

**BENEFITS OF INTEGRATING  
ASSESSMENT TECHNOLOGY WITH TREATMENT:  
THE DENS PROJECT**

**DENI CARISE AND ZGE G REL**

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Although Americans spent over \$65 billion for drugs in 2000 (Office of National Drug Control Policy [ONDCP], 2002a) and more than 1 million Americans enter addiction treatments each year (ONDCP, 2002b), little known about this population. In particular, there is no ongoing, generalizable, descriptive information on such basic characteristics as demographics; types and amounts of substances used prior to treatment entry; or the nature and severity of addiction-related problems in the areas of medical health, employment, criminal activity, family relationships, or psychiatric status. The gaps created by this lack of information on the population of substance abusing or dependent individuals in our nation's treatment system, as well as limited information at state and local levels on the treatment provided, has been recognized as a problem by the ONDCP (2002c).

This gap is due, in large part, to a lack of collaborative systems between researchers and clinicians. There is no system that is beneficial to treatment programs, clinicians, and patients while also providing ongoing, timely, and useful information for policymakers or researchers. In response to this information gap, and with the support of the ONDCP, we have designed and initiated the Drug Evaluation Network System (DENS). In this chapter we first review and discuss a number of clinicians' and researchers' goals and needs in providing and evaluating substance abuse treatment. Next we present the rationale of the DENS project and one of the several studies built on the DENS platform: "Linking Assessment Technology to Improved Patient Care" (funded by a grant from the National Institute on Drug Abuse), hereafter called the "Tech Study." This project is designed to meet the goals of treatment providers and researchers and to be beneficial to both. Finally, we discuss practical implementation issues in real-world treatment settings and how treatment program staff and DENS staff have collaborated have

collaborated in meeting the varied needs of clinicians, treatment providers, and researchers.

Researchers and clinicians must blend their efforts to improve outcomes in substance abuse treatment. This can be most effectively achieved through communication between clinical staff and researchers leading to the development of research protocols that have clinical value to treatment programs and their staff. Improving addiction treatment requires researchers, clinicians, and policymakers to establish and maintain a network of true collaboration for the benefit of the patient.

## WHY INTEGRATE TECHNOLOGY AND TREATMENT?

### BENEFITS FOR CLINICIANS AND RESEARCHERS

#### **Benefit of Comprehensive Information on Treatment-Seeking**

##### **Individuals and Treatment Programs**

###### *Patient Information*

Coexisting problems such as unemployment, crime, mental, and physical health problems influence the course and outcomes of treatment and are significant public health concerns in their own right. Research indicates that addiction treatment outcomes improve when patients are provided with services to meet these co-existing problems (McLellan et al., 1998). A system that includes information relevant to the multiple clinical, administrative, fiscal, evaluative, and policy questions that arise regarding the sequelae of substance dependence would be of benefit to both clinicians and researchers.

###### *Program Information*

Little information is available on what, specifically, is offered in treatment programs; the field of substance abuse has long believed treatment delivery to occur in a “black box,” with little known about exactly what happens during the delivery of treatment for substance abusers. The elucidation and quantification of the components of treatment activities will allow for the evaluation of their success and the identification of activities that are most beneficial to specific patients.

### *Tracking Trends*

There is a need for an ongoing, nationwide, scientifically valid clinical information system that focuses on treatment programs and their patients. Early, accurate reporting on the emergence of new types of drug problems (such as current concerns regarding use of “club drugs” or the nonmedical use of Oxycontin) would allow for proactive clinical efforts. Information regarding the use of welfare, criminal justice and mental health resources by those entering addiction treatment would allow local, state, and national policy makers as well as treatment providers to identify differences among groups of patients, programs, and communities and to plan more coordinated and efficient programs to deal with the multiple problems of substance abusers.

### **Benefits of a More Timely, Sensitive, and Responsive Reporting System**

There has been substantial change in the characteristics of drug problems and the nature of drug treatment throughout the 1990s. In the years to come, there will be an even greater need for “real-time” information about patient characteristics and their addiction-related problems to the individuals who plan and administrate the U.S. substance abuse treatment system.

Many research studies have provided invaluable information, but by the time the findings become available, they might no longer be pertinent. For example, with an integrated system, information on the impact of a national crisis such as the terrorist attacks of September 11, 2001, could be collected at treatment programs immediately, and findings could be available in time to guide the continued efforts of both treatment providers and researchers. Without such a system, information on the impact of such a crisis would not be systematically collected in a timely fashion, and the findings would be of little use. Thus, a system that provides information on a timely basis so that corresponding modifications can be made to more effectively meet patients' needs would be beneficial.

In addition, an ongoing data collection system could establish a common ground and available resource for researchers. For instance, if clinicians are interested in better understanding the treatment of Hispanic men who use amphetamines with coexisting legal problems, then they will have resource in the larger, ongoing system. Also, designing and completing a study with this population can be done in a more timely and cost-efficient manner, because the overall system would already be place. Admission data provided by this system would make it possible to direct study participant recruitment at the programs most likely to admit the patients who are the focus of the specific area of clinical interest or outcome study, thus preventing a large, slow, costly, and fragmented effort at collecting outcome information on a general sample. As with the previous example of implementing a study after the September 11 terrorist attacks, any number of studies, large or small, could be implemented more readily and in a less costly manner if a standardized system of collecting information were in place.

## **Benefits of a Clinically Useful, Easily Implemented System That Streamlines Paperwork**

Treatment providers want to collect information that is clinically useful and applicable to the treatment process. If such information is presented in a format that provides further insight into patients' problems and needs, such as clinically relevant reports, this data collection is more useful. A system that expedites assessment and treatment planning, and results in more time spent with patients and a more cost-efficient treatment process, will be beneficial to treatment providers, payors, and policymakers.

Easy implementation of systems is particularly necessary because the turnover rate for substance abuse treatment personnel is estimated to be approximately 50% per year. Lack of adequate staffing and resources make clinic clinician's jobs even more difficult and required tasks even harder to complete.

Treatment providers will be able to work more efficiently if the reporting requirements mandated by federal, state, local, and accreditation agencies are standardized and easier to fulfill. A single system, designed through collaboration between clinicians and researchers, that integrates and captures all the required information, would overcome redundancy and allow clinicians to invest more of their time providing direct clinical care.

We have so far presented some of the benefits of integrating technology, in the form of an information or assessment system, in the substance abuse treatment and research fields. In the following section we discuss how we have worked toward achieving the benefits previously mentioned and how research and practice can be combined to create a workable, even desirable, system.

## DESIGNING SUCH PROJECTS WITH EXAMPLES FROM DENS

To gather information that provides the benefits listed in a cost-effective manner, the use of a random sample of U.S. treatment programs is necessary. To provide ease of data collection and speed of data transfer, an interactive system that is easy to implement and clinically useful is important. The system should provide information that is beneficial to clinical staff in making patient placement decisions and in planning treatment and doing administrative reporting and that is available rapidly and continuously. We now discuss some of the specific elements of DENS that were designed to meet these needs.

### **Meeting the Need for Comprehensive Information on Treatment-Seeking Individuals**

#### *Patient Information*

The Addiction Severity Index (ASI; McLellan et al., 1992) is the primary source of patient information in the DENS. The ASI includes information on the nature, number, and severity of drug and alcohol problems and characterizes the severity of patients' medical, legal, employment, family/social, and psychiatric. Our decision to focus on the ASI followed more than 20 years of replicated reliability, validity, and utility evaluation of the instrument with a very wide range of substance abusers (McLellan et al., 1992, McLellan et al., 1985; McLellan, Luborsky, O'Brien, & Woody, 1980). Most of the participating treatment programs use the ASI as the intake or evaluation instrument, and use the information to make clinical decisions regarding patient placement and treatment care planning.

#### *Usefulness of Patient information*

DENS is designed to include tools for increasing the usefulness of collected data for

treatment program administrators, counselors and policymakers. For example, program administrators can make use of data collected at their site with the four automated comparison reports generated by the DENS ASI software, such as a comparison of patients currently involved in the criminal justice system with those not involved in the criminal justice system or an automated comparison of demographics and treatment needs by gender.

Each treatment program is also given quarterly reports that compare its site-specific data to comparable programs in the DENS database (i.e. compares a methadone treatment program to all other methadone programs). These quarterly reports provide numerous comparisons of patients from all DENS participating sites. Program administration staff place a high value on these reports, which they have used to justify funding, help with accreditation proceedings, and reallocate staff. All nonidentifying data from all DENS sites available in various formats, such as ASCII, SPSS, and SAS files. All of this information and the reports are also available on the DENS Web listed at the end of the chapter.

### *Program Information*

The Addiction Treatment Inventory (ATI) is a standardized measure that we developed as the primary source of information on “service delivery units” (Carise, McLellan, & Gifford, 2000). The ATI provides descriptive information on important structural, organizational, and service delivery aspects of the treatment programs. It was designed to be compatible with earlier surveys of treatment programs. ATI information is gathered each year and includes data on the type of facility, services and referrals provided, types of patients accepted, background of staff, and funding sources.

### *Gathering Information That Represents Patients Presenting for Substance Abuse Treatment*

The goal of the DENS system is to represent patients who are entering substance abuse treatment across the United States, including tracking trends of patient needs and characteristics. Similarly, in many treatment programs across the country, the directors, and clinicians want to achieve the same goal within their universe of patients, that is, those entering a specific clinic or group of clinics. Likewise, there is a need to collect this information at state and county levels, It is not feasible to implement a data collection system that requires regular reporting from entire populations of treatment programs ant any level (national, state, county, or local); thus, we decided early on that the system will attempt to represent the most prevalent treatment modalities and sample more heavily from the areas of greatest treatment utilization. DENS collects information on patients in both alcohol and drug treatment programs that provide residential, inpatient treatment; methadone maintenance; or various levels of outpatient treatment. Thus, use of a random sample, at any level, allows participants to produce program or policy- relevant information with the least burden.

### **Meeting the Need for More Timely, Sensitive, and Responsive Reporting**

A significant value of data collected through DENS is the availability of real-time information on patients entering the treatment system. DENS-participating treatment programs participating in the DENS transfer their data biweekly via high-speed modem to the DENS (SQL Server) workstation at the Treatment Research Institute in Philadelphia, where data across the United States are received and stored.

DENS was designed with the capability to repeatedly add and change up to 35 additional questions, so specific, contemporary information can be collected, allowing emergent trends to

be identified in a timely manner. The system involves a two-way transfer that permits the central system to change additional questions as the need arises. This feature of the DENS keeps the information current and streamlined by asking targeted questions of administrative and clinical significance, getting answers for a desired period of time, and then discontinuing those questions in favor of other areas of interest that will inevitably arise.

DENS was designed to provide the framework to fill the need for an ongoing, nationally representative data collection system that allows us to track trends in patients coming into treatment. DENS currently collects data on treatment programs and their patients at approximately 100 service delivery units. DENS provides scientifically valid clinical information that can be used to document trends in a timely manner, including early, accurate reporting on the emergence of new types of drug problems, criminal justice and mental health resources used by individuals entering addiction treatment; and so on. Just as the goal of the DENS system is to represent patients at a national level, states, counties, and treatment providers benefit from having a representative picture of the patients coming into treatment at their level.

### **Meeting the Need for an Ongoing, Available Framework for Other Studies:**

#### **Examples from the TECH Study —**

##### **Linking Assessment Technology to Improved Patient Care**

One of the studies for which DENS was able to provide a framework is the one funded by the National Institute of Drug Abuse (NIDA): “Linking Assessment Technology to Improved Patient Care,” called the *TECH study*. The primary goal of this study is to improve patient assessment and increase the number and matches of services received in treatment by providing clinicians with relevant, reliable, and user-friendly assessment technology; the DENS ASI software; and resources and tools to aid them in treatment planning. For this purpose, with information from

the United Way's "First Call for Help," we developed the DENS Resource Guide (DENS RG).

The DENS RG provides information about wraparound services (e.g., those related to employment, housing, legal, and medical) available in Philadelphia to assist clinicians in developing individualized treatment care plans that will lead to better patient needs-services matching. We have developed the DENS RG software as well as a hard copy of the RG in a binder form. Fifty counselors from 10 substance abuse treatment centers in Philadelphia are participating in the TECH study. Preliminary results show that there is (a) a better match between the needs of patients and the services they receive and (b) a higher number of services delivered in patients whose counselors received the training with the DENS-RG. DENS provided the framework on which to easily build the TECH study, including providing access to treatment sites, the DENS ASI software, data collection procedures, and an established assessment training protocol.

### **Meeting the Needs for Easy Implementation of Clinically Relevant Information**

#### *User-Friendly DENS Software*

Research and clinical staff worked together to design the DENS ASI and the RG software to help make patient assessment more comprehensive and clinically relevant and to allow for the rapid development of individualized patient treatment care plans. Programs participating in the DENS network receive a laptop computer with software that collects ASI assessment information and prints a clinically useful narrative report on each patient. Because the burden for DENS data collection was often added to treatment staff admissions personnel, the system needed to be as simple and as clinically useful as possible. The data collected ideally replace much of the program's current intake package rather than simply adding further data collection.

The laptops allow the interviewer to establish good rapport with the patient by maintaining appropriate posture, eye contact, and body language, as would occur if a typical paper and pencil format were used. There is also a comprehensive manual that includes the intent of each question, coding conventions, and “probes.” Finally, all clinicians are provided with our toll free number to receive help from DENS staff.

Another software program designed to meet the need for easy implementation of clinically useful research studies was developed as a part of the TECH study. We designed the DENS RG software to assist clinicians in tailoring their treatment care plans in a time-efficient and competent way. This software locates services in medical, employment, legal, family/social, and psychological areas offered at other agencies and programs in Philadelphia with the use of simple keywords and a click of a button. Information about the selected agency or program, its address, phone/fax numbers, kind of services offered, eligibility criteria, gender and ages of individuals served, languages in which services are offered, whether the facility is handicap accessible, as well as fees and transportation information are displayed and can easily be printed. We believe that the RG is a tool that will save clinicians a significant amount of time and result in increased services received and better needs-services matching.

#### *Training of Providers to Increase the Clinical Usefulness of Data*

DENS staff have provided more than 100 sessions of DENS ASI training to clinicians throughout the United States, with an average of 15 attendees at each session. Clinicians at all participating DENS and TECH study sites have been trained to administer the ASI using the DENS software. Our primary goals during training are to develop or enhance clinician skills in using the ASI for patient assessment and treatment care planning and to better learn how to make

such a data collection system useful in clinical settings.

In the DENS ASI software here is a comment box in which the interviewer can type comments for every question as well as a section comment box at the end of every section. DENS software transforms the ASI data into three reports to have immediate clinical value at the time of admission. The Narrative Report is a 6- to 9-page clinical narrative suitable for use as an intake or admission summary and as a guide to initial treatment planning for each patient. Interviewer comments are integrated with the ASI data, and problem areas are ordered from most severe to least severe. The Narrative Report does not read as a stilted computer-generated program, but as an integrated, comprehensive document describing the patient and the report of current problems and concerns. It is used by many providers to satisfy state requirements for an individualized intake evaluation or as the beginning of the "biopsychosocial" assessment.

The second report is the Treatment Care Plan Problem List, which lists patients' problems organized by section (e.g., medical, employment,) along with a template for treatment care planning. This report helps clinicians in treatment planning by allowing them to easily prioritize the need for treatment in each of the ASI sections. A third printout, the ASI Report, is the full ASI interview printed out question by question with the corresponding answers and comments as well as graphs that represent the severity rating profiles. All three reports are easily exportable to a Word Processing document for editing and expanding.

Thus far we have detailed how we planned to make our data collection system, DENS, meet the needs of researchers and clinicians. In the following sections we will discuss the practical implication issues that arose when implementing DENS in real-world treatment settings, and finally, how we have addressed these issues while attending to the needs of clinicians, administrators, and researchers.

“REAL-WORLD” IMPLEMENTATION ISSUES:  
RESEARCHER AND PROVIDER PERSPECTIVES

To address the needs of clinicians, policymakers, treatment providers and researchers, we developed the DENS data collection system. We hope this is a substantial step toward accomplishing our goal of improving substance abuse treatment and providing national, real-time, policy-relevant information. However, various real-world implementation issues arose throughout the project, particularly regarding the recruitment of treatment programs, implementation of computerized data collection, and provision of ongoing training to clinicians to use the system accurately and fully. Researchers and treatment providers must work in collaboration to resolve problems and to develop methods of preventing the potential problems seen in the following areas.

**Treatment Program Realities:**

**Reporting Requirements, Resources, and Staffing**

*Multiple Reporting Requirements*

A significant concern for all treatment programs are the multiple reporting and data collection requirements from various sources (i.e., federal or state requirements, managed care and reimbursement procedures, and research protocols). Clinicians are often required to prepare multiple assessment and progress reports in specified, of overlapping formats, which is cumbersome and time consuming. As a result, clinicians spend a significant amount of time completing paper work to meet various requirements from federal, state, local, and accreditation agencies. This understandably serves to decrease their motivation and willingness to become a

part of an additional data collection system that may require them to invest time in receiving training and in utilizing the tools of the system.

### *Resources*

Although over the 6 years that the DENS staff have been working with treatment programs the level of computer or assessment resources has increased, there continues to be little funding available for the expansion of technical capabilities. Because many treatment programs are not equipped to keep up with technological advancements, clinicians at these programs are generally unfamiliar with computerized assessment and the corresponding computer technology. They have often developed other techniques of performing their tasks, mainly using paper-pencil forms. The result is a more difficult transition to use of new computerized systems. Some clinicians are hesitant to use computers during intake assessment, for several reasons. They may believe that their patients will be uncomfortable while being interviewed with a computerized assessment tool and may fear that some patients harbor concern for the confidentiality of the information they provide. In addition, clinicians themselves may be uncomfortable with using the computers.

Currently, when a new treatment program enrolls in DENS, it is likely that the program has a computer system and maybe some desktop PCs; however, 70% of the counselors in our current system report not having access to the Internet, and 50% report not having access to any computer. In programs where computers are available, counselors often report the need to use several software systems to fulfill requirements of the agency and state, funding sources, and accreditation agencies. Researchers without a full understanding of the multiple requirements already in place often try to impose another data collection system on treatment programs. For

example, the existence of data collection systems already built into procedures at treatment programs such as the Veterans Health Information Systems and Technology Architecture (VISTA), the system at the Veterans Affairs Medical Center, or other provider-purchased software systems lead to the problem of double data entry when getting involved in another system, causing significant time and staffing concerns. In addition, many systems are not built to be interchangeable or compatible with other systems, thus fulfillment of multiple needs of varying systems difficult. This highlights the need to design methods to blend different systems and make them compatible with each other at the technical and content levels to allow programs to meet reporting requirements in a more efficient way, as well as adding clinical value to the data collection process.

### *Staffing*

In addition to the structural and organizational difficulties encountered at treatment programs, sites are also affected at the personnel level by a debilitating staff turnover rate of 50% per year on average. This leads to immense staffing pressures and understandably decreases the motivation and willingness of treatment providers and counselors to participate in yet another data collection effort requiring staff training and daily information gathering. Program directors or clinical supervisors often find it difficult to encourage employees to attend trainings because of a lack of staff coverage, or financial limitations, or both. Often, scheduling and completing trainings is a tough task even if the training team is highly flexible in arranging logistics and is ready to accommodate for the majority of program and clinician needs. Our experience in recruiting DENS sites has been that a motivated program director or clinical supervisor is very important in developing a team of counselors who are willing to collect information in a timely

and accurate manner; however, counselors are the most important participants in these systems, and their level of involvement has a significant impact on the ability to gather this important information within real-world community-based treatment programs.

## RESOLVING PRACTICAL IMPLEMENTATION ISSUES:

### AN EXAMPLE WITH DENS

#### **Multiple Reporting Requirements**

An example of one effort to minimize the amount of time necessary to collect information required at the treatment program is the development of a system and corresponding form to concurrent collection of the intake assessment and biopsychosocial data. Because most treatment programs mandate both, and the DENS intake covers most, but not all, of the items required for a biopsychosocial assessment, we a supplementary form for programs to enable the DENS ASI to be used as the biopsychosocial assessment. This supplementary form includes those questions required in most biopsychosocial interviews that are not covered in the ASI. Additional efforts include working with state or accreditation systems to obtain permission to allow the reports from the DENS system to fulfill state requirements or accreditation requirements such as those of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

In the implementation of the DENS system we have allocated both staff and money to allow us to provide the most resources possible when working with treatment programs. We have computer systems staff, including a programmer, available to evaluate the current systems (if any) in treatment programs, increase the usefulness of our software system to fulfill other needs

at the treatment program, and to integrate our system with current information system procedures. We also have training staff to provide various levels of training requested by the treatment program—not just training in DENS software but overall training in patient assessment, treatment care planning, and use of aggregate data collected, if desired by program staff. This is our effort to make participation in DENS as beneficial as possible. As mentioned, we also provide all necessary hardware and software to the treatment programs, including laptops, printers, and operating systems. In addition, we also provide all necessary hardware and software to the treatment programs, including laptops, printers, and operating systems. In addition, we were able to budget for stipends to the treatment program or the staff to partially offset the costs of data collection. It is important for researchers to understand that when treatment programs agree to participate in any type of study or data collection effort they are allocating valuable and scarce resources to the effort, regardless of how minimal the time or resources involved may seem when compared with the benefits of the information collected. Treatment program staff want to help with data collection efforts, but their first allegiance is, and always should be, to the daily provision of services to their current patients.

When programs are using other data collection systems, we make every effort to blend the two systems or provide ample incentives to increase the benefits and make-up for the extra work in implementing dual-data entry systems. We have also been flexible with our requirements in DENS such as developing a shortened version of the ASI (the *ASI Lite*) software.

### **Lack of personnel**

As we mentioned earlier, treatment programs often operate with limited or minimal staff, which often results in difficulty keeping staff motivated, particularly for participating in additional data

collection efforts. To address this, we developed materials the counselors seem to value, such as our training binder, which contains a question-by-question ASI manual, articles, vignettes, and other information as well as a “fast answers” manual for the DENS ASI software. We also provide continuing education credits and certificates for counselors who attend our training and pass competency measures. We send quarterly reports and hold meetings with the program directors and counselors to discuss recent developments and findings. These materials can all be viewed on the DENS Web site listed at the end of this chapter.

### **Counselor and Patient Concerns**

Some counselors expressed their concern that patients would be uncomfortable using computerized data collection, particularly with regards to confidentiality of the information. However, based on our interactions with clinicians who have been using the DENS ASI software, we know that the interview flows very naturally and efficiently, especially after the administration a couple of practice interviews. With regard to the confidentiality concern, we inform the clinicians about data transfer procedures, specifically, that when data are transferred to the central server at the Treatment Research Institute no identifying information is included. No one outside the treatment program receives identifying information about patients.

Through our pilot and expansion phase of implementing DENS, we have learned about the needs of sites, program administrators, and clinicians, and we have worked on accommodating these needs. DENS has proved to be successful not only at the implementation level but also at the maintenance level. Currently, data on more than 30,000 patients entering substance abuse treatment throughout the United States have been accumulated at the DENS central server in Philadelphia. We believe that DENS has proved to be a powerful tool in many

aspects and will continue to expand to serve the needs of patients seeking treatment for substance abuse problems.

### **Training**

It was important to provide training for clinicians on administering the ASI correctly and on using the DENS ASI software package successfully. To accommodate for difficulty in allowing all staff to attend DENS trainings, we have offered to hold trainings numerous times so all staff interested can develop the necessary skills to participate in the DENS. We are also developing a video version of the training as well as adding resources to our budget to provide stipends to programs or trainees when participation in the training takes staff away from their clinical duties to such an extent that the program suffers, or when it requires counselors to work extra shifts.

### **Staff-Turnover**

Staff turnover has posed a significant challenge to the collection of valid, consistent data. We expected some turnover and budgeted for shorter “booster” training in the following year, but the turnover rate was underestimated, and there is a need for more extensive, ongoing training and site visits. This need prompted us to develop additional, easy-to-use training manuals and “quick reference guides.” The toll-free hotline continues to be available, and is staffed approximately 10 hours each day.

## **CONCLUSION**

There is a significant need for an ongoing technology in the assessment and documentation

of care in substance abuse treatment programs. This will allow for the streamlining of the various reporting requirements burdening treatment providers as well as an increase in the understanding of patients' problems and the match between those problems and the services patients receive. One ongoing real-time system for collecting clinical information from individuals entering addiction treatment programs in the United States is DENS, a computer-based system that allows for rapid, standardized, clinically and policy-relevant data collection. This system has been tested in, and refined by participation from professionals at, more than 100 treatment programs. The system has well accepted and appreciated by most programs that have participated. Furthermore, we have been able to provide rapid, clinically relevant, policy-oriented information, which has not been available to this point, that complements and enhances information from other systems, and that can provide a strategic framework for future outcome studies.

DENS is currently expanding to a national, random sample of treatment programs. The DENS data can be used to track emergent phenomena (e.g., the appearance of new drug problems) and therefore address issues of immediate policy interest. DENS can also document a nationwide (or programwide) presence or increase in specific problems (e.g., new drug patterns, increased admission of welfare referrals) with a responsiveness that was previously unavailable. We hope these data will be used to inform clinicians, treatment providers, and policymakers. For example, if the DENS system had been available 10-20 years ago, it is possible that members of the scientific community could have gathered earlier information on the spread of AIDS in the substance abusing community, that policymakers could have used the information to alter funding strategies more quickly, and that clinicians could have more easily adapted treatment services to provide for the needs of substance abusers with ADIS. This is just one example of

many of the use of technology to collect information in U.S. substance abuse treatment programs. Consistent with our view that this information is necessary for many purposes the DENS reports, presentations, publications, and database will continue to be publicly available and can be accessed on the World Wide Web at <http://www.densonlin.org>.

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