

**RHODE ISLAND INSTITUTE FOR  
MENTAL HEALTH EXCELLENCE**

*A National Model for the Integration of Research and Practice*

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## I. Why Create a Rhode Island Institute for Mental Health Excellence

### A. A National Crisis

- Mental and substance-use problems and illnesses are the leading cause of combined disability and death of women and the second highest of men,<sup>1</sup> and the leading cause of disability in the developed nations of the world.
- Despite substantial investments that have enormously increased the biomedical knowledge base and have led to the development of many new and effective psychosocial and somatic treatments, most Americans are not benefiting from these advances.
- Far too often, treatments and services that are based on rigorous clinical research languish for 15-20 years rather than being used effectively at the earliest reasonable opportunity.<sup>2</sup>

### B. The Need for Collaboration

- The seminal reports on mental and substance-use conditions from our time, such as *Mental Health: A Report of the Surgeon General (1999)*, the report of the President's New Freedom Commission on Mental Health (2004), and the Institute of Medicine's *Improving the Quality of Health Care for Mental and Substance Use Conditions (2005)* challenge our nation to bring the combined resources of basic, translational, clinical, and services research together with workforce training, community education, and public policy in order to improve the quality of mental health services for persons with mental and/or substance use conditions.
- At present, there is no state in the country and no country in the world where state-of-the-art-research assets are closely coordinated with real-world, community-based treatment providers.
- Under the leadership of Congressman Patrick Kennedy, Rhode Island's leading research, clinical practice, and advocacy groups have joined together in an unprecedented state-wide partnership to meet this need and create the Rhode Island Institute for Mental Health Excellence.

### C. The Vision

The Institute is a collaborative partnership bringing together cutting-edge research assets with community-based treatment settings to reduce the burden of mental and addictive illnesses through:

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<sup>1</sup> Improving the Quality of Health Care for Mental and Substance-Use Conditions: Quality Chasm Series (2006)

<sup>2</sup> Presidents New Freedom Commission on Mental Health Final Report

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- Fundamental advances in basic, translational, clinical and applied research
- New paradigms in training, education and community outreach grounded in an expanding evidence-based paradigm
- Significant advances in quality of care through the development of outcome measures for current and future treatments
- Innovative educational and outreach programs to develop the strongest possible advocacy platform
- The assembly and analysis of the latest evidence-based data to help inform public policy
- The creation of a comprehensive, confidential state wide case registry of all illnesses to enable the most advanced study of familial transmission of illness, novel genetic discoveries, and the role of environmental factors in the transmission and expression of illness.

## **II. An Innovative Integration of Research and Practice**

### **A. Goals of the Rhode Island Institute for Mental Health Excellence**

- To be a major source of cutting-edge research leading to the understanding of the genetic and environmental causes of mental and addictive illness, and to develop fundamentally more effective approaches to prevention, diagnosis, and new future treatments.
- To facilitate a research base that is of maximum utility to community-based providers.
- To test the comparative effectiveness of currently available and newly developed treatments, education and outreach programs.
- To significantly improve the quality and effectiveness of care by developing nationally applicable, science-based performance metrics.
- To coordinate the delivery of medical knowledge to patients and their families and to educate healthcare professionals, advocacy groups, policymakers, and the public.
- To develop an ambitious and broad research agenda that addresses the needs of underserved populations such as the elderly, prisoners, the uninsured, and those with co-occurring chronic and severe mental illnesses.
- To be a major local, regional, and national resource and a destination for the latest innovative treatments of mental and addictive illnesses.

### **B. Partners in the Institute**

- Brown University Department of Psychiatry and Human Behavior (DPHB): one of the top 5 recipients of investigator-initiated National Institutes of Health (NIH), foundation and industry grants among all the Departments of Psychiatry in the nation according to the American Association of Medical Colleges 2004 Medical School Survey.
- Brown University's Brain Science Program, including the basic and clinical science departments of Cognitive and Linguistic Science, Neuroscience, Psychiatry & Human Behavior, Psychology, Clinical Neuroscience, with evolving links to other parts of the Division of Biology and Medicine including the Brown Center for Genomics and Proteomics, Laboratories for Molecular Medicine, Department of Molecular Biology, Cell Biology, and Biochemistry, and Department of Molecular Pharmacology, Physiology and Biotechnology,
- Bradley Hospital and Butler Hospital: specialty institutions recognized as national leaders in child, adolescent, adult and elderly mental health.
- Rhode Island Hospital, Miriam Hospital, and Women and Infant's Hospital: comprehensive medical-surgical institutions with excellent mental health programs.
- The Providence Center, Gateway, and the Rhode Island Council of Community Mental Health Organizations: one of the country's strongest community mental health systems.

**C. Major Functions of the Institute**

- Basic biomedical research and discovery
- Translational research
- Clinical research
- Services research
- Research to practice innovation
- Developing new and improved methods for measuring outcomes and effectiveness of interventions
- Coordinating dissemination of knowledge to patients and their families, healthcare professionals, policymakers and the public

**D. Essential Characteristics**

- **Access to facilities** dedicated to the conduct of mental health and addiction-focused research and to the Institute's shared resources, administration, and research dissemination should be appropriate and adequate to the task.
- **Organizational capabilities** for the conduct of research and the evaluation and planning of Institute activities should take maximum advantage of existing organizations' capabilities in mental health and addiction research.
- **Interdisciplinary and transdisciplinary collaboration and coordination** among Institute partners from a variety of disciplines and practice settings will create new research capabilities and will enhance the effectiveness and impact of existing knowledge.
- **Institutional commitment** by Institute partner organizations will enable the Institute, as an independent organization, both supported by and serving member organizations, with sufficient space, positions and resources to ensure organizational stability and fulfill the Institute's objectives.

### **III. Unique Partnership, Unique Capabilities**

#### **A. Creating a Whole Greater than the Sum of its Parts**

A Rhode Island Institute for Mental Health Excellence would maximize existing mental health assets by amplifying the capabilities of the many participating institutions already doing excellent work.

- It will benefit researchers by providing a home for state-of-the-art research capabilities beyond those separately available to Brown, Care New England, Lifespan and the other distinguished hospital and community-based Rhode Island mental health care institutions.
- These will include facilities for research on the genetics and molecular psychopharmacology that underlie mental and addictive illnesses. At the same time new infrastructure will provide high-resolution non-invasive neuroimaging, which will shed light on the causes of mental illness while facilitating the development of more effective treatments.
- It will provide both institution- and community-based providers with a unique mechanism for rapidly translating research advances to practice through training, professional development, and the development of evidence-based practices.
- It will establish new and paradigm-breaking infrastructure providing for community-based clinical and services research, thereby shortening the research-to-practice cycle and ensuring that research takes place that is particularly relevant to the community-based treatment setting. It will also allow the research agenda to better serve heretofore underserved groups, such as those with co-occurring disorders, older adults, and the homeless and others with complex social factors.
- It will assist advocates and policymakers with the coordination and development of public health research exploring the impact of mental and addictive disorders and their prevention and treatment, as well as tools and messages to help the public and policymakers better understand behavioral health issues.
- It will create a destination for all people seeking the latest innovations in mental health and addiction treatment, and for professional development in the most up-to-date evidence based practices.

#### **B. Core Functions of the Rhode Island Institute for Mental Health Excellence**

##### *1. Basic Research in Mental and Addictive Illnesses*

The Institute will coordinate and develop investigators, staff, and facilities for core basic and translational research programs in Clinical Neuroimaging and Disease-Based Molecular Neuroscience and Genomics. The goal of this research is to discover the integrated biological causes of mental and addictive disorders and to develop more effective approaches to prevention, diagnosis, and treatment.

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As an example, basic and applied genetics research has near-term potential to maximize benefit and minimize side effects of specific medication treatments, to help understand individual vulnerabilities to stress, and to develop individually-tailored preventative interventions. Similarly, new non-invasive neuroimaging techniques are approaching a level of development where they will be useful for individual diagnosis and prediction of responses to treatment. Combining knowledge of individual differences in genetics and neuroimaging measures promises to be particularly powerful in this regard.

### *2. Clinical Research*

The Institute will work with its partners to create a powerful infrastructure that will enable cutting-edge clinical research to take place in coordination with community-based mental health providers. The coordination of programs throughout the State will facilitate the emergence of clinical trials in areas such as the chronically mentally ill, heretofore excluded because of problems in coordinating research capabilities with clinical programs. The enhanced capabilities of the Institute will also allow the inclusion of novel neuroimaging technologies (leading to response prediction for individual patients and thereby avoiding the risk of adverse events and ineffective treatments) in clinical trials, as well as the testing of new cutting-edge interventions such as deep brain stimulation for groups of otherwise untreatable patients with major depression and obsessive-compulsive disorder, and addictions. By bringing together community-based treatment providers and researchers, the Institute will be able to drive a research agenda that is more relevant to community-based treatment and thus has a bigger impact.

### *3. Services Research*

Much of our knowledge of the response to treatment has been developed in highly selected samples of patients that are not always typical of those seen in clinical practice, and has focused on a narrow range of symptom response. The objectives of services research are to examine the effectiveness of existing treatment models and to identify best practice models for children, adults and the elderly with mental and addictive illnesses. The Institute will also create a capacity to rapidly evaluate innovative new treatment approaches that currently often are implemented and, frequently, replicated without an established evidence base. In addition to supporting implementation of existing best practice models, the Institute focus on innovative research paradigms to evaluate the effectiveness of the models put into place, and modify those that could be improved based on new research at the Institute.

### *4. Public Health Research*

The Institute will coordinate and support public health research to expand our understanding of how mental and addictive illnesses and interventions impact the larger society and particular populations. This function would include a financing and policy research capability, in order to conduct research leading to new knowledge about the macro and micro financial aspects of mental health service delivery. The Institute would lead a research initiative to evaluate mental health/health financial implications across

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multiple service component sites including the mental health, school, prison, disability systems, etc. This knowledge should have significant implications for the development of innovative benefit structures and more effective utilization of State and federal dollars for prevention and treatment.

### *5. Research-to-Practice Innovation*

A critical function of the Institute is to integrate training and professional resources in new ways to assist in bringing evidence-based treatment to institutional and community treatment settings and to serve as a convener or clearinghouse to facilitate communication among providers. The Institute will create and test new vehicles that rapidly translate laboratory research into community practice. In carrying out this function, the Institute will:

- create a digital e-resource for interdisciplinary education and research for community based practitioners, medical center faculty and trainees in a broad range of disciplines to track evidence-based knowledge in the field;
- develop a comprehensive confidential state wide case registry of all mental illnesses to enable the most advanced study of familial transmission of illness, novel genetic discoveries, and the role of environmental factors in the transmission and expression of illness;
- develop and implement new strategies to support the adoption of research into daily practice; and
- conduct research into the effectiveness of such strategies.

### *6. Measuring Outcomes and Effectiveness of Interventions*

The Institute's measurement function will focus on the identification and development of standardized outcomes measures and metrics that can be applied in the course of clinical services as they are delivered in the community. These performance metrics will consider a range of variables, which will include symptom reduction as well as functional outcomes, quality of life variables, and health service utilization measures. The Institute will objectively evaluate the utility, reliability and validity of these instruments to measure outcomes and work with national consensus organizations such as the National Quality Forum to promote their widespread adoption. Another domain of this program will be to develop effective ways of integrating such instruments into clinical practice.

## **C. Potential Research Topics**

Specific research topics will be defined by the Institute's leadership and by affiliated researchers, but may include:

- Addictions
- Anxiety Disorders (e.g., Obsessive-Compulsive Disorder)

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- Basic Brain and Behavioral Science
- Brain Stimulation and Functional Neurosurgery (OCD, Depression, Movement Disorders)
- Behavioral Complications of Aging (Cognitive Impairment and Dementia)
- Behavioral Medicine
- Childhood Psychiatric Disorders and Development
- Chronobiology (e.g., Sleep, Rhythms)
- Community Based Prevention Programs (e.g., nurse home visitation for at risk families)
- Early Childhood Behavioral Health
- Genetics (of illness, treatment response, illness course)
- HIV Behavioral Effects
- Mood Disorders
- Obesity and Eating Disorders
- Physical Health-Mental Health Interactions
- Prevention of Mental and Addictive Illnesses
- School Based Prevention Programs
- Trauma
- Treatments of a range of mental and addictive illnesses (efficacy, effectiveness, dissemination in the community)

## **IV. The Rhode Island Advantage**

Rhode Island is an ideal laboratory in which to develop innovative and significant advances in mental health. It features a combination of geographic manageability; world class research and training in psychiatry and psychology and a cohesive network of existing excellent community mental health centers; a collaborative mindset that facilitates access to leadership, policy makers, and state government; and a population suited to clinical and population-based research. In short, Rhode Island is a microcosm of the United States that is extremely well prepared to develop and operate a world-class Rhode Island Institute for Mental Health Excellence.

### **A. A Broad Range of Leading Mental Health Organizations**

- The state has one of the top five Departments of Psychiatry in the country at Brown University, with the 5<sup>th</sup> largest amount of externally sponsored research in the country as ranked by the American Association of Medical Colleges in 2004. The department annually trains over 130 new clinical research scientists in programs that are highly sought after, with several considered within the top 2 or 3 in the nation. These include separate programs for psychology interns; post-doctoral research fellows, with the largest number of NIH-funded research fellowship training programs in the country (6 separate programs with over 40 trainees); child psychiatry fellows; adult psychiatry residencies; combined residencies in pediatrics, child and adult psychiatry; geriatric psychiatry and neuropsychiatry.
- Its 8 community mental health centers (CMHCs) have a strong collaborative relationships facilitated by the Rhode Island Council for Community Mental Health Organizations, and provide a range of innovative, comprehensive services across the lifespan. The participating CMHCs are national leaders and frequent recipients of highly competitive federal grants. Blending a variety of funding streams and supported by a progressive state government, the CMHCs have created systems of care that help maintain individuals with mental and addictive illnesses in their communities.
- Bradley Hospital, Butler Hospital, Miriam Hospital, Woman and Infants Hospital, Rhode Island Hospital, and Brown, individually and collectively, are nationally recognized as institutions of excellence in neuroscience, mental health treatment, education and research. These institutions have a history of collaboration, and are united in a unique coalition, which has been the core of the Shared Chair in the Department Psychiatry and Human Behavior (DPHB) at Brown University since 1990. These hospitals and Brown University have been fundamental to the exponential growth of the DPHB which has brought it to its present level of a nationally elite Department as described above.

### **B. Geography**

Rhode Island is geographically the most compact state in the union, which means that various populations and clinic sites are easily available to one another. Home visits, for example, are readily accomplished anywhere in the state. The leading institutions in the Providence area are accessible from anywhere in the state in under an hour. In addition, the

major players across the health care and political spectrum know each other and can be assembled around one table, allowing for personal relationships and “line of sight” trust. Rhode Island is a geographically small state with a population the size of a mid-sized metropolitan area, enabling state-wide initiatives that would be unmanageable nearly anywhere else.

### **C. Demography**

The population of Rhode Island is diverse, stable and reflective of the country as a whole. For example, the poverty rate of young adults in Rhode Island in 2004 was 20%, the same as the national average. In Rhode Island, 29% of families are headed by a single parent compared to 28% nationally. The overall state population is 76% Caucasian, 12% Hispanic, 6% black, 4% Asian and 2% mixed race. In addition, Rhode Island experiences less in- and out-migration than average. This diversity and stability of the population makes Rhode Island a favorable location for epidemiologic, longitudinal and follow up studies.

## **V. Conclusion: A New Model for a New Era**

The NIH's "Decade of the Brain" ushered in a new era with dramatic new knowledge of the brain and its diseases. The Rhode Island Institute for Mental Health Excellence will serve as a national model for conducting state-of-the-art bench-to-bedside research. This dovetails with the priorities newly articulated by National Institute of Mental Health Director Thomas Insel: supporting basic science discoveries; translating these discoveries into new interventions that will relieve the suffering of people with mental disorders; and ensuring that new approaches are used in populations that need them. We will thus create a unique model for a new "Decade of Translation" -- moving from "Discovery to Recovery," rapidly integrating findings of basic research into evidenced-based practice, getting new therapeutic tools to patients who need them. The Institute will be a national destination for individuals seeking the latest innovative treatments for mental and addictive illnesses. In so doing, the Institute will harness the explosive growth in new science to bring breakthroughs in prevention, detection, and treatment to individuals with mental and addictive illnesses across the country.