

**Implementation of IDDT in
Vermont Community Rehabilitation and Treatment Programs**

**Report Prepared for:
SAMHSA
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Project Information

**Training and Evaluation of Evidence-Based Practices
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PROJECT GOALS AND OBJECTIVES

Direct public mental health services in the state of Vermont are provided by ten designated community mental health agencies, each of which has a Community Rehabilitation and Treatment (CRT) program to serve the complex needs of people with severe and persistent mental illness. A number of features of the evidence-based practice of integrated dual disorder treatment (IDDT) are built into the regular work of these programs. All operate from a multidisciplinary perspective that emphasizes consumer choice, time unlimited service and offer a range of psychological and social supports tailored to individual need. The overarching objective over the past few years has been to embed integrated substance use treatment capability in these programs so that it becomes another part of their 'business as usual'. This was not a pilot project but a concerted effort to establish practices that could be sustained over time. The overall goals of this grant activity were to:

1. Systematically develop, evaluate and monitor the evidence-based practice of integrated dual disorder treatment (IDDT) for adults with severe and persistent mental illness (SPMI) statewide.
2. Train and support staff in each CRT program to develop clinical and programmatic capacity to provide IDDT.
3. Support the local and state-level systems change necessary to sustain the clinical practice.
4. Assure fidelity of the practice to the IDDT model in CRT programs statewide.

To provide structure to the statewide implementation of integrated treatment practices based on definitions and measures described in the IDDT Toolkit, the Comprehensive, Continuous Integrated System of Care (CCISC) model developed by Dr Ken Minkoff was adopted. This offers an incremental approach to implementation based on continuing quality improvement principles. Dr Minkoff together with Dr Chris Cline provided consultancy on application of the CCISC approach. Specifically, the goals were pursued by:

1. Using a **“train-the-trainers” approach**: representatives from each of the CRT programs attended statewide trainings on the practice and the systems change necessary to support it. Their role was to act as program champions, lead implementers, and expert trainers for IDDT, and “institutionalize” the practice in clinical and administrative procedures at their respective sites. Other stakeholders from consumer, inpatient, substance abuse programs and the traumatic brain injury program were also invited to participate in statewide training sessions.
2. Using an **annual Charter process** to define activity for the coming year: this is a collaborative consensus document signed by providers, other stakeholder groups and state leaders that outlines what should be achieved in the coming year.
3. Hiring **two dedicated staff at state level**, a Coordinator and an Evaluator, to accelerate the statewide implementation process. They were responsible for organizing training and expert external consultations, and providing ongoing technical assistance and feedback on progress. They also set up structures to facilitate state level systems change to support provider IDDT implementation and address common barriers encountered in that process.
4. Establishing a **multi-stakeholder CCISC Steering Group** with provider, consumer, Department of Mental Health and Division of Alcohol and Drug Programs representation to advise on and guide implementation strategy.
5. Providing **mini-grants to providers** to offset start-up costs and provide incentives for implementation. These incentive payments were made available for completing action plans, milestone reports and participating in annual site review exercises.

IMPLEMENTATION PROGRESS HIGHLIGHTS

Partnership through the Charter Process and Training-of-Trainers

- For the past 4 years, minimum expectations for implementation progress have been outlined in an annual Charter consensus document (see *Charter*). These have been built incrementally to allow for consolidation of policies and procedures at state and provider level to support long-term maintenance of integrated treatment practices
- All CRT programs have two or more staff designated as members of the statewide CCISC trainers cohort to promote systems change and develop IDDT skills within their programs
- The trainers cohort (usually including the program directors) have received training on the clinical aspects of integrated treatment and the systems change to support it. (see *Training and Technical Assistance*).
- At nine of the ten sites, the CCISC trainers have formed the core of local multidisciplinary steering groups to develop and monitor implementation plans
- At most sites these steering groups have taken on the role of consult groups providing training/supervision opportunities via presentation of challenging dual diagnosis cases
- All sites have participated in a guided self-evaluation/fidelity measurement exercise

Integrated Treatment Capacity for CRT Clients

All CRT programs have addressed the following over the course of current funding:

- Welcoming mission statements and policies
- Developing co-occurring disorders awareness and attitudes in-house
- Screening and assessment protocols for co-occurring disorders
- Stage-specific treatment planning
- Improved monthly reporting requirements
- Exploring electronic client level monitoring systems
- Workforce development to include co-occurring disorders competencies (e.g., core substance abuse knowledge, motivational interventions, CBT)
- Offering skills groups for clients with co-occurring disorders
- Developing in-house policies (welcoming housing, supported employment, appropriate medication, harm reduction, contingency management)
- Enhancing outreach to medical, business, and criminal justice communities
- Enhancing outreach to recovery, family and self-help organizations

Identification of IDDT eligible Clients

Accurate identification of clients eligible for integrated treatment is critical for monitoring effectiveness of the practice. Charter documents have set a goal of increasing recognition rates by 10% statewide per annum. By June 2007 prevalence of DSM substance disorders among CRT clients reported to the state had increased by 53% to 28%. This was achieved by:

- Collaborative monthly state database feedback reports started in November 2004
- Systematic caseload reviews by agencies identifying clients for re-assessments and protocols to ensure transfer of chart information to local systems
- Intensive technical assistance focused on efforts on data reporting improvements

Recognizing that there are still some discrepancies between electronic reporting and charts, a further systematic caseload review is currently underway at each site. Initial feedback indicates current recognition rates are now close to 40%.

Fidelity to the IDDT Model

All sites have steadily increased Fidelity scores over time. Analysis of change between Year 1 (2004) and Year 3 (2006) showed:

- Statistically significant change in overall IDDT Fidelity statewide
 - General Organizational Index from 3.1 to 3.8
 - Fidelity Scale from 3.6 to 4.0
- Statistically significant change statewide in:
 - Nine of 14 items on the General Organizational Index
 - Four of 14 items on the Fidelity Scale

In Year 4, all sites scored themselves after receiving training on measuring fidelity to the IDDT model. These scores were compared to external ratings given by the Evaluator and Coordinator. Analysis showed:

- Continuing steady change in overall IDDT Fidelity statewide
 - General Organizational Index from 3.8 to 4.0
 - Fidelity Scale from 4.0 to 4.1
- Item score improvements that are consistent with local action plan priorities.
- No significant differences between self scored fidelity and external ratings.

Sustaining Activities

The participating programs proved that significant progress is possible using existing staff and client funding resources. The grant supported a universal change process that leveraged existing resources throughout the state, rather than in a few special programs. Furthermore, some sites began to extend integrated treatment to other populations served by their agencies, thus supporting sustainability of the practice. Added to this, two significant events occurred in the last two years which will serve to continue the current work. Firstly, the receipt of a COSIG grant enabled establishment of the Vermont Co-occurring Services Initiative (VISI) for extending integrated treatment to other populations. Secondly, a multi-disciplinary Clinical Practices Advisory Panel has been examining all evidence-based practices for adults with SPMI and putting forward minimum expectations from CRT programs for each practice. Specifically, the following sustaining activities for IDDT have been ongoing:

- The trainers cohort will continue to meet semi-annually and will have available to them further statewide basic trainings and consultation opportunities
- A statewide consult group has been established for shared discussion of challenging cases
- All sites are planning to integrate monitoring fidelity to the IDDT model into their regular quality management and improvement processes on at least an annual basis
- A Paperwork Committee reached consensus on stage-specific language to be a contractual expectation in the CRT Provider Manual
- A Housing Taskforce was established in consultation with Dr Cline initially to address housing challenges posed by clients with substance issues. This will continue addressing these and broader issues around finding appropriate housing options for clients with SPMI

- Linkages to peer recovery organizations and NAMI have provided support for revisions to educational curricula and support for peer-run groups for people with co-occurring disorders
- Linkages have been made to other agencies to raise awareness of dual diagnosis issues
- VISI Committees for Clinical Practices, Workforce Development, Finance, and Information Processing are continuing work on state level infrastructure to facilitate integrated treatment

IMPLEMENTATION METHODOLOGY

Heritage

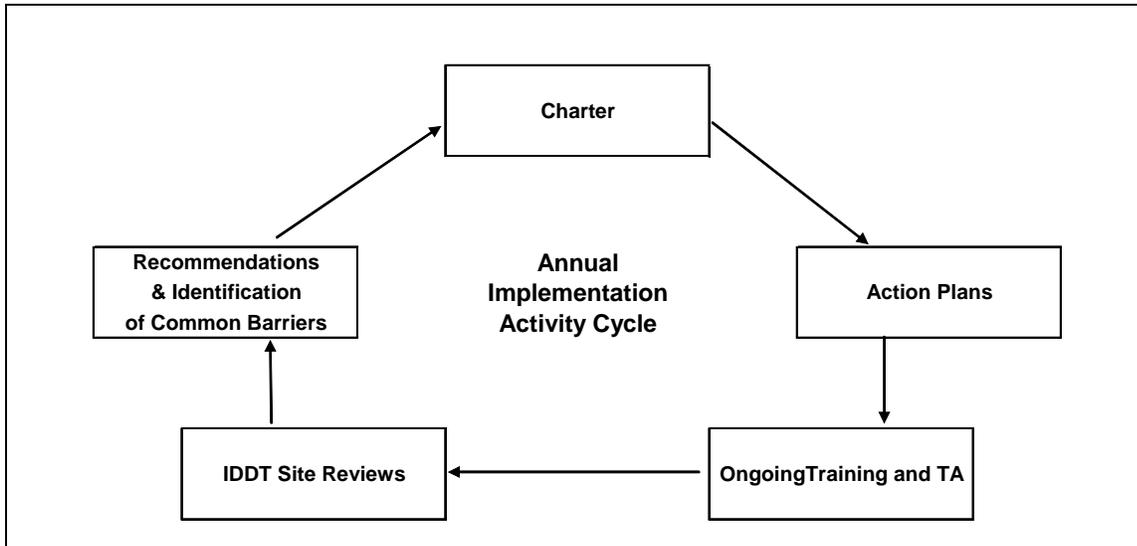
The work towards implementation of integrated treatment practices in programs for people with SPMI under this grant has been part of an ongoing process, building on previous activity so as to ensure future sustainability within programs for adults with SPMI, and contributing to the expansion of integrated treatment into programs for other populations.

Prior to the start of the current grant activity, all ten of Vermont's regional Community Rehabilitation and Treatment (CRT) programs for adults with serious mental illness had committed to implementing the evidence-based practice of Integrated Dual Disorder Treatment (IDDT) for those of their clients who have been identified as having co-occurring mental health and substance disorders. Preparation for statewide implementation of this practice began with a Community Action Grant in late 2000. The first step was to establish a baseline measurement of IDDT capability within each of the CRT programs which was conducted by Dr Kim Mueser and Lindy Fox from the Dartmouth Psychiatric Research Center (PRC). This was followed by extensive consensus building activities involving a wide range of stakeholders and the generation of local and statewide implementation plans.

It was evident from these activities that successful implementation of IDDT depended on systematic collaborative efforts to develop the necessary clinical skills and to establish the administrative, policy and procedural changes needed at the state and local program level to support the clinical work of IDDT. The initial focus in Vermont was to establish how best to integrate substance abuse treatment into programs serving adults with serious mental illness. Thus, in the current phase of implementation, the clinical training and mentoring to develop staff and program competency is supported by a combination of a statewide training of trainers (the agency IDDT leaders), and distribution of the Dartmouth PRC resource kit for IDDT to each site. To address system needs, the Comprehensive, Continuous Integrated System of Care (CCISC) model was adopted in 2003. This assumes that all programs within a system must be designed to deal with co-occurring disorders within the context of existing resources, since that population is in the existing client base, even if under-diagnosed. CCISC, developed by Dr. Kenneth Minkoff, provides a framework for incremental systems change to build the infrastructure necessary to support integrated practices. It uses a specific program instrument, the COMPASS, developed by Dr Christie Cline to self-assess program competencies in multiple areas relating to IDDT (e.g. philosophy, management structure, access, assessment, treatment) and develop action plans to improve their competency. Another instrument, the CODECAT, was developed for practitioners to self-assess their clinical competencies to provide integrated treatment. All agencies completed these instruments prior to developing their action plans for Year 1 of the implementation activity described in this report.

Implementation Framework

The activities funded by this grant involved a continuing feedback cycle based on CCISC principles using the state-level Coordinator and Evaluator to serve as conduits between the state and providers.



From the start it was determined that two concepts would guide the implementation process: collaboration and sustainability. While scores on the General Organizational Index and Fidelity scales from the Dartmouth PRC IDDT Toolkit would be used to measure implementation progress, the process by which they were derived would not be regarded as an audit exercise but as feedback on status that would inform the next Charter and set of action plans as well as inform training and technical assistance needs on a statewide basis.

Charter

The Charter is a CCISC process that underpins the implementation. It is an annual consensus document signed by state, provider and consumer representatives outlining tasks to be accomplished over the next year. The Year 1 Charter, which was in place at the start of the grant, focused on establishing the Training of Trainers cohort, developing welcoming mission statements and policies, and adopting validated screening tools for substance use issues. Over the next three years development of integrated assessment, stage matched treatment planning and progress monitoring, workforce development and supervision, and specific IDDT clinical services were progressively added. The Year 4 Charter was framed around continuing improvement and activity to sustain current gains.

Action Plans

Following consensus on the tasks to be completed, each of the provider sites developed implementation action plans appropriate to their site and current level of implementation for the next year in consultation with the State Coordinator. These would not necessarily address the full implementation process but rather focus on prioritized areas for the upcoming year. An annual state level action plan was also developed to address expectations laid out in the Charter.

Training and Technical Assistance

Training and technical assistance was based upon activities outlined in the Charter, findings from site reviews and issues raised during regular monthly check-ins. The initial statewide trainings with Drs Ken Minkoff and Chris Cline addressed the core principles of integrated treatment and the systems change to support it. In the second year, trainings with Rusty Foster, a senior trainer from Dartmouth PRC, focused on the basic treatment competencies described in the IDDT toolkit. Subsequent trainings with invited speakers were targeted to address systems and clinical barriers or gaps identified through the feedback process with providers and other stakeholders. These included such topics as housing issues (Mary Woods, Westbridge), creating and running groups (Lindy Amadio, Dartmouth PRC), substance abuse '101' and ethics trainings (Dr Anthony Quintilliani, Vermont Addictions Academy), ASAM principles (Dr Todd Mandell, Vermont Alcohol and Drug Abuse Programs Division) etc. The statewide training sessions were also used as a forum for providers to discuss their implementation experiences and, in doing so, become their own learning community sharing their integrated treatment implementation successes and strategies they had adopted for overcoming barriers.

Access to external consultation continued to support the implementation process. Drs Minkoff and Cline continued to provide guidance on the Charter process and strategies for addressing statewide barriers as well as providing site consultations on request to advise on systems issues or particularly challenging cases.

Site Reviews

The General Organizational Index and Fidelity Scale were used as anchors for site visits so that progress towards fidelity could be measured. For each of the first three years, each provider site received a report including scores on these measures, detailed rationales for those scores and recommendations for improvement. In Year 1 of current grant activity, the focus was on establishing the strengths of each provider site and to assess current status in terms of closeness to the IDDT model. As stated earlier, work on implementing IDDT had been in progress for some time so this was the baseline for the current implementation phase. Differences between the original and new fidelity measures developed by Dartmouth PRC precluded use of the first set of scores as a baseline for one-on-one comparison. Year 2 focused on change from Year 1 and whether this change was consistent with statewide Charter and local Action Plan goals. By year 3, the focus had moved towards sustainability of implementation gains from previous years as well as measuring improvements in fidelity to the model. The final visit in Year 4 took the form of a facilitated walkthrough of the IDDT evaluation process used in the previous 3 years enabling CRT programs to generate their own scores which were then compared to those of the Evaluator and Coordinator.

Recommendations and Common Barriers

Recommendations and recognition of common barriers to successful implementation of integrated treatment practices were included on a site basis through the ongoing training and technical assistance activities as well as the site review reporting process. These and the actions taken at the state level to address common barriers were consolidated by inclusion in the Charter and informed priorities for action plans both at state and provider level for the ensuing year. Addressing common barriers was through a variety of means including setting up workgroups and taskforces, coordinating specialized consultations, and establishing links with other agencies and organizations such as recovery, family and self-help groups, the medical community and the criminal justice system.

EVALUATION FINDINGS

The grant evaluation focused on the following areas

- Recognition rates for clients eligible for integrated treatment and outcome analysis design
- Implementation progress towards fidelity to the IDDT model
- Identification of implementation facilitators and barriers
- Effectiveness of the statewide implementation approach including usefulness of the IDDT toolkit and CCISC protocols

Recognition rates

Fundamental to the application of IDDT principles is the ability to identify the clients with substance use issues that should be addressed as part of their overall treatment needs. At the start of the current work the state committed to development of a state level outcomes analysis to study the impact of integrated treatment on aggregate client outcomes. This was contingent on accurate recognition rates.

During the first year site visits, it became clear that although the CRT team members were often aware of their clients' substance use and, in some cases, working on it, the level of systematic diagnosing was low. Reports to the state database indicated a substance use prevalence rate of 17% in CRT programs statewide. It was thought that this might be due in part to a historic reluctance to add another diagnosis to an already stigmatized population, particularly when their existing mental health diagnosis qualified them for service in the CRT program. This low reporting rate prompted a collaborative quality improvement exercise between the state Evaluator and providers to more accurately reflect the true number of IDDT-eligible clients so that their treatment progress could be tracked.

The State Evaluator provided monthly reports to the providers on clients in their programs identified on the state database as having a DSM substance abuse diagnosis or having a problem with drugs or alcohol at intake to the program. This was to help providers in their systematic review of their caseloads. Through team discussions they could identify who had substance use issues and then gradually revisit screening and assessments and update diagnoses accordingly. A number of unexpected findings soon came to light. In some cases, chart content was not entered on local databases for lack of records change forms, in others substance use diagnoses were tertiary Axis I diagnoses and only primary and secondary were reported to the state, and finally, some sites had computing system problems that prevented accurate reporting from their local databases to the state. Over the next year the Evaluator met with the CCISC trainers together with records and information technology personnel at each site to develop strategies to improve electronically recorded recognition levels.

The monthly reports continued and by June 2007 recognition rates reported to the state increased by 65% from the original 17% to 28%. During this period a number of agencies planned to, or had, installed new computing systems which over time would enable them to gather more client information, and more closely monitor their clients' progress. As is common with new computer systems, a number of agencies still had internal IT issues to resolve and it was recognized that there were still some discrepancies between local and state recording systems. The evidence-based practice indicates that programs should systematically identify clients eligible for treatment. Consequently, in the final year, all agencies were asked to complete a systematic review of their caseload to identify a cohort for outcome analysis and to include in their action plans steps to ensure these clients were identified in their local databases

and reported to the state. While this review is still in progress, current figures indicate that an average prevalence rate exceeding 40% will be reached. This is in line with predicted rates and will be used for tracking client outcomes.

For the outcome analysis it has been agreed that outcomes for all CRT clients served January through June 2007 will be examined in early 2008. Those with identified substance use diagnoses and those without will be compared at three points in time: end FY 2000 after the first fidelity reviews, end FY 2004 after CCISC systems change training, and end FY2007 after consolidation of both systems change and clinical training at each of the participating sites. The retention rate for CRT clients is generally high with around 85% of the current caseload having received services over that period. The analysis will explore aggregate outcomes such as service utilization, psychiatric hospitalization, employment and criminal justice involvement. Providers have also requested emergency service utilization, housing stability and medical information. Access to further external databases which will be needed for these analyses will be explored.

Implementation Progress

Measures

Part of the remit of this grant was to use the Dartmouth Psychiatric Research Center's evidence-based practice toolkits and assess their usefulness in facilitating the implementation process. Improved scores on both of the following measures from the toolkit would be used to gauge progress towards the goal of fidelity to the IDDT model.

- *The General Organizational Index (GOI)* to measure changes in the clinical and organizational infrastructure to accommodate and support changes in clinical practice.
- *The IDDT Fidelity Scale* to measure IDDT-specific clinical treatment approaches.

The 14-item version (2002) of each measure was used, with individual items scored on a scale of 1 to 5 following the rationales outlined in the Dartmouth PRC IDDT toolkit. Some adjustments to the scoring protocols similar to those adopted by other states were used. (see *Implementation Approach* below) Broadly, the ratings could be interpreted as: 1 - item not implemented, 2 - some awareness but no implementation, 3 - planning and some progress towards adherence to the practice model but not across the entire program, 4 - regular adherence to the model across the program based on observational criteria, and 5 - adherence to the model on a regular basis supported by documentation.

Methods (Years 1-3)

Ratings on the Dartmouth PRC General Organizational Index and Fidelity Scale were based on information collected during intensive (1-2 day) site visits, feedback from ongoing consultation and technical assistance by the coordinator and evaluator over the last year, and supporting written and web materials. In order to increase awareness of co-occurring disorders at the state level, other members of the DMH participated in site visits as co-raters. These included specialists in acute care, housing, supported employment and quality management. The visits occurred annually and typically included the following main components:

- A meeting with the implementation decision makers. Nine of the sites established a multidisciplinary steering group to guide their IDDT implementation process. By the end of

Year Two of the current grant activity, over half of these had also taken on the role of consult groups for training, supervision and guidance on challenging cases involving co-occurring substance issues.

- Observations of case review team/supervision meetings where a range of service functions including medical, therapeutic, case management, vocational, residential, and recovery were represented.
- A visit to meet staff at a residential facility, sometimes transitional housing and sometimes longer term residences.
- Observations of group sessions where client consent had been obtained.
- Conversations with consumers with substance use issues.
- Review of written materials including:
 - Client charts: between 8 and 12 charts were reviewed dependent on the consistency of documentation.
 - Agency client and service information reported to the state database.
 - Internal documentation specific to integrated treatment.
 - QA and QI documentation.
 - The CRT program local system of care plan.
 - The current local action plan for integrated treatment implementation.

On completion of the visit, the raters independently scored the GOI and Fidelity and then met together to review ratings and arrive at consensus scores. In general, the inter-rater agreement was high with few discrepancies to be reconciled.

Method (Year 4)

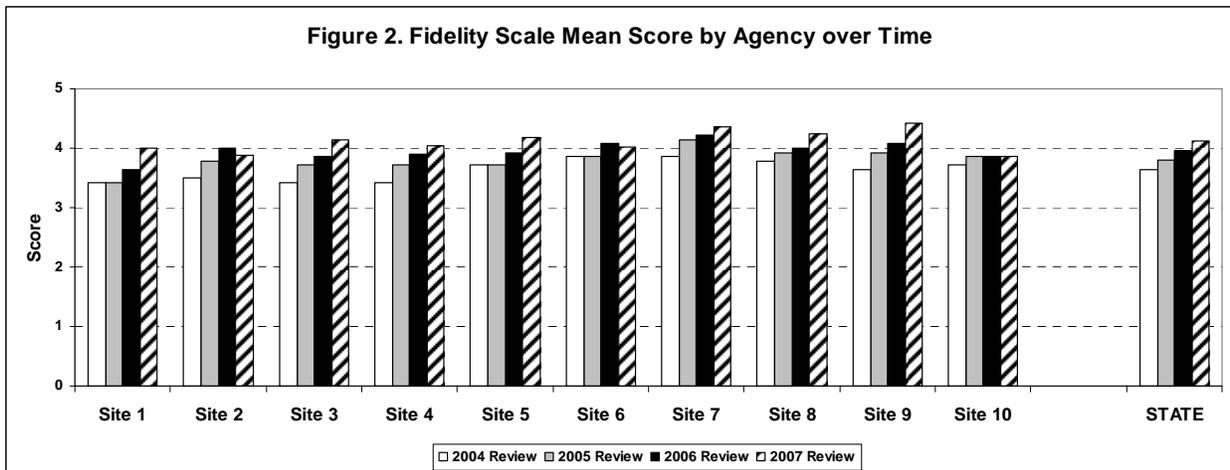
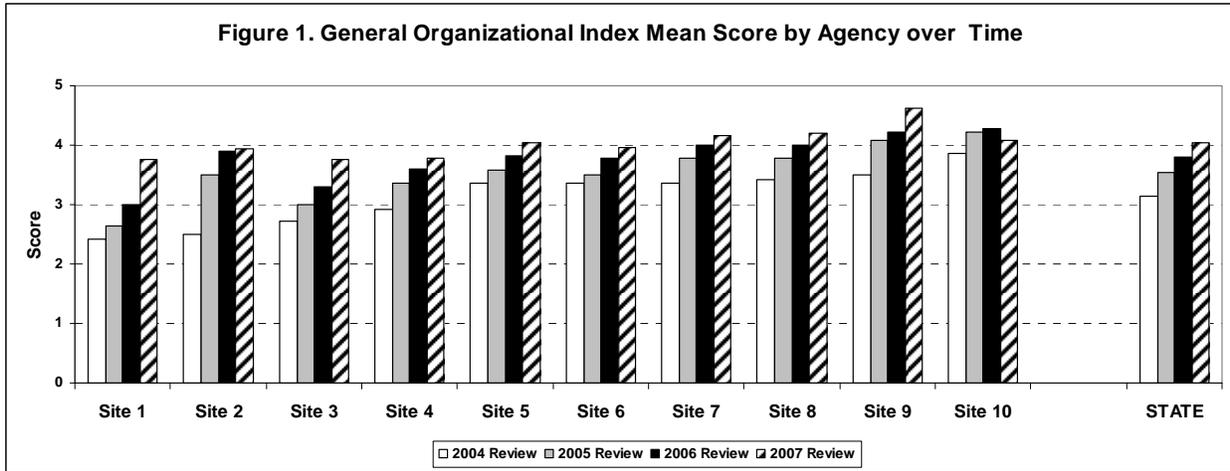
Review of integrated treatment capacity is included in regular state oversight but not to the extent of a full fidelity evaluation. It was, therefore determined in consultation with the providers that the fourth year fidelity scoring would be undertaken by a team of implementation decision makers at each site following the same process as the external raters had used for Years 1 through 3. This took the form of a conversation facilitated by the Evaluator and Coordinator and guided by a checklist developed by the Evaluator for previous years' site reviews. The checklist provides a 'shopping list' of topics relating to GOI and Fidelity Scale items that need to be considered when assessing integrated treatment capability. In this way the teams could examine all aspects of the implementation status rather than just the current prioritized areas. Since chart review is a critical component of the evaluation, a client records representative was also asked to participate in the conversation at each site. On completion of the visit, the provider team members independently scored the GOI and Fidelity scales and then met together to review ratings and arrive at consensus scores. These were then reported to the Evaluator for comparison with scores agreed between the Evaluator and Coordinator.

Results

All of the participating programs showed steadily improving levels of IDDT capability over time. This is a testament to the substantial efforts taken by the participating sites in their pursuit of fidelity to the evidence-based model. While the statistical analysis of improvement focuses on the fidelity measurement taken by external reviewers in Years 1 through 3, the year 4 scores generated by the providers are included in these results to illustrate the continuing improvement patterns. For Year 4 the GOI Penetration item was not scored as the intensive review process insured that the substance use issues of all identified as eligible were being addressed. When the self generated scores were compared to ratings by the Evaluator and Coordinator, no

significant differences were found. These modest self assessments would indicate that, after intensive exposure to fidelity monitoring over the three year period, sites can take on the task of continued fidelity monitoring and build realistic self-evaluation into their regular quality management and improvement processes.

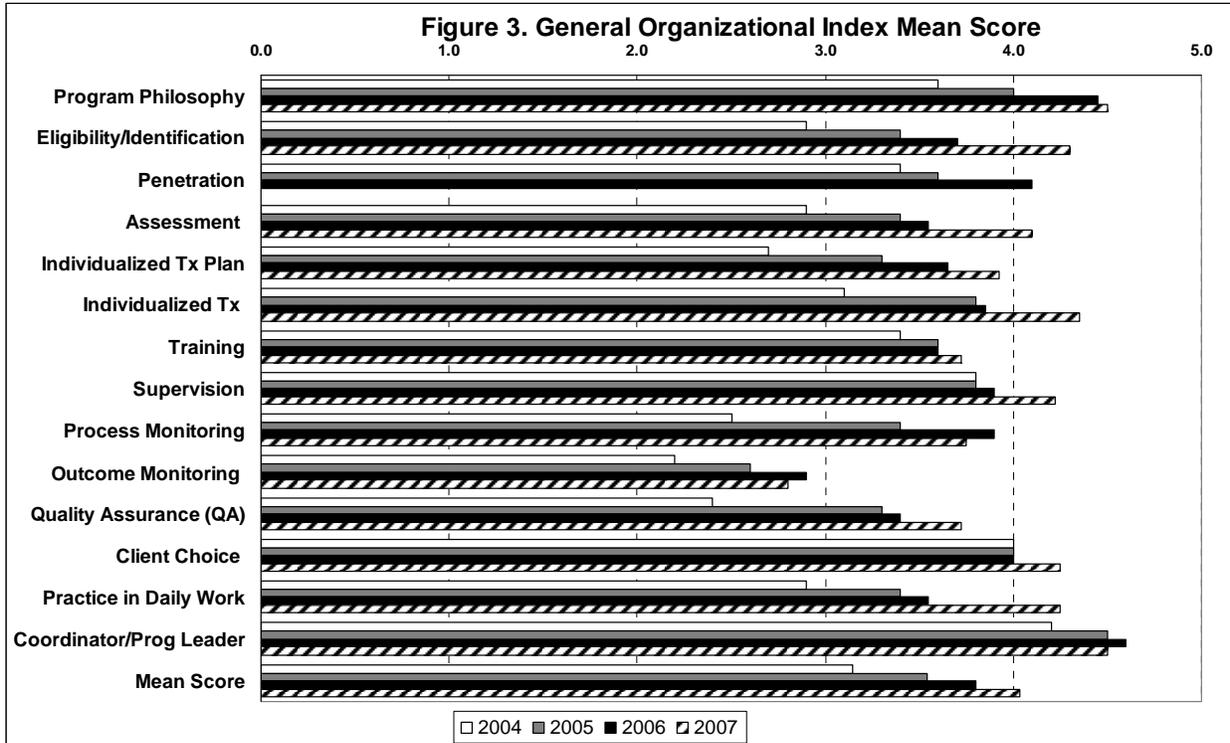
The overall change from 2004 to 2006 was statistically significant across both measures ($p < .01$), with the mean score on the GOI improving from 3.1 to 3.8 and on the Fidelity scale, improving from 3.6 to 4.0. These scores increased at a modest level in Year 4 to 4.0 and 4.1. While differing in amount of change over time, all sites followed a similar pattern of change. Change in mean score for the GOI and Fidelity scales by site is shown in Figures 1 and 2.

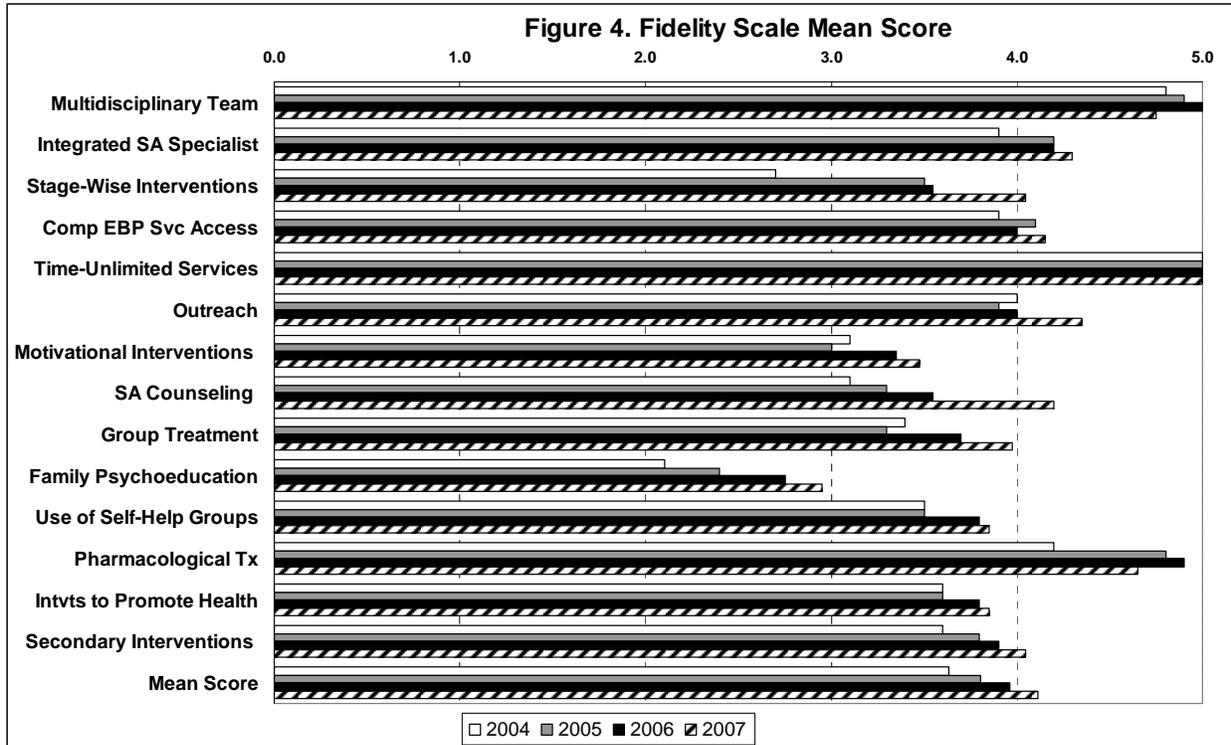


These results indicate a greater change in infrastructure elements of the model than direct treatment. This appears to be consistent with results nationwide according to informal conversations with Dartmouth PRC. All ten CRT programs now recognize dual diagnosis treatment as a part of 'what they do' while admitting they have more implementation tasks to complete. All have substantially improved their recognition rates for clients eligible for co-occurring disorders treatment and have redesigned screening, assessment, treatment planning and progress monitoring protocols to accommodate the demands of addressing substance use issues. Training schedules, supervision and consult structures have been adapted similarly.

Although overall Fidelity Scale scores also increased, the rate of change was not as high. This could be partly accounted for by the fact that a number of items were unlikely to change as they were already embedded in the CRT Program approach. Like other states it also appears that clinical elements such as motivational interviewing and family psycho-education take a little longer to implement successfully.

In order to establish which components of the model had undergone the most change and which were closest to fidelity to the model, the derived scores were also analyzed on an item by item basis across agencies. Figures 3 and 4 illustrate movement towards fidelity over time.





Tables 1 and 2 below include mean scores for each item together with statistically significant differences between Year 1 and Year 3.

Table 1. Statewide General Organizational Index Ratings 2004 - 2007

	Mean Scores over Time			
	2004	2005	2006	2007
Program Philosophy	3.6	4.0	4.5**	4.5
Eligibility/Identification	2.9	3.5	3.7*	4.3
Penetration	3.4	3.5	4.1*	-
Assessment	2.9	3.4	3.6*	4.1
Individualized Treatment Plan	2.7	3.1	3.7**	3.9
Individualized Treatment	3.1	3.7	3.9*	4.4
Training	3.4	3.3	3.6	3.7
Supervision	3.8	3.8	3.9	4.2
Process Monitoring	2.5	3.5	3.9*	3.8
Outcome Monitoring	2.2	2.3	2.8	2.8
Quality Assurance (QA)	2.4	3.1	3.4**	3.7
Client Choice	4.0	4.0	4.0	4.3
Practice in Daily Work	2.9	3.3	3.6**	4.3
Coordinator/Program Leadership	4.2	4.6	4.6	4.5
Mean Score	3.1	3.5	3.8**	4.0

Significant difference between 2004 and 2006: * ($p < .05$), ** ($p < .01$)

Differences in scores between 2004 and 2006 were statistically significant for nine out of the fourteen items on the GOI. This reflects the substantial amount of system change made to support the practice. Changes in scores for Year 4 were consistent with the sustainability focus. This was a time when renewed efforts had been made in caseload review, changes to screening, assessment and treatment protocols had become standard practice, and staff through supervision and daily routine knew that integrated treatment was part of regular service.

On the Fidelity Scale, differences in scores between 2004 and 2006 were statistically significant for four only out of the fourteen items. This was partly accounted for by the fact that several items were already a part of regular CRT Program services (e.g. multidisciplinary teams, access to other evidence-based practices, time-unlimited services and contingency management techniques). Changes in Year 4 scores here reflected the clinical advances that had been facilitated and reinforced by supporting infrastructure and increasing familiarity and comfort dealing with substance use issues alongside mental health disorders.

Statewide Fidelity Scale Ratings 2004 - 2007

	Mean Scores over Time			
	2004	2005	2006	2007
Multidisciplinary Team	4.8	4.9	5.0	4.8
Integrated COD Specialist	3.7	3.9	4.2	4.3
Stage-Wise Interventions	2.7	3.3	3.6**	4.1
EBP Service Access	3.9	4.2	4.0	4.2
Time-Unlimited Services	5.0	5.0	5.0	5.0
Outreach	4.0	3.8	4.0	4.4
Motivational Interventions	3.1	3.2	3.4	3.5
Substance Abuse Counseling	3.1	3.3	3.6*	4.2
Group Treatment	3.4	3.3	3.7	4.0
Family Psychoeducation	2.1	2.3	2.8*	3.0
Use of Self-Help Groups	3.5	3.5	3.8	3.9
Pharmacological Treatment	4.1	4.8	4.9*	4.7
Interventions to Promote Health	3.6	3.7	3.8	3.9
Secondary Interventions	3.6	3.9	3.9	4.1
Mean Score	3.6	3.8	4.0**	4.1

Significant difference between 2004 and 2006: * ($p < .05$), ** ($p < .01$)

Facilitators and Barriers

Facilitators

This implementation benefited from having a solid foundation on which to build IDDT capacity. The statewide CRT program mission and mode of operation is based on a philosophy of wraparound supports for consumers with complex needs, almost all of whom are Medicaid recipients. These supports involve interfacing with a range of other human service agencies and community groups, often on a daily basis. Thus, the philosophy has enabled programs over the years to incorporate many evidence based and best practices to help their consumers manage their illnesses while living and having opportunities to work in the community. This

coupled with information dissemination and a consensus building exercise prior to the current grant activity motivated all sites to seek to incorporate substance use treatment practices into the range of services offered to their clients. In practical terms, standardized contractual procedures and protocols around mental health screening assessment and treatment planning and progress reporting were already in place. Rather than developing entirely new protocols, these could be enhanced or supplemented to address substance use issues alongside mental health disorders. Sites were already set up to report a standardized set of variables to the state database on a monthly basis. Even though these did not cover the full range of clinical outcome data items suggested in the IDDT toolkit, they were already sufficient for future aggregate outcome monitoring of key indicators such as service utilization, employment, inpatient care, and criminal justice involvement. Another major facilitator was the Case Rate funding mechanism for CRT programs, which takes the form of a managed care Medicaid waiver system. Since this implementation was within CRT programs, the Case Rate system helped avoid some of the billing issues faced when treatment spans mental health and substance use programs with separate billing mechanisms.

Feedback from the field confirms that the combination of the IDDT toolkit materials and the CCISC continuing quality improvement approach with two dedicated staff at state level coordinating the process were critical contributors to the development of integrated treatment capacity statewide. These are discussed further in *Implementation Approach*. Incentive payments also facilitated the process; while providers felt they were insufficient for the work involved, they did offset setup costs for some of the quite substantial system changes that were found necessary to implement and maintain integrated treatment capability.

Perhaps one of the most important outcomes from the activities undertaken under the grant funding was facilitation and coordination of a number of collaborative partnerships that contribute to the continuing improvement and sustainability of integrated treatment practices. Most of these came about to address common barriers. Examples include:

- At the program level, the senior leaders are closely involved in the development of integrated treatment capacity and decisions on how to move forward are shared between the disciplines represented on the CRT teams and administrative personnel
- The CCISC Trainers cohort have formed a learning community with portions of the statewide trainings being devoted to sharing implementation strategies and identifying areas of common concern
- The Housing Taskforce has brought together state and local housing specialists to address issues around providing appropriate residential solutions for challenging clients with and without co-occurring disorders
- The statewide Consult Group established in the last year will provide a forum for co-occurring disorders experts and CRT teams to discuss challenges posed by difficult cases
- Members of the Vermont psychiatric recovery movement have been engaged in the implementation process from the start. They have participated in the statewide CCISC steering group and training of trainers meetings, and have been key contributors in the development of recommendations for IDDT in the Clinical Practices Advisory Panel
- Outreach to the Vermont NAMI organization at local and state levels has raised the level of awareness and promoted work to incorporate co-occurring disorders information into the teaching curriculum
- Consumer, provider and state representatives have worked collaboratively in Paperwork and Billing committees and the Clinical Practices Advisory Panel on contractual expectations around the provision of co-occurring disorders treatment

- Participation in state level groups such as the Supported Employment Leadership Group, the Public Inebriate Program Committee and the Defender General's Taskforce to review incarceration diversion opportunities has raised interagency awareness

The lessons learned along the way inform VISI work under COSIG funding which will also serve to reinforce and consolidate gains made in the CRT programs' implementation of integrated treatment practices. In addition to forging formal links between mental health and substance use treatment communities at both the state and local levels, the VISI has also included further outreach to the drug and alcohol recovery movement, health centers and homeless shelters as well as the establishment of specialized VISI committees. The committees for Finance, Clinical Practices, Information Technology and Workforce Development are building on the earlier work of the CCISC Paperwork and Billing committees and the multi-disciplinary Clinical Practices Advisory Panel

Barriers

The original evidence based practice definition was based on carve-out specialist programs, whereas the current implementation embeds the practice into an existing program statewide involving ten agencies each with different cultures and developmental stage of change in terms of their integrated treatment capacity. There is a strong substance using tradition across the state, particularly alcohol. Furthermore, the drug culture is also gaining in significance. Going statewide in an existing program structure imposes more challenges than a focused pilot project. The major barriers encountered fall into four major areas: geography and size, organizational factors, clinical factors and interagency relations.

Geography and size plays a large part in the barriers to a successful implementation. Vermont is primarily a small community state, where even the largest city is smaller than a suburb of most large cities in the United States. Consequently the reduced number and accessibility of resources still form the greatest barriers preventing the development of the full array of service options that is promoted by the evidence-based model. Shortages of housing options, employment opportunities, self-help groups, opiate alternative therapy sites, avenues for referrals of clients with co-occurring disorders to specialized substance abuse facilities, and transportation are limiting factors.

Organizational barriers have been encountered both at state and local level. At the start of the current grant activity there was a major restructuring within the Vermont Agency of Human Services in which Mental Health was relocated and became a Division alongside Alcohol and Drug Abuse Programs in the Department of Health. While reinstated as a separate Department in the last year, this led in the interim to substantial staff turnover including changes in leadership and loss of all IT staff familiar with the IDDT work. It also meant delays in moving forward on some of the infrastructure changes such as the planning underway for merging and expansion of mental health and substance abuse databases that would support the implementation. A number of provider sites have also been through structural and/or location changes and 'teething difficulties' with new information systems. Resource shortages, both financial and manpower are always a threat to sustaining new practices. Staff turnover and recruitment difficulties have placed demands on training/supervision capacity to maintain staff competency around co-occurring disorders issues. It has also become clear that it is not sufficient to train just the CRT team members. There is a need to raise awareness of integrated treatment principles amongst crisis, housing and respite staff to maintain consistency of approach for clients with co-occurring disorders. This has placed a further administrative load on the participating agencies.

The distinction between dual diagnosis capable and dual diagnosis enhanced programs and what should be expected of all CRT programs have been continuing questions. The work of the Clinical Practices Advisory Panel has gone some way towards defining minimum expectations for CRT programs but this has not yet been translated into contractual language. The major clinical barriers relate primarily to scope of practice and qualifications for providing treatment for substance use issues. It has become clear during the course of this implementation that knowledge of co-occurring disorders and their impact is more important than having either a mental health or substance abuse treatment credential. In fact, there have been some occasions where traditional substance abuse treatment approaches have run counter to evidence-based IDDT work in progress with a client. However, there are legal implications in terms of liability and recognition for the work by outside agencies. Another legal issue that has caused concern is how to deal with release of information in charts that reflect integrated treatment in light of 42CFR regulations. In general, the psychiatrists attached to participating sites have been prescribing in accordance with recommendations laid out in the IDDT toolkit. Psychiatric medications are not withheld because of substance use and addictive medications are avoided. Although agency medical personnel have done much outreach work to the wider medical community, there still have been some conflicts with primary care and department of corrections prescribers who have not always complied with these recommendations. The ready availability of painkillers has been an issue and breaks in continuity of medication regimes have been cited as barriers.

Misunderstanding of the work of CRT programs seems to be the root of interagency relations barriers. These are intensive case management programs offering their clients a wide range of services. Because of this, the programs are often seen as the ideal place to send all individuals with complex needs. Despite clear eligibility criteria related to SPMI, they are often faced with referrals from corrections facilities or substance abuse programs that they are not set up to deal with, or premature discharges from psychiatric inpatient care. This consumes staff resources and compromises engagement opportunities with the clients they are set up to serve. This is a valuable lesson for the VISI project in that it underscores the need to build co-occurring treatment across the statewide system of care. Misunderstanding of the CRT program role has also compromised some of the IDDT work. Generally, the sites have reported good relations with Public Safety and the Probation Service in that these organizations are usually sensitive to clients' issues. However, their sensitivity in handing control back to the treatment team can undermine contingency management efforts.

Implementation Approach

Part of the remit of the current grant was to evaluate the effectiveness of the implementation approach and the tools provided to help the sites develop their integrated treatment capability. The following sections look at this effectiveness from a statewide implementer's perspective and a provider perspective.

Statewide Perspective

Perhaps one of the most important lessons learned is that addressing substance use issues in adults with SPMI cannot be regarded as a separate practice. As all sites nationwide have found, it has an impact on all other services and the protocols and procedures necessary to support it are largely a matter of good clinical and administrative practice. In embarking on a statewide implementation, the goal was that CRT clients should not be geographically disadvantaged and that all who had substance use issues should have access to integrated treatment. In the early stages of the implementation there were considerable differences

between sites. Some believed that they were already dual diagnosis capable and few had realized the policy and procedural implications.

The IDDT toolkit and the guidance in the book *Integrated Treatment for Dual Disorders* developed by Dartmouth PRC provided the foundation for addressing the substance use issues of clients with SPMI in an integrated manner. They gave practical guidance on the components of good practice and provided mechanisms for evaluating how close they were to integrating those components in their systems of care. However, these were developed with specialist programs for Quadrant 4 dually diagnosed individuals in mind. This implementation was aimed at a broader population and would be an integral part of long term care. The CCISC incremental systems approach provided a framework for a structured statewide implementation that was still sensitive to differences in the site cultures.

The CCISC framework included an annual Charter consensus document defining a minimum set of agreed upon actions on providers and the state. This, in turn, would inform local action planning, and the training of trainers approach ensured that all sites had access to the same training base and materials. The CCISC COMPASS and CODECAT tools for self assessment of program capability and staff competency respectively were used at the start of the current implementation phase by each site to establish their program readiness status and staff attitudes, knowledge and skills. The results from these were used locally to prioritize goals and were invaluable to the Coordinator and Evaluator in identifying initial strengths and tailoring their technical assistance appropriately to each program's stated objectives. There were some complaints about the amount of time and organization it took to complete the COMPASS process. Only one site has repeated the exercise. The CODECAT was better received with a number of sites repeating the process regularly and/or including it as part of their orientation curriculum for new staff.

The Coordinator and Evaluator roles were originally modeled on the Evidence-based Practice Demonstration Project. However, over time these roles took on a more active quality improvement emphasis ensuring regular information sharing and seeking state-level solutions to common barriers wherever possible. Unlike the Demonstration Project, evaluation was not an independent external exercise but more like action research. The site visit reports have to some extent taken over the task of monitoring current implementation status as a whole, while site Steering Groups have focused on priority areas. The intention of the Year 4 approach was that sites would be able to take over evaluation of the whole process and assess their fidelity to the IDDT model as part of their overall quality management activities.

While the General Organizational Index and the Fidelity Scale had some limitations (see below), they proved to be good anchors for gauging implementation progress and formulating narrative recommendations. To assess fidelity, both measures had to be used. Some adjustments were made to the scoring protocol before the Year 1 site visits. These basically substituted qualitative anchors for quantitative anchors in line with a number of other sites nationwide using the same measures, while at the same time preserving the items' rationales. By Year 3 it was found that the five point scale was not sufficiently sensitive to capture nuances of change from Year 2. In the narrative reports, positive or negative qualifiers were used to indicate change if it was not enough to warrant moving to the next full point on the scale. Interestingly, the sites in their self-assessments of Fidelity in Year 4 chose to use half points to better gauge current status.

It is understood that Dartmouth PRC faculty are currently reviewing findings since the IDDT toolkit was first developed and are contemplating an inclusive measure covering organizational

and clinical aspects. Our experiences indicate that there are further qualifications or new items to examine when measuring the development and long term maintenance of integrated treatment capability. Firstly, it is not enough to refer just to the clinician and program leaders within a dual diagnosis capable program; the whole team including program leaders, clinicians, case managers, outreach workers, supported employment and residential staff) plus infrastructure staff at a given site (e.g. IT, records, business office, and front-line responders) need a base knowledge/awareness in order to support the clinical work. Also having clinicians with knowledge of co-occurring disorders seems to have been more important than having accredited substance abuse counselors on the team (some of the latter have been found to be more counterproductive). Experience has also shown that certain items need to be extended or even split into separate items. For example, the philosophy should incorporate the public image; clients, their families and significant others need to feel welcome. This involves a program mission statement, website, front desk/hotline and workforce development policy acknowledging that treating people with substance use issues is part of 'business as usual'. Items that could be split could include separating outreach to engage clients and outreach to community groups or other service organizations. Similarly rather than just having family psycho-education as a separate evidence-based practice item, supported employment, housing, recovery education and intensive case management/ACT warrant separate consideration.

Provider Perspective

In its efforts to continue to introduce evidence-based and best practices into the repertoire of service provision, the Department of Mental Health needed to know whether future implementations would benefit from a similar implementation approach. While feedback to the Coordinator and Evaluator during the course of the implementation was generally favorable, it was by nature anecdotal. More formal feedback was needed. At the end of Year 2, the IDDT implementation was chosen as the subject of an external review. Federal law mandates the State to contract with an independent organization to assess the quality of care rendered to all Medicaid beneficiaries through prepaid or capitated financial contracts. The contracted entity referred to as the External Quality Review Organization (EQRO) gathered information through documentation and focused interviews with staff at each of the provider sites and with state representatives. Of interest to the Department of Mental Health was whether the intentions of the statewide implementation would be reflected in the view expressed by providers to the EQRO. Since the external review is still in draft stage, supplementary feedback was also collected through an anonymous provider feedback form. Italicized text in the following narrative is direct comment from providers.

While commitment to developing integrated treatment capacity was developed through a consensus process, the EQRO report observed it was not necessarily clear to all of the community mental health centers what the project would entail and how activities would be incorporated. This appeared to be one of the criticisms of the early stages of the implementation when statewide approach started. There certainly appeared to be some confusion around the goals:

Initially, there was some confusion around some of the changes that needed to be made such as the screening tool used and what was expected from staff.

General expectations seemed clear in terms of what was outlined in the annual charters, but DMH could have been more clear and more helpful with actual/specific direction for each agency...It would have been nice if DMH had thought out what they wanted to get out of the

project instead of jumping right in...decided on some core competencies that they wanted to see as outcomes up front.

Some sites were intimidated by systems change and just wanted pursue clinical competencies, others wanted less choice, some felt this was an *unfunded mandate*, and yet others appreciated that they could proceed at their own pace focusing on their chosen prioritized areas. Despite this uncertain start, the attitudinal change process took hold as the annual feedback cycle became established, and provider sites became more comfortable with continuing quality improvement principles. The IDDT toolkit provided the basic clinical goals.

IDDT was the engine that took individual efforts around co-occurring disorders to the next level...it organized efforts and standardized processes

Before IDDT, there was a loose assessment of substance abuse for clients. We now have a standard, agency-wide assessment process in place.”

Now substance abuse is embedded in the screening and comprehensive assessment, functional analysis, and a detailed treatment plan.”

In addition to the fidelity and GOI scores, the Evaluator provided narrative feedback for each component evaluated which focused on both the strengths of each agency as well as areas and suggestions for more improvement. According to the EQRO, staff indicated during the focused interviews that the narrative feedback after these site visits were more informative than the fidelity or GOI scores. Several sites apparently commented that the Fidelity and GOI scores were not as useful to them as the feedback information that they received in the narrative sections of the serial DMH evaluations. They stated that the narrative evaluations accounted for the unique aspects of improvement or barriers particular to their institution

When discussing the CCISC approach, the EQRO reported that CRT staff reviews of the CCISC related activities were mixed. ‘Most community mental health centers had positive feedback for the presentations and sessions with Drs. Minkoff and Cline, but indicated that it was difficult to make change happen. In short, their comments tended toward the CCISC activities as being more theoretical and abstract and less actionable’. The feedback forms indicated that while initially confusing, the CCISC approach allowed them space in which to develop at their own pace and to tailor their approach to geographic differences and individual CRT program cultures. At years 3 and 4, continuing quality improvement and sustainability were accepted goals at most sites. It was also noted that the training of trainers sessions were a way in which sites could share and collaborate in overcoming common barriers. It was also noted that local consultation sessions with Drs Minkoff and Cline, whether addressing system issues or challenging cases were particularly valuable.

The provider feedback forms indicated that the monthly feedback reports on prevalence rates were a valuable resource in assessing their caseloads and in pinpointing administrative problems in transferring information in charts to their electronic recording systems. As noted in the EQRO report:

More attention is paid to diagnoses recorded and improving the quality of the data already being collected.

We have developed a self-report of substance usage which is noted in the client’s chart.

We are currently redesigning IT capabilities to create an electronic record...which will allow for better tracking of stage of treatment and stage of recovery for both mental health and substance abuse.

The EQRO observed that most sites cited resources as their biggest challenge, principally limited staff and available finances.

We were given incentive/technical assistance grants. These grant funds didn't go very far."

What this project needed was more staff. It was expected that existing staff take on additional responsibilities. What we needed was funding to hire a person dedicated to IDDT.

The final activity in this implementation phase was the self evaluation. Most anticipated using the checklist but for those who wished to use a different process to derive fidelity scores, the talking points in Appendix A were recommended. Typical comments during the self-assessment process were that it was a *great transition process, a good experience and trusting us to assess ourselves*. Some sites felt that it would be helpful to have a facilitator to repeat the process, others planned to incorporate the same exercise in their regular quality management activity, and one site had even adapted the fidelity checklist to align with other in-house quality management processes. Perhaps the most reassuring comments in terms of sustainability were *this is what we do now and there's no turning back* particularly as these were from sites that had been reticent about the evidence-based practice in the early stages. Confirmation of the commitment to sustainability came from the EQRO report: 'It should be noted that while most (sites) have "fully implemented" IDDT in terms of incorporating co-occurring disorders into their "daily business as usual routine" and being co-occurring capable, most also admit that there is still a lot of work to do in terms of what they would like to be doing with co-occurring disorders. Through focused interviews, the (sites) indicated that maintaining and sustaining IDDT was a priority for them'

As a final comment, the following excerpt from the EQRO report summarizes the feedback from the participating sites on the approach and its suitability for introduction of new practice standards:

'The project was well received by the designated agencies. Through focused interviews at the DAs (designated agencies), there was consensus that this was the best QI-like initiative DMH has conducted to date.

"I think this has been one of the best collaborations I've seen between DMH and the DAs."

"I would say this is the best implementation project that I've come across...the coupling of CCISC and IDDT was great.

"The number of co-occurring groups we offer has increased...Case Managers have noticed better attitudes and willingness to participate more actively in treatment...During therapy the client notes having less problems at home."

All DAs agree that this project should be a template for future QI initiatives. The performance and professionalism of DMH staff coordinating and facilitating this project was commended by all.

“DMH staff were great to work with. They were persistent without being pushy.”

“Visits by the DMH staff that focused on agency-specific needs were invaluable.”

They were described as “true champions” and credited with “why this project was so successful” despite its challenges and limitations. There has been significant improvement in process and patterns of administration and direct care at the mental health centers and significant changes in organizational culture and staff knowledge and attitudes towards clients with dual diagnoses. Examples of these changes include revised intake processes that include screening inquiries about substance abuse, routine incorporation of substance abuse stage of treatment in overall treatment plans, creation of specific dual diagnosis oversight and planning staff teams, acknowledgement of the high incidence of dual diagnoses in clinical staff discussions, specific treatment and skill building groups for clients with dual diagnoses, tolerance of persons with active substance abuse issues receiving other behavioral health therapy and vice versa, creation of residential treatment accommodations for people with dual diagnoses In the opinion of the DAs, this effort was the best such initiative that the state has supported in this service area. All organizations involved agree that this project should be a template for future like initiatives. The performance and professionalism of the state employees involved was commended by all.’

PUBLICATIONS

It is anticipated that refereed journal articles on the implementation approach, fidelity measurement and outcomes will be prepared for publication during the next year.

Appendix A: Talking points for ongoing IDDT capability assessment

Component areas	Sources of confirmation
Milieu	<ul style="list-style-type: none"> • External expression of program philosophy (mission, website, brochures) • Coordination/leadership/decision making • Practice as a part of daily work
Clinical process documentation infrastructure	<ul style="list-style-type: none"> • Identification (screening protocols, diagnosis recording, acuity) • Assessment (standardized collection of SA information integrated with MH) • Stages of change (client readiness) • Stages of treatment (matched to readiness) • Treatment planning • Progress reporting
Quality improvement/assurance	<ul style="list-style-type: none"> • Process monitoring (CQI to develop practice according to model, plans to ensure maintenance of current gains) • Quality assurance (standards, goals) • Client outcome monitoring • Electronic system infrastructure
Workforce development	<ul style="list-style-type: none"> • Staff expectations: front line (phone, crisis, practitioners, CRT team) • Training to support staff expectations • Job descriptions and evaluation • Supervision structures • Consult groups
Co-occurring Disorders-specific Practice	<ul style="list-style-type: none"> • Treatment techniques: CBT, motivational approaches • Stage matched interventions • Internal Groups • Community self-help groups • Peer supports including peer dual recovery support • Appropriate medication • Access to skills building materials • Contingency management approaches
Recovery focused supports	<ul style="list-style-type: none"> • Peer recovery education and supports • Housing support • Employment opportunities • Crisis support and planning • Assistance with legal issues
Other support	<ul style="list-style-type: none"> • Outreach roles • Harm reduction strategies • Policies: drug screens, residential, release of information • External relations: primary care, hospitals, criminal justice, community businesses, recovery, family and self-help