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RHODE  ISLAND  
MEDICAL JOURNAL

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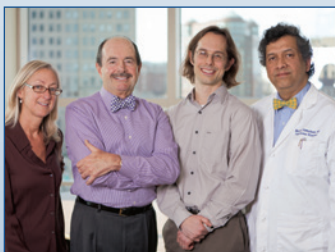
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## The Brown School of Public Health

KRIS CAMBRA, MA; TERRIE FOX WETLE, PhD  
GUEST EDITORS

### ABSTRACT

The nation's newest school of public health boasts research excellence in aging, obesity, addictions, health care services and policy research, and more. The Brown School of Public Health is home to a variety of master's and doctoral programs, in addition to one of the oldest undergraduate concentrations in community health. The School plays a key role in the development of public policy at the state and national level and implements programs that benefits Rhode Island physicians and their patients.

**KEYWORDS:** public health; Brown; school of public health; public policy; Rhode Island; health policy

### INTRODUCTION

In early April, the results of the most rigorous study to date of how much it costs to care for Americans with dementia landed on the front page of newspapers and media websites. The findings, published in the *New England Journal of Medicine*, were shocking: the financial burden of Alzheimer's disease and other forms of dementia is at least as high as that of heart disease or cancer, and is probably higher. The total monetary cost of dementia in 2010 was between \$157 billion and \$215 billion.

Even more alarming is the fact that both the costs and the number of people with dementia will more than double within 30 years, as the population of the United States ages.

Managing this uptick in the number of older citizens and their attendant health problems is just one of the issues that the Brown School of Public Health is addressing. The School's mission is to improve population health by conducting research to better understand disease risk factors and effective health promotion; educating future generations of health researchers and policy makers; and providing public service by translating research into public policy and improved practice.

The nation's newest school of public health, to be established July 1, 2013, boasts research and teaching that is collaborative, multidisciplinary, and innovative. The products of this work have real impact on people's lives. And this school, a recognized leader in public health, is right here in Rhode Island.



SCOTT KINGSLEY FOR BROWN UNIVERSITY

Brown's leadership team for the School of Public Health: Rear, from left, department chairs Christopher Kahler (Behavioral and Social Sciences), Stephen Buka (Epidemiology), and Constantine Gatsonis (Biostatistics). Front, Ira Wilson (Health Services, Policy and Practice) and Terrie Fox Wetle, inaugural dean of public health.

### THE PUBLIC'S HEALTH

The field of public health has evolved since it began one hundred years ago. The discipline first addressed communicable diseases, sanitation, and food supply safety—the greatest threats to health in this country at the time. Advances in public health added 40 years to life expectancy in the United States over the past century.

During this time, there has since been an explosion of interest in public health, with increased focus on understanding the complex social determinants of disease and improved strategies to encourage healthier behaviors. With improved strategies for preventing and treating infectious diseases, lifestyle choices and behaviors have become the greatest threats to health and longevity. Tobacco use, obesity, and physical inactivity contribute to chronic diseases that limit vitality and require costly interventions. Environmental exposures are also a major concern for the public today. Although successful in delivering cleaner water supplies, we are now concerned about chemicals such as BPA in our plastic water bottles.

The Brown School of Public Health is grounded in research on these 21st-century health risks. Working at the population level, its research centers are devising interventions for substance abuse and tobacco addiction; investigating ways to help people lose weight and keep it off long term; improving the end of life for patients with terminal illness, particularly the costly and dehumanizing Alzheimer's disease and other dementias; and studying the utilization of health services that will help physicians and policymakers navigate the new frontier of health-care reform.

The substantial growth in the research enterprise and academic infrastructure led to the Brown University Corporation vote to transform the Public Health Program into a School of Public Health effective July 2013. The Brown School of Public Health will have even broader impact on national and international health policy, and will bring innumerable benefits to the state of Rhode Island, its health care system, and its citizens.

## FACTS AND FIGURES

The Public Health Program was established in 2000, built on the strength of Brown University's Department of Community Health, which offered one of the first undergraduate concentrations (majors) in the discipline. The School of Public Health grew out of a decade of strategic planning that included the recruitment of new faculty, the creation of new master's and doctoral degree programs, and the establishment of four new departments that reflect the Program's specific strengths.

### Figure 1. Academic Programs

#### Departments

- Behavioral and Social Sciences
- Biostatistics
- Epidemiology, with an Environmental Health Section
- Health Services, Policy and Practice

#### Doctoral Programs

- Biostatistics
- Epidemiology
- Health Services Research
- Planning: Behavioral and Social Health Interventions  
(in the approval process)

#### Masters' Programs

- Master of Public Health
- Epidemiology
- Biostatistics
- Behavioral and Social Interventions
- Clinical and Translational Research

#### 246 Students

- 90 undergraduate concentrators
- 113 master's students
- 43 doctoral candidates

Figure 2. Public Health Research Centers	Date Launched
Center for Alcohol and Addiction Studies	1982
Center for Gerontology and Healthcare Research	1986
Brown University AIDS Program*	1988
International Health Institute	1988
Center for Statistical Sciences	1995
Center for Primary Care and Prevention*	1997
Centers for Behavioral and Preventive Medicine*	1998
Center for Population Health and Clinical Epidemiology	1998
Institute for Community Health Promotion	2002
Center for Environmental Health and Technology	2007
Center for Evidence Based Medicine	2012

\*Hospital-based centers

### Figure 3. Research Funding

\$40 million in external funding to campus-based research centers  
\$18 million in external funding to affiliated hospital research centers

## A SCHOOL OF PUBLIC HEALTH

During the past decade, with the support of Brown University's leadership, the Public Health Program completed strategic steps toward becoming a School of Public Health. Organization as Brown's third professional school brings with it key benefits that will allow public health research and teaching to flourish.

The first of these benefits is that the School opens doors to funding from the Centers for Disease Control and Prevention extended only to schools of public health. As a school, Brown will be invited into the national research/implementation network, giving its research findings greater reach. Schools of public health are also more attractive to the best students and faculty, so Brown will have greater appeal as a destination for leaders and future leaders in the discipline. Accreditation by the Council for Education in Public Health, a two-year process that the School has begun, is a seal of excellence and reputation—the ultimate validation of the research and teaching in public health at Brown.

## BENEFITS TO THE STATE OF RHODE ISLAND

Governments play a critical role in the maintenance and improvement of the public's health. As Rhode Island's only school of public health, Brown has forged strong relationships with the executive branch of state government, including the Department of Health, and the office of the insurance commissioner, as well as the legislature. These are just some of the key government offices responsible for implementing policies and initiatives that ensure the safety and improve the health of our state.

The Brown School of Public Health's centers and institutes help develop sound, research-based public policy and improve public health practice. Our faculty are involved in public health at the local, state, national, international levels. The School is a valued community partner in improving population health, and has been involved in recent years in such statewide initiatives as:

- H1N1 flu emergency response and evaluation;
- Coordinated health planning; and
- Implementation of health reform.

In addition, the School of Public Health is training more public health professionals, whose work leads to a healthier population and improved health services. These trainees and the School's faculty engage in advocacy efforts such as improving meals in schools and community planning to promote physical activity. Their research supports advocacy at the state level to promote evidence-based programs such as Meals on Wheels, which was recently shown to be a simple, yet effective way to help senior citizens stay in their own homes and out of nursing facilities longer. Their efforts in promoting healthier behaviors can have an impact on the well-being of the entire population.

#### **BENEFITS TO PHYSICIANS IN RHODE ISLAND**

The existence of a school of public health has tangible benefits for physicians in Rhode Island. First and foremost, the School of Public Health will remain closely connected to the Warren Alpert Medical School of Brown University, ensuring rich population health training for medical students. Historically, about 17 percent of these graduates stay on to practice in the state. These ties will become even stronger in 2015 when the first students are enrolled in the Primary Care-Population Health Program, a new dual-degree program for students committed to practicing primary care that will result in MD and master's degrees. While still in the planning phases, the goal is to include incentives for these students to stay in Rhode Island to practice. The School of Public Health also offers lectures, workshops, and short-term courses to physicians and other health professionals.

The Brown School of Public Health also provides resources for the Department of Health and clinical partners for health promotion and disease prevention, which are made available to physicians. Through the School's Center for Evidence-Based Medicine, physicians have a resource for better understanding how best to apply scientific findings regarding health screening, medications and other interventions. As the Affordable Care Act is fully implemented and accountable care organizations begin monitoring health care practices, it will be vital for physicians to know which tests and treatments are most effective and cost efficient.

#### **CONCLUSION**

The Brown School of Public Health is built on a long tradition of community health research and teaching. Its research centers take a "lifelong health" approach to improving people's lives, one that begins prior to conception through research on environmental exposures that affect fertility and cause birth defects, to the very end of life, by advocating for a patient-centered approach to terminal illness that considers a person's values and beliefs in addition to the medical research. In between those points, public health at Brown targets the behavioral choices that can threaten (tobacco and substance abuse, obesity, risky sexual behaviors) or heighten (physical activity, nutrition, injury prevention) wellness. This work has an impact on people around the world thanks to partnerships forged locally and globally, from Providence's South Side to South Africa.

For more information about the Brown School of Public Health, visit <http://publichealth.brown.edu>.

#### **Authors**

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Terrie Fox Wetle is the inaugural Dean of the School of Public Health at Brown.

## Educational Opportunities in Clinical and Translational Research

PATRICK VIVIER, MD, PhD

### ABSTRACT

Clinical and translational research extends basic science research into the clinical realm, bringing the latest advances and potential treatments to the patients who need them. The Brown School of Public Health offers a number of educational programs that trains physicians and researchers in these research methods. The goal of these programs is to help students develop an independent research career and make important contributions in clinical and translational sciences.

**KEYWORDS:** translational research, master's degree, summer, clinical research, research methods

### INTRODUCTION

The goal of clinical and translational research is to extend basic scientific research in the physical, biologic, and behavioral sciences into the clinical arena, including studies that will develop and evaluate clinical interventions and will ultimately improve individual and population health. This "bench-to-bedside" approach is not unidirectional, but rather "a two-way street."<sup>1</sup> By translating basic science research into improved clinical outcomes, clinical and translational research helps provide new treatments to patients more efficiently and effectively. In addition, the experience and findings of clinicians, clinical researchers and public health professionals can greatly inform and stimulate the direction of basic science investigations.

To make this "bench-to-bedside" approach a reality, it is essential to have training programs that help bridge the skills of clinicians, basic scientists, clinical researchers and public health professionals. In order to move the field of clinical and translational research forward in Rhode Island, a number of high quality, graduate-level training experiences have been developed at Brown University, providing a range of opportunities from taking a single course as a special student to completing a full master's degree program.

Brown's Summer Institute in Clinical and Translational Research is an intensive 6-week, full-time training program

that provides doctorally trained clinicians and basic scientists insight into clinical and translational research design, as well as the critical skills necessary for the development of successful research proposals. The Summer Institute, which occurs in May and June each year, consists of two full-credit courses: "Research Methods in Clinical, Translational, and Health Services Research" and "Scientific Writing, Research Presentation, and Proposal Development." The courses are integrated and employ a combination of readings, written assignments, and presentations through which students will learn to develop and refine research questions, design research projects, appropriately implement research methodologies, and understand research ethics, including IRB processes and HIPAA regulations. At the end of the Summer Institute, students present the proposal they have developed to classmates and faculty who provide additional



Dr. Patrick Vivier meeting with students in public health at Brown.

feedback, helping students move forward to a competitive grant application with a sound methodology. After completing the Summer Institute, students have the opportunity to take additional methods courses during the standard academic year in the Brown School of Public Health.

For doctorally trained clinicians and researchers who

would benefit from a full graduate program, Brown University offers a master's degree in Clinical and Translational Research. Students complete nine courses in key methodological areas, such as clinical trials, evidence-based medicine, and survey research, as well as biostatistics and applied data analysis. Students have the opportunity to work closely with faculty mentors from a broad range of clinical and research departments, as well as the School of Public Health research centers, Brown's affiliated hospitals, and other partner sites. The program emphasizes "learning by doing," with students developing research portfolios that include research presentations, scientific manuscripts, and research proposals. The goal is to help students develop an independent research career, making important contributions in clinical and translational sciences. For those who wish to pursue studies beyond the master's level, there are doctoral programs in biostatistics, epidemiology, and health services research, as well as a new PhD program being developed in the Department of Behavioral and Social Sciences – all areas central to clinical and translational research.

Many of the clinical and translational research educational programs focus on those who already are doctorally

trained clinicians or basic scientists. However, there are opportunities for those without advanced degrees to begin their training in clinical and translational research. This includes the Master of Public Health Program, which offers highly relevant course work, as well as the opportunity to complete an internship and thesis on clinical and translational research topics.

For more information on any of the training programs in clinical and translational research, please contact Patrick M. Vivier, MD, PhD, ([Patrick\\_Vivier@Brown.edu](mailto:Patrick_Vivier@Brown.edu)) or visit [www.brown.edu/academics/public-health/mctr](http://www.brown.edu/academics/public-health/mctr).

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# The Sum is Greater than its Parts: The Center for Evidence-Based Medicine

KRIS CAMBRA, MA; THOMAS A. TRIKALINOS, MD, PHD; EILEEN O'GARA-KURTIS

## ABSTRACT

The Center for Evidence-Based Medicine in the Brown School of Public Health develops computational tools to help analyze the vast amounts of data generated by medical research. By conducting meta-analyses and systemic reviews of published literature, Center researchers can tease out which treatments are most effective and efficient, helping to guide medical practice.

**KEYWORDS:** comparative effectiveness; evidence-based medicine; meta-analysis; systematic review; research

## INTRODUCTION

In a health-care environment of many choices and finite resources, providers, insurers, and other clinical decision-makers increasingly turn to evidence-based medicine for guidance. Evidence-based medicine evaluates interventions by developing methodologies for analyzing available data. In 2012, the Brown School of Public Health launched a Center for Evidence-Based Medicine (CEBM), building on the expertise of a cadre of physician-scientists, biostatisticians, and computer scientists who are collaborating with colleagues worldwide. The Center's director, Thomas Trikalinos, MD, PhD, relocated to Brown from Tufts Medical Center, with co-director Joseph Lau, MD, and Christopher Schmid, PhD, to launch the new enterprise with Issa Dahabreh, MD, MS, and Byron Wallace, PhD.

Evidence-based medicine will be integral to the evolution of health-care delivery. Comparative effectiveness research is mandated under the federal Affordable Care Act, evidence-based methodologies play a role in developing Medicare drug formularies, and related research is encouraged by the National Institutes of Health. As more emphasis is placed on curbing wasteful spending in the health-care system, there's an increasing need to show which interventions and screenings truly make a difference in outcomes.

Part of what the Center is doing is creating an open-source, web-based tool that will use machine learning to facilitate retrieval of biomedical literature while eliminating redundancies and reconciling subtle variations in methodologies, patient population, and other elements of study design. The team is also working on open-source software for performing meta-analysis—the statistical synthesis of evidence

from independent studies—and is a driving force of global initiatives in meta-analyses software. The team also collaborates with external colleagues through two international research consortia that collectively span more than 10 scientific disciplines and 100 countries and encompasses more than 30,000 members.



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Dr. Thomas Trikalinos is the director of the Center for Evidence-Based Medicine.

## GUIDING PRINCIPLES FOR PHYSICIANS AND PATIENTS

Findings from these meta-analyses translate into guidelines that physicians can follow to provide more effective and cost-efficient care to their patients. The results of the analysis can also help define the characteristics of disease and how it affects a patient population. For example, faculty from the center did the systematic reviews that informed the development of a very widely used classification for chronic kidney disease (CKD).<sup>1</sup> This work led to the recognition of CKD severity as a risk factor for cardiovascular outcomes, and has been a basis for describing and understanding the disease burden.

Systematic reviews can inform the decision-making process of policymakers at the national level, accelerating the translation of clinical evidence into practice. Take a question such as, 'What is the recommended daily allowance of vitamin D in various life stages, from infants to pregnant women or the elderly?' To make an informed recommendation, an Institute of Medicine panel on vitamin D relied on a large systematic review of randomized and observational studies on the relationship between vitamin D intakes and 17 outcomes led by members of Brown's CEBM.<sup>2,3</sup>

Sometimes systematic reviews can help sort out facts from commonly held beliefs or myths. For instance: what is the relationship between episodic physical and sexual activity with triggering of acute cardiac events? A meta-analysis by members of the CEBM team documented that episodic physical or sexual activity increases the risk of heart attacks approximately three-fold during and for one hour after the activity.<sup>4</sup> As is often the case in meta-analysis, the researchers do not have much information on the type of activities

that are more risky than others. Knowing the connection truly does exist is useful nonetheless.

The Brown School of Public Health's Center for Evidence-Based Medicine helps Rhode Island physicians to improve care of their patients. In an increasingly evidence-driven health-care system, the work of the Center is providing the analysis and deeper understanding that allows physicians to incorporate what works – and to avoid what doesn't – in their current practice.

For more information about the Center for Evidence-Based Medicine, visit <http://www.cebm.brown.edu/>.

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Eileen O'Gara-Kurtis is the Founder and President of Silver Branch Communications.



## Creating the Future: Brown University's Executive Master of Healthcare Leadership

ELIZABETH A. KOFRON, PhD

### ABSTRACT

The Affordable Care Act is ushering in a new paradigm for all aspects of the healthcare industry – from hospitals to insurers, from IT companies to physician practice groups. Brown's new executive master's degree in healthcare leadership provides the knowledge healthcare leaders need to navigate this new world. The 16-month program mixes online learning and short campus-based sessions to accommodate the working professional.

**KEYWORDS:** executive master; healthcare leadership; master's program; Brown; healthcare

It's impossible to ignore the dramatic and disruptive changes taking place in American healthcare. Sparked by the familiar but daunting challenges of cost, quality, and access to care, and in response to the 2010 Patient Protection and Affordable Care Act, we are witnessing experiments in healthcare delivery and financing. The goal is nothing less than a 'complete package,' with delivery systems that meet the highest standards of fairness, efficiency, and sustainability; highly effective but affordable products and services that optimize individual health outcomes; and coherent policies that foster an enviable level of population health. Transforming healthcare will be neither fast nor easy but one thing is clear: visionary leaders are needed to reach our goal. Brown University strives to prepare these leaders. In August 2013, clinicians, executives, and senior managers from across the health industry will begin a 16-month journey of intensive study in the Executive Master of Healthcare Leadership (EMHL) program. These highly accomplished professionals will broaden their perspectives, hone their leadership skills, and engage a network of peers to build sustainable solutions for their tough organizational challenges—all while earning a master's degree.

Since no single individual or organization can navigate such a dynamic environment alone, it is critically important to draw upon diverse perspectives. Brown's Healthcare Leadership program delivers a multidisciplinary experience for professionals from across

the health industry. EMHL students are physicians and nurses; top administrators from healthcare systems; executives from biotech, pharmaceutical and insurance companies; patient advocates and leaders from non-profit organizations; and those from consulting, legal, policy, and regulatory settings.

Every student who enters the Healthcare Leadership program is a skilled professional with 10 or more years of health-industry experience, and each identifies a critical organizational challenge to tackle during the program. These professionals move beyond their functional silos, expand their thinking, and create meaningful solutions with their peers. They uncover opportunities and identify partners to advance their organizations and to transform healthcare. EMHL students graduate with forward momentum, a plan to address their critical challenge, and a powerful network of peer consultants.

For executives juggling the demands of work and family, the program's blended format of online and on-campus learning is ideal. During the 16-month program, students travel to Brown four times. Strong bonds are established among the students through the online interaction that starts before they arrive on campus and in the two-week opening session; these relationships deepen further in two one-week sessions on campus, and in the two-week closing session that features the critical challenge projects. The blended format respects students' work, travel and personal commitments; fosters intense interaction; facilitates learning when and where it's convenient; and provides focused time for thinking about the future.

As an added benefit, the online experience is purposefully designed to meet Brown's highest educational standards. Every Healthcare Leadership faculty member is trained in online pedagogy, and instructional design teams prepare every course for online and face-to-face delivery. In an online learning community, all students, not just a dominant few, can engage thoughtfully with the course content and with their peers.

The EMHL curriculum includes data-driven decision making, finance, health IT and electronic records, management and marketing, policy and regulatory issues, strategic planning, quality improvement, and other core topics;



**VIDEO** Overview of Brown's Executive Master of Healthcare Leadership.

and weaves leadership development and discussions of globalization through all courses. EMHL faculty members from Brown and other universities are also health industry practitioners.

In a recent issue of *Rhode Island Medical News* (October 2012), Rhode Island Medical Society President Alyn Adrian, MD, reflected on the era 200 years ago when the Society was founded, and noted that there were no group practices, no specialties or sub-specialties, no third-party payers, and no hospitals in Rhode Island. Today we see physicians establishing Patient-Centered Medical Homes and Accountable Care Organizations, government and community leaders considering the details of the state Health Exchange, insurers designing new reimbursement strategies, and other significant changes. As health leaders face the future in

Rhode Island and across the United States, they will find opportunities to learn and to build sustainable solutions in Brown's Executive Master of Healthcare Leadership program.

The Executive Master of Healthcare Leadership program builds on Brown's proven strengths in public health, public policy, health economics, and evidenced-based medicine at the Warren Alpert Medical School and at the newly designated School of Public Health.

More information about the program is available at [www.Brown.edu/executive](http://www.Brown.edu/executive)

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## Joan Teno, MD: Leader in Crusade for Quality Hospice, Palliative Care

MARY KORR  
RIMJ MANAGING EDITOR

PROVIDENCE – The National Hospice and Palliative Care Organization (NHPCO) presented Joan Teno, MD, MS, with its inaugural Quality Leadership Award in April at its annual leadership conference.

In her acceptance speech, Dr. Teno described hospice as the lone voice that proclaimed dying patients and family matter and said that it initially grew outside of mainstream medical care.

“High-quality hospice care is medical care that is competent, coordinated, patient- and family-centered, and delivered with compassion,” she said. “I am honored to accept this



Dr. Joan Teno accepts the National Hospice and Palliative Care Organization's inaugural Quality Leadership Award at the group's 28th management and leadership conference held in April in Bethesda, MD.

award on behalf of the frontline hospice providers who achieve this vision on a daily basis. They are the heart and soul of hospice.”

Dr. Teno is associate director of the Center for Gerontology and Health Care Research at Brown and a professor of health services policy and practice in the School of Public Health. She is also a palliative-care physician at Home & Hospice Care of Rhode Island.

Dr. Teno described the broad scope of her life's work for the *Rhode Island Medical Journal's* special issue on the inaugural School of Public Health at Brown.

### Q. What led you to specialize in geriatrics and focus your research on palliative and end-of-life care?

A. Two events greatly shaped my career direction. First, my grandfather died of lung cancer. His physician chose not to tell him that he had lung cancer. This robbed me of the chance to say goodbye. He died while I was flying from Rhode Island to San Francisco.

Second, my initial rotation as an intern at Rhode Island Hospital was in the MICU where Dr. Dan Brock, a medical ethicist, rounded with me. Dan helped me to ask the hard questions about how we were making decisions in these seriously ill patients. He encouraged my interest in specializing in geriatrics and to conduct research in end-of-life care. I feel blessed to be able to have a career that allowed me to follow my passion and hopefully make a difference to improve the quality of dying patients and their family.

### Q. Here in Rhode Island, we are aging in place.

#### How dire is the need in Rhode Island for compassionate end-of-life care as compared to the rest of the country?

A. There are important challenges in Rhode Island. We have one of the shortest hospice median length-of-stay and nearly 40% of dying Medicare beneficiaries are on hospice for 3 days or less. Too often dying patients and family do not get the full benefit of hospice care – only 24 hours of intensive management of pain and other symptoms. This is simply wrong. We as a state should work to ensure that dying patients are informed about their prognosis, treatment options and make sure that they are aware of the important benefits of hospice and palliative care. Being the smallest state in the Union, we could be leaders in improving end-of-life care that is competent, patient- and family-centered, coordinated and compassionate.

### Q. Aggressive end-of-life care is not what most patients want. But sometimes there is disagreement within families. How should physicians initiate the discussion with patients and families, who may balk when the physician in the ICU suggests a hospice or palliative-care consultation?

A. First and foremost, bringing up the issue at an early time point is key – don't wait until the patient is actively dying. Hospice is not brink-of-death care, but the full benefits of hospice can't be realized with a length-of-stay of 3 days or less. Prognostication can be difficult. Fortunately, nearly

all hospitals in Rhode Island have physicians and nurse practitioners with expertise in palliative medicine who are there to help physician and other health-care providers with this difficult conversation. So my advice is to utilize those invaluable resources to help seriously-ill patients make choices about their medical care.

#### Resource for MDs

Dr. Teno recommends the Education in Palliative and End-of-Life (EPEC) website: <http://www.epec.net/>

#### Recent study in JAMA shows hospice and aggressive care rising

The Feb. 6, 2013 issue of the *Journal of the American Medical Association* includes a study by Dr. Joan Teno and co-researchers on changes in end-of-life care for Medicare beneficiaries, aged 66 and older, who died in 2000, 2005, or 2009.

In the study, patients were classified as having a medical diagnosis of cancer, chronic obstructive pulmonary disease, or dementia in the last 180 days of life. The study cohort included 848,303 fee-for-service Medicare decedents.

#### Among the findings:

- About 33.5% of Medicare beneficiaries died at home in 2009, 10% more than in 2000.
- 42% died in hospice care in 2009; of these, 28.4% used hospice for 3 days or less.
- Transitions from one care setting to another in the last 90 days of life increased by 50%, from an average of 2 moves in 2000 to 3 in 2009.
- 24% of those who died used the ICU in 2000; the number rose to 29% in 2009.
- Dementia patients spent more time in intensive care in 2009 than in 2000.

In this interview with RIMJ, Dr. Teno stresses the need for physicians and hospitals to focus more on delivering high-quality, patient-centered care that is based on the needs and expectations of an individual approaching the end of life.

#### Full-study reference:

Joan M. Teno, MD, MS, et al. Change in End-of-Life Care for Medicare Beneficiaries. Site of Death, Place of Care, and Health Care Transitions in 2000, 2005, and 2009. *JAMA*. 2013;309(5):470-477.

#### Q. If Medicare pays for a skilled nursing facility and not for an extended stay in an in-patient hospice facility, what's a family to do as they seek compassionate end-of-life care for a loved one?

A. The greatest challenge that we face in health care is that we pay for procedures, we pay for another day in ICU, but we don't provide financial incentives that adequately reward high-quality medical care that includes talking with patients about their prognosis and treatment options. For me, high-quality medical care for a seriously-ill person must educate that patient and their family about their prognosis and treatment options, to help them arrive at their goals of care, and then the physician works with a multidisciplinary team to develop a plan of care that honors those goals.

#### Q. What opportunities will be created by the transition from the program in public health to the School of Public Health at Brown in terms of your research? And in preparing a new generation of palliative-care physicians, academicians and researchers?

A. Brown University has played a very important role in research on the quality of end-of-life care, starting with the National Hospice Study run by former medical school Dean David Greer. At the formulation of hospice in the United States, Dean Greer, Dr. Vince Mor and others played a critical role in evaluating hospice from its onset.

Since that time, my colleagues in the public health program have conducted a number of important studies. Susan Miller has evaluated the role of hospice in the nursing home (NH), producing key research that provides the justification for hospice in the NH. Pedro Gozalo has evaluated the potential cost saving of hospice. Dean Fox Wetle and Renee Shield conducted qualitative research that highlighted the important unmet needs and suffering of dying patients in nursing homes.

I have been very fortunate to partner with the National Hospice and Palliative Care Organization to create the Family Evaluation of Hospice Care Survey that has allowed hospice to audit and improve their quality of care.

And, working with Dr. Mor and Gozalo, we have produced a number of studies that have examined the role of feeding tubes in persons with advanced cognitive impairment – this research has been cited by the American Academy of Hospice and Palliative Medicine (AAHPM) and the American Geriatric Society (AGS). It showed that physicians should offer hand feeding rather than a feeding tube, given the evidence that feeding tubes do not improve survival. And our research found that insertion of a feeding tube during hospitalization may increase the risk of a pressure ulcer by more than twofold.

The School of Public Health will provide an opportunity for Brown to continue in our role of conducting policy-relevant research focusing on the important needs of seriously-ill and dying patients.

## Kahler's Research Bridges Behavioral/Social Sciences and Medical Care

MARY KORR  
RIMJ MANAGING EDITOR

PROVIDENCE – For Christopher Kahler, professor of behavior and social sciences at Brown, the path from poet to psychologist intersected in New Mexico. Upon graduation from Brown in 1991, with a concentration in literature and creative writing, he drove cross-country, stopped to visit a friend in Santa Fe, and decided to stay awhile.

He found a job working with adolescents in an addiction treatment center. “I learned pretty quickly that just as the purely creative process of writing poetry wasn’t a good match for me, purely clinical work wasn’t either,” he reflected. “I missed the academic connection.”

He decided to pursue a career in clinical psychology, and earned his master’s and doctoral degrees in that discipline at Rutgers University. His final year was spent interning at Brown, which he described as having “one of the best research-focused clinical psychology internship programs in the country.”

In his office overlooking the Providence Riverwalk, Kahler reflected on his serendipitous career choice. “What I do now is a creative process but it’s also a scientific and quantitative process. Working as part of a team in a helping field ended up being a good middle ground for me.”

That is somewhat of an understatement. In 2011, two decades after graduating from Brown, Kahler was appointed the inaugural chair of the Department of Behavioral and Social Sciences at Brown. It is one of four departments within the Brown School of Public Health. He enumerated the benefits of the program-to-school transition.

“For the Department of Behavioral and Social Sciences, connecting with a school of public health clarifies our identity across the kinds of behaviors we address. We can attract faculty and students as we leverage the different sciences that fall under the umbrella of the social sciences. And it’s a real help for us in defining our areas of expertise within the state and nationally,” Kahler said.



MIKE COHEA/BROWN

### Alcohol and HIV (ARCH) grant collaborations

Kahler’s area of expertise is on the etiology, assessment, and treatment of excessive drinking and alcohol dependence and the comorbidities between alcohol and smoking.

As the associate director of the Center for Alcohol and Addiction Studies (CAAS) at Brown, he works on a wide array of multidisciplinary research related to these areas.

Currently, he is scientific director and primary investigator of the research components of a five-year, \$7.5 million grant, funded in 2010 by the National Institute on Alcohol Abuse and Alcohol (NIAAA). The Alcohol Research Center on HIV (ARCH) study is focused on reducing the impact of alcohol on the HIV epidemic.

“The interesting part of ARCH as compared to other grants is that we took a very strong Center for Alcohol and Addiction study that’s been at Brown for almost 30 years now and aligned it with Lifespan/Tufts/Brown Center for Aids Research (CFAR),” Kahler said.

One of CFAR’s directors, Dr. Kenneth Mayer, adjunct professor of epidemiology at the Brown School of Public Health, has had a long-standing research relationship with the Fenway Community Health Center (FCHC) in Boston, and it serves as the main primary-care site for ARCH’s randomized clinical trial of brief interventions for excessive drinking among HIV-infected men who have sex with men (MSM).

In addition, at the Immunology Center at The Miriam Hospital, ARCH researchers are investigating how alcohol use affects changes in brain structure and function, and examining how much those

changes result from HIV versus the affects of alcohol over time. Within that, Kahler said, “we bring in expertise in liver function, and how that may be affected by HIV and alcohol, looking at basic factors in immunology and replication of the virus and how alcohol may be involved there.”

Kahler expects the NIAAA to compile ARCH’s “broad

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— Christopher Kahler

sweep” by synthesizing the results of nationwide clinical trials at the completion of the grant cycle in 2015 and assessing its impact on population health and costs nationwide.

### Pharmacotherapy, behavioral approaches in smoking cessation

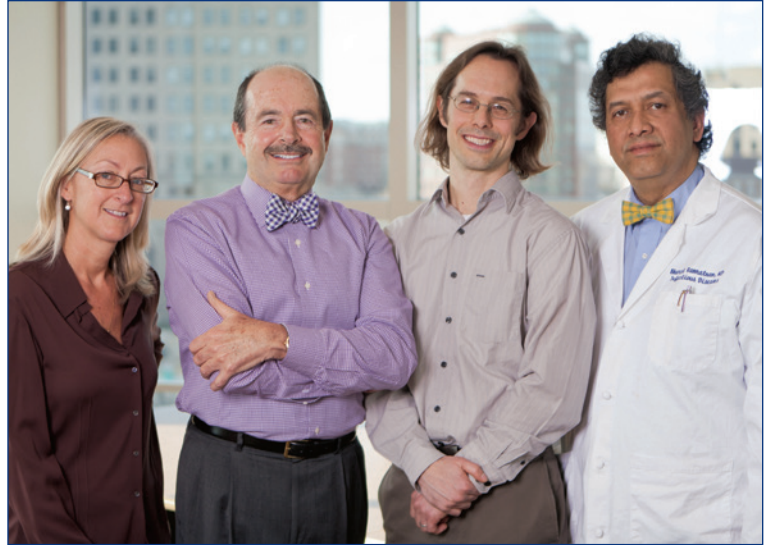
In the area of smoking cessation, Kahler’s research focuses on pharmacotherapy and/or behavioral interventions. “One of the things we are doing right now is looking at heavy drinkers who want to quit smoking. Can we treat the alcohol use at the same time with a medication, in this case naltrexone, so that their alcohol use is reduced while they’re quitting smoking? The goal is to increase the likelihood that they quit smoking successfully but also down the road this lays the groundwork for making and retaining changes in their drinking,” he said.

Another area under investigation in smoking cessation is the use of what is known as positive psychology. “We are examining strength-based interventions for people who are trying to quit smoking,” Kahler said. “We’re looking at traits that help people adapt and cope. It could be humor, gratitude, spirituality, leadership, or willingness to help others. The question is: Can we harness those traits, to help them change health behaviors?”

### Public health momentum

In addition to his research, Kahler has played a key role in teaching and training students. He said the master’s program applicant pool in public health continues to increase each year and he expects his department to offer a doctoral program in 2014.

He also noted the program-to-school public health transition will give Brown undergraduate students exposure to a wider breadth of public health experiences. For example, he



SCOTT KINGSLEY

Faculty and research collaborators at the Center for Alcohol and Addiction Studies include, from left:

**Suzanne Colby**, PhD, Associate Professor of Psychiatry and Human Behavior (Research), Director of Postdoctoral Training, CAAS;

**Peter M. Monti**, PhD, Donald G. Millar Distinguished Professor of Alcohol and Addiction Studies, Director of CAAS, Director of ARCH;

**Christopher Kahler**, PhD, Chair of the Department of Behavioral and Social Sciences and Scientific Director of ARCH, and

**Bharat Ramratnam**, MD, Associate Professor of Medicine and Director of the Laboratory of Retrovirology, Department of Medicine

said, “students could be learning how to get antiretrovirals distributed to HIV-infected people in Africa, or how to address obesity in inner-city kids.” In addition, students will see a broader and diverse spectrum of health career options.

And Kahler expects fruitful and interdisciplinary teaching and research partnerships to flourish between the Brown School of Public Health and the Alpert Medical School.