



True Tales

OF KNOWLEDGE UPTAKE

2007 ANNUAL REPORT
THE CATHERINE AND PATRICK WELDON DONAGHUE
MEDICAL RESEARCH FOUNDATION



THE DONAGHUE FOUNDATION

The Patrick and Catherine Weldon Donaghue Medical Research Foundation is a charitable trust created pursuant to the will of Ethel F. Donaghue, late of West Hartford, Connecticut. The Foundation, which began operations in 1991, is governed by Bank of America and Lynne Garner, PhD, Trustees. The Foundation is exempt from federal income tax under Section 501(c)(3) of the Internal Revenue Code of 1986, is a private foundation within the meaning of Code Section 509(a), and is subject to the jurisdiction of the Probate Court for the District of West Hartford.



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Knowledge Uptake



The Foundation supports a diverse portfolio of research projects, from understanding the mechanisms of disease, to improving clinical treatments, to public health initiatives that prevent illness — all founded on excellent science.

But research alone won't improve health. Research findings need to be adopted by clinicians, health policy leaders, and the public. Getting this done is sometimes more difficult than doing the research.

The Donaghue Foundation was given the mission of supporting research of *practical benefit*, and we take that charge seriously. Research done by the best scientists with the latest techniques can't be of benefit unless the findings are used. So to fully realize our mission we're focusing our attention on knowledge uptake — those factors and processes by which the outcomes, findings and evidence from rigorous science make their way into use.

For Donaghue this means designing new grant programs that incorporate principles of knowledge uptake, collaborating with other stakeholders in the health care sector to publicize and disseminate promising research findings to non-research audiences, and working with our grantees on special projects aimed at getting their work used in the practice and policy arenas.

HISTORY & PURPOSE

To fully realize the Donaghue Foundation's mission of supporting research of "practical benefit to human health," we are focusing our attention on knowledge uptake—those factors and processes by which the outcomes, findings and evidence resulting from rigorous scientific research are put into practice. That focus is vividly illustrated by the "true tales" told by the talented and dedicated researchers and health care professionals featured in this, the Foundation's 16th annual report.



History

The search for knowledge by Donaghue-funded scientists has been made possible by the lifelong prudence and beneficent vision of one far-sighted West Hartford woman, Ethel F. Donaghue, who died in 1989 without immediate family to inherit her carefully husbanded fortune of about \$60 million. Miss Donaghue was one of Connecticut's first woman lawyers, having earned degrees from the law schools of both the University of Pennsylvania and New York University by 1922, but her wealth did not derive from the practice of law. She was required to close her Hartford practice early to care for her ill mother Catherine and manage the family finances, which were extensive as a result of the shrewd entrepreneurial spirit of her father Patrick, an Irish immigrant to Hartford in the late 1800s. Patrick had died in 1910 of heart disease, when Ethel was only fourteen, and Catherine succumbed to cancer in 1933.

Although Miss Donaghue enjoyed enviable wealth and was able to travel widely for many years, she lived those years alone in her West Hartford mansion, with only household help for companionship. Spurred on by living through several family health problems and outliving her entire immediate family by over three decades, Miss Donaghue developed an abiding interest in health care and research. She often contributed to hospitals and established two trusts during her lifetime to support research. Her commitment to advancing human health culminated in a trust created under Article Fourteenth of her will and devoting the bulk of her estate to The Patrick and Catherine Weldon Donaghue Medical Research Foundation, which honors the memory of her parents and is now reporting on the completion of its fifteenth year of grantmaking.

Purpose

The testamentary intent of Ethel Donaghue is the immutable mandate for the Donaghue Foundation trustees, who have developed statements of vision, mission and goals (set forth elsewhere in this report) to give ongoing current meaning to Miss Donaghue's beneficent purpose. Miss Donaghue said in her will that her trustees should seek out useful health knowledge through research. She envisioned a steadfast pursuit of knowledge that would be of practical benefit to human life, and the trustees have adopted Practical Benefit as a policy and operations compass.

Prominent among Ethel Donaghue's traits were a strong will, a championing of women's causes, a keen sense of the practical, and a healthy dose of common sense. These traits loom large in the trustees' reading of her words, particularly her urging that they undertake unusual and non-standard activities in furtherance of her purpose. A frequent question in trustee discussions of policy and program design is "What would Miss Donaghue do, were she here and in possession of the facts we have?" Nearly as important to the ongoing work of the Donaghue Foundation as what we are to do is how we are to go about it. That is expressed at length in our statement of goals and has characterized our work up to and including the just-completed year of 2007.

MISSION, VISION, GOALS & VALUES

Our Vision for Donaghue

We envision constant improvement both in people's health and in the way research is converted into practical benefit.

The Mission of Donaghue

We will give the vision of Ethel Donaghue its best expression and thereby honor her and her family as an engaged, imaginative and collaborative participant in the process that begins with rigorous health research and ends in realized health benefits.

Donaghue's Goals

Promote knowledge uptake of health research into the realms of health care delivery, practice and policy.

Strengthen and widen understanding of the Foundation's mission by other people and organizations who have the potential to improve health.

Ensure that our grantmaking programs are structured to support rigorous research that more directly leads to a positive impact on health.

Support promising researchers whose work specifically encompasses the principles of knowledge uptake.

Create networks and collaborations to test innovative ideas related to health research and health outcomes.

Donaghue's Values

Steadfast in our commitment

The purpose entrusted to us by Miss Donaghue in her will is an immutable mandate for us, and we will be unwavering in our resolve to give her vision its proper meaning and best expression in a context of changing facts and conditions.

Principled and practical

Guided by the balance between Miss Donaghue's lofty vision and her common sense practicality, we will ground our execution of her trust upon solid principles while applying them in ways that focus on the practical. While being ready to risk in our search for ways to make a difference in health, we will maintain the integrity and the prudence that mark the work of a fiduciary.

Engaged to the point of effect


Our method of operation will be active engagement with those involved in seeking to benefit human health. As a complement to our research funding we will collaborate with others to promote uptake of health knowledge. Somebody should be seeing to it that scientific advances are actually taken up by users – and we are somebody.

Respectful and reflective

We respect not only Miss Donaghue's intent but also, through an integration of ethics and science, the human subjects of research and those with whom we work for the betterment of human health. We will strive to balance: our pursuit of new knowledge with its translation into actual use; scientific exploration with thoughtful reflection upon the implications of discovery; and the gaining of knowledge with the pursuit of wisdom to temper its use for practical benefit to human life.

Letter from the Trustees

Dear Friends,

he words “knowledge of practical benefit” to describe our purpose for funding research will be familiar to many of our Donaghue friends. During 2007 the Foundation continued to seek its best answer to the question “exactly *how* does research provide that practical benefit?” Certainly participants in the research studies may benefit, and the investigators and their institution benefit, but undoubtedly Miss Donaghue had a broader benefit in mind.

Focusing on this question has brought us to the concept of “knowledge uptake,” the term we use to describe the processes that convert findings from research studies into the behaviors that institutions or individuals incorporate into their everyday practice, which leads to improved health, and is the theme of this report of the year’s work. Our initial exploration of this concept has been quite interesting as we learn the potential opportunities, and some of the barriers, that exist.

One example of our work during 2007 that incorporated our interest on knowledge uptake is the design of the Foundation's new grant program — our first new program in ten years — the Donaghue Program for Research Leadership. We used this opportunity to explicitly incorporate the principle of knowledge uptake into this program of team-based research. During the time since the program has been announced, many people have expressed their interest in this new program, and we are excited to see what innovative research ideas may come forward. The first grants will be made in 2008.

New ground was also trod in the Foundation's Practical Benefit Initiative program this year. For the first time applications were sought from outside Connecticut. Using a request-for-proposal, the Foundation evaluated 30 letters of intent and then 18 full applications for our grant program in patient safety research. The result this summer was the awarding of four two-year grants totaling \$1.1 million to acute care hospitals in Connecticut, Massachusetts, and Maine.





2007 was a significant year for the Donaghue Investigator program, as it was the last year that new grants were awarded. When the program first started in 1997, it was designed to be a ten-year program. One purpose of the Donaghue Investigator program was to fund research in a number of different fields of study, and so it was particularly appropriate that its last year ended with the decision to fund research in three diverse areas — work to relieve pain in children with sickle cell anemia, an ethical analysis of addictions treatments, and greater understanding of the biological impact on and role of trauma in depression.

Significant work was accomplished in other activities that support the Foundation's overall mission. Our newsletter and website were redesigned to provide a more consistent message of our work. A new staff position was implemented to bring "more hands on deck" for our grant management. And the Foundation had its first transition in its Individual Trustee as Ray Andrews retired after 14 years of creative and prudent stewardship.

Donaghue's logo is a stylized bridge, suggesting the value we place in the transfer of research to practice. As we continue in our exploration of knowledge uptake, we are beginning to understand that the bridge may need to be more than simply a passive conduit for that knowledge but one that transforms knowledge in ways that have greater utility for its intended audience. Understanding Donaghue's role in this process will continue to be our work for the next few years. We are honored to be given this mission and welcome all who wish to join us on this fascinating journey.

Lynne Garner, PhD
Trustee
Executive Director

Sheilah B. Rostow
Senior Vice President
Bank of America



Letter from Ray Andrews, Jr.

Dear Friends,



hey say that life is what happens to you while you're making other plans. In the spring of 1993 I had other plans, but a request by probate judge John Berman triggered a lawyer's response to duty and set me off on a delightful detour of over fourteen years as individual trustee of the Patrick and Catherine Weldon Donaghue Medical Research Foundation. Paired with corporate trustee Fleet Bank (now Bank of America), I headed off in pursuit of the beneficent vision and purpose of Ethel Donaghue. As New Year's Eve 2007 rang down the curtain on the Foundation's 16th year of operation, it also brought to a close my tenure as trustee. I had decided in mid-2007 that the time was opportune for an orderly transition to new Foundation leadership and, in accordance with the provisions of Miss Donaghue's will, selected a successor to carry on into 2008 and beyond.



This 2007 annual report represents the final public accounting for my service in the furtherance of Miss Donaghue's purpose, read by her trustees as being the creative, imaginative and relentless pursuit of practical benefit to human life through a commitment to rigorous research and effective translation of results into practice. In ensuing years, Lynne Garner, PhD, my extremely capable designated successor, will have the responsibility and the pleasure of reporting on the achievements of Donaghue. For me, the serious responsibility of discerning and delivering on Miss Donaghue's charge to her trustees was always a distinct pleasure. I now anticipate reveling in the continuation of the trajectory we've set over the past years, as Dr. Garner joins my invaluable long-time teammate, Sheilah Rostow of Bank of America, to lead the relentless pursuit.

I was privileged to be named the first individual Donaghue trustee; I hope and believe that I will have been just the first of many deeply committed "Irish Woman's Lieutenants," who over the decades and decades to come will craft a suitable, admirable, enduring memorial to the Donaghue family, which was all that Ethel Donaghue asked in return for devoting her many millions to public benefit.

My heartfelt thanks go out to all those whose efforts in support of the Donaghue Foundation and its mission contributed so much to our successes — and surely averted mishaps — along the way. My concluding words of counsel to Foundation personnel at a farewell dinner in January bear repeating as indicators of the Donaghue ethic: Always ask yourselves what Miss Donaghue would do if she were here today, armed with the facts you have about health needs and opportunities. And never forget, when you think "Somebody should be doing something" about an issue within the Foundation's purview, that Donaghue is somebody.

Raymond S. Andrews, Jr.
Past Trustee

PROGRAMS

The Donaghue Foundation conducts several programs and initiatives in support of Connecticut-focused research and related work. Interested persons should contact the Foundation office for detailed program information and application forms.

The Clinical and Community Health Issues Program

The Clinical and Community Health Issues Program is for health-related research projects that address major medical conditions and social problems affecting the health of individuals, groups and communities. Of particular interest are studies focusing on more effective methods of preventing, diagnosing, and treating illnesses and conditions that have a major impact on health in Connecticut. C&CH grants are up to \$240,000 over periods of one to three years. Applications are invited after review of letters of intent.

The Donaghue Investigator Program

The Donaghue Investigator Program supports particularly promising medical researchers holding faculty appointments at Connecticut institutions. The program emphasis is upon the researcher rather than upon a specific research project. Awards of \$100,000 per year, for up to five years, are made. 2007 is the last year applications will be accepted for this program.

Leadership Research Program

The Donaghue Program for Research Leadership is a Connecticut-focused grant program that will support transdisciplinary teams of health researchers led by a senior investigator who has demonstrated leadership in innovative and useful health research and in transferring knowledge gained from research into clinical and/or public health practice. The overall goal of the program is to fund rigorous health research while creating opportunities for team members to learn or demonstrate new approaches to translating knowledge from research. Therefore, the grant project must contain the following three components: research, knowledge uptake, and team building. Awards are for \$200,000 per year for four years.

Practical Benefit Initiatives:

The PBI program has no specific timeline for applications and no pre-determined award amounts. The Foundation itself initiates research projects in an interactive process with prospective investigators. Funding is based upon promise of practical benefit to human life and a likelihood that but for the Foundation's support, the research might not be done.

(1) Targets of Research Opportunity: The Foundation actively seeks funding opportunities for timely and needed research projects outside the parameters of investigator-initiated research programs.

(2) Focused Centers of Research: The Foundation invites discussion of proposed programs of coordinated research effort. The Foundation prefers collaborative, multidisciplinary, integrative programs that are patient-oriented and/or community-focused and that target understudied fields or populations.

(3) Knowledge at Work: The Foundation supports research focused specifically on improving the ways new discoveries are translated into useful knowledge and disseminated to the point of actual use.

(4) Trustee Initiatives: In addition to the programs above, the Trustees are prepared to spend a small percentage of each year's grant funds on exploratory undertakings that further Foundation purposes and do not involve science reviews.

DONAGHUE INVESTIGATORS

Supports particularly promising medical researchers holding faculty appointments at Connecticut institutions.

The program emphasis is upon the researcher rather than upon specific research.



Alexander Neumeister, MD

Associate Professor of Psychiatry, Yale School of Medicine

“Contribution of Life Trauma to the Neurobiology of Depression”

With his Donaghue Foundation award, Alexander Neumeister will use advanced positron emission tomography (PET) to evaluate the extent to which traumatic experiences may lead to neurobiological and behavioral manifestations of depression. “There is a growing body of evidence that depression in the context of severe life trauma is biologically distinct from depression without a history of trauma,” says Neumeister, whose study will involve measuring norepinephrine transporters (NET) in the brains of depressed patients with and without a history of trauma (including combat-related trauma). “Norepinephrine levels in the brain increase in response to a traumatic event...Therefore, abnormal regulation of norepinephrine function may be a key feature in depression in the context of trauma.” Neumeister believes that the results of his five-year research program — the first to use receptor imaging to systematically study individuals with co-occurring posttraumatic stress disorder and co-morbid depression — will lead to important improvements in the clinical care of depressed patients.



William Todd Zempsky, MD, Associate Director, Pain Relief Program, and Associate Professor, Pediatrics, Connecticut Children’s Medical Center

“Sickle Cell Pain: A Novel Approach to Assessment and Relief”

Children with sickle cell disease frequently suffer from episodes of severe, unrelenting pain. Yet, according to William T. Zempsky, no novel therapeutic options for sickle cell pain have been developed in 25 years. With his Donaghue grant, Zempsky will develop a functional pain assessment tool to better understand the effects of pain in children with sickle cell disease. He also will evaluate a promising pharmacologic intervention — ketamine — with potential to dramatically reduce sickle cell pain, as well as use MRI to help understand the impact of recurrent pain on the brain. “I am dissatisfied with our ability to assess and relieve pain in children with sickle cell disease,” says Zempsky. “Despite the lack of progress, few investigators from the pain community have taken on this issue in a systematic way.” Zempsky is doing just that.



Jennifer Prah Ruger, PhD

Assistant Professor, Epidemiology and Public Health, Yale School of Medicine

“Ethics and Economics of Healthcare Disparities”

Jennifer Prah Ruger’s research is driven by a dedication to addressing health and healthcare disparities in vulnerable populations, such as women, adolescents and members of minority and high-risk groups. With her Donaghue Foundation grant, Ruger will produce and synthesize a foundation of scientific research on ethical and economic approaches to reducing disparities in health care with specific application to vulnerable populations. “The Donaghue award will allow me to translate this knowledge into clinical and public health programs that make more effective use of scarce resources, improve clinical and public health practice and remedy underutilization of evidence-based programs,” says Ruger. While the most immediate practical benefit of her research is expected to be a reduction in disparities in prevention and treatment services and, ultimately, improved health among vulnerable populations, Ruger also expects to increase recognition by clinicians, public health officials and policy makers that providing and investing in such programs will save lives and money.

CLINICAL & COMMUNITY HEALTH

The Clinical and Community Health Issues Program is for health-related research projects that address major medical conditions and social problems affecting the health of individuals, groups and communities.

Contingency Management and Pharmacotherapy for Smoking Cessation

**Sheila M. Alessi, PhD, Assistant Professor, Department of Psychiatry
University of Connecticut Health Center**

Smoking is the leading cause of morbidity and mortality in Connecticut, yet more than 25 percent of the state's population continues to smoke. Sheila Alessi and her collaborators at UConn Health Center hope to help address that problem by conducting a study to determine whether an incentive-based behavioral intervention — contingency management (CM) — can improve smoking cessation outcomes among patients using varenicline (Chantix™), a newly approved, state-of-the-science pharmacotherapy for smoking cessation. “If a behavioral therapy such as contingency management can improve early response to varenicline, more patients may achieve abstinence, which should be associated with long-term abstinence and health benefits,” says Alessi. “We expect that CM-treated patients will achieve greater decreases in blood pressure and that reductions in BP will correlate with smoking abstinence.” Alessi also notes that the benefits of her research should extend to patient families, friends and co-workers due to the health risks associated with second-hand smoke.



Restoring Health and Hope to Adults with Serious Mental Illnesses

**Larry Davidson, PhD
Associate Professor, Psychiatry, Yale School of Medicine**

Recent reports show that adults with serious mental illnesses die 25 years younger on average than other adults, losing about one-third of their life span to such untreated medical conditions as diabetes, asthma and heart disease. In Connecticut alone, roughly 135,000 mentally ill adults do not receive the care needed for these conditions. With his Donaghue Foundation award, Larry Davidson will attempt to address this public health problem by providing integrated medical and psychiatric care for a group of adults with both serious mental illnesses and type II diabetes. “By the end of this project, we expect to have demonstrated the effectiveness of an innovative combined medical and psychosocial intervention in enhancing diabetes control among a population of individuals who experience increased morbidity and premature mortality,” says Davidson. “We hope to help them achieve the care they need to begin to restore their health — and hope — for productive, healthy lives.”



Prefrontal Development in Youths at Risk for Schizophrenia

**Naomi Driesen, PhD, Associate Research Scientist, Psychiatry
Yale School of Medicine**

The emergence of schizophrenia in adolescents suggests that this devastating mental illness is a property of the developmental processes occurring within the brain during adolescence. With the support of the Donaghue Foundation, Naomi Driesen and her talented collaborators will use non-invasive magnetic resonance (MRI) imaging to examine the development of the prefrontal cortex and its connections to other brain areas in adolescents with and without a genetic susceptibility to schizophrenia — a heritable illness that robs people of much of their adult productivity and typically requires repeated and costly hospitalizations. “I expect to gain insight into how a genetic disposition towards developing schizophrenia influences prefrontal development in adolescence,” says Driesen, whose MRI results will be augmented by neurocognitive testing and psychiatric and family interviews. “In the long run, this understanding will help us to formulate preventive strategies for further investigation that may help to reduce the impact of the heritable vulnerability.”



CLINICAL & COMMUNITY HEALTH



Enhancing Independent Bathing in Community-Living Elders

Thomas M. Gill, MD

Professor of Medicine, Yale School of Medicine

Among older persons, disability in bathing is a primary indication for home aide services and is strongly associated with the risk of a long-term nursing home admission. Yet, despite the importance of this all-too-common problem, Thomas Gill — a clinical investigator committed to developing strategies to promote independence and prevent functional disability among the aging — notes that “the evidence base to help guide the prevention and remediation of bathing disability is relatively scant.” With the support of the Donaghue Foundation, Gill and his co-investigators at Yale will complete studies to elicit individual goals and preferences for independent bathing; develop tools to access the ability to bathe independently; and develop and pilot-test promising intervention strategies for enhancing independent bathing. “Because bathing-related problems often threaten the quality of life of older persons, this research will provide practical benefit to older adults and their families, as well as to society in general,” says Gill.



Survivors of Cancer in Adolescent and Young Adults

Nina Kadan-Lottick, MD, MSPH, Assistant Professor, Pediatrics

Yale School of Medicine

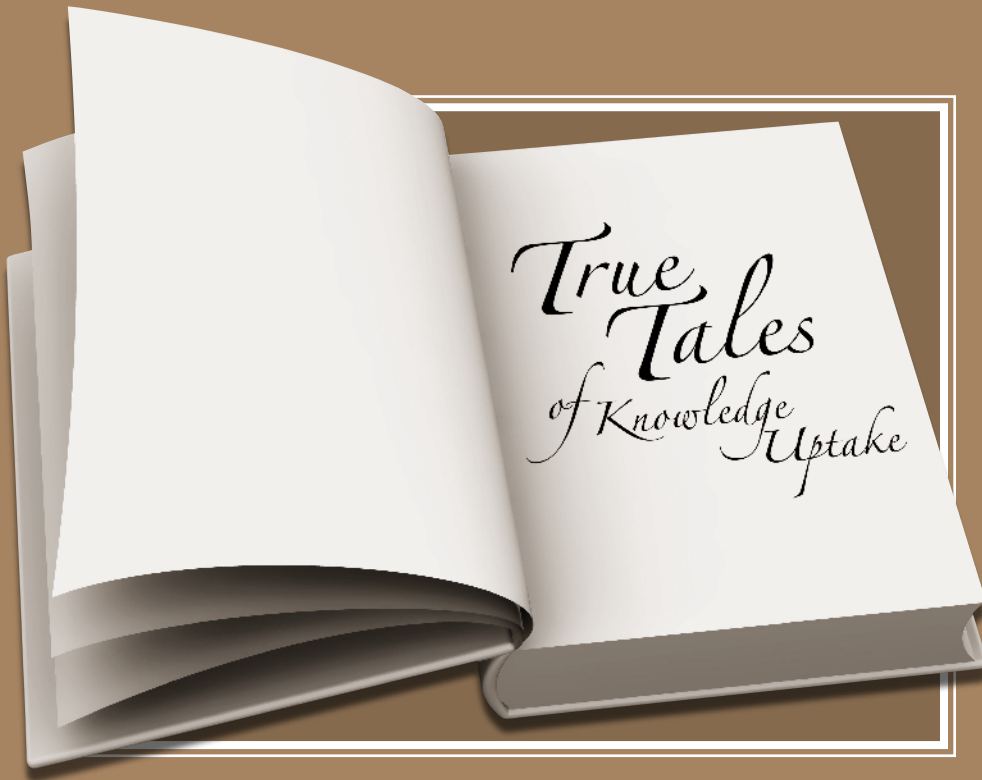
Over the next two years, Nina Kadan-Lottick will use her Donaghue Foundation grant to pilot a community-based model of care for a cohort of cancer survivors diagnosed with lymphoma, leukemia or sarcoma between the ages of fourteen and thirty-five. “Cancer survival rates are rising,” explains Kadan-Lottick, “but the growing population of survivors in Connecticut is at increased risk of late adverse effects (such as infertility, heart disease and new cancers) from their curative therapy, termed by some as the ‘cost of the cure.’ Our proposed model of care, if found to be feasible, can be expanded to all cancer patients in Connecticut, most of whom do not receive adequate cancer survivorship care.” Kadan-Lottick’s ultimate goal is to create a statewide cohort of cancer survivors of all ages and cancer types who will get high-quality survivorship care in their community and serve as a research resource to improve outcomes for future cancer survivors.



Specialized Treatment in Early Psychosis

Vinod H. Srihari, MD, Assistant Professor, Psychiatry, Yale School of Medicine

Symptoms of psychosis often occur in late adolescence and early adulthood — a particularly vulnerable time for social and vocational development. With funding from the Donaghue Foundation, Vinod Srihari will conduct a clinical trial (known as Specialized Treatment in Early Psychosis, or STEP) to compare the effectiveness — and cost-effectiveness — of phase-specific care for early stage psychosis delivered by a specialized team at the Connecticut Mental Health Center (CMHC) in New Haven to the “usual procedure” of referral to community providers outside CMHC. “Given that a large proportion of the mentally ill receive care in similar systems across the country, the results of the STEP study promise to have significant policy implications at the national level,” says Srihari. “While existing treatments — pharmacologic and psychosocial — can produce improved results when carefully applied, there is much room for improvement. Studying psychotic illnesses early in their course offers a unique opportunity to develop such improved treatments.”



What follows are three true tales of knowledge uptake from authors with different roles and perspectives but with a common goal — getting the knowledge gained from medical and health research put to use to improve health.

These narratives highlight those elements that were vital in the process of creating successful uptake. They illustrate the power and complexity of incorporating research into practice and point to the many lessons learned along the way.

Do you have a true tale of knowledge uptake?



Elizabeth Pivonka, PhD, RD

President and CEO

Produce for Better Health Foundation



Social Marketing: Lessons Learned



Reflecting back on our national effort to increase fruit and vegetable consumption, there are several things we did right and some things we had to learn along the way. We are in a position with the transition from 5 A Day to the new social marketing campaign, Fruits & Veggies — More Matters®, to start anew using successes and lessons learned from the past. Some of these include:

- **Know your target audience.** Know their needs and concerns and develop messaging for them in the way they can most internalize it and relate to it. For example, most people believe fruits and vegetables are good for them. Young mothers, however, want help in learning about HOW to get their families to eat more of them, rather than WHY they should eat more.
- **Measure, measure, measure.** Not just process evaluation, but outcomes...specifically with the target audience. Not only will this help improve programming efforts to impact that audience, but it can be used to demonstrate results to funding agencies.
- **Work through intermediaries.** When limited in resources, work to reach the target audience through others. In our case, we reach our target audience of Gen X Moms through supermarkets, fruit and vegetable packaging, the internet, health departments, the media, and dietitians who regularly work with the media.
- **Change is constant.** As soon as you think you have it figured out, something about the target audience or the environment in which they live changes, and you need to change accordingly.
- **Have a broad vision.** While our organization specifically works on implementing a social marketing campaign, we have also outlined many other strategies that would help increase fruit and vegetable consumption, such as policy changes that make fruits and vegetables a greater part of food assistance programs. We try to act as a catalyst to get other organizations to help implement those strategies.



Harlan M. Krumholz, MD, SM

Harold H. Hines, Jr. Professor of Medicine and Epidemiology
and Public Health, Yale School of Medicine



The Second Time Around

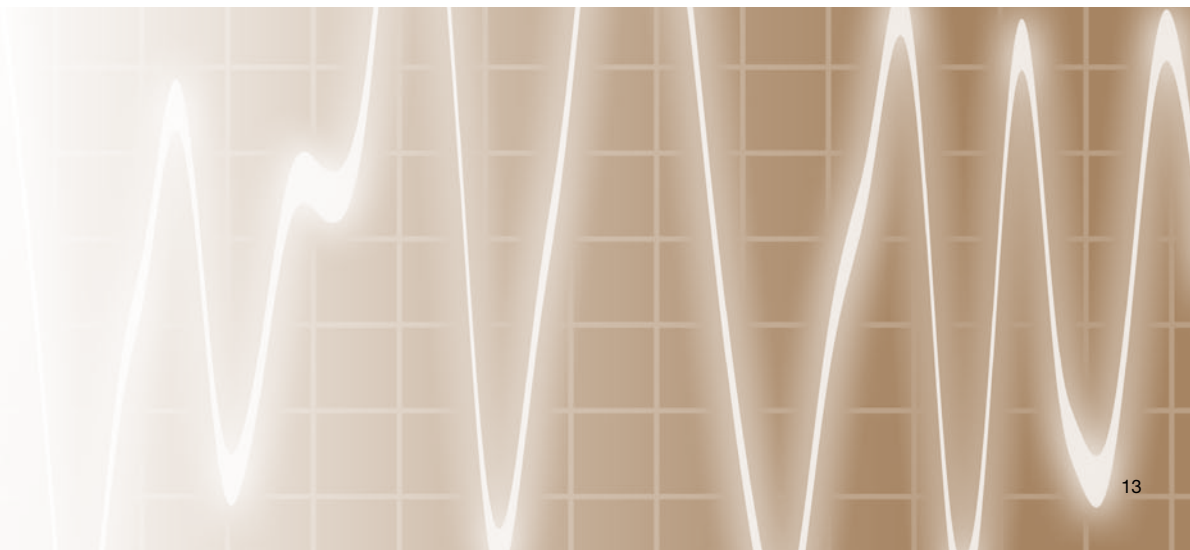


Ever hear of a health system that had a second chance with a patient? The Sentara system in Norfolk, Virginia had that rare opportunity last year. Although Sentara excels in many aspects of caring for patients with heart attacks, patients there often experienced marked delays in receiving emergency angioplasty — and rapid treatment can make a big difference in patient survival. Jim Kern arrived at the hospital on August 22, 2006 just as the nursing shift changed. He did not undergo angioplasty until almost four hours later — a period of time that greatly exceeds the national recommendation of 90 minutes or less.

Soon after Jim's experience, Sentara joined a national initiative to take recent research about how to speed treatment times and apply it in practice. The research, done on an NIH grant, was being promoted by the American College of Cardiology and its partners in a campaign called the Door to Balloon Alliance. Instead of simply urging hospital teams to move faster, the idea was to fundamentally change the way the work was done by pushing approaches backed by evidence. Through a focus on how best to apply treatment, the ultimate goal was to improve the system that delivers care. With physician and administrative leadership, Sentara began to reshape its approach, instituting systems so that patients could be confident that they would receive rapid care.

And then, Jim Kern had another heart attack. This time, however, he encountered a dramatically different response. Within 15 minutes of arrival at the hospital, he was en route to an emergency angioplasty, an experience Jim describes as being as different from his first heart attack as 'day and night.'

We all hope that Jim does not need the hospital again, but his experience reveals what can be achieved by institutions that are motivated toward positive change. In the first hospitalization, the delay increased Jim's risk unnecessarily. The second time around, he received the best possible care - care that should be routine for every patient in similar circumstances. Sentara's successful efforts can be widely replicated as research reveals simple steps about how to deliver the best care, campaigns and initiatives deliver that message with a sense of urgency, and institutions and clinicians put the knowledge to work for patients.



Veronica F. Nieva, PhD

Project Director and Editor in Chief
AHRQ Health Care Innovations Exchange



Dissemination Has No Silver Bullet



The Hospital Survey on Patient Safety Culture (HSOPS) is a public use instrument sponsored by the Agency for Health Research and Quality (AHRQ) and developed by researchers at Westat that measures twelve aspects of safety culture in hospital settings from the view of hospital staff. Often part of broader patient safety initiatives, hospitals use HSOPS to identify areas for improvement, such as teamwork within and across units and to promote (rather than punish) the reporting of errors or “good catches.” It is also a yardstick for measuring progress — as safety programs unfold.

Released in 2004, the Survey has been used by hundreds of hospitals in the USA and more than 500 have submitted data to a benchmarking database. HSOPS is used by the Department of Defense (DoD) worldwide in its 68 hospitals and over 400 clinics. International users have translated the HSOPS into over a dozen languages, including Spanish, Chinese, Norwegian, and French.

It is likely that many factors have been important in the HSOPS uptake story — dissemination has no silver bullet. Among them:

The Product

HSOPS is a product based on solid scientific methodology, complemented by a pragmatic user orientation. The survey has a user's guide and Excel-based data entry and analysis tools. Also the price is right — HSOPS is a free downloadable product. The sponsor is credible. AHRQ is a leading source for quality tools and information.

Timing

The timing was right. The IOM report “To Err is Human” created a patient safety movement and the health care world was hungry for help.

Champion and Channels

A strong champion within AHRQ continues to generate interest and support for HSOPS.

AHRQ used its established channels: its e-newsletter, annual conference, and broadcast technical assistance calls to promote HSOPS and is developing new channels — a user's group and work with the World Health Organization.

Academic Support

Several academic publications reviewing the state of the art in safety culture measurement gave HSOPS high marks and compared it favorably to other instruments focused on safety culture.

A Little Help From Friends

Strong partnerships helped. AHRQ enlisted the DoD, the Premier Hospital System, the AHA and CMS as early partners in implementing and promoting HSOPS.



PRACTICAL BENEFIT INITIATIVES

The Practical Benefit Initiatives program helps to initiate research projects showing particular promise for producing practical benefit to human health.

In 2007, the Donaghue Foundation awarded grants to four non-profit, acute care hospitals as part of a \$1.1 million Practical Benefit Initiative program that focuses on the impact made by hospital leaders in promoting patient safety. To ensure a robust response to the Foundation's RFP, hospitals from throughout New England were encouraged to apply.

EMPOWER – Educating and Mentoring Paraprofessionals on Ways to Enhance Reporting of Changes in Patient Status

Danbury Hospital, Danbury, CT

Moreen Donahue, DNP, Chief Nurse Executive, Nursing Administration

**Joyce J. Fitzpatrick, PhD, Elizabeth Brooks Ford Professor of Nursing
Case Western Reserve University**

With its PBI award, Danbury Hospital is researching a collaborative effort to promote a culture of patient safety through a leadership-driven communication program known as EMPOWER. “The purpose of EMPOWER is to translate proven Institute of Healthcare Improvement methods and tools so they are usable by paraprofessional staff for communicating changes in patient status,” explains Moreen Donahue. In the early stages of EMPOWER, Donahue is most excited by the involvement of nursing assistants as important members of the healthcare team in recognizing and communicating changing conditions in patients. “Nursing assistants are an important link to patients since they spend the majority of their time at the patient’s bedside,” she says. Looking ahead, Donahue hopes that her research will identify the patient safety implications of including the entire healthcare team in the development and dissemination of structured communication tools — tools she expects will be of significant value at Danbury Hospital and other healthcare organizations.



Engaging Leaders in Patient Safety through Simulation

Massachusetts General Hospital, Boston, MA

**Gregg Meyer, MD, Senior Vice President, Quality and Safety, Massachusetts General Hospital Physician Organization; Jeffrey B. Cooper, PhD, Executive Director
Center for Medical Simulation, Massachusetts General Hospital**

According to Gregg Meyer, most hospital managers do not fully appreciate the need for the deep cultural and systemic changes necessary to make meaningful progress on patient safety problems, despite the importance of reducing medical errors and preventable adverse events. With Donaghue Foundation support, Meyer, Jeffrey Cooper and their collaborators from Stanford University will use high-fidelity healthcare stimulation — in which everything is real except the patient (a computer-controlled mannequin with numerous life-like features) — as a catalyst to engage senior and middle managers in actively improving the patient safety culture/system at Massachusetts General Hospital. “Working in teams, the experience will illustrate ways in which system failures and errors contribute to adverse outcomes and how important good teamwork is to building resilience in the system,” says Meyer, who notes that managers often get “filtered information” on patient safety. “Pilot exercises have shown that the experiential learning through simulation is often transformational in changing attitudes and behaviors among managers.”



PRACTICAL BENEFIT INITIATIVES



Improving Patient Safety through Leadership and Teamwork

Goodall Hospital, Sanford, ME

Mary Finnegan, BSN, Med, Director, Performance Improvement

Andrew F. Coburn, PhD, Director, Institute for Health Policy, University of Southern Maine

With their Donaghue Foundation grant, Goodall Hospital — a small community hospital in southeastern Maine — and the Edmund S. Muskie School of Public Service's Institute for Health Policy will partner to study a team-training system (known as crew resource management training) as a strategy to enhance patient safety in Goodall's emergency department. According to Mary Finnegan, the key features of the project include: the involvement of the hospital's senior leadership; development of a train-the trainer system to promote the sustainability of the training; development of human resource, management and organizational strategies to support teamwork; and broad dissemination of project experiences and results. "The evaluation of our project will help to identify how this intervention enhances teamwork, patient safety and quality care at Goodall," says Finnegan. "It also will help predict the prospects for the replication of the results in other inpatient and outpatient units, as well as in other small, rural hospitals."



Safety Through Knowledge: Improving Institutional Learning from Adverse Events

Beth Israel Deaconess Medical Center, Boston, MA

Kenneth Sands, MD, Senior Vice President for Health Care Quality

Meghan M. Dierks, MD, MS, Director, Clinical Systems Analysis

Kenneth Sands says that in most healthcare institutions, the process for capturing, analyzing and learning from adverse events is "fractured, non-standardized and lacks transparency." With the support of the Donaghue Foundation, Sands, Meghan Dierks and their collaborators will create and evaluate a fundamentally new process for adverse event review that focuses on the involvement of hospital leaders, inter-departmental collaboration, and transparency in the sharing of lessons learned. "When an adverse event or injury occurs, we owe the patient a full exploration of the underlying causes, both system-based and human," Sands exclaims. "This project will move us closer to meeting this commitment. Also, because the project supports more effective implementation of corrective action, we anticipate that it will have an immediate local effect on patient safety...Finally, because the project engages leadership, including the board of trustees, we anticipate that it will help institutional governance make more informed strategic decisions with respect to safety and quality."



Evaluating Changes to the Local Food Environment

**Ann M. Ferris, PhD, Co-Director and Professor, Center for Public Health and Health Policy
University of Connecticut**

In most urban, minority neighborhoods, limited access to healthy foods (whole grains, fruits and vegetables, low-fat milk, etc.) contributes to such health problems as obesity and diabetes — conditions that can be prevented or delayed by improving dietary intake. With her Donaghue Foundation award, Ann Ferris and her collaborators will undertake a community-based research project to determine whether the "Healthy Food Retailer Program" (created by the nonprofit Hartford Food System) can significantly increase the availability of healthy foods and alter the food purchasing habits of customers. "Hartford has only one full-size supermarket, creating a 'food desert' that forces many low-income residents to rely on corner markets," says Ferris. "Our research goals are to understand what small yet meaningful changes can be made to the food inventory in small markets and food purchasing habits among customers in Hartford. The long-term goal is to create a new model for local corner markets that supply fresh produce and promote healthy food."

TRUSTEE INITIATIVES

Through the Donaghue Foundation's Trustee Initiatives, the Trustees use a small percentage of each year's grant funding very flexibly on exploratory undertakings that further Foundation purposes. During 2007, \$60,000 was allocated for five Trustee Initiatives in support of our goal of communicating and disseminating innovative ideas for improving health care.

Environmental and Human Health, Inc.

Donaghue provided \$25,000 as partial support for a study by Environmental and Human Health, Inc. on the impact of bisphenol A and phthalates on health, especially the health of children.

Institute of Community Research

Donaghue supported the Institute of Community Research's national conference on community-based participatory research with a grant of \$20,000 that was used to defray the cost of the conference for student-attendees.

Yale School of Management

Yale School of Management's Healthcare Club, a student led organization, received a \$7,500 grant to support its third annual conference titled "Excellence, Efficiency and Economics: What Healthcare Can Learn from Other Industries."

New England Minority Health Conference

\$5,000 was provided to support the fifth New England Minority Health Conference, which was focused on the theme of "Eliminating Racial & Ethnic Health Disparities by 2010."

Medically Induced Trauma Support Services (MITSS)

With a grant of \$2,500, Donaghue support the MITSS sixth annual dinner and, though an announcement in the dinner program, listed its four patient safety research grants.



2007 Awards

CLINICAL AND COMMUNITY HEALTH ISSUES

Sheila M. Alessi, PhD

University of Connecticut Health Center

Cottingency management and pharmacotherapy for smoking cessation

Larry Davidson, PhD

Yale School of Medicine

Restoring hope and health to adults with serious mental illness

Naomi Driesen, PhD

Yale School of Medicine

Prefrontal development in youths at risk for schizophrenia

Thomas M. Gill, MD

Yale School of Medicine

Enhancing independent bathing in community-living elders

Nina Kadan-Lottick, MD, MSPH

Yale School of Medicine

Survivors of cancer in adolescent and young adults

Vinod H. Srihari, MD

Yale School of Medicine

Specialized treatment early in psychosis

DONAGHUE INVESTIGATOR

Alexander Neumeister, MD

Yale School of Medicine

Contribution of life trauma to the neurobiology of depression

Jennifer Prah Ruger, PhD

Yale School of Medicine

Ethics and economics of healthcare disparities

William T. Zempsky, MD

Connecticut Children's Medical Center

Sickle cell pain: A novel approach to assessment and relief

PRACTICAL BENEFIT INITIATIVES

Maureen Donahue, DNP, MSN

Danbury Hospital

Leadership initiative to educate and monitor paraprofessionals

Mary Finnegan, BSN, Med

Goodall Hospital

Improving patient safety through leadership and teamwork

Gregg Meyer, MD

Massachusetts General Hospital Physician Organization

Engaging leaders in patient safety through simulation

Kenneth Sands, MD, MPH

Beth Israel Deaconess Medical Center

Safety through knowledge: Improving institutional learning from adverse effects

Michelle Cloutier, MD

Connecticut Children's Medical Center

The onset of childhood obesity

Ann Ferris, PhD

University of Connecticut

Evaluating changes to the local food environment

CONTINUATION AWARDS

CLINICAL AND COMMUNITY HEALTH ISSUES

Michal Assaf, MD

Institute of Living/Hartford Hospital

Differential diagnosis of psychotic patients

Carlos M. Grilo, PhD

Yale School of Medicine

RCT for obesity and binge eating in monolingual hispanic persons

Manisha Juthani-Mehta, MD

Kalpana Gupta, MD

Yale School of Medicine

Cranberry for UTI prevention in nursing home residents

Anne Kenny, MD

University of Connecticut Health Center

Effects of omega-3 fatty acids on bone and frailty

Rajesh Lalla, PhD

University of Connecticut Health Center

Prevention of recurrent aphthous stomatitis using vitamins

Linda Mayes, MD

Yale School of Medicine

Minding the baby: Home visiting for young parents

Chirag Parikh, MD, PhD

Yale School of Medicine

Novel biomarkers to detect delayed graft function

Rafael Perez-Escamilla, PhD

University of Connecticut

Breastfeeding education and support trial for obese women

Srijan Sen, MD, PhD

Yale School of Medicine

The roles of genes and stress in medical intern depression

Julie Ann Sosa, MD

Yale School of Medicine

Neurocognitive changes in primary hyperparathyroidism

Meredith H. Stowe, PhD

Carrie Redlich, MD, MPH

Yale School of Medicine

Reducing isocyanate exposure in the Connecticut antibody industry

DONAGHUE INVESTIGATOR

Hal Blumenfeld, MD, PhD

Yale School of Medicine

Impaired consciousness in epilepsy: Mechanisms and consequences

Elizabeth Bradley, PhD

Yale School of Medicine

Quality improvement efforts in the care of older adults

Lisa Dierker, PhD

Wesleyan University

Impact of child psychopathology and intervention on later substance use

Becca Levy, PhD

Yale School of Medicine

Promoting older individual's health behaviors through positive age beliefs

Cheryl Oncken, MD

University of Connecticut Health Center

Maternal genetics, cigarette smoking and infant birth weight

Francisco Sylvester, MD

Connecticut Children's Medical Center

Understanding bone loss in children with chronic gastrointestinal diseases

Quing Zhu, PhD

University of Connecticut

Novel imaging devices for diagnosis and treatment of breast cancers

PRACTICAL BENEFIT INITIATIVES

Nancy Berlinger, PhD, MDiv

The Hastings Center

End-of-life care guidelines - II

Judith Fifield, PhD

University of Connecticut Health Center

Ethel Donaghue Center for Translation Research into Practice and Policy

Terri Fried, MD

Lianna Fraenkel, MD

Yale School of Medicine

Improving the quality of care for atrial fibrillation by promoting patient-centered decision making

Anne Kenny, MD

University of Connecticut Health Center

The Donaghue nutrition research competition

Robert J. Levine, MD

Yale University

Donaghue initiative in biomedical and behavioral research ethics

Multiple Myeloma Research Foundation

Myelin Repair Foundation

Mary Tinetti, MD

Dorothy Baker, PhD

Yale School of Medicine

Connecticut collaborative for fall prevention



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2007Grants

Institution	New	Continuation	Total
Beth Israel Deaconess Medical Center	1	0	1
Connecticut Children's Medical Center	2	1	3
Danbury Hospital	1	0	1
Goodall Hospital	1	0	1
Hartford Hospital/Institute of Living	0	1	1
Hastings Center	0	1	1
Massachusetts General Hospital Physician Organization	1	0	1
Multiple Myeloma Research Foundation	0	1	1
Myelin Repair Foundation	0	1	1
University of Connecticut - Storrs	1	2	3
University of Connecticut Health Center	1	5	6
Wesleyan University	0	1	1
Yale University	0	1	1
Yale School of Medicine	7	12	19
Total	15	26	41

Funds Awarded by Grant Program for Grant Cycle Beginning in 2007

Research in Clinical & Community Health Issues

New (6)	\$ 552,243
Continuing (11)	\$ 789,804
	\$1,351,047

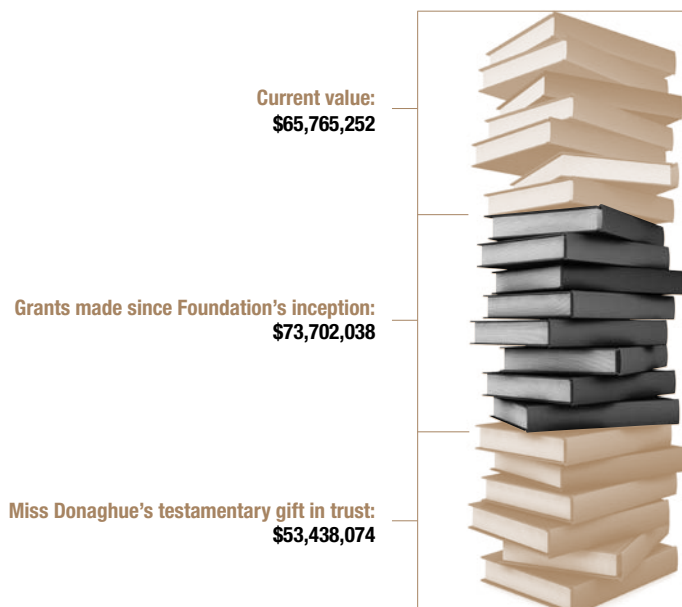
Donaghue Investigator Program

New (3)	\$ 317,388
Continuing (7)	\$ 714,696
	\$1,032,084

Practical Benefit Initiative

New (6)	\$ 801,262
Continuing (8)	\$2,138,314
Trustee Initiatives	\$ 60,000
	\$2,989,576

\$5,372,707



2007Financials

2007 Financial Information

Statement of assets and fund balance as of December 31, 2007

Investment in marketable securities	\$64,732,387
<i>Schedule B-2 (market value) minus furniture and office equipment</i>	
Cash and cash equivalent	\$ 979,660
<i>Schedule G-1 "cash on hand"</i>	
Other assets	\$ 53,205
 Total assets and fund balance	 \$65,765,252
 Income	 \$ 2,274,532
 Expenditures	
Program	
Grants	
Clinical and Community Health	\$ 1,351,047
Donaghue Investigator	\$ 1,032,084
Practical Benefit Initiatives	\$ 2,989,576
Subtotal	\$ 5,372,707
Program Support	\$ 270,942
Management and General	\$ 675,664
Investment Management	\$ 107,489
 Total Expenditures	 \$ 6,426,802

Note 1: In addition to this amount, the Foundation facilitated \$5,916,220 in research grants for foundations or other philanthropic sources.

Note 2: In addition to these expenditures, an estimated amount of up to \$58,793 has been earmarked for future spending in support of ongoing grants. The figures listed above are unaudited. Fair market values are approximate.



Leave a Legacy Connecticut

Ethel Donaghue's legacy would be even more meaningful if her Foundation's efforts prompted others to support health research as a part of their own philanthropic planning. The Donaghue Foundation supports the work of Leave a Legacy Connecticut and encourages people to include charitable bequests for health research purposes in their wills. While the Foundation will accept additional funds itself only if they are solely and expressly for Miss Donaghue's own testamentary purpose, we do believe strongly in the public value of committing private sector resources to the ongoing cause of health research.

True Tales

OF KNOWLEDGE UPTAKE

Design: Farrell Marketing & Design

Copywriting: Todd Rosenthal

Photography: Al Ferreira

Printing: Velocity Print Solutions



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