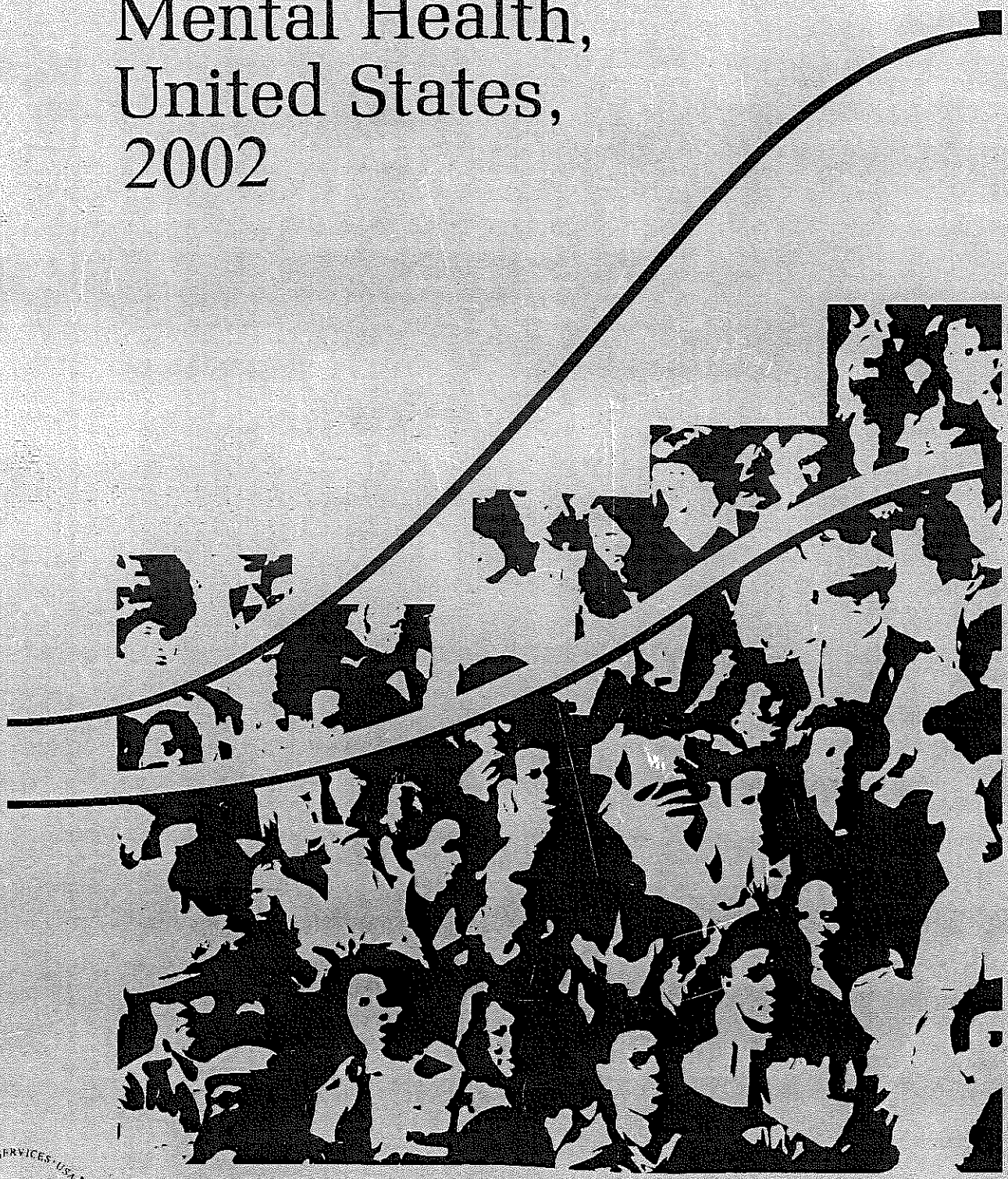
Mental Health, United States, 2002



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Mental Health Services
www.samnsa.gov

Mental Health, United States, 2002

Edited by
Ronald W. Manderscheid, Ph.D.,
and
Marilyn J. Henderson, M.P.A.
Center for Mental Health Services
Substance Abuse and Mental Health
Services Administration

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Mental Health Services
5600 Fishers Lane
Rockville, Maryland 20857

ACKNOWLEDGMENTS

Numerous people contributed to the development of this document. It was written by a broad range of authors from diverse mental health settings from throughout the United States. It could not have been compiled without the essential assistance of the local mental health providers and the State mental health agencies that contributed data on program operations. Compilation of these data was greatly facilitated by the National Association of State Mental Health Program Directors, the American Hospital Association, the National Association of Psychiatric Healthcare Systems, and the National Center on Health Statistics. In addition, the managed behavioral health care industry and the health maintenance organization industry provided important information. All of these contributions are gratefully acknowledged.

Particular recognition is due to EEI Communications, Inc., for its editorial support. All other support and assistance are gratefully acknowledged.

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The views, opinions, and content of this publication are those of the authors of the individual chapters and do not necessarily reflect the views or policies of the Substance Abuse and Mental Health Services Administration (SAMHSA) or the Department of Health and Human Services (DHHS).

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Recommended Citation

Center for Mental Health Services. *Mental Health, United States, 2002.* Manderscheid, R.W., and Henderson, M.J., eds. DHHS Pub No. (SMA) 3938. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2004.

Originating Office

Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, 5600 Fishers Lane, Rockville, MD 20857

DHHS Publication No. (SMA) 3938
Printed 2004

Chapter 3

Perspectives on the Future of the Mental Health Disciplines

Joshua Wilk, Ph.D.; Farifteh F. Duffy, Ph.D.; Joyce C. West, Ph.D., M.P.P.; William E. Narrow, M.D., M.P.H.; Deborah Hales, M.D.; James Thompson, M.D., M.P.H.; and Darrel A. Regier, M.D., M.P.H.
American Psychiatric Association

Jessica Kohout, Ph.D.
American Psychological Association

Georgine M. Pion, Ph.D.
Vanderbilt Institute for Public Policy Studies

Marlene M. Wicherski
Research Consultant

Nancy Bateman, LCSW-C, CAC
Senior Staff Associate, Behavioral Health Issues
National Association of Social Workers

Tracy Whitaker, ACSW
Manager, Program, Policy and Practice
National Association of Social Workers

Kathleen R. Delaney, R.N., DNSC
Associate Professor, Rush College of Nursing Clinical Nurse Coordinator, Children's Inpatient Unit

Nancy Hanrahan, Ph.D., R.N., CS
University of Pennsylvania
Center for Health Outcomes and Policy Research

Elizabeth Merwin, Ph.D., R.N., FAAN
Associate Professor of Nursing and Health Evaluation Sciences
Director, Southeastern Rural Mental Health Research Center
University of Virginia

Rex Stockton, Ed.D., Jennifer Kaladow, and Jeffrey Garbelman, M.S.
Indiana University/American Counseling Association

Thomas W. Clawson, Ed.D., and S. Christian Smith, M.S.
National Board for Certified Counselors

David M. Bergman, J.D., and William F. Northey, Ph.D.
American Association of Marriage and Family Therapy

C. Roy Woodruff, Ph.D.
Executive Director
American Association of Pastoral Counselors
Fairfax, Virginia

Michael S. Fleischer, Ph.D.
Commission for Applied and Clinical Sociology (a joint initiative of the Society for Applied Sociology and the Sociological Practice Association)

Harold F. Goldsmith, Ph.D.; Joanne E. Atay, M.A.; and Ronald W. Manderscheid, Ph.D.
Center for Mental Health Services, Substance Abuse and Mental Health Services Administration

Introduction

This chapter presents insights into the factors expected to influence the need, demand, and availability of different types of mental health service providers in the next four or five years. Specifically, it provides information about the conditions that may influence short-term trends in the number of active providers and trainees in the major mental health service providing disciplines (psychiatry, psychology, social work, psychosocial rehabilitation, psychiatric nursing, counseling, marriage and family therapy, pastoral counseling, and sociology). The key sociodemographic, system, technological, and psychopharmacological factors that may affect the number of active service providers and trainees are discussed for each profession. Estimates of the short-term changes in the number of providers and trainees for each discipline are also provided. An overview of these changes is presented below.

The Changing U. S. Demographic Structure

A major factor affecting the need and demand for mental health providers and consequently the number of active specialty service providers and trainees is the projected short-term change in the demographic structure of the United States. These changes are presented in table 1 and table 2 and summarized below.

An examination of table 1 reveals that between 2002 and 2005, the population of the United States is expected to increase by approximately 7.4 million persons (from 280 million in 2002 to 288 million in 2005), a change of approximately 2.6 percent. The largest increase is expected to occur in the Hispanic population (46.2 percent of the total increase), followed by the White non-Hispanic population (21.6 percent), the African-American population (18.6 percent), the Asian/Pacific Islander population (16.1 percent), and American Indian population (1.6 percent).

The overall growth rates summarized in table 1 reflect very different race/ethnic growth patterns by age (see table 2). An examination of column 2 of table 2 (median age) reveals that whereas all the race/ethnic populations are aging, the White non-Hispanic population is aging the fastest. In the four years between 2002 and 2005, the median age of the White non-Hispanic population increases nearly a year (0.9 years) compared with 0.7 of a year for the Asian and Pacific Islands population, 0.6 of a year for African-Americans, and 0.4 for Hispanic persons. These increases in the median age reflect the fact that the large cohort of persons born between the end of World War II and 1964, a group often labeled the "baby boom" generation, will reach age 55 to 64 by 2005. Although the largest numerical increase for this age category occurs for White non-Hispanic persons (approximately 2.8 million persons, or a percent change of 12.6 in 4 years), the other race/ethnic groups in this age category increase at a faster pace. The percent change for Asian and Pacific Islanders is 21.2, whereas for Hispanic persons it is 20.2, and for African-Americans it is 16.2.

Whereas the age category 55 to 64 grew fastest during the reporting period, age categories 45 to 54 and 65 and over also grew. This pattern held for all race/ethnic groups. Some age categories, however, declined. The White non-Hispanic and the African-American children under 14 years declined (percent declines of 3.0 and 1.8, respectively), as did the category 25 to 44 for White non-Hispanic persons (percent decline of 4.5). For all other race/ethnic populations, all considered age categories increased.

Also, the number and proportion of females is expected to increase at a faster pace than that of males. Thus, the sex ratio (the ratios of men to women multiplied by 100) for persons 14 to 24 was 103.4 in 2002 and 104.8 in 2005 for the total population, and for persons 65 and over, the ratio was 71.8 and 72.8 in 2002 and 2005, respectively.

The anticipated changes in the demographic structure of the United States between 2002 and 2005 will have significant consequences for the need and demand for providers of mental health services. Illustratively, just taking the changes in the age categories by race/ethnicity into account and assuming constant levels of need for mental health services by age and race/ethnic categories during the reporting period, more services will be required for persons over 45, particularly persons 55 to 64, by 2005. To achieve equity of service for all race/ethnic groups, most services will still be required for White non-Hispanic persons; however, the service requirement of the remaining ethnic groups will increase significantly. Specifically, the White non-Hispanic population increased by 2.6 million during the reporting period and the remaining race/ethnic population increased by more than 1 million.

Equally important, although the number of children under 14 increases by only 85 thousand in the 4-year period from 2002 to 2005, resources will have to be shifted from providing services to the White non-Hispanic and African-American children to the

Table 1. Estimated population growth from July 1, 2002, to July 1, 2005

	Population (thousands)				
	2002	2005	Difference	Percent	Change (%)
Total population	280,306	287,716	7,410	100.0	2.6
White non-Hispanic	197,815	199,414	1,599	21.6	0.8
Hispanic	34,767	38,189	3,422	46.2	9.8
African-American	36,240	37,619	1,379	18.6	3.8
Asian/Pacific Islander	12,057	13,251	1,194	16.1	9.9
American Indian	2,509	2,625	116	1.6	4.6

Source: Table NP-T4-B1, Projections of the Total Resident Population by 5-Year Age Groups, Race, Hispanic Origin with Special Age Categories: Middle Series, 2001 to 2005. Population Projection Program, Population Division. Washington, DC: U. S. Census Bureau. Internet Release Date: January 13, 2000.

remaining race/ethnic children. That is because the White non-Hispanic and African-American children as a group decrease by approximately one million children and the remaining race/ethnic populations increase by about one million persons. Thus, assuming constant prevalence of mental health problems among children of all race/ethnic groups, even in a relatively short period, adjustments to the changes in demographic structure should influence the national level of need and demand for, and consequently the number of, mental health providers.

Further, it is important to note that the service needs of minority race/ethnic groups may exceed those of the numerically dominant White non-Hispanic population. Specifically, persons in the rapidly increasing minority race/ethnic groups are more likely than White non-Hispanic persons to be poor, without medical insurance, and concentrated in inner-city areas with high poverty levels or, alternatively, in isolated rural and frontier areas with fragile, often poor economic structures. As a consequence, these populations are most likely to be exposed to high stress levels that may result in an elevated need for mental health services. Because few private services are likely to be available to them, these populations are most likely to be dependent on public mental health services. Clearly, policymakers will have to determine the extent to which the short-term service needs of these high-risk populations can be adequately met.

Additional Factors (System, Technological, and Psychopharmacological Factors)

In addition to an examination of the consequences of short-term sociodemographic changes for the number of active service providers and trainees in the various disciplines, this chapter also presents analyses of the consequence of major system, technological, and psychopharmacological changes that will influence number and characteristics of service providers and trainees. Some of those changes discussed in detail by professional groups are summarized below.

System Changes: The system changes expected to have the greatest consequences for mental health services provided by different professional groups are those linked to the growth of large managed care organizations. Such organizations have grown rapidly in the past two decades. As part of their programs to contain the cost of providing mental health services, they often place restrictions on the kinds and amount of mental health services that can be provided by specialty mental health providers.

Stimulated by the growth of managed care organizations in the past two decades, there has been a significant increase in the State and Federal rules and regulations that control the mental health treatment conditions. These increases include regulations that provide funding for health and mental health services under such programs as Medicare or Medicaid or that clarify the privacy of medical records. Often such regulations have the unintended consequence of increasing the administrative work of providers and reducing their payments for services, which is likely to reduce the overall attractiveness of expending time and energy necessary to achieve a specialty mental health position. Simultaneously, there has been a reduction in the availability of training funds to prepare trainees for careers in mental health.

Certification rules that permit various specialty mental health service provider groups to offer services and be paid by Medicare, Medicaid, or similar

Table 2. The distribution of race/ethnic groups by selected age categories: July 1, 2002, and July 1, 2005

Race/ ethnic groups	Median age	Under 14	14–24	25–44	45–54	55–64	65 and over
Total							
2002	36.2	58,888	43,595	81,146	39,261	26,113	35,308
2005	36.7	54,687	45,429	79.649	41,891	29,690	36,370
Percent change		–0.4	4.2	–1.8	6.4	13.7	3.0
White non-Hispanic							
2002	39.2	34,189	28,463	55.644	29,687	20,619	29,212
2005	40.1	33,166	29,105	53,144	31,105	23,223	29,670
Percent change		–3.0	2.3	–4.5	4.8	12.6	1.6
Hispanic							
2002	26.6	9,830	6,592	10,778	3,474	1,972	2,119
2005	27.0	10,617	7,244	11,517	4,056	2,341	2,413
Percent change		8.0	9.9	6.8	16.8	20.2	13.8
African-Americans							
2002	30.9	8,422	6,686	10,978	4,539	2,603	3,012
2005	31.5	8,298	7,056	11,047	5,011	3,023	3,187
Percent change		–1.8	5.5	0.6	10.4	16.1	5.8
Asians and Pacific Islanders							
2002	32.4	2,685	1,931	3,972	1,599	926	946
2005	33.1	2,900	2,136	4,207	1,789	1,122	1,097
Percent change		8.0	10.6	5.9	11.9	21.2	16.0

Source: Table NP-T4-B1 Projections of the Total Resident Population by 5-Year Age Groups, Race, Hispanic Origin with Special Age Categories: Middle Series, 2001 to 2005. Population Projection Program, Population Division. Washington, DC: U. S. Census Bureau. Internet Release Date: January 13, 2000.

State or Federal programs also are changing. To the extent that these rules permit more types of specialty mental health service providers to offer services for which they can directly or indirectly be reimbursed, the number of active services providers and those in training should increase.

Technological Changes: A key technological advance expected to change not only the way services are provided to different populations but also the volume of services is telemental health, which involves the provision of mental health services to consumers, consultations and communication among providers or consumers, and training of consumers and providers using two-way video communication systems. Because telemental health services can provide access to a wide range of treatments, services, and education at a distance, it can help to overcome some of the problems related to the availability of and access to the limited number of specialty providers in communities with the small local social support or education networks. Such conditions are most likely to be found in rural or frontier areas or in inner-city areas.

The different specialty providers groups currently are using telemental health procedures in different ways, and their expectations for the future clearly are different. These expectations often are linked to State and Federal regulations that govern the provision of service and payment for such services. Following this introduction, each professional group currently using telemental health procedures presents a discussion of the current and future expectations for using two-way video communication systems to facilitate the provision of their services and the consequences of these changes for the number of active service providers.

Advances in Psychopharmacology: Advances in psychopharmacology and expansion of the professions able to prescribe medication for the treatment of mental illness are expected to have major conse-

quences on the ability to effectively treat mental health consumers as well as on the number of active specialty service providers. These advances are most likely to have consequences for the professional groups that now have or can be expected to gain prescription writing privileges as well as those professional groups that the prescription writing professions supervise. Whereas psychiatrists and other physicians now have the right to prescribe medications for the treatment of mental illness, other specialty services providers—for example, Ph.D.-level clinical psychologists and master's-level psychiatric nurses—are gaining the privilege, with proper training, to provide medications for the care of persons with mental illness. When they gain this privilege, their number should increase, particularly in rural and frontier areas, where psychiatrists or child psychiatrists are few in number and primary care physicians may prefer to refer mentally ill persons to specialty providers.

In the following sections of this chapter, each professional group presents a discussion of the specific effects of sociodemographic and other factors on the short-term changes in the number of active service providers and trainees in their disciplines.

Psychiatry

Significant changes in the field of psychiatry in recent years have begun to change the size and composition of the workforce. According to the *AMA Physicians Masterfile 2002–2003*, in 2000, there were 40,867 clinically active psychiatrists in the United States, an increase of 4.3 percent since 1996 (see table 20.1). If this trend continues, the total number of clinically active psychiatrists in 2004 would be more than 42,000. According to the American Psychiatric Association's *Annual Census of Psychiatry Residents* (2001), the number of medical school graduates in psychiatric residencies has remained relatively constant or decreased slightly in the 1990s. However, it is difficult to characterize precisely the trends in residencies or make projections given changes in data sources and methodologies since 1999, described in more detail later in this chapter.

Changes in the field of psychiatry will continue to have an impact on the psychiatric workforce in the foreseeable future. Particularly, changes in treatment, technological advances, the systems of mental health care, the number of medical students choosing to specialize in psychiatry, the number of international medical graduates in psychiatry, and demographic changes in the field will be continuing influences on the psychiatry workforce of the future.

Treatment and Technological Advances

Recent treatment and technological advances in psychiatric practice may influence both the supply of and the demand for psychiatrists' services and the roles they may play in the near future. New advances in psychopharmacology for the treatment of most major mental illnesses and the increasing numbers of Americans using psychotropic medication (Olfson et al., 2002; Pincus et al., 1998) suggest there will be an increased need for psychiatrists, who are the only specialty mental health providers licensed to prescribe pharmacological treatments in all States in the United States, with the current exception of New Mexico. In part, the increased demand for psychopharmacologic treatment is attributed to the rise in direct-to-consumer advertising of these products (Goldman and Montagne, 1986; Nikelly, 1995). Additionally, new pharmacological treatments for addictions that allow for office-based treatment, such as buprenorphine for the treatment of opiate addiction, may increase the role of psychiatrists in treating these disorders.

Advances in neuroscience and genetics, along with such technology as brain imaging and vagal nerve stimulation, have significant implications for changing the practice of psychiatry in future years. For example, research currently is being conducted to examine the potentially beneficial effects of the use of vagal nerve stimulation in the treatment of depression and anxiety. Advances in information technology are also providing new mechanisms to render treatment.

Changing Systems of Care

Over the past decade, the specialty mental health system has undergone substantial changes in the organization, delivery, and financing of care. As with other medical specialties, psychiatric services in both the private and public sectors have increasingly shifted from unmanaged fee-for-service reimbursement to virtually all mental health and substance abuse treatment services being subject to some form of fee management. According to the report from the *Yearbook of Managed Behavioral Health Market Share in the United States, 1999–2000*, the majority of privately or publicly insured

Americans are enrolled in some form of managed behavioral health plan (Findlay, 1999).

The current dominance of managed care in the mental health system has changed psychiatric practice in several ways and has been associated with increased time devoted to paperwork and administrative activities related to dealing with patient health plans and insurance (Suarez, et al., 2001). Increased use of nonphysician providers; use of gatekeepers; more limited ability of psychiatrists to provide long-term psychotherapy; policies promoting psychiatrists' provision of medication management only, with psychotherapy being provided by other professionals; more limited access to high intensity inpatient services; and lower negotiated fees with potential loss of income have been the major consequence of the system changes for psychiatrists and their patients (Beinecke, et al., 1997; Findlay, 1999; Frank and Brookmeyer, 1995; Goldman, et al., 1998; Ma and McGuire, 1998; Mechanic, et al., 1995; Minden and Hassol, 1996). Increased management of psychiatric services could potentially influence psychiatrists' choices in joining managed care network panels and thus the supply of psychiatric services for in-network users of services (Short, et al., 2001).

Private insurance plans rarely have offered parity in their mental and physical health benefits, with users of mental health services paying higher co-pays and facing limits on outpatient visits and inpatient days. Parity mandates, meant to decrease discriminatory coverage and increase access to mental health services, have been recently passed by many States and on a Federal level for the Federal Employees Health Benefit Program. The introduction of parity mental health benefits has been accompanied by increased management of mental health benefits, and as a result, the financial impact of parity has thus far been small (Hennessy and Goldman 2001; National Advisory Mental Health Council Final Report to Congress 2000; Strum, 1997, 1999; Zuvekas et al., 2002). However, the disincentives for psychiatrists to participate in specific health plans, as noted above, may limit access to the parity benefit for persons needing services, particularly because in most plans parity-level benefits are only available from clinicians who participate in managed care networks. As a result, the complex interactions of cost-containment care management and financing strategies, treatment provisions (particularly access to psychiatrists and other mental health professionals), and quality and outcomes of care need to be monitored in the future.

Additional changes in the delivery and organization of systems of care may result from the terrorist attacks of September 11, 2001. The events of that day, and the continuing threat of more attacks, suggest that providing disaster psychiatry services may become an area of specialization for more psychiatrists. The near future may bring an increase in providing rapid response crisis intervention and in coordinating across different sectors of the mental health system.

Training Issues

One of the most important factors affecting the psychiatric workforce in the next five years will be the number of medical students who select psychiatry as their specialty for residency. Training trends are somewhat mixed and difficult to interpret. According to the American Psychological Association's (APA) *Annual Census of Residents* (1990–1998), there was a gradual decline in the number of residents through the 1990s. The APA survey collected data from ACGME-accredited programs in addition to non-ACGME-accredited fellowships, such as consultation-liaison, research, and other post-residency programs. However, beginning in 1999, the APA teamed with the American Medical Association (AMA) to collect the AMA GME Resident Survey, which targeted ACGME-accredited programs only, resulting in a decrease due to changes in methodology. Thus, at this point, determining the magnitude of the change in the number of psychiatric residents is difficult, although there may have been a modest decrease over the past three years.

Another major trend is the growth in the numbers of psychiatric residents who are international medical graduates (IMGs). The percentage of psychiatry residents who are IMGs grew from 23 percent in the early 1990s to approximately 40 percent in 2000–2001 (American Psychiatric Association, 2001). IMGs often work in rural and inner-city areas that many U.S. medical graduates avoid. Thus, they fill an important niche in the psychiatry workforce. However, recent policies may decrease the numbers of IMGs entering the workforce; in fact, according to National Resident Matching Program (NRMP) findings, there has been a 10 percent decrease in IMGs matching into psychiatry since 1998. First, in addition to passing the U.S. Medical Licensing Exam (USMLE), IMGs now must also pass the Clinical Skills Assessment exam, administered just once a year in Philadelphia. The added testing burden may decrease the number of IMGs

entering U.S. residencies: IMG registrations for the USMLE dropped from 36,000 in 1997 to 15,000 in 2000. The decrease has been projected to result in about 6,000 fully qualified IMGs available for all specialties, less than half the current number of 15,000 (American Academy of Child and Adolescent Psychiatry, 2002). Additionally, stricter visa laws as a result of the events of September 11 could lead to further difficulties for IMGs and further reduce the number of psychiatrists entering the workforce. These factors may have contributed to the decrease in the number of IMGs who will begin psychiatry residencies from about 382 in 2001 to 337 in 2002.

However, offsetting the potential decreases in the number of IMGs is the recent increase in the number of U.S. medical graduates who are choosing psychiatry as a specialty. According to NRMP findings, from 2000 to 2002, the number of U.S. medical school graduates choosing psychiatry has risen from 51 percent of positions filled to 65 percent of positions filled. This trend may be related to the decline in the so-called "generalist" trend of U.S. medical school graduates specializing in primary care and an increase in the demand for specialists, including psychiatrists (Sierles, 2002). The continued declines in the number of graduates choosing primary care may lead to continued increases of U.S. medical school graduates specializing in psychiatry, partially offsetting the losses of IMGs.

The shortage of child psychiatrists and geriatric psychiatrists continues to be a major problem facing the psychiatric workforce. Currently, fewer than half of children and adolescents with mental disorders receive any kind of mental health services (U.S. Department of Health and Human Services, 1999). The number of child psychiatrists in training has remained flat over the past 5 years (APA, 2001). Meanwhile, the expected demand for child psychiatric services is expected to increase by 100 percent by 2020 (U.S. Bureau of Health Professions 1999). Without an increase in the number of trainees, the child psychiatrist shortage will grow into a major health care crisis. Similarly, as a larger proportion of the population becomes elderly, the number of geriatric psychiatrists required to serve this group will need to grow as well. The number of geriatric psychiatrists currently is in short supply, and 1,221 academic psychiatrists are estimated to be needed in the next 10 years to train new practicing geriatric psychiatrists (Reuben et al., 1993). Even with a significant increase in the number of trainees in geriatric psychiatry in the next 10 years, it is likely that the shortage of geriatric psychiatrists could also grow into a health care crisis.

Demographic Changes

Continuing demographic changes in the psychiatric workforce are expected. Whereas the majority of psychiatrists are men, a significant increase in the number of women in the field has occurred within the past five years (Center for Mental Health Services, 2001). We expect this trend to continue because nearly 50 percent of psychiatry residents in the past five years have been women (APA, 2001). There has also been a dramatic increase in the number of psychiatrists over the age of 65. In the years 1989 to 1998, the number of psychiatrists over age 65 per 100,000 persons in the United States increased by nearly 40 percent (APA, 1998). These trends may exacerbate the decrease in the psychiatric workforce because both women and older psychiatrists tend to work fewer hours than their male and younger colleagues (Zarin et al., 1998). As the number of psychiatrists approaching retirement age continues to grow, a shortage of psychiatrists could result unless the number of medical school graduates choosing psychiatry as a specialty continues to increase.

The ethnic composition of the psychiatric workforce is largely Caucasian. Although Asian psychiatrists are overrepresented in the psychiatry workforce as compared with the general population, the numbers of African-American psychiatrists and Hispanic psychiatrists continue to be underrepresented. The 1999 Surgeon General's report on mental health emphasizes the need to recruit providers who are likely to serve minority communities (HHS, 1999). Because the ethnic composition of the psychiatry workforce is not expected to change dramatically in the near future (in fact, the number of minority residents in psychiatry has decreased slightly in the past five years), the Surgeon General's goal to increase this group of mental health professionals seems unlikely to be realized.

Conclusion

Over the past decade, technological and treatment advances and changes in the organization, delivery, and financing of mental health care have changed the roles that psychiatrists play in existing systems of care. Additionally, trends in the number and demographics of medical students who choose psychiatry as a specialty have begun to alter the size and composition of the workforce. The full effect of these changes on the psychiatry workforce will continue to unfold in the next few years.

Psychology

Similar to the other professions in this chapter, the next five years will be a time of both opportunities and challenges for psychology and its health practitioners. As reported in chapter 21 of this volume, the number of doctoral-level psychologists trained to provide direct services exceeded 88,000 in 2002, with nearly three-quarters of this group actively engaged in service delivery activities. Because of the abundance of factors likely to affect those involved in physical and mental health-related teaching, research, administration, and care, only a handful will be discussed in the following paragraphs. These include the composition and growth of the doctoral-level workforce, the changing work environments for psychologists, and the implications of recent societal trends that affect both how professionals are trained and their delivery of services.

Changes in the Workforce of Doctoral-Level Psychologists. The size of the mental health workforce trained to provide clinical services, including the pool of doctoral-prepared psychologists, has dramatically grown over recent decades. For example, in 1989, the estimated number of clinically trained psychologists was 56,530 (Dial et al., 1990), but as of 2002, this number had grown to 88,490 (Duffy et al., pending). This expansion in the pool of health service practitioners, along with the growth in managed care and changes in mental health financing, has exerted pressure on psychologists' salaries, benefits, and practice patterns (Pingitore, et al., 2001; Williams, et al., 1998). Consequently, there has been growing debate concerning whether there is a need to "rightsize" the workforce and, if so, how it should best be conducted (e.g., Oehlert and Lopez, 1998; Peterson and Rodolfa, 2000; Pion, et al., 2000; Robiner and Crew, 2000). These debates likely will continue, and training programs have already begun to look seriously at whether changes in how students are trained should be considered (e.g., Kruse and Canning, 2002; Murray, 2002).

Changes in the composition of doctoral psychologists also have occurred. Although not unique to psychology, its workforce is aging. Across all areas of psychology, the percentage of psychologists age 50 years and older has increased from 27 percent in 1987 to 42 percent 10 years later (National Science Foundation, 1988, 1999). This trend is even more pronounced among those trained as health services providers. Whereas the median age was 44.2 years in 1989, it was 50.0 years in 1999 (see chapter 21 in this volume). This graying of the workforce has certain noteworthy implications, particularly given the combination of market and other societal forces operating. Currently, obtaining a psychology doctorate typically takes seven years of study, along with postdoctoral training in some subspecialities (e.g., clinical neuropsychology). Partly because of shrinking Federal sources of support, clinical psychology students also have been significantly more likely to rely on loans to finance their doctoral training and thus graduate with higher debt burdens (Rapoport, et al., 2000). Managed care has reduced income and placed other constraints on the delivery of services (Pingitore, et al., 2001). If talented individuals begin to view a career in psychology as having more costs than benefits, this may negatively affect the ability of psychology to replenish its pool of trained health practitioners.

Another major change in the composition of psychologists is with regard to gender. During the past few decades, women have replaced men as the majority among new doctorates (67 percent of 1998 Ph.D.s), and the discipline has nearly reached parity in terms of health service providers, where women accounted for 48 percent of all clinically trained psychologists in 1999. The changing gender composition has been discussed in terms of what this may imply for occupational prestige (which has an impact on the attractiveness of the discipline) (Pion et al., 1996) and salaries among practitioners (Sentell, et al., 2001). Other implications also need to be examined in terms of decreasing accessibility and services to certain populations (e.g., employment in veterans' hospitals or other settings in which noticeable fractions of clients may seek a same-sex provider).

Shifts in Client Needs and Services Settings and the Implications for Training. The expectation that clinical, counseling, and other health service practitioner training emphases and practices may change also is based on documented gaps in underserved populations and societal trends. There is a growing need for psychologists and other mental health professionals to provide services to older Americans (Gatz and Finkel, 1996). Although predoctoral and postdoctoral training opportunities are increasing, more expansion is needed (Hinrichsen, et al., 2000). This is also the situation for several other areas in psychology, including the treatment of individuals with serious mental illness, clients in rural areas, children with mental health problems, underrepresented minorities, and individuals in primary care settings (see, e.g., Levant et al., 2001; McDaniel, et al., 2002; Mulder et al., 1999). Moreover, the body of knowledge on the etiology and treatment of mental

health problems is rapidly growing, along with the involvement of psychologists in additional service activities (e.g., prescription monitoring). It is likely that attention will continue during the next decade to address these needs through changes in training. The challenge will be to address and satisfy these additional training needs not only in biological factors, psychopharmacology, and evidence-based interventions but also for special populations. Complicating this situation is finding training strategies that will neither impose additional requirements on the already "packed" curricula of doctoral training programs, demand extensive resources at a time when academic environments are faced with several other competing demands, nor substantially increase the length of training (already between seven and eight years, excluding postdoctoral study).

Advances in Telecommunications and Information Technologies. The rapid advances in technology also carry with them several potential changes in how the discipline's practitioners operate. During the past decade, several new telecommunication and information technologies have been introduced, which can aid in several areas. Telehealth—the applications of these tools to the delivery of services—is viewed as both a way to increase access and to improve the quality of care, particularly to individuals in underserved rural and urban areas. Already, psychologists have become key participants in developing, using, and assessing the effectiveness of these technologies. Some examples include using video conferencing to conduct interdisciplinary assessments of children with traumatic brain injury; employing telehealth systems to extend services by linking inner-city school nurses with pediatricians and behavioral specialists; and conducting research to determine the effectiveness of home-based versus standard office-based counseling (Wasem and Puskin, 2000). Because little is yet known about how telecommunications affects consumers, providers, and payers of health services, the APA has established a Task Force on Professional Practice Issues in Telehealth to evaluate the available information and develop recommendations on research directions, ethical issues, and risk management strategies. The Association also is developing a tool for consumers to use in evaluating mental health Web sites, with the aim of helping both consumers and practitioners better understand and manage a "networked" health system (Nickelson, 1999). Finally, computer technology holds the promise of improving the ability to gather outcome data. This, in turn, can make it easier for psychologists not only to work with managed care companies and document changes in their clients but also to facilitate studies that demonstrate the cost-effectiveness and value of behavioral interventions by integrating hospital data on client functioning, medical claim information from insurers, and patient demographics.

Social Work

Social workers are participating in an evolving, dynamic labor arena as the social work profession enters its second century. In addition to the tradition of services grounded in "charity" work and social services, clinically trained social workers are now in a wide range of settings providing a continuum of services that acknowledge the changing landscape of the population and its needs—from technology-based counseling to genetics counseling to inclusion of spiritual considerations. This diversity of services reflects both the changes in practice settings over the past two decades and the anticipated changes in the coming decade.

The social work workforce is also changing. The profession is growing at both ends of the aging continuum, with decreasing numbers in the middle adult age ranges. During the next five years, an increase in younger social workers is expected. Although the percentage of social workers under age 35 is expected to increase only slightly in the next five years, the percentage of these younger social workers, both male and female, has doubled since 1989.

The outlook is different for middle-aged (ages 40 to 54) social workers, whose numbers are expected to decline dramatically during the next five years. The steady and rapid increase in the percentage social workers over age 55 is expected to continue.

Overall, the percentage of male and female social workers has remained constant since 1989, averaging 23 percent male and 77 percent female. In five years, this ratio will shift only slightly to 20 percent male and 80 percent female.

The racial and ethnic diversity of the social work profession is expected to remain stable, with White social workers making up 87 percent of the profession, African-American social workers making up a little over five percent, Hispanic social workers making up 3.5 percent, Asian/Pacific Islanders making up 1.3 percent, and American Indian/Alaskan Native social workers making up fewer than one percent. The biggest increase is expected in social workers who identify as multiracial, a category which has nearly doubled since 1989.

Future of Social Work

According to the U.S. Department of Labor, Bureau of Labor Statistics (2002), social workers held 468,000 jobs in 2000 and are projected to hold 609,000 jobs in 2010—a 30 percent increase during a 10-year period. The employment outlook for social workers is quite strong; however, shifts are projected in practice settings and service delivery methods. Over the next six years, employment in the social work field is anticipated to grow at a faster rate than average for all occupations. A number of factors contribute to this growth, including the aging population with its varied health and service needs, concerns about crime, the AIDS epidemic, welfare reform, violence, child abuse and neglect, family and individuals in crisis, risks of terrorism and bioterrorism, and economic insecurity.

Since 1986 nearly one of every nine new jobs created has been in health occupations. That trend is expected to continue through the next decade. Social workers employed in diverse settings are likely to see increasing demands for their services. According to the Bureau of Labor Statistics (U.S. Department of Labor, 2002), growth in home health care services will continue because of changes in hospital operations, earlier patient discharges, and increased numbers of people with disabilities needing assistance in day-to-day functions. The social work profession will experience a shift away from social worker services in hospital settings because of the changing nature of hospital care and the increase in nursing case management services. We can anticipate a push toward briefer services—crisis and acute orientation compared with chronic and extended services—in line with the climate of managed care. Increasingly, social workers will be challenged to "follow the client" to deliver services. This is a departure from traditional social work practice, which emphasized the agency as the focal point of service delivery. Social workers will still be relied on to provide coordinated care, case management, and advocacy to clients with chronic health care needs, but they will need to be aggressive and innovative in serving these clients in a variety of settings. Social workers also could become valuable partners in primary care settings—meeting the behavioral health care needs of patients to improve overall health outcomes.

School social work is another area with anticipated growth in response to concerns about teenage pregnancy, violence, immigrant adjustment, integration of children with disabilities into the general school population, and issues that relate to families in crisis. In addition to assisting students with these concerns, social workers also will be called on to consult with teachers and faculty about classroom management, bullying, substance abuse risk factors, and safety issues. School social workers will play key roles in monitoring and improving the quality of learning atmospheres.

In the behavioral health care arena, the Bureau of Labor Statistics also predicts there may be some expansion of social workers in private practice with patients willing to pay for their services out of pocket and contractual opportunities providing employee assistance program (EAP) services. Community agencies will continue to be resources for those who rely on publicly funded and accessible mental health and substance abuse services. Employment of social workers who are addictions professionals is expected to grow as the demand for treatment programs is expected to increase. New initiatives that focus on treatment versus incarceration for first time nonviolent offenders and the co-occurrence of mental health and substance abuse will create further employment opportunities in this field. In addition, studies have demonstrated increased demand for alcohol and drug abuse treatment and prevention services in the wake of terrorist activities and natural disasters (Bateman, 2002).

With the rapid advances in technology, social workers must integrate technology skills into their practices. In addition, technology will affect the way services are delivered, opening up additional opportunities for social work practice in the next decade—particularly in serving institutionalized populations, people with limited mobility, and isolated populations. Social workers in behavioral health will need to be active in debates regarding client privacy as well as be diligent about understanding telehealth services and text-based Internet counseling. Group modalities will be more accessible and cost-efficient with the assistance of technology. Social workers will need to become well-versed in the challenges and opportunities new technologies present. Private practitioners will need to ready themselves to transmit services in new ways, while community-based social workers will need to examine the impact of the "digital divide" on populations denied technological access.

Occupational social workers are likely to see increasing demands for EAPs in corporations. Corporations also are likely to use social workers in managing organizational dynamics, such as downsizing, culture change, and team building.

Consistent with the growth in the aging population, longer life spans, and subsequent service

needs, *U.S. News Online* predicts gerontological counseling as a hot career track in this decade (Gerontological Counselor, 1999). With the aging of the baby boomer generation and the lengthening of life spans, both the number and proportion of older people is rapidly increasing. Many of the health-related problems that contributed to decreased life spans have been defeated. Yet, this same achievement presents new challenges in meeting the social, environmental, psychological, economic, and health care needs of older individuals (National Association of Social Workers [NASW], 2002). Social workers also will be needed to assist with the projected expansion of services in chronic illness, end-of-life care, and bereavement counseling.

Competition for social work jobs will continue to be tighter in cities, whereas rural areas will still struggle to attract and retain qualified social workers. Within the profession, the demands for expertise in specific practice areas has recently resulted in three post-MSW specialty certifications in school social work; case management; and alcohol, tobacco and other drugs, being offered by the National Association of Social Workers, the largest membership association for professional social workers.

Over the next five years, the social work workforce will simultaneously grow younger and older. This shift at both ends of the aging spectrum will present a variety of new opportunities and challenges for the profession. An increase in the number of professionals under age 35 will ensure social work's continuity in providing services through the next generation. In addition, these social workers are more likely to be fluent in new technologies that are likely to be in demand in the coming years. A younger workforce may be more willing to explore the interface of technology with traditional social services delivery and counseling in ways that the current generation has not. However, the expected decline in middle-aged social workers may create gaps in the training and supervision of new professionals. It will be important for the profession to identify ways to replace mentoring and supervision opportunities in the coming decade.

Nursing

Introduction

Psychiatric Mental Health (PMH) nursing is in a period of exciting expansion as new roles evolve to meet the complex needs of clients. Although many PMH nurses work in specialty mental health settings, such as mental health clinics, psychiatric inpatient facilities, and private practice, PMH nurses are increasingly practicing in diverse settings within the health system, including primary care, long-term care, schools, and many other community sites. In the nineties, there was a sharp increase in the graduate preparation of psychiatric nurse practitioners and regulation changes granting prescription privileges for advanced practice nurses. Because of their training and skill base, these PMH nurses are uniquely qualified to address the needs of health care systems that demand clinicians integrate their physical health care knowledge base with specialty mental health knowledge. The expansion of PMH roles that embrace a blending of therapeutic and neurobiological interventions creates a workforce that is well suited to the evolving paradigm of mental illness and new models of health care delivery.

Trends in the PMH Workforce: Five-Year Projections

In many respects, the evolving PMH-advanced practice nurse (APN) workforce is likely to be more diverse than the existing group of PMH-APNs. A persistent problem in psychiatric nursing has been the low percentages of men and minority practitioners. The percentage of white practitioners hovers around 95 to 96 percent but is likely with special recruitment incentives to improve to better reflect the Nation's population. Initiatives targeted to attract men to psychiatric nursing have increased, and though only slightly, the percentage of men in the field has increased.

Although the prospects for improving mental health care throughout the health care system have never been higher, several constraints limit the potential of PMH nurses to join fully in this effort. One potential restraint may be the size of the PMH workforce. In 1996, the country had the largest number of psychiatric nurses ever employed, mostly because of the larger number of individuals prepared in graduate programs in earlier years who are still practicing. Similarly, there is a trend toward more of these nurses being certified. However, as illustrated in table 1, despite increases in the number of employed psychiatric nurses and an increase in the number of those who have received graduate degrees in psychiatric nursing, the decline in graduations and a decrease in the percentage of

the workforce in younger age groups will result in fewer APNs available in the future.

Approximately 65 percent of the 17,000 PMH-APNs are over the age of 44. Unfortunately, the number of new graduates from PMH programs will likely be insufficient to maintain the needed numbers of new PMH-APNs. The number of graduations from any type of graduate program in psychiatric nursing has been steadily declining since at least the late seventies (Merwin and Fox, 1999). This low enrollment may be attributed in part to the popularity of nurse practitioner education over the past decade and to limited funding for graduate education in psychiatric nursing. Fortunately, several factors occurring in the educational arena may mitigate this trending down of the size of the PMH workforce (Delaney, et al., 1999).

Opportunities and Challenges

In the near future, the role preparation of new graduates from PMH masters programs is likely to trend toward Nurse Practitioner. Last year, the American Nurses Credentialing Center (ANCC) initiated the first national certification exam for psychiatric Nurse Practitioners (NPs). Although approximately 22 percent of enrollees in graduate education in psychiatric nursing are prepared for the NP role, before this year, they had no option for a PMH-NP certification, the key to State-by-State title recognition and often to reimbursement. The lack of a certification exam for PMH-NPs may have hampered the growth of psychiatric nursing graduate programs.

This certification exam, which will open up the possibilities of the NP role for PMH-APNs, has several implications. In the nineties, the number of programs preparing NPs doubled from 210 in the early nineties to 527 by mid-decade (Harper and Johnson, 1998). That popularity is due to the potential for independence, contact with clients, and income. Thus, it is anticipated that PMH nursing will witness the growth experienced by other nursing specialties. The new certification exam may prove to be an attractor to the graduate PMH-NP programs.

Another opportunity for growth resides in the shift to online education in graduate programs. At the current time, there are five programs that offer a complete online PMH graduate degree. Reports from three of the five indicate a tremendous growth in their enrollment. Further, one of the five has used Web-based education to provide training to remote areas in the State of Washington. Combining Web-based courses with teleconferencing, the program allows students to train in place, often hundreds of miles from campus. This educational tactic has the potential to address not only the enrollment issues but also the problem of geographic maldistribution, training students who will be more likely to remain in the more rural areas of a State.

The skills of these graduates would mesh well with the needs of the mental health care delivery system. The clinical skills of the 21st-century mental health practitioner include an emphasis on brief treatment, psychopharmacology, and interventions in primary care settings (Hoge, et al., 2001), which are the very basics of the PMH-NP program. Their training in physical assessment, coupled with their broad medical background, will assure that PMH-NPs will be well prepared to work in primary mental health care. The traditional interpersonal roots of the advanced practice psychiatric nurse are preserved in these programs, thus creating a clinician that can manage the neurobiological emphasis of treatment, manage pharmacological issues, and provide a range of therapeutic interventions.

These skills are particularly useful in the care of the older adult with mental illness. In a study of mental health service use by older adults, APNs were found to be providing mental health services to the poorest and oldest of the old (Hanrahan, 2002). The growth of the American population over age 65 over the next 30 years poses a serious public health problem (Halpern, 2001). The mental health needs of older adults is complicated by acute and chronic medical conditions that increase with age. For example, adults 75 and older have three or more medical conditions. By age 80, three of four older adults have a disabling condition (Alliance for Aging Research, 2002). Older adults, on average, use five or more medications (National Council on Aging, 1999). Inappropriate use of prescription drugs by older people costs $20 billion per year. According to the National Center for Health Statistics, medication problems may be involved in as many as 17 percent of all hospitalizations of older persons annually (Broskowski and Chalk, 1998). Undoubtedly, for the older adult population, a clinician with a medical background and advanced training in the neurobiological aspects of mental health issues is best prepared to meet their complex mental health needs.

The acknowledged shift of mental health treatment in primary care has expanded to recognize that mental health treatment needs to be tailored to communities of people and to work within and through these groups and their connections (Cotroneo, et al., 2001). The familiarity of psychiatric

nurses with clinical practice throughout the health system, supported by their generalist education, supports their quick assimilation in positions in a variety of settings and with all types of clinical populations. Experience in community health will support establishing new roles in different types of community settings.

The speed with which this increased visibility in diverse settings occurs will be influenced by the availability of adequate reimbursement for psychotherapy and other third-party reimbursable services. It also will be influenced by the availability of resources for public and private organizations to employ these nurses. Psychiatric nurses with advanced degrees and national certification qualify for Medicare reimbursement since the Balanced Budget Act of 1997. However, reimbursement by managed care or other private insurers and State Medicaid programs varies. Regulatory variability among State insurance laws and Nurse Practice Acts confuses the authorization of the practice of these nurses, which, in turn, causes limitation in reimbursement from the private sector (i.e., managed care) and, in some States, Medicaid reimbursement. Uniformity of Federal and State regulation of psychiatric nurses in the advanced practice role will standardize reimbursement, facilitate the availability of PMH-APNs in diverse settings throughout the specialty mental health and general health care settings, and ensure the future of this workforce.

Counseling

As will be noted, counseling as a profession has had a very rapid growth. Future trends would seem to indicate that this growth pattern will continue.

Degrees Held by Counselors

With counseling's emphasis on practice (73 percent as primary focus vs. 0.4 percent involved in research), most professional counseling organizations continue to be dominated by master's level practitioners (Hollis and Dodson, 2000; Peterson et al., 2000). Of the more than 51,000 members of the American Counseling Association (ACA), 68 percent are master's level practitioners (Sexton, Bradley, and Smith, 2001). Doctoral level practitioners account for only 17 percent of ACA membership. The remaining numbers are distributed between an estimated five percent who hold bachelor's degrees (they are not considered professional members) and others who may not have completed every blank in the survey or for other miscellaneous reasons are not identified.

These figures also correspond closely to results of a survey of licensed professional counselors by Sexton et al. (2001). This pattern reflects the ratio among current counseling students, with 94 percent pursuing a master's degree compared with only six percent at the doctoral level (West et al., 2000). This trend among current students suggests that in the next five years the ratio of master's level to doctoral level training among counselors should not be expected to alter significantly.

Gender

The gender disparity among counselors, with the vast majority being female, appears to be a continuing phenomenon. In 1996, of the 96,263 counselors trained in the United States, 71 percent (68,126) were female and only 29 percent (28,137) were male (Clawson, et al., 1996). Though the over-

Table 3. Graduations from NP, advanced clinical practice, and teaching programs

Year	Advanced clinical practice	Teaching	NP	Total
1991	492	46	47	585
1992	425	32	53	510
1993	404	54	64	522
1994	469	29	70	568
1995	418	2	95	515
1996	324	19	100	443
Total	2,532	182	429	3,143

Source: NLN data.

Table 4. Changes in characteristics of master's-prepared psychiatric nurses, 1988–1996

	Employed	Graduate degrees	% Not working	% Part-time	% Men	% Under 35	% White	% Outpatient MH clinic
1988	10,567	13,045	19	27	4.2	18	96	15.4
1996	15,330	17,318	11.5	26	6.9	5	95	7.8

Source: Center for Mental Health Services, 2001.

all number of counselors increased by the year 2000, the gender ratio remained consistent with 72 percent female and 28 percent male (West et al., 2000). These estimates are similar to data from the National Board for Certified Counselors (NBCC) and ACA membership, which estimate women currently represent approximately 70 percent of counselors practicing today (West et al., 2000).

More encouraging is that this gender gap does not reappear within the client population these counselors serve. Though the vast majority of counselors are women, their client population is fairly mixed (55 percent female in organizational settings; 45 percent male in organizational settings, with similar numbers in private practice settings) (Sexton et al., 2001). This suggests that the dominance of female counselors does not appear to be problematic for men seeking counseling. The data suggests that in the future the gender disparity will remain consistent among counselors as will the even gender distribution among clients.

Age

The field of counseling appears to be beginning a youth movement. In 1995, 11.5 percent of counselors were under age 35 (Peterson et al., 1996). In 2000, this percentage had swelled to 16.3 percent, which is a desirable trend, considering approximately 43 percent of all counselors are between the ages of 45 and 60 (41.7 percent in 1995 and 51.2 percent in 2000) (West et al., 2000). In next 10 years, the large number of vacancies resulting from retiring counselors should readily be filled by the increase in the number of individuals graduating with counseling degrees.

Multicultural Issues: Counselors and Clients

For a better understanding of where counseling will be in the future, it is important to look at trends within the U.S. population. "During the 1990's, the combined populations of African Americans, Native Americans, Asians, Pacific Islanders, and Hispanics in the United States grew at 13 times the rate of the non-Hispanic White population, although non-Hispanic Whites still make up 69 percent of the U.S. population" (Indiana University Foundation in the 21st Century, 2002). A comparison of 1990 and 2000 U.S. Census Bureau data confirms this trend (U.S. Census Bureau, 2000).

Caucasians represent approximately 83 percent of counselors currently practicing, whereas African-American counselors comprise 4 percent and Latinos 2 percent (West et al., 2000). If we compare data from *Mental Health in the United States, 1996* and *2000*, we can see a gradual, slow movement toward a more diverse field (Center for Mental Health Services, 2001). In 1995, Caucasians represented 90 percent of all counselors. In 2000, the number of Caucasians was approximately 80 percent. Equally of concern is that the ethnic disparity among counselors is also represented among those who seek counseling. Recent data suggests that approximately 83 percent of all clients are Caucasian (Sexton et al., 2001; West et al., 2000).

The ethnic disparity among counselors and clients represents a major obstacle for the future. In the next 10 years, as the American population continues to become more diverse, we should expect multicultural issues to have an impact on all aspects of counseling. This impact will be most prevalent in efforts including recruitment, community outreach, and issues of multicultural training. Further, such efforts are expected to result in slow, but steady, progress to achieving a more representative field.

Training and Licensure

Training. Counseling programs have rapidly developed over the past 20 years. In the 1980s, the number of individuals receiving graduate degrees in counseling stabilized around 10,000 (Peterson et al.,

1996). By the year 2000, the number of graduates in counseling had doubled to more than 20,000 (West et al., 2000).

Not surprisingly, with this increase in counseling students, there has also been a major increase in the number of higher education programs in counseling. The period of 1990 to the present has shown a tremendous growth rate for counselor training programs. For example, from 1990 to 1993, the number of entry-level counseling programs increased by 81 percent and doctoral programs by 48 percent (Peterson et al., 1996). By 1995, there were 450 entry-level counseling programs. The increase in counseling programs remains a robust trend today, with more than 500 entry-level counseling programs in the United States (Hollis and Dodson, 2000).

In the next five years, the growth of counseling training programs is expected to continue, though at a much slower rate than the expansion during the 1990s. Further, with an increase in the number of programs available, we should also expect to see an increase in efforts to confirm quality standards of these programs. In the next 5 to 10 years, this should result in an increased emphasis on achieving accreditation by organizations such as Council for Accreditation in Counseling and Related Programs (CACREP).

Licensure. Measured by the number of States with established credentialing statutes for counselors, counseling, as a profession, is a recent phenomenon. In the past decade, the increase in the number of accredited counseling training programs and in the recent counseling graduates has aided efforts at recognizing counseling as a profession. In 1992, 37 States and the District of Columbia had licensure or certification for counselors. In 1995, 41 States and the District of Columbia had licensure or certification (Peterson et al., 1996). Currently, 46 States and the District of Columbia have passed licensure and certification laws for master's level practitioners.

These trends suggest that government has begun to view counseling as a viable, independent profession. In the next 10 years, it is feasible to say that all 50 States will have licensure or certification for counselors.

Specialization

A trend toward deeper, more meaningful specializations exists currently within counseling. Within universities and continuing education programs for counselors, there has been a continual demand for classes involving marriage and family counseling, substance abuse treatment, career, and counseling ethics (Hollis and Dodson, 2000). The 1996 Human Resources in Mental Health guide reported an 81 percent increase in programs involving community mental health, 62 percent in rehabilitation counseling, and 240 percent in marriage and family. In the next 5 to 10 years, the popularity of these specialties is expected to increase. Further, as interest in these programs continues to expand, the need for additional, specific training and licensing standards should also increase.

Special Issues

Technology. Counseling has been, and will continue to be, heavily influenced by technology. Although there was a drop in scholarly articles about computers and counseling in the early 1990s, today computers have become a commonplace and efficient tool in many aspects of counseling, including training, record keeping, communications, and therapy (Granello, 2000; Walz, 1997).

Although there are no exact numbers of counseling services available online, all indications suggest that the field is rapidly expanding. Sussman (1998) mentions that on just one Web site, Metanoia (at www.metanoia.org), one can find more that 80 sites that offer various forms of Webcounseling. More indicative of this expansion is the attention it has drawn from the ACA and the NBCC regarding ethical concerns of counseling via the Internet.

In 1997, the NBCC stated, "NBCC's goal in creating standards for counseling over the Internet is to curtail unprofessional growth of the technique. We could not investigate ethical inquiries without an official position for use. And, to simply say that it is unethical to practice on the Internet is shortsighted in light of the rapid worldwide growth of Internet" (Attridge, 2000; Morrissey, 1997). Similarly, in October 1999, the ACA Governing Council released the latest ACA Code of Ethics and Standards that outlined the standards for Webcounseling (American Counseling Association [ACA], 2002b).

In addition to the increase in therapy occurring over the Internet, it is also estimated that by 2005, 90 percent of all colleges will offer at least 1 course online and that corporate training in e-learning will grow from 2.2 billion to 18.5 billion. In fact, *US News and World Report* listed 43 accredited colleges and universities that already offer graduate programs in education online (Charp, 2002).

Over the next five years, the merging of counselor education and technology is expected to increase, both in the number of counseling programs offered online as well as in the research to determine the efficacy of such training.

There are many cited advantages of computers, such as bringing services to geographically isolated areas, the physically disabled, or those who are apprehensive about being seen walking into a counselor's office (Attridge, 2000; Wall, 2000). However, several problems also exist that need to be addressed in the immediate future. Issues of accessibility, privacy/confidentiality, lack of human contact, and quality of counseling services or training over the Internet are going to be critical to the successful merger of technology and counseling (Granello, 2000; Wall, 2000). Further, a critical question to be answered in the future is, "How competent are counselors in the technology skills they possess?" Many authors have argued that counseling educators and students lack a high level of technological competence (Myers and Gibson, 1999).

The next 5 years should see an increase in efforts to ensure technological competencies and to develop methods to incorporate these skills within counselor training programs. Further, counseling will have to determine its unique role in the dissemination of computer technology to the public as well. "Perhaps the greatest challenge to our profession in the future is not only to exploit the benefits of the computer-counseling relationship but also to advocate for the use of computer technology by the society as a whole in ways that protect, rather than diminish, human freedom and dignity" (Granello, 2000).

Managed Care. Recent surveys suggest that most counselors view the impact of managed care to be negative (Daniels, 2001; Phelps, et al., 1998). One of the most critical complaints by counselors is the inherent ethical dilemmas that result. Issues such as informed consent, confidentiality, maintaining records, competence, integrity, human welfare, and conflicts of interests have been cited as particularly problematic issues (Daniels, 2001).

In the next five years, counselors' level of frustration is apt to rise as they personally experience the discrepancies between counseling ethics codes and managed care policies. Results from a national survey by Mead and colleagues (1997) suggest that 70 percent of the respondents were aware of occasional occurrence of such dilemmas.

Finally, managed care appears to be an area with which students coming out of graduate school training are not adequately prepared (Daniels, et al., 2000; Phelps et al., 1998). As a result of this deficit, the next 5 to 10 years should see an emphasis in training involving managed care issues. Though some debate exists regarding who is responsible for this training (graduate training programs vs. employers), the consensus appears to be that, in the immediate future, counselors in training need to be better informed of managed care organizational policies, procedures, and expectations.

National Security: September 11

During the cold war, national security had a tremendous impact on the field of counseling (Gibson and Mitchell, 1995). The post–September 11 culture in America could have a similar impact on the profession. For example, the demonstrated need for crisis counseling, both at the time of the crisis and to treat post-traumatic stress could well have an impact on the training of counselors in the coming years. The anthrax scare re-emphasized the importance of strong, reliable public health services at the State and local levels.

Public Policy. Future trends in training and advocacy for counselors and clients will include an emphasis on understanding and influencing public policy. Certainly in the past 50 years the counseling profession has, on an ad hoc basis, found it necessary to influence bureaucracies for change. Because global reliance of economies will continue to break down cultural, geographical, and national barriers to trade, services such as mental health will be seen as an economic trade factor. Just as counseling has been thrust into the American public arena, so it will gain growth globally. Early policy influence has not been studied; however, increase in public regulation and global expansion should herald the need for formal training in public policy.

Marriage and Family Therapy

With the rapidly changing social and political environment in the wake of September 11, 2001, it is difficult to portend the future of mental health care in the United States. However, the marriage and family therapy profession appears well positioned to address the growing demand in mental health services. Demographic data of the profession show gradual growth trends among licensed marriage and family therapists (MFTs) and MFT students.

In 2001, based on both American Association of Marriage and Family Therapy (AAMFT) membership and State licensing information, there were 47,111 clinically active MFTs. Trend data are available only for California licensees for 1998 to 2002. California licensure information is particularly relevant because it illustrates the fact that half of the clinically trained MFTs in the country are in that State. The rate of increase in the number of California licensees for those years was 7.1 percent (or 2.3 percent per year). National data from the *Mental Health, United States* also indicates a similar increase when the statistical anomaly of 1998 is removed. These data reveal a 4.3 reduction in MFTs from 1995 and 1998, but an increase of 6.1 percent between 1998 and 2001. Given the fact that the decrease in MFTs reported in 1998 is contrary to all other data and is likely an error in reporting, remaining data points to an estimated two percent yearly increase in MFTs. On the basis of the number of MFTs in 2001, and the past demographic information, an estimated 51,822 MFTs will be practicing in the United States in 2006.

Student MFTs reflect a slightly more aggressive growth rate. In 2000/2001 there were approximately 27,467 MFT trainees in the United States. This number is calculated on the basis of a sample of MFT training programs in California, registered interns in the State of California, AAMFT student and associate members, and students in Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE) accredited training programs. These data show an increase of 23 percent among students enrolled in COAMFTE accredited programs between 1995 and 2000 and a 26 percent growth among AAMFT student and associate members between 1997 and 2002. However, anecdotal data from California indicate that student enrollments may in fact have flattened. Therefore, after incorporating the fact that almost three-quarters of the MFT trainees are in California, we estimate an overall increase of seven percent. That means there should be an additional 1,923 MFT trainees in 2006, bringing the total to 29,390.

A weighted average of 25 percent was used to estimate the projected increase in MFT trainees in the next 5 years on the basis of the total number of MFT trainees in 2001. It is estimated that there will be an increase of 6,867 MFT trainees in 2006, bringing the total number of trainees to 34,334.

Demographic Trends

Age. The median age for MFTs in 1996 was 52 years old and increased slightly in 2001 to 53. In 2001, 65 percent of MFTs were older than 55, whereas in 1996, only 55 percent were older than 50. Further, the average number of years of experience for MFTs has increased from 13 years in 1996 to 16 years in 2001. In 2001, only 28 percent of MFTs had fewer than 10 years of experience. Although the age for practicing clinicians is on the rise, the opposite trend is occurring for trainees. In the 1980s, many of the trainees entering graduate school were mental health professionals who were returning for advanced degrees. Now, the vast majority of MFT trainees enter graduate school immediately following completion of their undergraduate degree.

Age trends have significant implications for the future of marriage and family therapy. If 75 percent of the MFTs who are older than 65 in 2006 retire, there will be a decrease of 17 percent (n = 7,964) of practicing MFTs by 2006. However, the number of incoming clinicians should more than cover these retirees, although the results will depend heavily on one of two possible scenarios relating to younger MFTs entering the field. The first scenario is if all the current trainees enter the field in the next 5 years, then there will be significant growth in the profession with an increase of 38 percent in clinically active MFTs; if the retirees are included in this calculation, the overall increase is still 21 percent. The second scenario, however, is if half of the students currently in training do not enter the field, then the overall increase will be reduced to 12 percent.

Race. MFTs are predominantly White, but there has been a gradual increase in the number of ethnic and racial minorities in the field. In 1996, 95 percent of MFTs were White with American Indian/Alaska Natives, Hispanics, and African-American each representing one percent of practicing MFTs. In 2001, 93 percent were White, two percent Hispanic, and the other groups represented one percent each. The concerted effort the field has made to increase the diversity of the profession seems to have generated improvements in the recruitment of minority students. In 2001, the percentage of minority students in COAMFTE Accredited programs was 22 percent. African-Americans, Hispanics, Asian-Americans/Pacific Islanders, and American Indians/Alaska Natives made up 8, 5, 4, and 1 percent, respectively. This increase in diversity among MFT trainees will translate into a more diverse marriage

and family therapy workforce; however, given that the minority trainees entering the field only represent less than 1 percent of MFTs as they enter, it will take many years before the distribution shifts significantly in the general MFT population.

Gender. There has been a significant increase in the number of women in the field of marriage and family therapy. In 1996, 55 percent were female, whereas in 2001 that number increased to 67 percent. The number of female trainees is also increasing. In 2001, 76 percent of female students were in COAMFTE-accredited programs. There does not seem to be a clear abatement of the inclusion of woman in the field.

Age and Race by Gender. The number of males in the field has dropped significantly since 1996, from 45 to 33.2 percent in 2001. The males in the field are also getting older. In 1996, 57 percent of male MFTs were over the age of 50. In 2001, 64 percent were older than 50. The diversity of the males in the field is also increasing, albeit slowly. In 1996, 95 percent of male MFTs were White, but in 2001, that number had dropped to 92 percent. The increase in female MFTs is likely to continue given that in 1996 they represented 55 percent of MFTs and in 2001 they represented 67 percent of MFTs.

Policies Affecting Future MFT Service Delivery

Although the marriage and family therapy profession is growing, many obstacles limit access to MFTs and affect service delivery by these professionals. As one of the newer mental health disciplines, MPTs—like others in similarly situated professions—face policy barriers that restrict access to them. Limiting access to MFTs adds to the nationwide problem consumers face of not being able to obtain needed mental health services.

The best example of a policy barrier is MFT exclusion from the Medicare program. As the largest health program in the country—covering approximately 40 million beneficiaries—Medicare is a significant barometer of service coverage. Unfortunately, the Medicare program does not recognize MFTs for independent provision of mental health services. This exclusion restricts marriage and family therapy practice to a substantial segment of the population in need of care (one-seventh of the U.S. populace) and concurrently prohibits seniors from accessing 47,000 trained practitioners. Moreover, this policy is emulated by countless other Federal and State health programs. The result of these policies is severe limitations on access to mental health services for certain populations, which is substantially magnified in rural areas.

The impact of policies restricting access to mental health care on residents of rural counties cannot be undersold. Studies show that "[r]ural communities suffer disproportionately from a shortage of mental health professionals" (Bird, Dempsey, and Hartley, 2001). MFTs are well represented in rural areas, residing in almost one-third of rural counties. Furthermore, MFTs are in many counties where other providers are not available. For instance, throughout the United States, 14.7 percent of the rural counties have an MFT but no psychiatrist. Furthermore, in Texas, MFTs are in 16 of 254 counties (7 percent) where no other Medicare mental health provider exists, and 15 of the 16 counties are rural. The counties encompass almost 250,000 residents, including 36,614 older than 65. Clearly, policies limiting access to MFTs in these counties will dramatically impact the resident's ability to obtain mental health services.

Health program exclusion of MFTs is also a substantial barrier to professional growth. It limits practice opportunities for MFT clinicians and discourages a career in this field. Currently, MFTs desiring to work with the elderly, schoolchildren, Federal government employees, and others may be prohibited from providing services directly to these populations, which could affect their decision to pursue a career in family therapy.

However, the political and policy landscape is moving toward increasing access to MFTs. In recent years, significant legislative and policy gains have been achieved that open practice doors for the profession. Progress has also been made on longer-term initiatives. In 1999 there was one bill before Congress providing Medicare recognition of MFTs; now five bills are before the same body. In the past several years, four States have passed laws to license MFTs and two States have amended existing laws to move from certification to licensure. Furthermore, countless Federal and State health programs have been amended to recognize the services provided by MFTs. The trend is in the right direction, but the journey will be long.

Removing policy barriers to MFT services will likely make the profession more viable and attractive to individuals seeking a career in the field. Furthermore, although the profession is growing, evidence suggests a significant percentage of MFT trainees do not ultimately obtain a license as an MFT. Removing policy obstacles and opening practice areas for MFTs will invariably expand career

choices for these trainees and hopefully will alter this divide between training and practice. Undoubtedly, expanding the MFT population and providing access to current practitioners will also translate into greater consumer access to needed mental health services.

Conclusion

The marriage and family therapy profession is growing and changing with the times. Demographic trends show an aging of the profession on one end, but also a rising student population. There is evidence of increasing diversity, as well as a growing female presence. The profession is challenged by policy barriers, but is making progress in this area. The marriage and family therapy profession has established itself as a viable mental health discipline and appears well situated to play a substantial role in future mental health care delivery.

Sociological Practice

Sociology's Contributions to Mental and Behavioral Health Care

Sociology's theoretical and substantive contributions to mental and behavioral health care can be traced to its philosophical origins as a social science and practice profession in Europe and America.[1] Sociologist Thomas J. Scheff (1966) broke new ground in his seminal work, *Being Mentally Ill,* which devoted attention to the social contexts of mental health and mental illness and conceptualized behavioral health care as a distinct social system. Drawing ideas from his contemporaries, such as Edwin Lemert (1951), Kai T. Erikson (1957), and Erving Goffman (1961), Scheff's effort remains the cornerstone of modern mental health law in the United States. Interdisciplinary support for Scheff's position came from psychiatrist Thomas Szasz (1974) in *The Myth of Mental Illness*, in which he linked mental illness to specific socioeconomic, political, and cultural conditions in the social environment (*cf.* Hollingshead and Redlich, 1958). Current sociological contributions in mental and behavioral health care fields derive from the practical experiences and casework of clinical sociologists who specialize in individual, family, and other interventive group practice (e.g., see Brabant, 1996; James and Gabe, 1996; Kemper, 1990).

Sociologists in Mental and Behavioral Health Care Fields

During the past two decades, the demand for qualified mental and behavioral health care professionals, coupled with stringent practice standards, hastened academic departments in the social and behavioral sciences and allied health care occupations to accredit their practice programs and provide their graduates with association and State professional credentials (Witkin, et al., 1998, pp. 153, 168). Sociologists, in an effort to find suitable work as mental and behavioral health care providers, administrators, researchers, and educators, found it increasingly necessary to qualify themselves with definitions of title and practice, educational qualifications, and State examination requirements sponsored in nonsociological practice legislation.[2]

Extradisciplinary oversight, however, has not always represented and advanced sociologists' career interests and standing in mental and behavioral health care fields, nor has it fully exploited the application of sociology's distinct theories, methods, and approaches to everyday problems, particularly its capacity to "benefit society and social life through research action or administration" (Fleischer, 1998; *cf.* Olsen, 1991).[3] The decision by sociologists to "professionalize" their discipline with program accreditation by the Commission on Applied

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[1] For European roots in epistemology and phenomenology, see Husserl, 1960 and 1999; *cf.* Kockelmans, 1994; also see Geiger, 1969; Mannheim, 1936; Scheler, 1962; Schutz, 1962; Stark, 1958; for an American treatment, see Berger and Luckmann, 1967; *cf.* Blumer, 1969; Garfinkel, 1967; Mead, 1934, 1938; Merton, 1957; Mills, 1959, for the strain in social psychology; Weinstein and Platt, 1973, for the strain in psychoanalytic sociology.

[2] In some instances, as in the case of Wisconsin Assembly Bill 125, in 1991, sponsored by social workers, psychologists, marriage and family therapists, professional counselors, alcohol and substance abuse counselors, and others, sociologists were asked to comply with its extradisciplinary requirements within a specified period of time or else cease practice as unregulated professionals. The bill failed (Billson, 1992; Onnie, 1992).

[3] Many practicing sociologists argue that extradisciplinary oversight results in an oblique use of sociological knowledge, generating fewer benefits to society than would be possible with a direct implementation, one legitimated, sanctioned, and regulated by sociologists in conjunction with the State as can be accomplished in independent sociological practice legislation (for a discussion, see Fleischer, 1998).

and Clinical Sociology (CACS)[4] and professional credentials by the Sociological Practice Association (SPA) has proven to be a far better solution, better suited to (1) facilitate and monitor sociologists' entry into interdisciplinary practice fields, including mental and behavioral health care, in compliance with strict regulatory requirements; (2) improve public knowledge and use of, and access to, applied and clinical sociology per se; and (3) serve the public welfare, health, and safety, contributing to the quality of social life.

Eligible Programs and Their Characteristics

The *Directory of Programs in Applied Sociology and Practice*, published biennially by the American Sociological Association, lists 35 baccalaureate (B.A./B.S.), 102 master's (M.A./M.S.), and 47 doctoral (Ph.D.) programs in sociological practice, all potential candidates for accreditation by CACS (Fleischer, 1999). Specializations vary widely across interdisciplinary fields. Many of these programs, several cross-referenced below, may be classified into mental and behavioral health care fields, ranked as follows: (1) Human Services (13 programs); (2) Marriage and Family (9 programs); (3) Sociological Practice (9 programs, with specializations in parent-child interaction, social services, juvenile delinquency, human behavior, social environment, crisis advocacy, personality disorders, pro-social behavior, dispute resolution, life cycle, aging and gerontology, and occupational stress intervention); (4) Medical Sociology and Health Administration (7 programs); (5) Clinical Sociology (6 programs, with specializations in child abuse, deviance, disabilities, family counseling, health and medicine, substance abuse, addictions assessments and treatments, crisis intervention, social and community psychology, human services including human service administration and evaluation, and health delivery systems); (6) Counseling and Drug Abuse (3 programs); and (7) Mental Illness and Mental Health (2 programs). These programs, responsive to the rapidly evolving standards of managed care education, training, administration, and intervention, will graduate candidates with the requisite clinical background to qualify them for SPA certification in mental and behavioral health care fields and the acquisition of State professional credentials once sociological practice legislation is enacted.

CACS has accredited two (nonclinical) practice programs at the baccalaureate level since the inception of its pilot program in fall 1997. The Applied Sociology Concentration at St. Cloud State University in St. Cloud, Minnesota, was accredited in spring 1998, and the Applied Sociology Program at Our Lady of the Lake University in San Antonio, Texas, was accredited one year later, in spring 1999. The Commission formed two new accreditation review Committees (ARCs) in spring 2002, to evaluate the Bachelor of Science Program in Applied Sociology at Buffalo State College in Buffalo, New York, and the Clinical and Applied Sociology Concentration at Valdosta State University in Valdosta, Georgia. A third accreditation review committee was formed in summer 2003 to evaluate the Masters of Science in Sociology Program, also at Valdosta State University. Site visits were completed in Spring 2003 for the practicing Sociology Track at Humboldt State University in Arcata, California, and for the re-accreditation of the Applied Sociology Concentration at St. Cloud State University. As of fall 2003, these two programs await final accreditation by the Commission. Other departments have inquired about CACS accreditation, with some indicating that they will apply for accreditation once the Commission has been accredited by the Association of Specialized and Professional Accreditors (ASPA). CACS's application with ASPA is pending.

Projections and Trends

To date, the 22 clinically trained and 14 clinically active sociologists who practice in mental and behavioral health care fields do not provide sufficient data to validly and reliably project their composition and demographics in this specialization over the next decade. Notwithstanding, CACS anticipates there will be continued departmental interest in its postsecondary accreditation programs and expects that SPA-credentialed graduates of its accredited *clinical* programs will soon augment those, above, who currently provide educational, administrative, evaluative, and therapeutic services in mental and behavioral health care fields.

Since September 11, 2001, a few sociology departments have reported noticeable trends in the educational and career interests of their new enrollees. Others have reported no change. One department has tracked an increase in the number of declared majors among returning, adult students—

[4] CACS's baccalaureate and master's levels standards can be browsed or downloaded at http://www.sociologycommission.org/. Doctoral-level standards, under consideration, await approval for development.

particularly pilots, flight attendants, and support personnel recently laid off by the airline industry. These enrollees have concentrated their studies in the subfield of criminology to pursue new careers in law enforcement. They cite safety and security issues as primary concerns.[5] Other enrollees, such as one former flight attendant supervisor, plan to use their sociology degrees to counsel trauma survivors and people in crisis situations.

Some sociology departments have begun to review their curricular requirements and the substantive content and frequency of their core and elective offerings. A few will implement changes. One department, for example, plans to add a new course on "terrorism" to its program, its coordinator commenting that it should be popular among traditional *and* returning adult students.

When they become available, robust data on clinically trained and active sociologists will permit a fuller analysis of these projections and trends, including information about their composition and demographics (and that of their patients); the provision of clinical sociological services and system structure; payment mechanisms and service funding; and impact on their work from new managed health care policies, equity legislation, the Health Insurance Portability and Accountability Act of 1996 (HIPAA), telemental health, and related technological trends. All of this will permit an improved understanding of the need and demand for clinical sociology and the clinical sociologist's role and performance in mental and behavioral health care fields.

Certified Pastoral Counseling

Overview

The accumulation of accurate data and projections of trends are challenging tasks in pastoral counseling because of the wide variances in State laws that affect the practice of pastoral counseling. Issues regarding the separation of church and State make State legislatures reluctant to regulate the practice of pastoral counseling when it takes place clearly within the boundaries of religious communities. Outside those boundaries, however, where most professional pastoral counseling occurs, both professional credentials and State regulations prevail. The American Association of Pastoral Counselors (AAPC) is the primary credentialing and professional association for pastoral counseling and is the primary source of data. These comments are based on data from the certified membership of AAPC, and, although not exact, they represent a reliable overview of trends in professionally qualified pastoral counseling (see American Association of Pastoral Counselors, 1994, 2001).

Age Factors

There are approximately 2,812 clinically trained, certified pastoral counselors in the United States. That figure has remained steady for the past 5 or more years. It will be affected, however, by an increase in the number of retirements taking place because the majority of these pastoral counselors, 78 percent, are over age 50.

The professional lifespan of many pastoral counselors is shorter than in other professions because many do not become clinically trained and credentialed until after age 40, moving out of a congregational ministry, or some other career field, into professional pastoral counseling after they have completed further educational and clinical requirements. Although this is a comparatively late time frame, it means that persons tend to enter the practice with a great deal of maturity and experience in caregiving and interpersonal relationships.

Pastoral Counselors in Training

The impact of the aging of the profession is lessened somewhat by some encouraging data on trainees. Approximately 1,069 persons are in training in the 2001–2002 academic year, compared with 961 in the 2000–2001 year, an increase of 9 percent. This increase is anticipated to continue as a trend over the next few years, offsetting the losses due to retirement, but not growing the profession to the extent that will be needed unless the trend expands. There is a clear trend in academic institutions that offer graduate programs in pastoral counseling seeking AAPC accreditation for their degree programs. It can be safely projected that the number of

[6] Their interest in investigative work and careers in State bureaus of investigation and the FBI also have increased. Some of these students acknowledge the importance of foreign language in these careers and plan to take foreign language courses to complement their undergraduate and graduate degrees in sociology, even though foreign language is not a requirement for the degree.

AAPC-accredited degree programs will more than double in the next five years. That will mean more persons completing academic requirements will be better prepared to apply for certification as pastoral counselors at an earlier date, on the completion of required supervised experience.

Diversity

Emphasis is being placed on diversity within the profession. A wide diversity of religious communities is represented in professional pastoral counseling. AAPC is an interfaith association that includes approximately 100 different faith groups. Certified pastoral counseling is just beginning to be known among persons in Eastern religious traditions, and there is a recent increase of interest in persons from those traditions seeking training and certification. Pastoral counseling developed out of the Judeo-Christian traditions, which continue to be predominant in the field. Although each pastoral counselor is expected to be endorsed by a recognized faith community, all religious traditions are respected, and clients' issues and resources of faith and spirituality are integrated, as relevant, into the therapeutic process.

Gender diversity has increased markedly over the past decade, and the growing numbers of women entering pastoral counseling is a definite trend. One-third (32 percent) of the certified membership of AAPC are women, and that percentage is growing. Women hold an increasing number of pastoral counseling faculty positions, and that will be an influential factor for women students who are making career choices in ministry.

Racial/ethnic diversity has been slow in developing within qualified pastoral counseling, but that is changing gradually with the new vision and mission statement of AAPC clearly reflecting the intention of increasing this area of diversity among practicing pastoral counselors. This effort is being reinforced by the recent and current development of graduate degree programs in pastoral counseling within major, traditionally African-American universities. Pastoral counseling training is also being provided to Hispanic clergy in Spanish at a growing number of locations. Among Asians, the greatest interest and training investment is being made by Koreans. Workshops are held at AAPC annual conferences in both Spanish and Korean languages for these populations. Currently, approximately 16 percent of certified pastoral counselors report racial/ethnic identity other than Caucasian. These are broken down as African-American, 2.01 percent; Asian, 1.30 percent; Hispanic, .42 percent; American Indian, .14 percent; not specified, 12.32 percent. Caucasians represent 83.81 percent, as reported.

Impact of September 11 on Pastoral Counseling Practice

Although it may be too early to project trends based on the September 11 experience, the need for qualified pastoral counselors in a national context of potential terrorist attacks clearly is identified from the increase in calls received by pastoral counselors in the weeks following September 11, especially in the greater New York City and Washington, DC, areas. There has been an increase, as well, in training opportunities for pastoral counselors in post-traumatic stress disorder (PTSD) and critical incident stress management (CISM) counseling, as well as dealing with generalized anxiety as a result of a sense of insecurity and felt exposure to danger. Pastoral counselors integrate the spiritual values and belief systems of the client into the therapeutic process as an additional resource for healing and for coping, and ample evidence shows that the September 11 events and their aftermath have increased the public desire for the availability of these services.

Economic Trends

Certified pastoral counselors face considerable economic concerns. They have been heavily affected by the takeover of mental health services by managed care in recent years. Whereas some mental health managed care plans do recognize pastoral counselors as providers, many do not. Federal health programs, such as TRICARE and FEHBP, do recognize fellow-level certified pastoral counselors, and there is a current effort to gain provider recognition by Medicare. Private pay charges generally are based on the ability of the client to pay, so although pastoral counselors who work in the more affluent populations tend to have economic stability, those who serve less affluent populations may not.

The availability of State licensure that is open to qualified pastoral counselors can also be a factor in the practice of pastoral counseling. Whereas most certified pastoral counselors are State licensed in pastoral counseling or another mental health discipline, others do not have or do not take that option. Currently, six States have license or certification for

pastoral counseling. Thirty-seven States include pastoral counselors in generic licensure, such as a licensed professional counselor. Licensure affects reimbursement options for services.

Established pastoral counseling centers usually have some support from the religious congregations in the community, which enables these centers to maintain financial stability and still serve lower income persons, many of whom may not have health insurance that includes nonmedical or outpatient mental health care. These centers, however, operate on limited budgets, and concern is felt in regard to the costs related to the new reporting requirements under HIPAA that will be introduced during the next year. Pastoral counseling centers generally operate under the ethical principle that no one is denied services because of an inability to pay.

Geographic Distribution

In contrast to most mental health professionals, more pastoral counselors practice in rural and small to mid-size towns and cities than in large metropolitan areas, making them available in federally identified underserved areas, as well as in major metropolitan areas, as a valuable mental health resource. This is one reason that Medicare provider recognition is a high priority for qualified pastoral counselors. The older populations in these areas may not have other options for adequate mental health services.

Conclusion

Certified pastoral counselors are facing the paradoxical situation of a growing recognition of the fact that interfaith-based mental health services, which are grounded in a disciplined and competent approach to counseling and psychotherapy, have, on the one hand, much to offer and are greatly desired by the general public and, on the other hand, financial and regulatory hurdles. Research done in 2000 by the Washington, DC, firm of Greenberg Quinlan Rosner, Inc., found that an overwhelming number of Americans recognize the close link between spiritual faith, religious values, and mental health and would prefer to seek assistance from a mental health professional who recognizes and can integrate spiritual values into the course of treatment. This study is available from the AAPC and is found on its Web site, www.aapc.org.

Pastoral counselors are working hard to face the challenges of mental health care delivery in the 21st century and are committed to providing spiritually sensitive, therapeutically competent services to all those who seek their help.

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Appendix C

Sources and Qualifications of Data for Mental Health Practitioners and Trainees

American Medical Association 2002–03 Physician Characteristics and Distribution in the United States

Scope of Data. Data are derived from the American Medical Association's (AMA) Masterfile, which contains current and historical data on all physicians practicing in the United States. Psychiatrists in the Masterfile include physicians who self-designated their practice specialty as psychiatry. This designation is determined by the largest number of professional hours reported by the physician on the AMA Physicians' Practice Arrangements (PPA) questionnaire, a rotating census that is sent to approximately one-third of all physicians each year. Data presented in the Physician Characteristics and Distribution in the United States are based on the self-designated practice specialty coding contained in the AMA Physician Masterfile. Data on medical residents and inactive psychiatrists have been excluded to reflect clinically trained and clinically active psychiatrists more accurately.

Limitations. Because the AMA Masterfile includes physicians who are self-designated or self-identified as a psychiatrists, the data may include some physicians with no specialty psychiatric training.

2000 American Psychiatric Association Membership Data

Scope of Data. The 2000 American Psychiatric Association (APA) Membership estimates were taken from the December 2000 APA membership database. At that time, the total APA membership was approximately 37,839, which included 26,258 clinically trained psychiatrists believed to be actively practicing in the United States. The remaining APA members were disqualified as they fell into one of the following membership categories: psychiatric resident, medical student, corresponding members and fellows; inactive members, associates, fellows; honorary and distinguished fellows, and members not practicing psychiatry in the United States.

Limitations. The APA membership data are limited in that not all of the nation's psychiatrists are members of the APA. However, unlike the AMA Masterfile data, all psychiatrists in the APA membership are board-certified or board-eligible and have some specialty psychiatric training.

1988-89 American Psychiatric Association, Professional Activities Survey (PAS)

Scope of Survey. The 1988–89 APA PAS gathered data on both APA members and nonmembers who had identified themselves in the AMA Masterfile as primarily specializing in psychiatry. APA members and nonmembers were combined and cross-checked against the APA membership file in order to remove duplicate records, resulting in a residual list of 10,091 self-designated psychiatrists and 34,164 APA members.

Response Rate. Of the 34,164 APA members included in the study, 23,126, or 67.7 percent, responded to the survey. The sample of 10,091 self-designated psychiatrists yielded a response rate of 28.9 percent, or 2,922 completed surveys. Of the 2,922 completed surveys, 341 respondents were found not to be psychiatrists, and 125 psychiatrists were already members of the APA. The remaining total of 25,582 yielded 19,498 "active" psychiatrists (excludes psychiatrists who are residents or fellows, retired, or not primarily active in psychiatry), of whom 17,930 were APA members and 1,568 were nonmembers.

Data Limitations. In order to assess potential sources of survey nonresponse bias, an analysis was conducted in which demographic characteristics of respondents were compared with those of nonrespondents. Although this analysis revealed no major differences between the groups, other factors may have affected response. Other possible limitations may include self-reporting error of psychiatrists with respect to the recollection and estimation of weekly and monthly activities (Dorwart et al. 1992).

The 1998 National Survey of Psychiatric Practice

Scope of Survey. The APA National Survey of Psychiatric Practice (NSPP) is a biennial survey of 1,500 randomly selected APA members. The primary purpose of the survey is to gather information at the physician level to assess the current status of psychiatric practice and to track trends in psychiatry.

Response Rate. Of the 1,500 members included in the study, 1,076 (71.9 percent) completed the 1998 NSPP. Of those who completed the survey, 976 are considered active in psychiatry (excludes psychiatrists who are either retired or temporary not in psychiatric practice).

Data Limitations. Because this survey does not include responses from nonmembers of the APA, caution should be exercised when comparing these data with the 1988–89 APA PAS estimates. Although this survey obtained a good response rate and included a very large number of respondents, the findings may be subject to some response bias. To reduce the impact of this bias, the data from respondents were weighted against the survey sampling frame (all APA members believed to be active in psychiatry) using APA membership information (e.g., age, gender, race/ethnicity).

Psychology

The American Psychological Association Member Survey

Sources and Qualifications of the Data. Who is to be counted as a mental health services provider in psychology? Not all psychologists are trained for health service provider roles, and not all of those with the necessary training are actively engaged in providing these services. In order to estimate the number of psychologists who are qualified to function as health service providers and the number who actually deliver relevant services, it was necessary to consider the type and amount of training and the acquisition of the appropriate credentials for delivering those services. This required the examination of several variables.

- Licensure as a psychologist—In all 50 States and the District of Columbia, licensure as a psychologist by a State board of psychological examiners is required for the independent practice of psychology. As is the case with most professions, these licensing statutes are designed in part to protect the public by ensuring that minimum training and competency requirements have been met by practitioners.

- Doctoral degree in psychology—A significant amount of advanced and highly specialized training is required in order to independently provide the full spectrum of mental health services. In psychology, the doctoral degree meets this requirement, and this definition has been incorporated into State licensing laws and criteria used by third-party payers to recognize psychologists as eligible for reimbursement for their services.

- Training in mental health services—Only some of the basic subfields in psychology deal directly with the provision of health and mental health services. These are clinical, counseling, and school psychology. Although these three fields constitute those for which graduate training programs are accredited, a host of other postgraduate specializations exist in which psychologists can earn additional credentials (e.g., forensic psychology, clinical neuropsychology, behavior therapy, family psychology, and clinical hypnosis). Both field of degree and current major field were considered in this analysis.

Reported counts or estimates of mental health service providers in psychology do vary as a result of the differential application of these criteria by the individual counters. Examples include the counts of licensed psychologists by State boards, which often fail to account for the fact that some individuals may be licensed in more than one State--a situation characteristic of large metropolitan areas such as Boston and New York, or areas that are densely populated and near state borders, such as the Baltimore-DC-Richmond metropolitan statistical area. Dual licensure will be more common in such areas due to the proximity of State borders and the density of population. In addition, early versions of State licensing laws did not specify degree level as a major criterion, with the result that individuals with less than a doctoral degree may have been "grandfathered" in when new statutes were established.

Another problem with relying on counts of licensed psychologists provided by the States is that certain States do encourage individuals in other non-health-service psychological subfields (e.g., in-

dustrial/organizational and experimental) who provide other kinds of services (organizational consulting, research and statistical services) to get their licenses. These people should not be counted among the clinically trained.

The APA Member Survey. The majority of data on psychologists was derived from the 2000 Member Survey, with updates for 2002 as available. The survey is no longer conducted every four years, but is sent out to members on a rolling basis as pieces of information change in their files (e.g., mailing address) with interim updates in intervening years when some piece of data changes in a record (such as the mailing address), or as new members join. It is intended to be a census of all APA members. Its purpose is twofold: to provide updated individual listings for publication in the employment and professional activities directory and to describe and monitor changes in the characteristics of APA members.

The questionnaire asks for updated information including current address, e-mail, phone, and fax information, date of birth, field and year of highest degree, major field and specialty areas, position title, employer, and licensure status. Most of this information appears in the Directory listing. The majority of this information is published in the Directory listing. Section II asks for more detailed information on (1) the nature of the individual's employment, such as his or her primary and secondary employment settings, and a ranking of the three top work activities that the person performed for each setting; (2) the individual's involvement as a psychologist in specific activities during the past 3 years; and (3) additional demographic information such as race, ethnicity, and receipt of professional degrees in areas other than psychology.

Procedures for Identifying Health Service Providers in Psychology. As previously mentioned, individuals who are trained or employed in psychology work in a wide range of subfields and career roles. Thus, the criteria for inclusion as an active health service provider in psychology were as follows: (1) the individual was currently a U.S. resident; (2) the individual had earned a doctoral degree; (3) the individual indicated that he or she was licensed by one or more States for the independent practice of psychology; (4) the individual reported being employed in psychology; and (5) the individual was involved in the provision of health and mental health services.

Those who are clinically trained constitute a slightly larger group, including all of the above, as well as those who (1) were licensed and trained in a health service provider subfield, but who reported no current involvement in direct services, or (2) were not licensed but stated that they had received their doctorate in a practice-related subfield.

Given these criteria and the information available on members, attempts were made to derive estimates of the population of both clinically active and clinically trained personnel in psychology, rather than to simply report figures pertaining only to the APA membership. First, estimates were made of the numbers in the APA membership who were clinically trained, and what percentage of this group was clinically active. Practice Directorate files of State applications for Committee for the Advancement of Private Practice (CAPP) grants included counts of the numbers of licensed psychologists residing in each State making application. These numbers ostensibly represent unduplicated counts of doctoral-level psychologists for those States. These numbers were available for 38 of the 51 States (including the District of Columbia). Seventeen of the CAPP grant State counts were used in the accompanying tables.

The raw numbers of licensed psychologists reported by each State licensing board were used for the remaining 34 States. Each count was reduced by 13.8 percent, which is the representation of multiple licensures (licensed in more than one State) found among APA members. Thus, the estimate of clinically trained psychologists used in this chapter is based on a deliberate blend of several databases.

Using only APA counts of clinically trained psychologists would have yielded an unreasonably low count, one that was less than the number of clinically trained reported two years ago in an earlier version of this chapter. This did not make sense. Using only State licensing board raw counts of licensed psychologists would have resulted in what appeared to be an uncomfortably inflated count. This also did not make sense. There was little chance that psychology could have reached the State numbers based on the numbers currently graduating from the pipeline with doctoral degrees in appropriate fields in psychology.

These numbers represent estimates of the total numbers of clinically trained and clinically active psychologists overall, in each of the regions, and in each of the States. The percentages reported in the tables are based on the responses to the APA membership survey.

The number of clinically active psychologists in 1997 was derived by using the percentage of clinically trained APA members who were clinically active in 1995. This was done because the data and responses were noticeably more complete in 1995

than in 2002. The clinically active in 1997 were estimated at just under 76 percent of the clinically trained, or 55,493. In 2002, the clinically trained numbers were reduced by 25 percent to yield the clinically active estimates.

Qualifications of the Data As previously mentioned, the information reported in the tables in chapter 21 was based on analyses of the APA membership coupled with State-by-State data on the population of licensed psychologists, including those who did not belong to the APA. This strategy assumes that those who are licensed, but do not belong to the APA, are similar to licensed psychologists who do belong to the APA. Previous research on both APA and non-APA members indicated that the APA membership has been quite representative of doctoral-level providers in psychology with respect to demographic characteristics, education, and employment (Howard et al. 1986; Stapp, Tucker, and VandenBos 1985). Comparisons of member data with data from the National Science Foundation also revealed similarities for doctoral-level psychologists. See the National Science Foundation's biennial series of reports on the doctoral science and engineering population, Characteristics of Doctoral Scientists and Engineers in the United States (www.norc.uchicago.edu for the most recent years), for these national data. The growth in the membership of APA who report being active direct service providers parallels the national data on growth in degree production in the relevant fields as well as growth in employment settings focusing on service provision.

The number of clinically trained doctoral-level psychologists who are members of the APA was at least 61,304 in 2002. This was 69 percent of the estimated 88,491 clinically trained psychologists identified nationally for this chapter.

Because not all members responded to the APA membership survey, the extent to which the results are affected by nonresponse bias is unclear. Earlier comparisons of basic biographical information for nonrespondents with the data for respondents did not indicate marked differences with respect to highest degree, sex, and age. But conclusions could not be developed for information on employment. Thus, for example, we cannot be sure whether psychologists in certain types of employment settings were less likely to respond.

Psychological personnel at the master's, specialist, and baccalaureate levels also work in the general medical and mental health specialty areas. These individuals were not included in our analysis, first because the data are based on APA membership, and this membership is not representative of those with less than a doctoral degree. Second, because the current licensing laws in most States require a doctorate in order to sit for licensure as a psychologist, this group is an increasingly small minority of psychologists qualified for the independent practice of psychology.

For additional information on the data presented in chapter 21 and on the characteristics of psychologists, please contact the Research Office, American Psychological Association, 750 First Street, NE, Washington, DC 20002, or call (202) 336-5980, visit the Web site at http://research.apa.org, or e-mail at research@.apa.org.

Social Work

Data Collection for the National Association of Social Workers (NASW)

The data for this report were drawn from membership information and informed by the NASW PRN survey, 2000. Conducted in the spring of 2000, the NASW PRN survey captured demographic and practice data from a random sample of 2,000 regular members. Based on the sampling techniques and the high rate of response (81 percent), which minimized potential for selectivity and nonresponse bias, these results are highly representative of the membership. Table 1 is based on NASW membership data on the numbers of regular MSW and DSWs, excluding retirees, in 2000 (97,290). Table 2 reflects NASW membership data on the number of regular MSW and DSWs, excluding retirees, in the spring of 2002 (99,341). NASW membership data are collected from new applications and membership renewals. Tables 2 through 7 are based on the NASW membership count of regular MSW and DSW members (97,290), excluding retirees, in 2000 and informed by the NASW PRN survey, 2000. Table 8 reflects data from the Council on Social Work Education on the numbers of BSW, MSW, and DSW enrollees as well as degrees awarded from CSWE-accredited social work degree programs for the academic year 1998–99. The response rate for these data was 87.1 percent (Lennon 2001).

It is important to note that the numbers reported represent NASW members and that the universe of social workers is two to three times larger. Based on Census Bureau data, NASW has between 30 to 50 percent of the total number of trained social

workers as its members. Therefore, the numbers in the tables significantly understate the total numbers of trained social workers.

Psychiatric Nursing

This study uses a subset of the 1996 Division of Nursing's (DON) National Sample Survey of Registered Nurses data set. The methodology of this study has been extensively documented (DON 1997). Briefly, a complex stratified sampling design is used to randomly sample the population of registered nurses licensed in the United States. States are sampled at different rates to allow for State-level estimates. The disproportional stratified sampling methodology requires accounting for the design effect in analyses.

This subsample was based on the 29,766 respondents living and working in the United States. Requirements for sample selection included formal education as a clinical nurse specialist or nurse practitioner in psychiatric mental health nursing, with highest education in nursing being at either the master's or doctoral level; 194 nurses met these criteria. Further review showed that the DON had not classified three as advanced practice nurses. As master's education did not focus on a clinical practice area, these nurses were deleted, resulting in a sample size of 191. This is the sample used to determine general estimates on clinically trained psychiatric nurses. Of these, 173 were employed. This group was used to generate estimates on the employed subset of clinically trained psychiatric nurses. All estimates are reported for clinically trained nurses. Due to the small sample size, it would be difficult to get reliable estimates on the subgroup of clinically active nurses. It is estimated that there are 17,318 trained and 15,330 employed psychiatric nurses.

Analyses were weighted to the population using a standard statistical program for generating means and frequencies. Standard error estimation was conducted using the SUDANN software package to account for the study's design effect for selected variables.

Limitations of the study relate mainly to the small sample size. In addition, the number of settings variable reflects the number of nursing positions nurses hold. There is no information on settings of non-nursing positions. Nor is there any information on positions that include work in more than one setting.

Counseling

Counselors may be defined in a number of ways. The purpose of this report is to estimate the number of available counselors who have the training necessary to provide independent or team treatment of populations in need of therapeutic mental health intervention and prevention and who are credentialed to provide such treatment. Sources used in calculations are National Board for Certified Counselors (NBCC) *National Study of the Professional Counselor* (2000); NBCC *1998 State Counseling Licensure Board Survey;* United States Bureau of Census data (1999); American Counseling Association 2000 membership data; data base queries of NBCC; and *Counselor Preparation, 1999–2001: Programs, Faculty, Trends* 10th ed. (2000).

Most figures reflect a conservative estimate based on national certification, association membership, State licensure, and United States Bureau of Census data. These data inform the continued systematic collection of statistics about the counseling workforce. The collection of these data has reinforced the need for the counseling profession to collect systematic and equivalent data with other mental health professions.

Marriage and Family Therapy

Data Collection

The data for marriage and family therapy were collected from several sources: the American Association for Marriage and Family Therapy (AAMFT) Practice Research Network, Marriage and Family Therapist Practice Patterns Survey, the AAMFT Membership Database, the Annual Report for Accredited Programs submitted to the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE), the California Association of Marriage and Family Therapists (CAMFT) Member Practice and Demographic Survey, and data collected by AAMFT from State marriage and family therapy regulatory boards on the number of licensed or certified marriage and family therapists (MFTs).

The count of MFTs for each State and the United States was derived from data collected by the AAMFT in 2000 and from State marriage and family therapy regulatory boards on the number of licensed or certified MFTs. For those States that did not regulate MFTs in 2000, the numbers were ob-

tained from the count of clinical members from the AAMFT Membership Database.

The count for the U.S. total (47,111) from table 3 was used for tables 1, 2, 4, 5, and 6, with the data on the details of these tables coming from the AAMFT Practice Research Network Survey conducted in the fall of 2000 and reported by Northey and Harrington (2001) and Northey (2002) and the CAMFT Member Practice and Demographic Survey reported by Riemersma (2002).

The data for table 7 were obtained from the Marriage and Family Therapist Practice Patterns Survey conducted by William J. Doherty of the Family Social Science Department of the University of Minnesota in the summer and fall of 1994 and reported by Doherty and Simmons (1996).

The data for table 8 come from a variety of sources, including the interns registered in the State of California; the Annual Report for Accredited Programs submitted to COAMFTE; a count of associate members (postdegree supervision students in other accredited programs) and student members (predegree students in other accredited programs) from the AAMFT Membership Database; and a survey of MFT graduate programs in the State of California.

The AAMFT Practice Research Network PRN Survey

The AAMFT PRN survey was conducted in September 2000. The survey, funded by the Center for Substance Abuse Treatment, consisted of 102 questions and focused on clinical practices, work settings, education, and demographics. The survey was conducted via telephone with 292 randomly selected clinical members of the AAMFT. Eighty-two percent of the eligible respondents participated in the survey.

The CAMFT Member Practice and Demographic Survey

The CAMFT Member Practice and Demographic Survey was conducted by in the spring of 2002. The survey was designed to assess the current clinical practice of MFTs in California; it was sent to 3,900 CAMFT members and yielded a 27 percent response rate. In addition to questions about demographics, clinical practice, works settings, and education, questions about funding sources and income were included.

The Marriage and Family Therapist Practice Patterns Survey

The Marriage and Family Therapist Practice Patterns Survey was commissioned by the AAMFT Research and Education Foundation and built upon an investigation of the clinical practice patterns of MFTs in Minnesota by Doherty and Simmons (1995). The survey consisted of three parts: (1) demographic, educational background, and practice setting information; (2) detailed information on the therapist's three most recently completed cases; and (3) client satisfaction and outcome data from clients. A total of 536 AAMFT clinical members from 15 States participated in the study, yielding a 34.3 percent response rate.

The AAMFT Membership Database

Data for the AAMFT Membership Database are collected from both applications for new membership and annual membership renewal forms. As the data are collected, they are entered into the membership database on a continuous basis.

Members of AAMFT are coded in the membership database according to their category of membership:

- Clinical Membership—persons who have completed a qualifying graduate degree in marriage and family therapy (or in a related mental health field and a substantially equivalent course of study) from a regionally accredited educational institution and have 2 years of postdegree supervised clinical experience in marriage and family therapy.

- Associate Members—persons who have completed a qualifying graduate degree in marriage and family therapy (or in a related mental health field and a substantially equivalent course of study) from a regionally accredited educational institution but have not yet completed two years of postdegree supervised clinical experience in marriage and family therapy. Associate membership is limited to five years, since it is anticipated that associate members will advance to clinical membership.

- Student Membership—persons currently enrolled in a qualifying graduate program in marriage and family therapy (or in a related

mental health field and a substantially equivalent course of study) in a regionally accredited educational institution or a COMAFTE-accredited graduate program or postdegree institute. Student membership is limited to 5 years, since it is anticipated that student members will advance to associate, then clinical membership.

- Affiliate Membership—members of allied professions and other persons interested in marriage and family therapy. Affiliate members come from related fields such as family medicine, family mediation, family policy, and research. The Affiliate membership is a noncredentialing, nonevaluative, and nonvoting membership category.

COAMFTE Annual Report for Accredited Programs

Annually, the programs accredited by COAMFTE submit standard written reports concerning compliance with the accreditation standards, including, among other data, a list of all students currently enrolled in the marriage and family therapy program. Data reported include the student's name, year in program, gender, ethnicity, and academic background. Data on the number of students in each program were collated for table 8 from the most recent annual report of the accredited programs, which was either 2000 or 2001.

School Psychology

Who Is Counted as a School Psychologist?

In most States, professional school psychologists are certified to practice within school settings and nonschool settings by each State's department of education. Every State has a certification for school psychology; however, some States use more than one title for professionals qualified to be called school psychologists. State-by-State standards for certification and licensure are published by the National Association of School Psychologists (NASP) (1995). Forty-seven States (including the District of Columbia) require academic standards consistent with the Nationally Certified School Psychologist (NCSP) certification. One State, Hawaii, requires a doctorate to use the title. Three States require a master's degree with unspecified credit hours. All States require a supervised internship. Students graduating from NASP/National Council for Teacher Education-approved programs meet the NCSP credentialing standard and may receive the NCSP credential upon receiving a satisfactory score on the national examination. States that have upgraded their standards over the past 10 years have "grandparent" persons who do not meet the academic requirements of a 60-credit-hour master's or specialist degree, a 1,200-hour supervised internship, and other requirements noted in the body of the report.

Database

The data in this report are based on data gathered yearly by the U.S. Department of Education (USDOE) and found in its *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act.* These data are required to be reported by each State education agency, which in turn has data reports from each local education agency. These data are required to be gathered to ensure that each school system is maintaining its effort to provide a "free and appropriate public education" to all children who are disabled and in need of special education and related services.

The data reported from each State education agency list as school psychologists only persons who are State certified or licensed. In fact, they consider person provisionally providing school psychological services under the category of unfilled positions.

NASP Membership Data

NASP total membership was 20,902 as of June 1998. NASP has several membership categories, of which three are critical to this report: regular, student, and retired.

Regular members must be one of the following:

- Currently credentialed and working as a school psychologist.
- Certified and working as a supervisor or consultant in school psychology.
- Primarily engaged in the training of school psychologists at a college or university.

- Excluding international membership, NASP regular membership as of June 1998 was 15,008.

Student membership includes students enrolled halftime or more in programs leading to an advanced degree or postmaster's certificate in school psychology or doctorate, as verified by their program advisor. Student membership as of June 1998 was 4,656.

Retired membership requires the retired school psychologist to have been a member for five consecutive years and retired from remunerative professional activity. Retired membership as of June 1998 was 737. It is presumed that these retired members are not clinically active in the profession of school psychology.

All regular and student members and all those holding an NCSP certificate must agree to abide by the NASP professional standards and code of ethics. By 1991, nearly 15,000 school psychologists had received the NCSP credential.

There are approximately 3,000 school psychologists certified as NCSP who are not members of NASP. As noted above, most State certification systems require the equivalent academic requirements of NCSP. Several States will now accept NCSP as the necessary documentation for State certification.

Data Reported in Tables

Each year, NASP requests that membership respond to a set of computer-recorded demographic questions, including age, sex, ethnicity, position, employment setting, salary, student service ratio, and years of experience. There is no obligation to respond to these requests, and more than 10 percent ignore all requests. Each of the 13 items is responded to at different rates, and therefore the accuracy of the data is unknown.

For example, only 13,827 responded to "employment setting," and only 9,634 responded to "years of experience." However, when the responses are compared to mailed random surveys carried out over the years (Curtis et al. in press; Fagan 1988; Reschly and Wilson 1992), the patterns are quite similar, giving a degree of assurance that these data can be applied to the general population of certified, employed, clinically active school psychologists reported by the USDOE.

To determine the 1994 number of school psychologists reported in table 1, the authors used the ratio of NASP members who are certified, including those who are university trainers and administrators, to those who are not so specified. This produced a ratio of one clinically active to 1.11 clinically trained. The number reported by the USDOE was then multiplied by that radio to secure the total of 22,214. This correction factor, based on more accurate data (Lund and Reschly 1998), replaces the 1.07:1 ratio applied to calculate the numbers reported in 1992. This 1.07:1 ratio was applied to USDOE data from 1988 for table 1 to provide some longitudinal reference consistent with other professions.

The data in tables 2, 4, 6, and 7 are based on ratios and percentages reported by NASP members' responses to the membership questionnaire applied, when appropriate, to the USDOE adjusted number. The data in table 3 are the State-by-State data reported for 1998, which are the best data that exist for school psychologists who are clinically active at the present time. Table 5 is based on the assumption that most school psychologists are limited to a single employment setting. This is generally the case. Since about 10 percent of school psychologists are licensed to practice outside the school setting, there may be a second setting for these professionals. However, NASP does not request any data on this factor. Therefore, "NA" is noted both for "two or more settings" and the "part-time" category.

Table 8 represents the number of school psychology students in programs approved by NASP/NCATE as reported by the Director of Certification from the NASP data base.

Qualifications of the Data

The USDOE data are a record of State-certified or licensed school psychologists reported for 1994–95 who serve children with disabilities in schools or school-related settings. These data are based on full-time equivalents rather than individuals. Therefore, there may be more individuals certified than this number. Furthermore, the data do not exclude some contracted persons. The data also may exclude school psychologists who do not provide services to children with disabilities under the Individuals with Disabilities Education Act. For example, school psychologists are employed in Head Start programs, which may be administered by another State agency. School psychologists serving under Part H, the infant and toddlers disability program, may not be included in this USDOE count. Finally, may States have school psychologists employed un-

der State pupil services laws and under Title I of the Improving America's School Act of 1994.

Without referencing the USDOE data, Fagan and Sachs-Wise (1994) report a consensus figure of between 20,000 and 22,000 school psychologists for 1994. It may be that these numbers underrepresent the total clinically active (and, thus, clinically trained) population of school psychologists by as much as five to 10 percent. This underestimation is consistent with the findings of Lund and Reschly (1998).

Adjusting the USDOE data required application of membership percentages to those data and to data provided by Lund and Reschly (1998). Since the membership data are consistent with the data on a random sample of 6,470 school psychologists (Curtis et al. in press; Reschly and Wilson 1992), it may be assumed that the membership data can be generalized to the USDOE data without any known bias.

The growth in the USDOE numbers over the seven-year span of 1988 to 1995 is progressive, but not dramatic. The number of elementary and secondary students is growing, thus causing a shift in the ratio of professionals to population. Table 3 should be read with extreme caution. It is erroneous to perceive the State population as the potential service population for school psychologists. School psychologists serve children aged 5 through 18, in general, and a subset of children aged 0 through 21 who have, or are at risk of having, a disability. The *Digest of Educational Statistics* (U.S. Department of Education 1997) estimates that there are about 52.7 million children aged 6 to 17, or about 19. 6 percent of the 268.8 million total population in 1998 (Statistical *Abstract of the United States,* U.S. Bureau of the Census 1997).

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☆ U. S. G. P. O. 2004-304-278/83022