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HEALTH SERVICES RESEARCH FOR DRUG AND ALCOHOL TREATMENT AND PREVENTION

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Health services research is a multidisciplinary field that examines ways to organize, manage, finance, and deliver high-quality care. This specialty within substance abuse research developed from policy analyses and needs assessments that shaped federal policy and promoted system development in the 1970s. After the authorization of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the National Institute on Drug Abuse (NIDA), patient information systems supported studies of treatment processes and outcomes. Health services research grew substantially in the 1990s when NIAAA and NIDA moved into the National Institutes of Health, and legislation allocated 15% of their research portfolio to services research. The next decade will emphasize research on quality of care, adoption and use of evidence-based practices (including medication), financing reforms, and integration of substance abuse treatment with primary care and mental health services.

INTRODUCTION

Health services research is a multidisciplinary field that examines the influences of the organization and delivery of health care on access, use, quality, and cost of health care. The field traces its roots to work in the early 20th century that described and assessed the nation's systems of health care and emerged most directly from

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the need to evaluate federal investments in Medicaid and Medicare in the 1960s (Ginzberg, 1991). Services research for treatment and prevention of substance use disorders evolved from the general field of health services research, and investigators have backgrounds in a variety of areas in substance abuse research. As a result, services research is often viewed as a facet of effectiveness research within the drug and alcohol treatment and prevention research community; its broader orientation is best highlighted by the attention to the influence of organizational and financing variables on service delivery.

In 2003, the National Institute on Drug Abuse (NIDA) convened a Blue Ribbon Task Force on Health Services Research to define health services research within the drug abuse treatment field and to review NIDA's portfolio of services research. The Task Force extended existing descriptions of services research and offered this definition:

> Health services research is a multidisciplinary field of inquiry, both basic and applied, that examines how social factors, financing systems, organizational structures and processes, health technologies, and personal beliefs and behaviors affect access to and utilization of health care, the quality and cost of healthcare, and in the end our health and well-being. Ultimately, the goals of health services research are to identify the most effective ways to organize, manage, finance, and deliver high-quality care. (Blue Ribbon Task Force on Health Services Research, 2004, p. 3)

In contrast to general health care, five idiosyncratic features of drug and alcohol services complicate services research in this field. First, services are often provided in settings not affiliated with formal health care systems (e.g., freestanding clinics, schools, courts and correctional facilities, and human service agencies). Second, practitioners do not have uniform educational backgrounds. Third, many patients are coerced into care. Fourth, services are often combinations of interventions, but rarely include medications. Finally, public resources support a disproportionate share of the services (Blue Ribbon Task Force on Health Services Research, 2004; Compton, et al., 2005).

This paper provides a historical overview of the development of services research for substance abuse prevention and treatment. Major themes for research and policy analysis are identified, and the paper concludes with personal reflections on 40 years of progress and speculation about the next decade of services research.

SERVICE DEVELOPMENT AND PATIENT INFORMATION SYSTEMS: 1960S AND 1970S

Assessments of the organization and delivery of substance abuse treatment services began in the 1960s with the transition from the public health hospitals in Lexington, Kentucky and Fort Worth, Texas to community systems of outpatient and residential care. A 1968 census of programs offering treatment for drug addiction, for example, identified 183 programs located primarily in New York, California, Illinois, Massachusetts, Connecticut, and New Jersey; 77% had been operational for less than 5 years (Jaffe, 1979). Federal funding for community-based alcohol and drug abuse treatment systems began incrementally in the 1960s with funding for services included in the Narcotic Addict Rehabilitation Act of 1966 (Public Law 89-793) (Besteman, 1992) and with the establishment of the Alcohol Countermeasures program within the National Highway Safety Administration (Institute of Medicine, 1990a). Resources expanded rapidly in the 1970s with the authorization of the National Institute on Alcohol Abuse and Alcoholism (NIAAA), the Special Action Office on Drug Abuse Prevention (SAODAP), and its evolution into NIDA. Data systems (e.g., Drug Abuse Reporting Program, National Alcoholism Program Information System, Client Oriented Data Acquisition Process, and National Drug and Alcohol Treatment Utilization System) were built to monitor the services and became a foundation for studies of treatment outcomes and, for the first time, provided data on service delivery. Reports based on these data systems provide the earliest analysis of community-based treatment for alcohol and drug disorders (Armor, Polich, & Stambul, 1978; National Institute on Alcohol Abuse and Alcoholism, 1975; Sells, 1974a; Sells, 1974b; Sells & Simpson, 1976). With the switch to block grant funding, however, the federal information systems fell into disuse (Institute of Medicine, 1990b).

STATE DATA SYSTEMS: 1980S AND 1990S

The Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) Block Grant was implemented in 1981; federal funding for alcohol and drug treatment was reduced more than 26%, and the resources were awarded to states rather than individual treatment programs (U.S. General Accounting Office, 1995). The Block Grant eliminated federal mandates for data collection in return for the reduction in funding and greater flexibility in the use of funds. As a result, federal data systems withered, and some states built their own data systems (Camp, Krakow, McCarty, & Argeriou, 1992; McCarty, McGuire, Harwood, & Field, 1998). The *Treatment Episode Data Set* (TEDS) was introduced in the late 1980s to standardize the collection of data at the state level. The Substance Abuse and Mental Health Services Administration (SAMHSA) issues annual reports that summarize admission characteristics (Substance Abuse and Mental Health Services Administration, 2001).

In response to the transition of the Block Grant into a Performance Partnership Grant, TEDS is evolving into a discharge data set and used to monitor system performance (Substance Abuse and Mental Health Services Administration, 2008).

Program Censuses

After the introduction of the Alcohol, Drug and Mental Health Services Block Grant in 1980 and the minimization of federal roles in data collection, federal monitoring efforts were limited to an irregular census of program and patient characteristics. The National Drug and Alcohol Treatment Unit Survey (NDATUS) was a census of primarily public alcohol and drug treatment services and provided point prevalence information on patient census and staffing patterns (Office of Applied Studies, 1995). As participation was voluntary, private programs have been and remain under-represented in the system. National Drug and Alcohol Treatment Unit Survey became the Uniform Facility Data Set (UFDS) in 1995 and no longer included questions on staffing (Substance Abuse and Mental Health Services Administration, 1997). In 2000, the survey was renamed the National Survey of Substance Abuse Treatment Services (N-SSATS) (Substance Abuse and Mental Health Services Administration, 2002). Despite changes in items and names over time and a substantial expansion of the sample, results are relatively stable year to year, and analyses reflect known changes in the patient population and program characteristics. The databases provided long-term perspective on changes in patients and programs over three decades. One analysis found a surprising consistency in staffing patterns between 1976 and 1991; at both points in time, counselors accounted for about 35% of the workforce, and physicians made up 2% of the staff (Brown, 1997). The program census database (NDATUS, UFDS, N-SSATS) remains a unique but under utilized resource for generating information on patient and program characteristics. During the 1990s SAMHSA altered the surveys to address changing strategic and political needs and modified the data collection methods. Long-term trend data, therefore, are no longer comparable.

In retrospect, although large amounts of data about alcohol and drug treatment were collected before and during the 1990s, the databases addressed administrative and reporting requirements and did not serve as foundations for substantive analyses of the organization and delivery of services. Opportunities to support services research were limited, and despite the richness of these data, the early administrative and patient data systems did not foster the emergence of health services research related to treatment for substance abuse.

MATURATION OF HEALTH SERVICES RESEARCH AT NIDA

Support for health services research was limited until the ADAMHA Reorganization Act of 1992 (P.L. 101-321) focused the missions of NIAAA, NIDA, and the National Institute of Mental Health (NIMH) on research and integrated the Institutes into the National Institutes of Health (NIH); SAMHSA was created to support services. The separation of research from services led to concerns that the Institutes would be inattentive to linkages between policy, practice, and research. To promote appropriate attention to services research questions, the reauthorization required the three research institutes to obligate 15% of their resources to research in health services. The set-aside created unique opportunities for behavioral science. Social science research had been minimized in the Reagan administration and continues to be at a disadvantage when competing against biomedical research. The set-aside catalyzed the growth and maturation of services research within NIDA; the Services Research Branch was formed, and a study section was created for grant review.

NIDA, NIAAA, and NIMH defined health services research and identified priority areas. They addressed broad areas of traditional health services research, as well as those focusing on changing treatment delivery systems. Topic areas included the organization and financing of care, impacts of managed care, access to care and utilization of services, outcomes, costs and cost-effectiveness, dissemination research, analyses of the workforce, and improvement of research methods and databases (National Institute on Drug Abuse, 1994; National Institute of Mental Health, 1999; Subcommittee on Health Services Research National Advisory Council on Alcohol Abuse and Alcoholism, 1997).

This new focus and explicit definition of a field of research pulled together disparate researchers already working in drug and alcohol research. Many of the "new" health services researchers had their past research funded through NIDA and NIAAA's programs on clinical, treatment, or epidemiology. The newness of the field and its heritage in clinical and epidemiologic research resulted in the bulk of research being focused on effectiveness or observational studies. Eventually, however, these foci broadened to include organizational, staffing, and financing issues.

THE FUTURE OF HEALTH SERVICES RESEARCH

The agenda for drug abuse services research has always had multiple stakeholders from outside agencies, which has led to tensions within the former ADAMHA institutes that other NIH institutes do not experience. The Office of National Drug Control Policy (ONDCP), for example, has budget authority over NIDA and has substantial interest in its services research portfolio. Even though NIDA does not

implement policy, the services research portfolio is scrutinized carefully for policy implications.

The 21st century brought a call both from inside and outside NIDA to review the services portfolio and identify future directions. The Blue Ribbon Task Force on Health Services Research (2004), consisting of researchers, administrators, and providers, reviewed and sorted NIDA's portfolio of health services research related to the prevention and treatment of drug disorders into six categories of investigations: (a) availability and access, (b) effectiveness and outcomes, (c) organization and management, (d) economics and financing, (e) methodology, and (f) technology transfer. The review led to 13 recommendations, including an increase in randomized, controlled trials of prevention and treatment interventions, prevention and treatment studies focused on at-risk populations outside of schools and treatment programs, development of prevention and treatment monitoring systems, assessments of best prevention and treatment practices including treatment as usual, more attention to the organizational, management and financing variables that affect patient outcomes, and investigations that promote the adoption and diffusion of effective prevention and treatment practices.

The report highlighted some of the conflicts between providers and researchers in the field in regard to evidence-based treatments and the role of NIDA research. It pointed to the disconnect that providers often feel when investigator-initiated research develops treatments that are labeled as "evidence-based," but are unworkable in the context of most programs. For example, the treatments are individual rather than group-based or program-level, and often there is no evidence that their standard treatments have worse outcomes than the new treatments. As one of four goals of the report, the Task Force identified the need to develop standards of scrutiny for the status of evidence-based treatments, as well as the importance of studying the effectiveness and costs of widely practiced services and including widely accepted community standard practices as control conditions in tests of new interventions. Other recommendations suggested studying the adaptation of individual-oriented practices to usual-practice settings and modalities.

The Task Force Report set the stage for the next decade of health services research related to treatment and prevention of drug disorders. Investigations may emphasize development of measures for quality of care, assessments of the adoption and use of evidence-based practices, and tests of strategies to promote the dissemination of medications. In addition, studies will examine organizational and financing influences on drug abuse prevention and treatment in a broad range of settings including criminal justice, primary care, emergency departments, and community settings. NIDA staff echoed the Task Force and its recommendations in an analysis of the report published in a peer-reviewed journal that emphasizes health

services research (Compton et al., 2005). These reports provide a foundation for the next decade of health services research on drug abuse treatment and prevention services and provide opportunity to reflect on how we arrived at this moment and to speculate about the future.

REFLECTIONS

McCARTY

I evaluated treatment, drunken driving interventions, and prevention services in the 1970s and 1980s without labeling it health services research. As the Director of Substance Abuse Services for the Commonwealth of Massachusetts (1989 to 1995), moreover, I was able to actively integrate data analysis and research into policy development. Not until participating in the development of NIAAA's National Plan for Health Services Research (Subcommittee on Health Services Research National Advisory Council on Alcohol Abuse and Alcoholism, 1997), did I recognize that my work was part of a broad discipline that influenced and evaluated health care policy. The quality and impact of health services research has expanded dramatically during the past decade and will continue to increase in importance as drug and alcohol prevention and treatment services become better integrated into health care.

ROMAN

From the early 1970s until the early 1990s, my work focused on workplace-based systems for identifying and reacting to alcohol and drug abuse problems. It has been very helpful to have my research placed within the framework of health services research, particularly in terms of the collegial opportunities that have been generated. I must add, however, that a major career disappointment for me has been the near-total disappearance of NIH and SAMHSA interest in using the workplace as a constructive intervention platform for substance abuse issues, despite the importance of employees as a target for intervention research. I adjusted my research lenses somewhat in the mid-1990s to studying the treatment system as a workplace and have maintained this stream of organizational and managerial research and research training since that time. Substance abuse treatment as a set of workplaces employing notably unique yet diverse workforces is an endlessly rich source for developing and testing general ideas in organizational theory and industrial/organizational (I/O) psychology. However, despite what I have seen as a sincere commitment by NIH to this research stream, we seem somehow blocked in our efforts to attract a significant group of established researchers in organizational studies and I/O psychology to use our platform for their research and research training development. This suggests a worrisome parochial potential for the future of this special interest.

Sorensen

For me, the emergence of the AIDS epidemic pushed drug abuse services research to the front of public debate. Promulgated policies were based on political beliefs with little research-generated knowledge to help guide policies toward reasonable solutions. People were asking disparate questions like: What would be the impact of cracking down on drug abuse, isolating HIV-positive drug users in institutions, expanding methadone maintenance, or legalizing heroin? My clinical studies needed to expand their vision to encompass cost, service organization, workforce issues, and ethics. I jumped into the deep waters of services research and had to learn very quickly.

Weisner

I remember the excitement generated among researchers when there was finally a real label in our field for what we studied. Research that had been funded under NIH epidemiology or treatment divisions was now health services research. It became legitimate to pay attention to systems of care, as well as the policy and clinical implications of research. The struggle has been to keep health services research theoretically based so that it can answer not only the "question of the day," but also the "next" question. Although health services research in the alcohol and drug field has matured greatly, a difficulty remains in understanding the importance of systems of care, rather than individual agencies, in understanding the interface between research and practice.

Expectations

Several issues or tensions are present that may influence the direction of drug services research in this decade. More than in the past, there is movement toward "strategic" rather than theoretical research and even more of a movement toward answering pressing questions rather than establishing a theoretical/conceptual base of research that endures and has relevance over time. Much of this agenda is defined by NIDA and SAMHSA, rather than as evolving research initiated by investigators. Because SAMHSA does not have research authority, requests for applications and program announcements that are strategically oriented are a visible part of their portfolio of awards, and NIDA and SAMHSA are braiding their funds in collaborative projects. It is too early to know whether this change will result in more involvement by states and community-based programs and move the larger research field forward. Another large influence for this decade, a flat and declining NIH budget, may impact funds available for health services investigator-initiated research; the Institutes tend to view bench research as more central to their mission.

Another large issue is taking into consideration changing settings of care, the role of prevention in services research, and—particularly—methodology (i.e., randomized vs. observational studies). For example, a spirited debate is occurring about the necessity of emphasizing evidence-based practices in behavioral health (Beutler, 2004; Levant, 2004; Norcross, Beutler, & Levant, 2006). An alternative approach is based on "outcomes-based" practices and quality improvement. Services research is likely to be involved in evaluating the potential and limitations of relying on evidence-based practices versus these alternative approaches. Broad assessments of process improvement and quality improvement are becoming major areas of interest. Similarly, implementation research should be emphasized more; that is, assessments of how community treatment programs actually implement and monitor the use of evidence-based practices should be considered.

Although drug services research has traditionally drawn from numerous disciplines, the future—particularly for strategic research—is likely to include more disciplines (e.g., economics, sociology, organizational behavior, organizational theory, and information technology) that are not currently well-represented among drug abuse services researchers. Research studies may be required to be more multi-disciplinary.

An on going emphasis for this specialty area is recruitment and training of new investigators. A training program at Brandeis University focuses on organizational and financing influences on treatment for alcohol and drug disorders. NIDA supports individual dissertation awards for young scholars focused on substance use health services issues. Many economists, organizational, and outcomes services researchers are being trained in other programs and as parts of senior investigators' research groups. This is due in part to the efforts of NIDA staff to foster such interest through their presence at national meetings of professional organizations. In particular, the Addiction Health Services Research annual meeting has become a critical networking mechanism for the field. Similarly, programmatic projects funded in schools of social work encourage new services research scholars and the development of such individuals may become evident in the near future.

Despite the comprehensiveness of the Blue Ribbon Report and the consensus of current research specialists about its recommendations, the field cannot flourish without a supportive infrastructure, and it is not reasonable to expect that such an infrastructure should or will exist within NIDA. Positive efforts in this direction are evident with the increasing specialization of the *Journal of Substance Abuse Treatment* toward health services research, and the repeated annual interest meetings of an informal group that has gained the title of Addiction Health Services Researchers. However, movement toward more deliberate recruitment of both youthful and recycled scholars and toward a support structure for continuing dialogue

are important to the growth and vitality of a specialty that has historically enjoyed substantial external support from NIDA.

References

Armor, D.J., Polich, J.M., & Stambul, H.B.
1978 *Alcoholism and treatment.* New York: John Wiley & Sons.

Besteman, K.J.
1992 Federal leadership in building the national drug treatment system. In D.R. Gerstein & H.J. Harwood (Eds.), *Treating drug problems* (Vol. 2, pp. 63-88). Washington, D.C: National Academy Press.

Beutler, L.E.
2004 The empirically-supported treatments movement: A scientist-practitioner's response. *Clinical Psychology: Science and Practice, 11,* 225-229.

Blue Ribbon Task Force on Health Services Research
2004 *Report of the Blue Ribbon Task Force on Health Services Research at the National Institute on Drug Abuse.* Bethesda, MD: National Institute on Drug Abuse, (p. 3).

Brown, B.S.
1997 Staffing pattern and services for the war on drugs. In J.A.Egertson, D.M. Fox, & A.I. Leshner (Eds.), *Treating drug abusers effectively* (pp. 99-124). Malden, MA: Blackwell Publishers and the Milbank Memorial Fund.

Camp, J.M., Krakow, M., McCarty, D., & Argeriou, M.
1992 Substance abuse treatment management information systems: Balancing federal, state, and service provider needs. *The Journal of Mental Health Administration, 19*(1), 5-20.

Compton, W.M., Stein, J.B., Robertson, E.B., Pintello, D., Pringle, B., & Volkow, N.D.
2005 Charting a course for health services research at the National Institute on Drug Abuse. *Journal of Substance Abuse Treatment, 29,* 167-172.

Ginzberg, E.
1991 Health services research and health policy. In E. Ginzberg (Ed.), *Health services research: Key to health policy* (pp. 1-19). Cambridge, MA: Harvard University Press.

Institute of Medicine
1990a *Broadening the base of treatment for alcohol problems.* Washington, DC: National Academy Press.

Institute of Medicine
1990b *Treating drug problems.* Washington, DC: National Academy Press.

Jaffe, J.H.
1979 The swinging pendulum: The treatment of drug users in America. In R.I. Dupont, A. Goldstein, J. O'Donnell, & B. Brown (Eds.), *Handbook on drug abuse* (pp. 3-16). Washington, DC: U. S. Government Printing Office.
Levant, R.F.
2004 The empirically validated treatments movement: A practitioner's perspective. *Clinical Psychology: Science and Practice, 11,* 219-224.
McCarty, D., McGuire, T.G., Harwood, H.J., & Field, T.
1998 Using state information systems for drug abuse services research. *American Behavioral Scientist, 41*(8), 1090-1106.
National Institute of Mental Health
1999 *Bridging science and service: A report by the National Advisory Mental Health Council's Clinical Treatment and Services Research Workgroup* (Rep. No. available at www.nimh.nih.gov/research/bridge.htm). Bethesda, MD: National Institute of Health.
National Institute on Alcohol Abuse and Alcoholism
1975 *NIAAA Alcoholism Treatment Program Data Collection and Monitoring System.* Rockville, MD: National Institute on Alcohol Abuse and Alcoholism.
National Institute on Drug Abuse
1994 Health Services Research Rockville, MD: National Institute on Drug Abuse.
Norcross, J.C., Beutler, L.E., & Levant, R.F.
2006 *Evidence-based practices in mental health: Debate and dialogue on the fundamental questions.* Washington, DC: American Psychological Association.
Office of Applied Studies
1995 *Overview of the National Drug and Alcoholism Treatment Unit Survey (NDATUS): 1992 and 1980–1992.* Rockville, MD: Substance Abuse and Mental Health Services Administration
Sells, S.B.
1974a *Studies of the effectiveness of treatments for drug abuse: Vol. I: Evaluation of treatments.* Cambridge, MA: Ballinger Publishing Company.
Sells, S.B.
1974b *Studies of the effectiveness of treatments for drug abuse. Vol. II: Research on patients, treatments and outcomes.* Cambridge, MA: Ballinger Publishing Company.

Sells, S.B., & Simpson, D.D.
1976 *Studies of the effectiveness of treatments for drug abuse. Vol. V: Evaluation of treatment outcomes for 1972–1073 DARP Admission Cohort.* Cambridge, MA: Ballinger Publishing Company.
Subcommittee on Health Services Research National Advisory Council on Alcohol Abuse and Alcoholism
1997 *Improving the delivery of alcohol treatment and prevention services: Executive Summary* (Rep. No. NIH Publication No. 97-4224). Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism.
Substance Abuse and Mental Health Services Administration
1997 *Overview of the FY 96 Uniform Facility Data Set (UFDS): Data from 1996 and 1980-1996.* Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies.
Substance Abuse and Mental Health Services Administration
2001 *Treatment Episode Data Set (TEDS) 1994–1999: National Admissions to Substance Abuse Treatment Services.* (Vols. DASIS Series S-14, DHHS Publication No SMA 01-3550) Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies.
Substance Abuse and Mental Health Services Administration
2002 National Survey of Substance Abuse Treatment Services (N-SSATS): 2000. *Data on Substance Abuse Treatment Facilities* (Rep. No. DASIS Series: A-16; DHHS Publication No. SMA 02-3668). Rockville, MD: Substance Abuse and Mental Health Services Administration.
Substance Abuse and Mental Health Services Administration
2008 *SAMHSA Data Strategy: FY 2007 - FY 2011.* Rockville, MD: Substance Abuse and Mental Health Services Administration.
U.S. General Accounting Office
1995 *Block Grants: Characteristics, Experience, and Lessons Learned.* (GAO/HEHS-95-74) Washington, D.C.: U. S. General Accounting Office.