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HARBINGER II: DEPLOYMENT AND EVOLUTION OF ASSERTIVE COMMUNITY TREATMENT IN MICHIGAN

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ABSTRACT: Assertive Community Treatment (ACT) is now recognized as the model proven to be most successful in working with clients with long-term, severe mental illness. The first documented research replication study of ACT was Harbinger of Grand Rapids, in Kent County, Michigan. The Harbinger program influenced significant programmatic changes throughout the public mental health system in Michigan. This paper describes this evolution in community mental health locally and why these changes came about. The state-level strategy to implement replications of Harbinger is described, as well as funding and monitoring mechanisms that have now resulted in over 100 successful ACT programs in Michigan. For mental health administrators, the implications discussed include the future of ACT promotion and implementation, within the reality of a managed care framework.

The Program in Assertive Community Treatment (PACT) model, originated in the late 1960s in Madison, Wisconsin, has now received widespread and worldwide recognition as an effective community-based program for persons with severe and persistent mental illness (SMI). PACT has been disseminated, replicated, and modified extensively; programs labeled assertive community treatment (ACT) can be found in many U.S. states and other countries. The ACT model has served as the basis for numerous research demonstrations funded by the National Institute of Mental Health, the Center for Mental Health Services, and other federal and state sources. Literature is available tracing the development, evaluation, and evolution of the original PACT program in Madison (Thompson,

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Griffith, & Lea, 1990), and aggregating the information on the effectiveness of ACT replications (Bond, McGrew, & Fekete, 1995; Olfson, 1990). However, attention to how ACT has been disseminated and replicated, and systematic study of its adaptation within existing systems of care are lacking. The literature on technology transfer recognizes that movement of innovations from original demonstration sites establishing efficacy, to replication on a larger and/or more diffuse scale is often problematic. Many such transfers have faced major obstacles in effective implementation, maintenance of fidelity, and/or necessary adaptation (Bauman, Stein & Ireys, 1991). Therefore, case studies of successful transfers of innovative social technologies may provide important lessons for developing methodologies as well as for improving substantive treatment approaches.

This case study approach may be particularly useful with regard to PACT, since its original program developers, Stein and Test, early on voiced concerns about implementation of the model elsewhere because of its complexity, nontraditional structure, and lack of fit with the usual funding mechanisms (Thompson et al., 1990).

BACKGROUND

The first full-scale, documented demonstration and evaluation effort to replicate the original Madison (PACT) model of assertive community treatment was Harbinger of Grand Rapids (Mowbray, Collins, Plum, Masterton, & Mulder, 1997; Mulder, 1982, 1986). Harbinger was funded by the Michigan Department of Mental Health (now the Michigan Department of Community Health) in an effort to identify alternatives to hospitalization for persons with mental illness, which could be investigated on a trial basis, and if proven effective, disseminated and replicated statewide. Harbinger was initiated through a local mental health authority (Kent County Community Mental Health Services Board) in response to a statewide request for proposals in 1978. A detailed description of the operation of the Harbinger program is available elsewhere (Mowbray, Collins, Plum, Masterton, & Mulder, 1997; Plum, 1996).

Harbinger was evaluated as an alternative to hospitalization through an experimental design, using random assignment to experimental and control conditions (with some modification). The outcomes for Harbinger clients versus controls were evaluated at 30 months following entry in the study, as part of the original evaluation design, and in a 66-month follow-up study. Variables examined included symptomatology, drug and alcohol use, community functioning, satisfaction with mental health services, and inpatient psychiatric service utilization.

The 30-month evaluation showed significant differences between Har-

binger and the control group on independent living, employment, and client functioning. Harbinger clients used about one sixth the number of inpatient days of psychiatric care. At 66 months, there were fewer experimental-control group differences. Harbinger clients maintained low hospitalization rates, but control group clients' use of hospitals had decreased (Mowbray et al., 1997). This article describes the impact of the Harbinger demonstration project and its evaluation on the local mental health system, its statewide replication, and the subsequent changes in the public mental health system in Michigan.

POST-HARBINGER: LOCAL EVOLUTION OF THE SERVICE MODEL

In Kent County, the period from 1979 to the present is best characterized by two developmental themes in the deployment of assertive community treatment. First, there have been ongoing efforts to determine the ideal target groups for ACT. Second, there has been a continuing struggle to fully integrate ACT into a comprehensive service system for adults with serious and persistent mental illness.

The original target group for Harbinger was a population of persons who appeared at the local psychiatric unit seeking inpatient care. Enrollment procedures resulted in the original ACT team being presented with consumers having a wide range of illness severity. However, at the same time that Harbinger was beginning to identify itself with this broad base population, system administrators were seeing that ACT was a cost effective tool to provide and manage care for those consumers who were the most severely and persistently mentally ill. Even before the conclusion of the first 30 month program evaluation, it had become clear that the best deployment of ACT capacity should be for subgroups that were using substantial amounts of inpatient care and for populations who were requiring extraordinary amounts of crisis service while remaining underserved by the traditional offerings of day programming, dependent care housing, or residential treatment. As the necessity to care for these special populations became evident, Harbinger staff began to rethink their assertions that ACT teams could operate at client to staff ratios of 10:1 or 12:1. By 1984, the recommendation for the ratio was reset to average 8:1.

Harbinger's first expansion occurred in 1983 and 1984. At that time, Harbinger decided to duplicate the original team. Both teams were expected to have 10 to 12 staff members and serve between 100 and 140 consumers. Actual enrollments at the time of expansion provided each team with between 55 and 65 consumers. Expansion consisted of splitting the original team in two, dividing members and staff equally, and hiring new staff to fill the resulting vacancies on each team. The year following

the expansion resulted in decreased morale, much administrative and clinical crises, and complaints by some consumers that they were being subjected to new staff who did not understand their needs.

These problems resulted from bringing too many new staff into service in a short time while depending on the old staff to provide treatment and on-the-job training. It also brought into focus the fact that, within a team of 10 to 12 clinicians, team relationships were too hard to manage. That is, ACT practice requires that each clinician know what are the important interventions with each consumer. It became obvious that one clinician could not hold treatment information on more than 60 consumers. With this as a new ceiling for enrollment, and the difficulty in managing a team with 10 to 12 members, an optimum ACT model was formulated. By 1985, Harbinger had reorganized into three teams of eight clinicians, with each team serving a maximum of 60 consumers. This team configuration has remained resilient to subsequent program expansion, and remains a preferred model today.

During the 1980s, the tension between ACT as a possible model for all persons with mental illness and the need to focus ACT development on the most costly and difficult to treat populations continued. The early years of the decade in Kent County saw two teams established at Transitions Community Support Programs, a large case management agency. One was a replication of the PACT model; the other was focused on higher functioning consumers who needed extra support to live independently. While this divergent admission criteria was supported, system needs for ACT to deal with difficult to treat problems prevailed, and subsequently Transitions' second team began to take on many of the characteristics and practice patterns of the other ACT teams in Kent County.

In 1987, Harbinger developed a specialty team for consumers with both substance abuse and mental health problems. Two staff were brought in from the substance abuse treatment field. This team was empowered to develop an optimum MI/SA ACT practice model. A similar team was developed at Transitions for persons with mental illness and developmental disabilities.

Transitions Community Support Programs also reorganized its traditional casework oriented treatment model to an ACT format team model. Clinicians were organized into interdisciplinary teams treating at a staff to client ratio of 30:1. Staff provided team treatment to consumers with the most severe illness while consumers on the team roster with less severe illness received service from a single clinician.

In 1992, Kent County established two ACT teams to provide intensive support to a group of very seriously ill consumers who had been treated successfully only in state hospitals. These ACT teams worked in partnership with newly developed intensive residential programs to provide

support and care to this target group. ACT was expected to provide intensive support to consumers and residential staff, and to facilitate eventual consumer movement to less restrictive settings.

During the period when ACT expansion in Kent County was rapid and well supported by new Medicaid funds and fund diversion from older treatment models, the issue of limited access to ACT for appropriate referrals was managed on a case by case basis. That is, ACT teams had long-term commitments to consumers, often called a non-discharge policy. This required ACT teams to periodically close off new admissions. Referral sources and mental health system managers would plead for and eventually demand access for "one more" consumer, and often it would be granted. Discharge rates from ACT teams averaged between 4% and 8%, and occurred mostly from consumer relocation. ACT practice was to titrate treatment down to a low level, not refer out to lower intensity programs.

As new or diversion funding became harder to come by, the issue of access to and discharge from ACT became more acute in Kent County. Careful utilization studies at Harbinger indicated that, as intensity of contact drops, the proportional overhead of a full team treatment model becomes excessive. In 1990, Harbinger determined that indirect service requirements inherent in the ACT team treatment model could reach over 50% of the cost of care, as service intensity approached one contact per month. The Harbinger solution in 1992 was to establish a three-person ACT stepdown team for consumers who were ready to move to less intensive service. For these higher functioning consumers, the cost of care decreased 38% while the established trend toward increased community integration was sustained.

Thus, since 1982, Kent County has seen expansion of ACT as a program clearly targeted at persons with severe and persistent mental illness. ACT development has consisted of specialty teams focused on complex presenting problems. Finally, stepdown teams have enabled ACT to appropriately address commitments to continued consumer growth vs. stability and management, while maintaining ACT principles of continuity of care, and also providing a solution to the dilemma of adequate access for all consumers who can benefit from the ACT model.

THE STATEWIDE ACT REPLICATION PROCESS

At the state level, the completion of the Harbinger 30-month evaluation came at an opportune time: concerns were high over how to continue forward movement in deinstitutionalization. A new Mental Health Code had been passed in the early 1970s. While there was increased attention to rights protection issues, populations institutionalized in state psychiatric

hospitals were not significantly declining. Unlike some states, Michigan had not earlier opted into other popular hospitalization alternatives, such as clubhouse models, or partial hospitalization. The system was ready to accept a change strategy; fortunately, with Michigan continuing to experience a period of prosperity (with disposable personal income higher than the U.S. average), funds were available to support innovations. Thus, the fact that the Harbinger demonstration produced approximately a six-fold reduction in state hospital days was well-received by the Mental Health Department's director and by the legislature in granting funding requests. Management strategies were also initiated during this same time period to enhance the role of county community mental health boards as full management authorities, increasing their role in entry to and discharge from state psychiatric hospitals. Thus, ACT presented a service model also welcomed by the CMH boards which were targeted as the change agents.

In the fiscal year following release of the Harbinger 30-month evaluation report, the legislature was persuaded to direct additional resources to expand assertive community treatment in Michigan. A request for proposals was issued by the Department of Mental Health and applications from around the state were competitively reviewed. To be considered for funding, each proposed program was to faithfully follow ACT principles by encompassing these elements:

- Services would be provided by a team of mental health professionals and others in the natural community where the clients live, work and play;
- The teams would provide a wide range of services; such as, assuring that basic needs and medical care were available to individuals living independently;
- The team providing treatment would assume primary responsibility for the client for as long as needed.

Twenty new ACT teams were created through this expansion funding. The typical team consists of from 5 to 8 staff, from at least three different professions (social work, nursing, psychiatry, psychology). Supervised by a master's level clinician, other team staff include bachelor's level mental health workers and paraprofessionals. The teams have a staff to client ratio of 1:10 or less. This was adopted to ensure that ACT would continue to allow flexible and highly intensive service provision. ACT teams are expected to have the capability to provide multiple contacts a day to an individual client when in crisis.

A well-thought out and comprehensive implementation strategy was utilized by the Department of Mental Health. Each new ACT team was required to follow standards for program operations. Newly hired staff re-

ceived training from model ACT programs, including Harbinger, the Thresholds-Bridge program in Chicago, and the original PACT program in Madison. Before initiating services, each program also had to spend one week in vivo training time at one of these sites. The MDMH realized that ACT worked by "doing" and was also best taught that way. The diversity of training sites was an asset in that new programs could select the one that was most relevant to their own location and population, e.g., urban versus suburban/rural. To assist with training and technical assistance needs of the new ACT replications, an agreement was negotiated with Harbinger. Newly initiated Michigan ACT programs were carefully monitored by MDMH specialists and through resources provided in the Harbinger technical assistance agreement. All programs were originally site-visited at least annually. The enthusiasm of the Harbinger staff was a motivating factor to many of these new programs as they struggled in their developmental phases.

Each new program was also required to participate in a centralized evaluation, submitting data on client characteristics and on their pre- and post-ACT hospitalization usage. Outcome data collected through this process showed that the average number of hospital days for ACT clients had dropped by 72% after their first year in treatment and by 91% after the third. From 1985 to 1993, the number of adults in state psychiatric hospitals in Michigan dropped from 4,304 to 2,219. This decline has been attributed to sound hospital management, implementation of CMH full management authority statewide, and the existence of cost-effective community-based programs, like ACT.

Now, less than 20 years following the Harbinger demonstration, Michigan has in place over 100 assertive community treatment teams. This expansion has been accomplished through dissemination and publicity strategies that have highlighted the model's initial and continuing positive effects in decreasing hospital utilization. Expansion has also benefitted from the development of an ACT constituency statewide. That is, as the number of ACT programs grew, a statewide conference was established to disseminate information. The conference has grown to attract over 800 people attending from over 20 states. Thus, a large cadre of ACT staff has been established, serving as a support system for each other, and providing enthusiastic advocates for ACT.

SOURCES OF ACT FUNDING: REDIRECTION AND EXPANSION

This one-sided positive support for ACT in Michigan has not been diluted by any detractors; there are ostensibly no visible opponents to the ACT model. Although the later evaluation results of Harbinger proved

equivocal, they received little attention in the Department of Mental Health or elsewhere. Congruent with ACT's acceptance, MDMH has also experienced success in seeking out long-term incentive mechanisms for CMH boards to adopt and expand this model. One strategy was to authorize CMH boards who were full management authorities to redirect funds that would have been used for state hospitalization into the development of ACT programs. Under the Full Management Authority concept, each CMH board can use its budget to purchase both community-based and hospital-based services (from state or community hospitals). If less state hospital days are utilized, resources are then available to expand community-based services. Where boards were experiencing high levels of hospitalization, this was an effective incentive. For those boards already experiencing low levels of state hospital use (sometimes resulting from the existence of Medicaid-funded community hospitalization alternatives), suggestions to redirect funding from more expensive (and oftentimes less effective) community-based services, like day treatment, to ACT for intensive or long-term service users has been an effective tool.

During the late 1980s, Michigan turned to Medicaid for additional resources. Originally, the Medicaid procedures were not suited for ACT service. Clinic and discipline-based billing did not reflect the reality of the ACT model. However, the popularity and demonstrated effectiveness of the original ACT demonstration and its replications enabled MDMH to persuade state Medicaid managers to create a new, covered service. Now, under the Psychosocial Rehabilitation Option, CMH boards are enabled to provide ACT services without changing the model's basic principles and procedures. For example, ACT can be provided outside of a clinic office by any team staff member. The Medicaid rules were made to fit the model instead of making the model fit Medicaid. The requirements for funding under Medicaid were established under MDMH purview with significant input from ACT teams. The rules specify ACT and other services which must be provided; the team-based, in-vivo nature of services; staff qualifications; and documentation and review requirements. In the last few years, ACT expansion has been primarily funded through the acquisition of Medicaid dollars and the redirection of resources previously used for inpatient hospitalization. The adoption of Medicaid standards for funding and the concomitant monitoring requirements have served as powerful tools to ensure fidelity to the significant components of the ACT model. Where implementation of ACT in the early 1980s showed substantial variation among programs, currently there are uniformly positive outcomes for clients in enrolled ACT programs. Performance that is significantly sub-optimal can result in funding termination.

The mental health system in Michigan has also continued its development of innovative ACT models. Demonstration projects based on ACT

have been developed to serve elderly persons with SMI, children with severe emotional disturbance and their families, adults with mental illness and co-occurring substance use disorders, those with dual disorders of mental illness and developmental disabilities, and for persons with serious mental illness exiting prison.

ANALYZING THE SUCCESS OF THE REPLICATION

The Michigan experience in demonstrating, replicating and expanding ACT system-wide is congruent with that of the original PACT program and with experiences reported in other communities and states: ACT is an effective, potent, and robust model. Evaluation data from Kent County and other locations statewide have established the ability of sites in different geographical areas, with varying levels of expertise and diverse resources, and serving a wide variety of targeted populations, to implement the model. In Michigan, given training, technical assistance, and continued monitoring, ACT continues to demonstrate positive effects on client outcomes and on the operation of the mental health system. Besides providing more information regarding the utility and benefits of ACT, the case study of Harbinger enables us to address two broad issues: (1) the dissemination and replication of an innovative program and how it becomes adopted and integrated into existing service systems; and (2) the adaptation and evolution of this program, as it becomes routinized as a component of the care system. These are the classic dilemmas in technology transfer: first, how to transfer a technology so that it maintains fidelity to its original innovative model; and second, whether and how to allow programs to evolve from the original model over time and place, to be responsive to local circumstances and current issues, while still assuring effectiveness (Bauman, Stein & Ireys, 1991; Bachrach, 1988).

Replication and Dissemination

The ACT experience offers an impressive case of how a rational social change strategy utilizing a social science-based demonstration and evaluation can have dramatic and long-range effects. This is in stark contrast to the experiences of many evaluators during the 1970s and 1980s who pursued a naive instrumentalism in regard to the expected impact of their work (Shadish, Cook, & Leviton, 1991). Repeated disappointments were experienced in that evaluation results were basically ignored, causing some major doubts as to the real impact that quantitative results from social science "experiments" could ever have on public policies. We might ask what caused this difference?

There were many positive features to ACT's demonstration and evalua-

tion in Michigan, its dissemination and use, and subsequent implementation and monitoring activities. That is, the 30 month evaluation results were strong; the effects of the program on hospital days were powerfully demonstrated. Furthermore, the quantitative, economic impact data was substantiated by behavioral outcome data suggesting quantitative and qualitative improvements in the lives of participants. State and local level proponents of ACT were able to share this data and use it in active advocacy efforts to expand the model's application. These expansion efforts followed prototype recommendations in the literature: each step was carefully planned and observed, training and education were provided, expansion efforts were well-monitored so that corrections could be made at early signs of possible problems, and finally, replications allowed flexible application to local circumstances, while still maintaining the integrity of important principles from the model. This effective implementation strategy had appropriate human resources available to carry it out: stability in middle-management staff at the MDMH to ensure replication resources and to monitor outcomes; and availability of local technical assistance which was credible and enthusiastic through Harbinger administrative and clinical staff. These efforts forged a committed ACT cadre at both state and local levels. Beyond the replication period, ACT has been sustained by personnel at the state level and in Kent County CMH, providing continued attention to developing and redeveloping strategies which would support the model on an ongoing basis, even when resource levels overall were contracting; e.g., policies to support funding redirections; expansion of standards for federal financial participation to include ACT, while still protecting the model's integrity.

On the other hand, one might analyze the situation and note that there were less than ideal aspects to the Harbinger evaluation and replication which have "done-in" other human service programs that were placed in different circumstances and/or timing. For example, the research design was flawed from the beginning in that not all participants were randomly assigned and there were some significant differences noted between the experimental and control groups (Mowbray et al., 1997). Secondly, the demonstration/ evaluation approach did not include a well-formulated dissemination strategy, nor were there in place mechanisms to ensure involvement of stakeholders, such as legislators, community leaders, state or local administrators, and the like. Furthermore, the results from the 66-month evaluation could have produced disastrous consequences for the future of some interventions. That is, on nearly all of the outcome variables, the Harbinger program no longer demonstrated the striking successes it had earlier. Those measures that did reflect differences, i.e., self-reports and clinician assessment of GAS, could be seen as suffering from

biased expectations that Harbinger clients would be better off and therefore lacking credibility. At the local level, significant changes towards expanding ACT actually occurred before the 30-month evaluation was even completed. Finally, the harsh economic climate in the late 1980s was a significant obstacle for many demonstrated social innovations and program expansions, which also suggests that a fully rational change model was not operating

That these deficits were largely ignored and barriers overcome may reflect the strength of the model and its already established credibility, with the original program developers in Madison, Wisconsin, available for consultation, training, and model specification. More likely it reflects the facts of circumstances and timing in Michigan. In terms of timing, Harbinger's initiation addressed the needs of mental health leadership at all levels—actively searching for solutions to the puzzle of how to positively continue deinstitutionalization, state hospital down-sizing, and community-based treatment. Fortunately, at the time of Harbinger's 30-month evaluation, these forces were still in effect. Thus, there was an identified need for a program like Harbinger, and funds were available. Also at that time, state and local governments were experiencing positive atmospheres for social and administrative changes, which made implementation of the ACT model easier.

With regard to circumstances, Harbinger was initiated and carried out under circumstances where there were no strong competitors or rivals and no active opposition. Possible opposition could have been imagined: unions objecting to state hospital downsizing and its effects on their membership; consumer advocacy groups objecting to any type of treatment involving medications; family groups contending that community-based treatment inevitably increases family burdens, etc. However, such potential opposition was not evident during Harbinger's demonstration/evaluation period. Perhaps the major credit for Harbinger's success should be given to the program designers of the alternative treatment model (at state and local levels) who had vision *and* foresight to anticipate the needs for a well-developed and demonstrated effective model far in advance of when results from its evaluation would be needed for policy and programmatic decisions. Rossi and Lyall (1978) have pointed out that social science experiments *may* be able to impact public policy; however, their results need to be available to *shape* the thinking of policymakers. If results are released in the midst of controversy over decision-making and change, they are likely to be highly scrutinized and subject to a level of attack that few applied research studies could withstand. Harbinger's success may reflect the "enlightenment" model of evaluation impact, wherein results serve to substantiate policy directions already in place.

FUTURE EVOLUTION AND ADAPTATIONS OF ACT: IMPLICATIONS FOR ADMINISTRATORS

This case study on ACT expansion offers valuable information for administrators on the evolution of a model as it adapts to and becomes routinized within existing operations. From the replication experience at state and local levels, two themes can be identified. The first involves ascertaining ideal target groups to optimize this resource-intensive service. While originally conceived as a hospital alternative for the overall population seeking inpatient psychiatric care, ACT soon evolved to focus on high system users, to justify its costs. other adaptations were made to accommodate specialty populations that were being ineffectively served in the existing system; in Kent County, these were individuals for whom mental retardation or substance abuse was comorbid with mental illness. As ACT matured, so did its original service recipient group and their need for ongoing, intensive service contacts. To meet the needs of *emerging* populations, ACT initiated a planned closure process, developing a three-person step-down team for those clients ready to move into less intensive services.

The second theme identified in ACT evolution in this case study is the driving force of funding and finances. The previously described changes based on target group needs were essentially undergirded by financial considerations; that is, the need to most efficiently use the more highly priced ACT services. Funding through Medicaid was the basis for expansion of ACT services in many locations. Luckily, state authorities had the expertise to ensure that necessary Medicaid rule changes were made to fit the model, rather than requiring providers to distort the model to fit the rules. Medicaid funding and its certification requirements also had the positive effect of assuring fidelity to the model; that is, when a process was in place to ensure fidelity by tying it to funding availability, the substantial variability which had previously been evident between programs was markedly decreased. While not usually the case, for ACT evolution in Michigan, funding considerations seemed to produce overall positive effects—in targeting client populations to result in greater efficiencies; in providing expansion funds; and in ensuring fidelity to important program standards.

Issues about fidelity versus evolution are ongoing and relevant to ACT's future development. We see this in that, for managers, the challenges regarding ACT *now* involve: (1) maintaining standards and effective operation in the current service climate, while (2) visioning and molding operations toward future ACT application and adaptation in a human services environment that is increasingly volatile and pressured to demonstrate effective outcomes with minimal costs or permanent funding commitments.

Maintaining Fidelity

Clearly, ACT's success has allowed the model a realm of evolution and expansion unimpeded by pressures to become an indistinguishable component of a traditional mental health system. ACT has flourished in Michigan as a single effective and recognizable model, expanding to serve populations that require assertive engagement for consumers and flexible application of complex intervention strategies. In each community mental health system, local needs have influenced the development of ACT teams without distorting the model. Still, many ACT teams today have not yet managed the dilemma of maintaining the integrity of the model and its long-term commitment to enrolled consumers, while meeting the demand for access to appropriate levels of care that is the hallmark of integrated behavioral health care systems. At present, the focus for ACT teams must be to present clear admission criteria, to maintain fidelity to program principles and operations, and to manage protocols for titration of service intensity. Administrators need to have mechanisms to assess the extent to which their programs are achieving these goals. In Michigan, mechanisms are available to address this need: e.g., statewide ACT conferences provide programs with information for self-criticism and improvement; and Medicaid funding requirements provide teeth to address issues of documentation and adherence to standards. The Michigan Department of Mental Health has also maintained a clear commitment to supporting, expanding, and enhancing the quality of ACT services. Continual performance monitoring of ACT has obviously contributed to the ongoing success of the model.

At local levels, and in other states, administrators need to have in place their own mechanisms to address program quality, such as continuing education of staff, program monitoring, and the like. Administrative support for evaluation activities in this area will be important in moving forward knowledge of ACT efficiency and effectiveness, so advancing refinements of the model and providing better information for planning and decision-making.

Allowing Adaptation to Meet Funding Redirections

For the future, a major challenge for ACT programs will be to establish service models for consumers who are ready to assume a more personally assertive role in their treatment and reintegration into their communities. That is, models are needed for non-ACT caregivers which provide the continuity and stability of ACT for consumers whose periodic contact needs on an ongoing basis are too few to require the intensity of service that is concomitant with membership in an ACT team. This goal is not only realis-

tic in terms of anticipated future funding levels and efficiency concerns, it is also congruent with the psychiatric consumers' movement toward recovery. Future service strategies within the ACT philosophy might rely upon small ACT-like teams functioning at higher staff to client ratios than mainline ACT, and/or upon increasing use of consumer groups as community support for ACT graduates. Lifelong treatment for ACT consumers may well mean that primary care providers, HMOs, and/or psychiatric clinics take over responsibility for providing overall care to those "graduated" consumers who can manage their own access to psychiatric and rehabilitation programs. However, given the nature of psychiatric disability, to fully ensure that consumers' needs are met, ongoing relationships and close partnerships between the ACT team and these health care providers will be necessary, allowing consumers to re-engage the ACT team when the severity of their illness or rehabilitation opportunities require increased intensity of service.

Thus, the future ACT team may have several hundred members. Some of these consumers will receive all treatment and support service from the ACT team. Some may receive reduced support from the ACT team but increased support from consumer groups, while others receive psychiatric care from a clinic. Under a managed health care program, all ACT consumers will, of course, have chosen a primary care physician, who will be aware of the ACT team and the consumer's comprehensive health care needs. Consumers, clinic psychiatrists, and primary care physicians will all be able to access the ACT team in times of crisis. The staff knocking on the consumer's door during a crisis will represent a familiar and trusted program, that has served the consumer for some time and can bring stability and progress back to the consumer's task of managing a mental illness and maintaining a fulfilling life in the community.

SUMMARY AND CONCLUSIONS

Overall, ACT has enjoyed remarkable success in affecting major programmatic and systemic operations in Michigan. The success of ACT can be attributed to multiple and complex sources, starting from its demonstration project status and its positive evaluation results, and through the carefully planned implementation of ACT expansion and replication, but also including factors reflecting circumstances and timing favoring the adoption of an inpatient alternative like ACT. However, for continued success of the model and its future viability, evaluators and administrators must recognize that more still needs to be done. An integrated management and evaluation focus can help ensure that future ACT improvements, planning, expansions, and adaptations optimally address efficiency,

effectiveness, and quality in serving consumers in treatment, rehabilitation, and recovery.

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