians who wish to take post-graduate courses in psychiatry. The aim is not to convert pediatricians into psychiatrists, but to increase the mental patient care resources of the community in which the pediatrician practices” (Joint Commission on Mental Illness and Health, 1961:xiii).

1972. The National Association of Alcohol and Drug Abuse Counselors is founded, in part to begin a national credentialing/certification program for addiction counselors (NAADAC, 2005).

1972–1982. The Career Teachers Program is sponsored by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the Na-

tional Institute on Drug Abuse (NIDA) as one of the first multidisciplinary health professional faculty development programs in substance-use education (Galanter, 1980).

1976. The Association for Medical Education and Research in Substance Abuse (AMERSA) is created to expand education in substance-use health care for all health care professionals (Samet et al., 2006).

1976–1982. The National Institute of Mental Health Staff College is created to enhance the effectiveness of the leaders of federally funded community mental health centers across the United States. It closes with a change in administrations in Washington.

1978. The President’s Commission on Mental Health points out problems in the M/SU workforce and recommends several actions to address them, including more systematic training for all mental health professions in the social structures, beliefs, value systems, and patterns of various subcultures, and how to work with individuals from these subcultures in therapy. The commission also recommends multidisciplinary training to address what it identifies as “problems of role-blurring, rivalries, and turf battles” (President’s Commission on Mental Health, 1978:459). In addition, the commission reaffirms the need to provide training in administration in both the basic and continuing education curriculums of all mental health professionals.

1978–1986. A 5-year doctorate in mental health at the University of California-Berkeley and the University of California-San Francisco Medical School is initiated. The program aims to develop a new profession combining three main areas of knowledge—biological science, psychological science, and social science—in a clinical curriculum, with the goal of unifying the way behavioral health professionals are trained (Wallerstein, 1991).

1979. NIAAA initiates a State Manpower Development Program to provide categorical grant funding to each of the state alcoholism authorities for the development of a manpower plan and training of treatment providers. The program ends in 1982 when its funding is incorporated into block grants to states (IOM, 1990).

1984. NIAAA publishes core competencies and credentialing standards for counselors treating alcohol dependence (Birch and Davis Associates, 1984).

1990. The IOM documents the “serious lack of accurate, timely data at the national level” on the workforce treating alcohol-use problems and illnesses and notes: “This lack of data compromises efforts to plan for future training and professional needs. Fundamental questions for each of the disciplines involved cannot be answered. . . .As a consequence it is not possible to formulate a forward-looking workforce training policy” (IOM, 1990:131).

1993. SAMHSA issues *Workforce Training and Development for Mental Health Systems*.

1999. *Mental Health: A Report of the Surgeon General* again documents the inadequate supply of well-trained mental health professionals, especially those serving children and adolescents and individuals with severe mental illnesses, and those providing specific forms of psychotherapy effective for many types of mental illnesses (DHHS, 1999).

2000. SAMHSA's National Treatment Plan Initiative for Improving Substance Abuse Treatment calls for a National Workforce Development Office to secure valid, nationwide workforce data to guide policy making and support development of the substance-use treatment workforce at the national level. That office's efforts would address the implementation of core competency guidelines, credentialing standards, and other education and training activities (SAMHSA, 2000).

2001–2002. The American College of Mental Health Administration (ACMHA) and the Academic Behavioral Health Consortium (ABHC) initiate the Annapolis Coalition on Behavioral Health Workforce Education to build national consensus on the nature of the problems facing the M/SU treatment workforce and improve the quality and relevance of their education and training. The coalition's findings and recommendations are published in 2002 (Adams and Daniels, 2002; Daniels and Walter, 2002; Hoge, 2002; Hoge and Morris, 2002; Hoge et al., 2002).

2002. The HRSA–AMERSA–SAMHSA/CSAT Interdisciplinary Project to Improve Health Professional Education in Substance Abuse issues a strategic plan to enable the nation's health professions workforce to care for individuals with substance-use problems and illnesses. The plan makes 12 recommendations for the Secretary of DHHS, the U.S Surgeon General, other federal agencies, and agencies and organizations in the public and private sectors, calling for, in part, the creation of a Secretary's Advisory Committee on Health Professions Education on Substance-Use Disorders; a Surgeon General's report on the state of substance abuse prevention and treatment, similar to the Surgeon General's report on mental health; the convening of a national forum on health professions education on substance-use disorders; the creation of national centers of excellence for leadership in interdisciplinary faculty development; and other mechanisms to strengthen workforce competencies in substance-use health care (Haack and Adger, 2002).

2003. In its report *Health Professions Education: A Bridge to Quality*, the IOM makes 10 recommendations for improving all health professions education to support improvements in health care quality (IOM, 2003).

2003. The President's New Freedom Commission on Mental Health (2003) reports that "the Commission heard consistent testimony from con-

sumers, families, advocates, and public and private providers about the ‘workforce crisis’ in mental health care. Today, not only is there a shortage of providers, but those providers who are available are not trained in evidenced-based and other innovative practices. This lack of education, training, or supervision leads to a workforce that is ill-equipped to use the latest breakthroughs in modern medicine” (p. 70). The commission further states that the mental health field needs “a comprehensive strategic plan to improve workforce recruitment, retention, diversity, and skills training” and calls on DHHS to “initiate and coordinate a public-private partnership to undertake such a strategy” (p. 75).

2004. The Annapolis Coalition on Behavioral Health Workforce Education convenes a national meeting that generates 10 consensus recommendations to guide the development of M/SU health care workforce competencies (Hoge et al., 2005a).

2005. SAMHSA contracts with the Annapolis Coalition on the Behavioral Health Workforce to develop a national strategic plan on workforce development by December 2005.

NEED FOR A SUSTAINED COMMITMENT TO BRING ABOUT CHANGE

Some changes have taken place as result of the initiatives described above. In general, however, M/SU health care professionals are trained the way they have been for many years, and problems such as maldistribution and the lack of representation of minorities in the workforce have improved only slightly, if at all. Despite significant efforts, attempts to train non-psychiatric physicians to do a better job of caring for people with M/SU problems and illnesses have not been particularly effective. Broader efforts to bring about similar changes in the M/SU treatment workforce overall have had similar results.

The committee finds, as others have before, that without a properly trained, culturally relevant, and appropriately distributed M/SU health care workforce, significant improvements in the quality of care are not likely. The committee further finds that the problems that attenuate the effectiveness of the M/SU health workforce in America are so complex that they require an ongoing, priority commitment of attention and resources, as opposed to the short-term, ad hoc initiatives that have often characterized responses to the problem in the past. As noted above, the committee recommends that the approach used to educate and train other key providers (physicians and nurses) in the health care workforce, as described below, be employed to marshal the sustained attention, collaboration, and resources needed to produce a stronger M/SU health care workforce.

Council on Graduate Medical Education

The Council on Graduate Medical Education (COGME) was authorized by Congress in 1986 to “provide an ongoing assessment of physician workforce trends, training issues and financing policies, and to recommend appropriate federal and private sector efforts to address identified needs” (HRSA, 2002). Council members include “representatives of practicing primary care physicians, national and specialty physician organizations, international medical graduates, medical student and house staff associations, schools of medicine and osteopathy, public and private teaching hospitals, health insurers, business, and labor. Federal representation includes the Assistant Secretary for Health, the U.S. Department of Health and Human Services (DHHS); the Administrator of the Centers for Medicare and Medicaid Services; and the Chief Medical Director of the Veterans Administration.” COGME advises and makes recommendations to the Secretary of DHHS; the Senate Committee on Health, Education, Labor and Pensions; and the House of Representatives Committee on Commerce.

The charge to COGME is broader than its name implies. Its authorizing legislation requires its advice and recommendations to address the following (HRSA, 2002):

- The supply and distribution of physicians in the United States.
- Current and future shortages or excesses of physicians in specialties and subspecialties.
- Related federal policies, including the financing of undergraduate and graduate medical education programs and the types of medical education and training in the latter programs.
- Efforts to be carried out by hospitals, educational institutions, and accrediting bodies with respect to these matters, including changes in undergraduate and graduate medical education programs.
- Improvements needed in databases concerning the supply and distribution of, and postgraduate training programs for, physicians in the United States and steps that should be taken to eliminate those deficiencies.

COGME periodically studies and issues reports on these issues that have been influential in health care policy arenas. While these reports have sometimes been controversial (Phillips et al., 2005), they have been successful in focusing national attention on the issues and stimulating policy responses.

National Advisory Council on Nurse Education and Practice

The National Advisory Council on Nurse Education and Practice (NACNEP) was established as the Advisory Council on Nurse Training in 1964 and renamed in 1988. It similarly advises the Secretary of DHHS and

the U.S. Congress on policy issues related to the nursing programs administered by HRSA's Bureau of Health Professions Division of Nursing, including nurse workforce supply, education, and practice improvement. Among its reports are the following: *Basic Registered Nurse Workforce*, *National Informatics Agenda for Nursing Education and Practice*, *Collaborative Education to Ensure Patient Safety*, *A National Agenda for Nursing Workforce Racial/Ethnic Diversity*, *Federal Support for the Preparation of the Nurse Practitioner Workforce through Title VIII*, and *Federal Support for the Preparation of the Clinical Nurse Specialist Workforce through Title VIII*.

The efforts of COGME and NACNEP have resulted in a number of accomplishments in workforce development. With respect to furthering interdisciplinary education and practice, for example, the two worked together to produce the report *Collaborative Education to Ensure Patient Safety* (COGME and NACNEP, 2000), which makes recommendations pertaining to faculty development, quality improvement, interdisciplinary collaboration, and competency development. These recommendations fostered cooperative agreements with public and private nonprofit entities that were cosponsored by HRSA's nursing and medicine divisions (NACNEP, 2002).

Recommendations

To secure sustained attention and resources for the development of the M/SU treatment workforce similar to what has been accomplished for the physician and nurse workforces, the committee makes the following recommendations:

Recommendation 7-1. To ensure sustained attention to the development of a stronger M/SU health care workforce, Congress should authorize and appropriate funds to create and maintain a Council on the Mental and Substance-Use Health Care Workforce as a public-private partnership. Recognizing that the quality of M/SU services is dependent upon a highly competent professional workforce, the council should develop and implement a comprehensive plan for strengthening the quality and capacity of the workforce to improve the quality of M/SU services substantially by:

- Identifying the specific clinical competencies that all M/SU professionals must possess to be licensed or certified and the competencies that must be maintained over time.
- Developing national standards for the credentialing and licensure of M/SU providers to eliminate differences in the standards now

used by the states. Such standards should be based on core competencies and should be included in curriculums and education programs across all the M/SU disciplines.

- Proposing programs to be funded by government and the private sector to address and resolve such long-standing M/SU workforce issues as diversity, cultural relevance, faculty development, and continuing shortages of the well-trained clinicians and consumer providers needed to work with children and the elderly; and of programs for training competent clinician administrators.
- Providing a continuing assessment of M/SU workforce trends, issues, and financing policies.
- Measuring the extent to which the plan's objectives have been met and reporting annually to the nation on the status of the M/SU workforce.
- Soliciting technical assistance from public-private partnerships to facilitate the work of the council and the efforts of educational and accreditation bodies to implement its recommendations.

Recommendation 7-2. Licensing boards, accrediting bodies, and purchasers should incorporate the competencies and national standards established by the Council on the Mental and Substance-Use Health Care Workforce in discharging their regulatory and contracting responsibilities.

Recommendation 7-3. The federal government should support the development of M/SU faculty leaders in health professions schools, such as schools of nursing and medicine, and in schools and programs that educate M/SU professionals, such as psychologists and social workers. The aim should be to narrow the gaps among what is known through research, what is taught, and what is done by those who provide M/SU services.

Recommendation 7-4. To facilitate the development and implementation of core competencies across all M/SU disciplines, institutions of higher education should place much greater emphasis on interdisciplinary didactic and experiential learning and should bring together faculty and trainees from their various education programs.

The committee calls particular attention to two components of recommendation 7-1. First, the recommendation calls for a public-private partnership to address the problems plaguing the M/SU workforce. Federal leadership can provide sustained national policy attention to these problems and unique influence with the educational institutions and their

accreditors, licensing bodies, health professions associations, and health care organizations that need to be engaged in resolving the issues involved. At the same time, private-sector organizations such as AMERSA (Samet et al., 2006) and, more recently, the Annapolis Coalition on Behavioral Health Workforce Education can offer the expertise, collaboration, and flexibility necessary to collect and analyze additional evidence that needs to be brought to bear on these issues. Therefore, the committee strongly recommends that the council seek out AMERSA and the Annapolis Coalition as partners in this process.

Second, with respect to the portion of recommendation 7-1 that calls for the Council on the Mental and Substance-Use Health Care Workforce to provide “an ongoing assessment of M/SU workforce trends, issues, and financing policies,” the committee underscores the paucity of comprehensive and reliable data on the M/SU workforce that it encountered in conducting this study. Thus the committee strongly recommends the inclusion of a mechanism or mechanisms for collecting better data on the M/SU workforce as a part of the process for assessing workforce trends and issues.

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