

Getting our ACT Together

Assertive Community Treatment (ACT) for the Seriously Mentally Ill in Iowa

**Technical Assistance Center for
Assertive Community Treatment**

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Section I

Executive Summary

Treatment of the seriously mentally ill, especially those with schizophrenia, is among the most difficult challenges in medicine. There is no known cure. Treatment is ongoing and expensive. The disease strikes young adults, making many unable to work, and destined to a life in poverty. Treatment relies on scant public funding in a system widely acknowledged to be broken. A startling number of people suffering from this illness do not have access to treatments known to be effective. Many of these persons who go untreated or receive inadequate treatment become homeless, incarcerated or worse.

Assertive Community Treatment (ACT) offers hope for the seriously mentally ill and their families. The intent of this paper is to familiarize stakeholders with the ACT model and its development in Iowa and to encourage discussion about increasing the availability of ACT in Iowa.

Assertive Community Treatment teams were developed in Wisconsin in the 1970's because people with serious mental illness (such as schizophrenia) were faring poorly under deinstitutionalization. Patients were experiencing repeated hospitalizations, homelessness and incarceration as they struggled to adjust to living outside of institutions without adequate support.

ACT brought doctors, nurses, and other mental health professionals into patients' homes to help with managing medications and symptoms, accessing community services, managing finances, work, and whatever was needed to live independently (1). ACT dramatically reduces hospitalizations, homelessness, keeps people engaged in treatment (2), and is cost effective (3).

Iowa has been slow to adopt ACT. In comparison, other states in the Midwest have more actively embraced ACT: Minnesota has 27 teams, Indiana has 25 teams, and Michigan has 88 teams (4).

Iowa's first team started in 1996 and there are currently five ACT teams in Iowa. These teams have shown excellent outcomes including an 80% reduction of inpatient hospitalizations and virtual elimination of homelessness and incarceration for those served by ACT. Despite these benefits, ACT implementation has reached a plateau with the most recent team starting in 2006. At present ACT is available to less than one quarter of Iowans in need.

Iowa has very limited resources for its mental healthcare needs. Iowa has half the number of psychiatrists per 100,000 population (7.6) compared to the national figure (15.8), and the demand for psychiatrists exceeds any other specialty in the state (5). Medicare reimbursement for care is amongst the lowest in the nation. In per capita rankings of mental health resources, Iowa ranks 47th out of 50 states in the number of public inpatient psychiatry beds (6). There are continued pressures to reduce inpatient

psychiatry beds even further. The consequences of these limitations fall most heavily on the seriously mentally ill.

With these limitations, it is imperative that Iowa effectively and efficiently utilizes available resources. Reduction of days hospitalized, a key outcome for ACT, is of particular relevance for Iowa as the state struggles to find solutions for mental health services in the wake of closures of inpatient psychiatry units across the state.

Factors that limit more widespread use of ACT in Iowa include lack of funding for start-up of new teams, workforce shortages, and Iowa's tradition of local management of mental health care. Experience in states that have successfully implemented ACT indicates that achieving widespread use requires that the state mental health authority play an active role, including developing billing mechanisms, supporting technical assistance, and assuring program requirements are linked to fidelity to the model (6).

The last part of the paper shows our recommendations about additional ACT implementation in Iowa - how many teams, where to start them and what we believe is an achievable pace of implementations. We suggest increasing the number of ACT teams in the state from five to fifteen over the next five years. This would provide ACT in the major metropolitan areas in Iowa and provide coverage for about 70% of Iowans in need of ACT services. Funding requirements would be about \$1.1 million per year to cover start up costs for new teams and support for technical assistance.

Section II

ACT Background and ACT in Iowa

The key features of ACT Care

ACT uses an assertive approach by taking treatment to each patient in their living and working environments. The team includes a psychiatrist, psychiatric nurses, and a variety of recovery focused counselors who work together to provide a complete array of treatment and support services. Participants are visited by a member of the team on average 3-4 times each week but can be seen as often as twice daily based on individual needs. This 24-hour-a-day, seven-days-a-week approach helps people manage severe mental illnesses by providing psychiatric treatment, help with consistent medication use, help meeting education or employment goals, and help with activities of daily living, budget and housing.

ACT also provides assistance to decrease the use of alcohol and/or drugs for patients with a problem with substance abuse. Crisis management assistance is available from the team 24/7.

The focused approach with ACT provides the stability needed to enable people with the most severe and persistent mental illnesses to move toward recovery.

Current Iowa ACT Teams

Use of ACT in Iowa began in 1996 in Iowa City due to a shortage of psychiatric inpatient beds at the University hospital. Referring physicians faced long waits to get their clients hospitalized. Patients with schizophrenia were occupying many of the beds. In an attempt to reduce hospitalizations for this population, the university piloted the state's first ACT team. Within a year, hospital days for these patients decreased by over 80%.

After the success of the first team in Iowa City, three more teams began operation with the support of a Magellan/Department of Human Services (DHS) initiative in 1998. A rural based team outside of Des Moines closed within several years after difficulties maintaining fidelity to the model particularly in regards to staffing. The original teams in Cedar Rapids and Des Moines are still in operation with a full census. The fourth ACT team was a grass roots effort in Fort Dodge where a psychiatrist and the county's Central Point of Coordination (CPC) saw the value in the ACT model and partnered with Magellan to share start up costs. The team began operations in 2004. The most recent ACT team originated from Heartland Family Services in Council Bluffs and began in 2006 in another Magellan/DHS initiative covering start-up costs.

Technical Assistance Center

In 2003, the teams (Iowa City, Des Moines and Cedar Rapids) were operating in isolation. Clinical outcomes were not consistently monitored across all teams and there was no organized effort to assist existing teams or support the effort of starting new teams. A group of clinicians applied for and received a grant to begin a Technical Assistance Center (TAC) for ACT in Iowa. The TAC provided a source of expertise for stakeholders, providers, and communities interested in starting an ACT team. The TAC conducted fidelity reviews, aggregated and reported clinical outcomes, provided

consultation for existing teams, and identified and assisted communities interested in ACT development. The TAC was funded 2003 through 2011.

A Cost Study in Fort Dodge

Although it is well documented that ACT is cost neutral (3), we wanted to confirm this was the case in Iowa. In 2004-2005 the TAC conducted a cost study in Fort Dodge. We examined the mental health care costs for 32 patients for one year pre and post involvement in ACT. The results showed a 30% reduction in mental health costs per patient after one year on the team (7).

The savings we could most easily document were in avoided inpatient hospitalization. In the study a typical client was hospitalized 20 days in the year prior to entering ACT, after one year in the program hospitalized 4 days. The study showed significant shifts in costs with Medicaid (funded by Magellan) absorbing costs that had been previously covered primarily by Medicare, secondarily by the county, or the local hospital.

There are significant additional cost savings and benefits that are more difficult to quantify. ACT clients have a reduction of >90% in incarceration and homelessness. Many aspects of social service access and case management are handled by the ACT team instead of other local agencies, reducing case loads on those agencies. ACT clients have higher employment rates and express high satisfaction with services.

Clinical Outcomes for ACT Teams in Iowa

The table below shows outcomes for the five teams summarized for clients admitted August 2005 through December 2009.* The Pre versus Post data shows days per year and employment percentages for the year prior to clients joining ACT compared with outcomes for those same clients after receiving ACT care. These outcomes reflect improvements expected with high fidelity ACT teams.

	Pre ACT	Post ACT	% Change
Hospitalization	18.4	3.6	-80%
Residential Care	60	2.0	-97%
Homeless	11.6	1.2	-90%
Incarcerated	10.8	1.2	-88%
Percent Employed	16%	44%	+ 33%
Percent Abusing Substances	29%	27%	- 6%
* Outcomes data paid for the Iowa Department of Human Services through its contract with Magellan Health Services for Iowa Plan for Behavioral Health Community Reinvestment.			

Section III

Expanding ACT in Iowa

In considering additional use of ACT in Iowa, we start with the premise that extensive experience with the model shows that ACT provides substantial improvements in outcomes for clients on a cost effective basis. Because ACT results in improved outcomes and is cost effective, we believe increasing the numbers of teams in Iowa is the right thing to do.

This section addresses two major questions: 1. Implementation challenges to additional ACT teams; and 2. Consideration as to how many teams, where and at what pace teams should begin operations.

Implementation Challenges

If ACT is so clearly “the right thing to do, why, after all these years, is its use so limited in Iowa?” Over the years we have discussed this issue with mental health leadership in various communities including Davenport, Waterloo, Dubuque and Mason City and identified several factors that make leaders hesitate to start a team.

Implementation Challenges - Start up costs

In Iowa there is no mechanism to provide start up funding for ACT teams. Since the client census is not sufficient in the early months to support the costs of start up (staff salaries, office space/equipment, and technical assistance), programs typically lose money in their first year of operation. Once the program achieves a full census, the program can cover costs. These start up costs reflect the costs of running a team for 6-12 months without adequate census. We estimate they will average around \$500,000 per team.

Sources used for current teams included University funds and Magellan Community Reinvestment dollars (for the original team in Iowa City), a DHS/Magellan Community Reinvestment initiative (for the teams in Des Moines, Cedar Rapids, and Council Bluffs), and Webster County funds and Magellan Community Reinvestment (Fort Dodge team).

If the state is to more widely expand the implementation of ACT, a regular source of start-up funds needs to be identified.

Implementation Challenges - Workforce Shortage

Iowa has a shortage of mental health professionals, especially psychiatrists, and particularly in non-urban areas. Other states have met this challenge by use of nurse practitioners and physician assistants. Iowa has joined many states (Indiana, Michigan, Minnesota, Illinois, Wisconsin and Michigan) in utilizing midlevel providers in several of the Iowa ACT teams.

ACT teams in Iowa are also providing training experiences for medical students and psychiatry residents in an effort to increase their exposure and interest in working in this area.

We believe the workforce shortage for ACT is but one aspect of a more widespread shortage of psychiatrists across Iowa. Our reviews of the demographics of the psychiatrists in the state indicate that the current “critical” shortage is going to get worse in the near future. Several groups are working to develop initiatives to address this problem (5) (8).

Implementation Challenges - ACT is Difficult to Implement

By its nature, ACT is more difficult to start and operate than typical social or medical services. For example the ACT team provides 24/7 service availability. This means “on call” requirements for team members creating recruitment, scheduling and compensation issues. It also includes unusual policy and procedure development issues for the agency in accommodating the outreach and intensity of ACT. Team start up is labor and finance intensive. With mental health providers in a regimen of generally being overworked and underfunded it is easy to understand reluctance to take on such a challenge.

Implementation Challenges - “Bottom Up” or “Top Down”

Iowa has a tradition of decentralized mental health management with many operating decisions at the county level. Our five ACT teams arose in a piecemeal fashion. Dissemination of the model is hampered by the lack of a legislative or state sponsored ACT initiative, funding or policy guidance supporting ACT expansion. A recent study examined key factors to implementation of high fidelity ACT teams and identified mental health authorities as playing a critical role (9).

Other states with broad availability of the model such as Michigan, Oklahoma, Indiana, Minnesota, and Indiana did so under legislative directive. In view of the tradition of decentralized control in Iowa, we question that a “top down” directive is feasible. However, we believe there should be much more support of ACT at the state level. The absence of a state led initiative greatly reduces the likelihood that Iowa will appreciably increase the teams in operation over the next decade.

Implementation Challenges - Technical Assistance Center (TAC)

Funding for the TAC in Iowa has been provided by Magellan through its Community Reinvestment Grant since 2003 but was discontinued for fiscal year 2012. A TAC is generally acknowledged to be essential to successful implementation of ACT programs in a state (9). A source for continued TAC funding needs to be identified.

How Many Teams and Where

In this section we summarize the Iowa population to consider how many teams should be considered and where they should be placed.

We believe that the best estimate for the number of ACT teams in a given population was addressed in a 2006 study (10). The resulting article recommends that communities should expect that, at minimum, .06% of their adult population would benefit from ACT. This estimate is conservative because it accounts only for those who are already in the service system. Communities can expect that more people than

these would be in need of ACT – such as those not yet “in the system”, such as those not receiving SSI/SSDI, the homeless and incarcerated.

Our experience is that the easiest ACT implementations are in the larger cities and we have focused our evaluation on those. The U.S. Census identifies nine Iowa “Metro Areas” ranging from the Des Moines area (adult population 419,000) to the Dubuque area (adult population 71,000). The U.S. Census also identifies 15 “Micro Areas” ranging from the Mason City area (40,000) to the Spencer area (13,000). The smallest community in which we have implemented ACT is Fort Dodge (30,000).

The table in Attachment 1 summarizes population data for Iowa, showing the areas that we believe are the most likely candidates for ACT teams - the nine metro areas and the nine micro areas with populations near, or greater than 30,000. The first two columns show the areas and their adult population. The third and fourth columns show the conservative estimate of the population needing ACT and the approximate number of teams needed to serve them. The last two columns show the current ACT teams. The number of clients per team ranges from a low of 45 to a maximum of about 80. For planning purposes we have estimated 60 clients per team.

The data shows an estimate of 1,377 Iowans in need of ACT. Current ACT teams serve 303 or 22% of those Iowans.

Of the estimate of those needing ACT, 779 are in the nine Metro Areas. To serve this population would require nine additional teams, three more in the Des Moines area, one more in Cedar Rapids plus teams in Waterloo, Davenport, Sioux City, Ames and Dubuque. We believe serving this population should be the first priority for additional teams.

The experience in the Micro area of Fort Dodge, where a team has been operating since 2004 is revealing. That team is serving 40 clients with excellent outcomes, in an area where the estimate of the minimum who need ACT is 18. This illustrates that the estimate of need we are using is indeed conservative. Based on the Fort Dodge experience we believe that the TAC should continue work with Micro communities to gain experience serving smaller communities in Iowa.

Section IV

Recommendations

Based on the above, we recommend a plan to implement nine additional ACT teams in the Metro areas identified above plus one additional team in a Micro area, perhaps Mason City or Muscatine. This would bring ACT treatment to about 950 lowans, almost 70% of the estimated minimum who need ACT.

The pace of implementation depends upon what resources are available, the key limiting factor likely is start up funds for new teams as previously discussed. Another is the TAC capacity. The TAC was a part time effort by the authors with involvement from the existing teams. The implementation of high fidelity teams will require ongoing support which is possible with a resumption of past funding levels for the TAC plus a relatively small increase to support additional implementations, We recommend a goal of implementing about two additional teams per year over the next five years.

We suggest the following steps:

1. Announcement of a state initiative to disseminate ACT, and a DHS call for interested communities to identify themselves.
2. Identify the planned sites for new ACT teams and a timetable for startups.
3. Secure legislative approval of funds for ACT start up costs.
4. Secure funds for resumed operation of the TAC. This is essential for readiness assessment, training and consulting help for interested communities plus ongoing training, fidelity measures and outcomes monitoring for new and existing teams.

A summary of the approximate funding requirements follows:

Five Year Funding Requirements:

Start up cost assistance for 10 teams at \$500,000 per team	\$5,000,000
Technical Assistance Center:	
Support for new teams; \$50,000 per year	\$ 250,000
Fidelity measures, outcome monitoring; \$25,000 per year	<u>\$ 125,000</u>
	<u>\$5,375,000</u>

Section V

Conclusions

The climate of care for the seriously mentally ill in Iowa has declined dramatically with long waiting lists for services, fewer inpatient beds, and crowded emergency rooms. Economic factors indicate the situation is not going to improve in the foreseeable future. ACT teams provide better care for the seriously mentally ill and relieve overburdened emergency rooms and reduce need for inpatient beds. Iowa has shown the ability to do ACT and achieve the benefits. Currently, less than a fourth of Iowans have access to this treatment. Though there are barriers to ACT dissemination, our neighboring states have overcome them. We believe that Iowa can and should do the same.

Adult Population, ACT Needs and ACT Teams

	<u>Iowa Adult Population (1)</u>	<u>Minimum Who Need ACT (2)</u>	<u>Teams if 60 Clients per Team</u>	<u>Current Teams</u>	<u>Current Clients</u>
<u>Major Metro Areas:</u>					
Des Moines	419,253	252	4	1	85
Cedar Rapids	194,487	117	2	1	75
Waterloo	128,795	77	1		
Davenport	125,321	75	1		
Iowa City	121,516	73	1	1	63
Council Bluffs	91,668	55	1	1	40
Sioux City	74,964	45	1		
Ames	71,777	43	1		
Dubuque	<u>70,921</u>	<u>43</u>	<u>1</u>	—	—
Metro Area Total	1,298,700	779	13	4	263
% Population	57%				
<u>Largest Micro Areas:</u>					
Mason City	40,187	24			
Muscatine	40,020	24			
Clinton	37,337	22			
Burlington	31,574	19			
Fort Dodge	29,718	18		1	40
Marshalltown	29,091	17			
Newton	27,882	17			
Keokuk	27,649	17			
Ottumwa	<u>27,101</u>	<u>16</u>		—	—
Large Micro Areas Total	290,558	174		1	40
% Population	13%				
Remainder of Iowa	705,736	423			
% Population	31%				
Total Adult Population	2,294,994	1,377		5	303

1) Population for counties identified with Metro or Mico ares, per U. S. Census data (2009 est.)

2) Minimum need .06% of adult population per Cuddeback G, Morrissey J, Meyer P.; How Many Assertive Community Treatment Teams Do We Need?; Psychiatric Services 57:1803-1806, 2006

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