Behavioral Health Community Indicators: A Disruptive Innovation for Local Systems of Care

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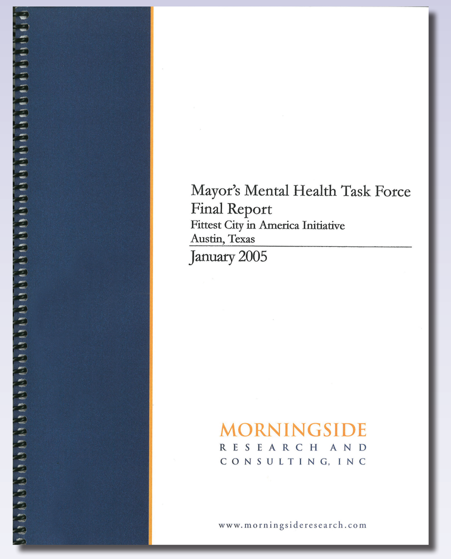
Background

In 2004, the Austin Mayor's Mental Health Task Force, a cross-sector group of community-based organizations, met to examine gaps in systems of care for people with severe mental illness and propose ways to reduce these gaps in behavioral health services in Austin. For five years beginning in 2005, a monitoring committee oversaw implementation of the task force recommendations (Frost & Stone, 2009).

As part of the process, a community-based participatory research project constructed a set of 22 behavioral health indicators, drawing from existing sets of recommended key indicators of mental health and mental illness, a review of social indicators movements across the globe, and ongoing community initiatives in Austin relevant to behavioral health (Stone, Frost, Van Norman & Casey, 2010). Beginning in 2008, the monitoring committee issued annual community scorecards detailing the status of each indicator.



At the end of the monitoring committee's term in 2010, local foundations, the county, the city and the local mental health authority funded the project for two more years. A smaller executive committee was charged with overseeing the project.

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The executive coordinator, Dr. Susan Stone, soon questioned the value of merely tracking the indicators. Using a framework from Results-Based Accountability (Friedman, 2005), she proposed tasking five topical steering committees with creating a specific indicator for each area that would be measurable, meaningful to community leaders, and low- or no-cost to track.

She identified relevant pre-existing committees in the community and invited each of them to accept the role of steering committee for one of the five indicators. Their mandate was to devise and implement strategies to "move the needle": not only to measure the status of each indicator, but also to promote changes designed to improve the community's behavioral health as measured by these five key indicators.

Methods

The five steering committees reviewed data already collected and available in the community and identified five indicators that were practical to measure yet robust and meaningful.

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Researchers obtained Institutional Review Board (IRB) approval for this participatory research project. Using Root Cause Analysis, researchers and steering committee members examined demographic and other data related to the individuals captured by each indicator. They looked for dependent variables such as lack of transportation or lack of substance use treatment which would correlate with the independent variable (the indicator).

Root Cause Analysis (Oakes, 2009; Latino, Latino & Latino, 2006) was used to hypothesize why the relevant service systems failed in these instances. They then proposed community-level changes to specific elements of service provision and measured any resulting movement in the indicator.

Results

To date, preliminary results are available for two of the five indicators. The case studies have presented themes that led to clear hypotheses on specific causes of system failure.

Community-based service providers have implemented changes based on the hypotheses and researchers are monitoring the five indicators for change over time.

5 Key Behavioral Health Indicators

1. **Re-admission Indicator**: Characteristics of individuals who are readmitted to publicly fund psychiatric hospital beds within 30 days of discharge.
2. **Criminal Justice Indicator**: Percent of individuals with serious mental illness in the Travis County Jail.
3. **Youth Indicator**: Percent of children in the Austin Independent School District who are removed from school to alternative learning settings, upon the discretion of school officials.
4. **Substance Use Indicator**: Percent of individuals reporting to local hospital emergency departments with primary substance use diagnoses.
5. **Housing Indicator**: Percent of individuals presenting to a variety of behavioral health settings who report housing instability.

1. Re-admission Indicator

An analysis of 200 persons with severe mental illness re-admitted to publicly funded hospital beds within 30 days of discharge in FY 2010 revealed specific themes. Dependent variables that were analyzed included housing instability, substance use, psychiatric diagnosis and reason for re-admission. Notable correlations for readmission within 30 days included 69% homeless, 92% male and 92% with co-occurring substance use.

The steering committee and researchers identified gaps in services and identified systems costs for the "highest users" of the hospitals. A cost analysis was conducted on persons with severe mental illness who were re-admitted four or more times within 30 days (N=13). System costs indicated the average cost per patient equaled $640 per day or $28,288 per year. The analysis indicated that the cost of substance use treatment is less than re-admission.

Recommendations that emerged included providing treatment for persons with co-occurring substance use, keeping clients' cases open even after losing contact, and modifying the Assertive Community Treatment team to be appropriate for a variety of mental health diagnoses.

2. Criminal Justice Indicator

Root cause analyses were conducted on 30 individuals with behavioral health issues who have frequent law enforcement contacts. These analyses revealed specific themes, including housing instability (N=23), co-occurring substance use (N=25), and dual diagnoses (N=24). Transportation problems and frequent and inappropriate 911 calls were common in the 30 cases studied. The criminal justice steering committee identified strategies for system change, including linkage of 911 to mobile crisis outreach teams, peer support for frequent 911 users, and a long-term strategy to provide permanent supportive housing.

3. Youth Indicator

A trend analysis completed by researchers and members of the steering committee revealed that discretionary removals are higher than in other urban areas in the state.

Root cause analysis is currently under way to determine how many of those removals are related to behavioral health issues and how this outcome might have been averted.

4. Substance Use Indicator

The Integrated Care Collaboration (ICC), a nonprofit collaboration of the region's health care providers, agreed to provide data on individuals presenting to local area emergency departments with primary substance use disorders.

The information obtained from the ICC will be cross-checked with re-admission data to analyze root causes for emergency room visits and develop alternative strategies.

5. Housing Indicator

Work has not yet begun on this indicator, which is slated for the second year of the initiative. The steering committee plans to conduct a four-month study of individuals presenting to a variety of behavioral health settings who self-report housing instability. This data will lead to recommendations about the development and placement of appropriate housing options for these highly vulnerable populations.

Fit as a Disruptive Innovation

The indicators project essentially sets up a "solution shop" within a new value network. The new value proposition is a shift from volume to performance.

A disruptive innovation requires a technology, a new business model, and a disruptive value network (Christensen, Grossman & Hwang, 2009). The indicators project uses the technology of Root Cause Analysis and a business model of cross-systems collaborative funding. Traditional providers play an important role, and thus the project runs the risk of becoming a sustaining innovation. But the outsider's view represented by cross-agency partnerships outside of professional silos has the potential of maintaining the project as a true disruptive innovation.

Implications

The indicator improvement participatory research project has galvanized community members and service providers, prompting new collaborations and commitment to improvement. While specific indicators used in a given community need to be adapted according to the availability of data and the priorities of the community, the framework of this study may be used in other communities to enhance effective service delivery for persons with severe mental illness.

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