Knowledge Network

Bridging the Science to Service Gap in Behavioral Healthcare

Four Ways to Change Behavioral Healthcare

Current Knowledge Network Projects

Christina VanRegenmorter, MSW, Centerstone Research Institute; April Bragg, PhD, Centerstone Research Institute, Kathleen Varda, River Edge Behavioral Health Center

IMPLEMENTATION

2009-2010 Implementation Leadership Team

Susan Markley, CRI (facilitator); Dr. April Bragg, CRI; Shannon Harvey, River Edge Behavioral Health Center; Dr. A. Camis Milam, Center for Health Care Services; Angela Smart, Valley Mental Health , Shawna McGuckin, Mental Health Center of Denver; Mayday Levine-Mata & Douglas Long, La Frontera; Jeff Capobianco, Washtenaw; Dr. Karen Rhea & Brad Nunn, Centerstone of Tennessee; Dr. Herbert Meltzer, Vanderbilt University; Dr. Kevin Hennessey, SAMHSA; Dr. Charles Brown, CRI

"Our biggest challenge is **inertia.** Organizations and systems are difficult to change. It is easier to continue doing business as usual – even if it is less effective or efficient. Data driven change should be the goal of our behavioral health organizations." – Angela Smart, MS, Valley Mental Health

" We need to develop a **core network** of people who are committed to working on a plan for the transformation of mental health practices. We need realistic implementation models that helps us to take the research outcomes and putting them in the hands of the clinician & client." – Susan Markley, MS, Centerstone Research Institute

Tasks for September 2009-March 2010:

- ★ Collected Baseline Implementation Information from participating Knowledge Network CMHCs.
- ★ Developed a Rapid-Cycle Implementation Plan for CMHCs.
- ★ Submitted 1 federal grant proposal to test this plan at Knowledge Network CMHCs.

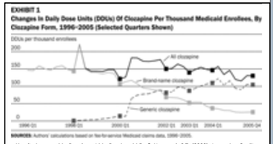
Why Implementation?

Even the best research projects fail because organizations do not share best practices about how they were successful. Typically, only the results from research initiatives are made known, but it is clear that some strategies are more successful than others. This group's goal is to improve adoption of research based interventions in CMHCs.

Increasing Adoption: The Clozapine Project

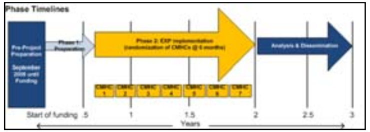
Our chosen Research-Based Intervention that we are focusing on for 2009-2010 is to increase the prescription of the generic medication clozapine for individuals with schizophrenia who screen positive for suicidality or treatment resistance.

Clozapine is one of several groundbreaking research-based practices showing clear benefits to quality of life, length of life, and cost effectiveness of treatment for individuals with schizophrenia. As you can see in this graph, despite these benefits, currently implementation methods have had 0% impact on the use of clozapine.



Horvitz-Lennon, M., Donahue, J.M., Domino, M.E., & Normand, S.T. (**2009**). Improving Quality and Diffusing Best Practices: The Case of Schizophrenia. *Health Affairs*. 38(3). 701-712.

The Implementation Working Group believes that its proposed plan will help medical providers and patients in CMHCs choose better treatment options. Below is a chart from the submitted grant proposal detailing the phases of the proposed project.



POLICY

2009-2010 Policy Leadership Team

Christina VanRegenmorter, CRI(facilitator); Roy Starks, Mental Health Center of Denver; Kathleen Varda, River Edge Behavioral Health Center; Mark Peterson, Genoa Healthcare; Joan Sivley, Centerstone of Tennessee Board Member; Kevin Scalia, Netsmart Technologies; Linda Rosenberg & Chuck Ingoglia, National Council for Community Behavioral Healthcare; Dr. Dennis Morrison, CRI; Deborah Taylor Tate, CRI Board Member

"Health I.T. must come first in healthcare reform efforts – and it must be inclusive. Restricting CMHCs from interoperable health information technology assistance will increase the science to service gap & impede our clients from getting the best care." –Dennis P. Morrison, Ph.D., Centerstone Research Institute

"Our internet based electronic clinical record means that the 10,000 clients we serve have the same information available to our staff at all of our locations. However, because we lack interoperability, when our patients go to an emergency room or to jail, their staff lack access to the patient's essential medication and treatment history." – Shannon Harvey, LCSW, River Edge Behavioral Health Center

Tasks for September 2009-March 2010:

- ★ Created informational materials to educate CMHC leadership, members of Congress, and collaborators about the importance of CMHC inclusion in the national Health IT infrastructure.
- ★ Testified before the Health I.T. Policy subcommittee of the Office of the National Coordinator for Health IT.
- ★ Created sample letters of support for potential federal legislation to fix the exclusion of CMHCs.
- ★ Educated members of congress regarding need for CMHC inclusion.
- ★ Worked with a broad national team interested in CMHC inclusion on developing a piece of legislation.

Why Policy Advocacy?

Unless there is significant change in legislation and national policy regarding behavioral health funding, the goals of the Knowledge Network will be difficult for all but a few CMHCs to meet. Without changes, broad participation in research and broad implementation of research-based care will be financially and practically impossible despite providers' best intentions. This group's goals are to 1) increase awareness by policy makers of the clinical efficacy of behavioral health interventions, 2) work to close the bifurcation of policy between health care and behavioral healthcare, 3) fix the exclusion of CMHCs for eligibility for Health Information Technology (Health IT) funding.

Enabling Quality: The Importance of CMHC Inclusion in Health IT Funding

The biggest policy focus for 2009-2010 is to support the creation of legislation that allows CMHCs to receive Health Information Technology Incentive Funding. Since a strong CMHC Health IT infrastructure as the foundation all of the Knowledge Network projects, this is essential.

Interoperable Electronic Health Records are Essential for community mental health providers. Without them, CMHCs:

- Cannot prevent **polypharmacy**
- Cannot track **outcomes**
- Cannot engage in cost-effective **chronic disease management** with their patients
- Cannot be held **accountable** for using **best practices**

CMHCs want to Use Health Information Technologies. The 2009 Behavioral Health and Human Services Survey conducted by CRI showed that the **#1 barrier is cost**. If CMHCs had the funds, they would implement interoperable electronic health records.

CMHCs Currently Lack Essential Health IT Resources:

- **Less than ½** of the CMHC providers surveyed in 2009 have **E.H.R.s.**
- **Only 8.2%** of CMHCs surveyed have E.H.R.s that are **interoperable** with medical & primary care systems.

THE KNOWLEDGE NETWORK

The Knowledge Network brings together community mental health centers, academic researchers, behavioral health advocates, industry leaders, and policymakers under one shared goal: to ensure that people with behavioral health needs receive the most effective research-based care.

The Knowledge Network works to:

- ★ Encourage academic research in community behavioral health provider settings.
- ★ Impact federal policy priorities that improve the quality and cost effectiveness of behavioral healthcare.
- ★ Create a national network of community mental health centers devoted to providing research-based care.
- ★ Research, create and distribute technological & educational tools that increase the implementation of research-based care in behavioral health care settings.

The Knowledge Network holds 2 summits a year (Spring & Fall) to report on progress and set goals and outcomes for the next 6 months. The Four Working Groups use monthly conference calls and online collaboration tools to work together to accomplish these goals and outcomes.

KNOWLEDGE NETWORK PARTNERS

Active Participants in 2009-2010

Community Mental Health Centers

The Mental Health Center of Denver, River Edge Mental Health, Valley Mental Health, Centerstone, La Frontera, The Center for Health Care Services, Cobb/Douglas Community Services Board, Thresholds, Advantage Behavioral Health, & Washtenaw

Behavioral Health Leaders from:

National Council for Community Behavioral Healthcare, Mental Health Corporations of America, the National Institutes of Mental Health, & the Substance Abuse and Mental Health Services Administration

Researchers from:

Centerstone Research Institute, University of Chicago, Vanderbilt University, University of Texas San Antonio, University of Texas Southwestern

Industry Leaders from:

Afia Inc, Behavioral Pathways Solutions, Genoa Healthcare, Netsmart Technologies, & Telesage Inc.

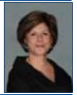
RESEARCH

2009-2010 Research Leadership Team

Dr. Kathryn Bowen, CRI(facilitator); Tod Citron & Michelle Robison, Cobb/Douglas Community Services Boards; Dr. Alexander Miller, University of Texas Health Science Center at San Antonio; Dr. P. Antonio Olmos-Gallo, Mental Health Center of Denver; Kristin E. Robinson, Valley Mental Health; Dr. Richard C. Shelton, Vanderbilt University; Dr. Steven Hollon, Vanderbilt University; Dr. David Ayer, CRI; Dr. Randall Reiserer, CRI

"We have three big challenges: 1) getting research findings into practice, 2) ensuring that all providers are using effective quality healthcare management tools, and 3) ensuring that there is health IT set up that supports low-impact, real time, relational information transfers." – Richard Shelton, MD, Vanderbilt University

"As we measure the effectiveness of interventions, learn about new research findings, and understand more about the causes of mental illnesses, we have opportunities to improve care. The task is to create "learning organizations" that are innovative, flexible, accept a bit of risk, and adapt to new challenges and opportunities." – Linda Rosenberg, MSW, President & CEO, National Council



Tasks for September 2009-March 2010:

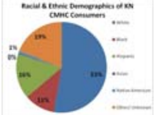
- ★ Created the format & specifications for an online web community support research within the Knowledge Network.
- ★ Launched online web community to support research.
- ★ Provided consultation & support for the development of the Implementation working group's grant proposal
- ★ Obtained key information from KN CMHCs regarding research capacity.

Why Research?

There is a 17 year gap between research & practice in mental health. Most CMHCs do not have mechanisms to participate in research & quickly implement research-based practices. This groups' goal is to increase the capacity of CMHCs to both engage in research & to implement research findings.

KN Research Capacity

CMHC	Number of Consumers	Depression	Bipolar Disorder	Schizophrenia	Anxiety Disorder
CMHC 1	39818	9745	8411	3003	4882
CMHC 2	23544	6353	2346	1536	2977
CMHC3	8,752	1,242	1,030	1,208	245
CMHC 4	19,109	3180	5025	3215	561
CMHC 5	20,963	6,021	3,124	2,590	4,811
CMHC 6	5943	939	1233	1934	603
CMHC 7	33201	8431	3396	2876	5667
CMHC 8	11197	894	1010	1062	541
Total	162727	36803	23595	17442	20307



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TECHNOLOGY

2009-2010 Technology Leadership Team

Dr. Frank Stevens, CRI (facilitator); Dr. Benjamin Brodey, Telesage, Inc.; Dr. Antonio Olmos, Mental Health Center of Denver; Casey Bennett, CRI; Javed Hussain, Streamline Healthcare Solutions; Dr. Paul Lefkovitz, Behavioral Pathway Systems; Dr. Dennis Morrison, CRI; Jeremy Nelson, Afia; Dr. Tom Doub, CRI; Wayne Easterwood, CRI; Angela Smart, Valley Mental Health; Kathy Wells, La Frontera; Robert Carlson, Center for Health Care Services in San Antonio; Chris Osier, River Edge Behavioral Health

"One of the biggest obstacles in transforming mental health care is the need for the seamless electronic transfer of information from mental health to physical health care agencies." – Justin Hyatt, MBA, Valley Mental Health

"We are challenged with building the foundation necessary to bring consistent clinical decision support at the point of care. We currently live in a world of disparate clinical systems. Many E.H.R.s are only "electronic versions of paper." Electronic data is not enough, it must be structured and organized. Until there is standardization of data collection & interoperability, we will struggle to exchange information & provide helpful, relevant decision support." – Wayne Easterwood, CRI

Tasks for September 2009-March 2010:

- ★ Started creating the data specifications for a KN data warehouse
- ★ Started building the technical infrastructure for a shared data warehouse between KNS partners.
- ★ Provided consultation & support for the technology components of the Implementation working group's grant proposal

Why Technology?

Currently, there is no universal standard for CMHC data collection. Different states have different requirements, and even different CMHCs within the same state track things differently. Without agreement on data standards & collection, a useful behavioral health information exchange system will not be possible. In order to participate in multi-agency research studies and record KN CMHC implementation adoption rates of research-based practices, there also an electronic clearing house that would allow providers to work together on research projects and enable data mining opportunities across multiple sites nationwide.

Knowledge Network Data Warehouse 1.0

Preliminary Data Domains: These specifically track the adoption of the implementation project.

Client		Service		Diagnosis		Medication	
Var	Format	Var	Format	Var	Format	Var	Format
ClientID	Autonumber	Service_ID	Autonumber	Diag_ID	Autonumber	Med_ID	Autonumber
Org_ID	Integer	Client_ID	Integer	Client_ID	Integer	Client_ID	Integer
DOB	Date	Service_Date	Integer	Diag_Code	String	Medication	String
Gender	String	Loc_ID	Integer	Diag_Desc	String	Dose_Amt	Numeric
Race	Integer	Activity_Class	String	Diag_Sort	String	Dose_Units	String
Marital_Status	String	CPT_Code	String	Axis	String	Dose_Route	String
Ethnicity	Integer	Begin_Time	Timestamp	Begin_Date	Date	Dose_Freq	String
		End_Time	Timestamp	End_Date	Date	Begin_Date	Date
						End_Date	Date

Website: This website for the technology working group contains chat features, a wiki, shared files, benchmarking information, a task calendar, and other information.

All Knowledge Network technology project tools, whenever possible, are made using open source technologies (i.e. JasperSource, Kettle, Pentle, et cetera). All are XML compatible in order to ensure compatibility with heterogeneous CMHC E.H.R.s.

CENTERSTONE RESEARCH INSTITUTE

CRI CENTERSTONE RESEARCH INSTITUTE

365 S. Park Ridge Road, Suite 103 Bloomington, IN
phone 812.337.2302 · fax 812.336.1442
www.centerstoneresearch.org
www.knproject.org
contact@centerstoneresearch.org

About CRI & The Knowledge Network

CRI, a non-profit research institute affiliated with Centerstone America, is the coordinator of the Knowledge Network. The Knowledge Network would not have become possible without the generous support of the Ayers Foundation, the Joe C. Davis Foundation, and the Cal Turner Foundation. CRI would like to thank KN members for their hundreds of hours of volunteer time. Together, we can change behavioral healthcare.

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