There's a...

.002% chance you'll ever need a neuro-oncologist.

.001% chance you'll ever need a surgical epileptologist.

.00135% chance you'll ever need a certified Burn Center.

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Many hospitals can give you the care you need. World class hospitals are prepared to give you *all* the care you *may ever* need. With the area's only Level I trauma center, some of the most advanced equipment on earth and literally hundreds of specialists, Rhode Island Hospital is truly a world class hospital, ready to meet the needs you expect— as well as those you don't.

Rhode Island Hospital

A Lifespan Partner

Rhode Island Hospital is the principal teaching hospital of The Warren Alpert Medical School of Brown University.

Cardiovascular Institute Researcher Develops First Blood Test to Predict Risk of Sudden Cardiac Death

Pilot trial shows blood test much more effective than current risk stratifications

PROVIDENCE – A researcher at the Cardiovascular Institute (CVI) at Rhode Island, The Miriam and Newport hospitals has found that a simple blood test can predict a person's risk for sudden cardiac death, enabling physicians to more quickly and accurately assess a patient's need for an implantable cardiac defibrillator (ICD).

That paper by **SAMUEL C. DUDLEY, MD, PhD**, chief of cardiology at the CVI, is published online in advance of print in the *Journal of the American College of Cardiology*.

"This is the first test of its kind; never before have clinicians been able to accurately assess a patient's risk of sudden cardiac death by performing a blood test," Dr. Dudley said. "The primary prevention model for at-risk patients in the U.S. is to implant an ICD before a cardiac event happens. While it's better to be safe, this has led to widespread overuse of ICDs throughout the U.S. and abroad."

Dr. Dudley continued, "With this blood test, we can refine the need for such a device, and instead implant the cardiac defibrillators only in the most severe cases of sudden cardiac death risk."

LIFESPAN

Samuel C. Dudley, MD

The new blood test is in a pilot phase in a large, multisite trial led by Dr. Dudley and other researchers at Lifespan's CVI anticipated to start this fall. ❖

RIH Researchers Find Increase in Patients Admitted with Infections Resistant to Common Antibiotics

Study reviewed patients with community-acquired, healthcare-associated and hospital-acquired infections

PROVIDENCE – The emergence of community-acquired infections, such as urinary tract infections (UTI), due to strains resistant to common antibiotics are on the rise, according to Rhode Island Hospital researchers. The study is published online in the journal *Antimicrobial Resistance and Infection Control*.

"Over the last several years, we've seen an increase in the number of bacteria – many of which are forms of E. coli – that are resistant to commonly administered antibiotics," said **LEONARD MERMEL, DO**, medical director of the department of epidemiology and infection control at Rhode Island Hospital. "However, we also found that many of these bacteria causing urinary tract infections were susceptible to an older, inexpensive antibiotic, nitrofurantoin."

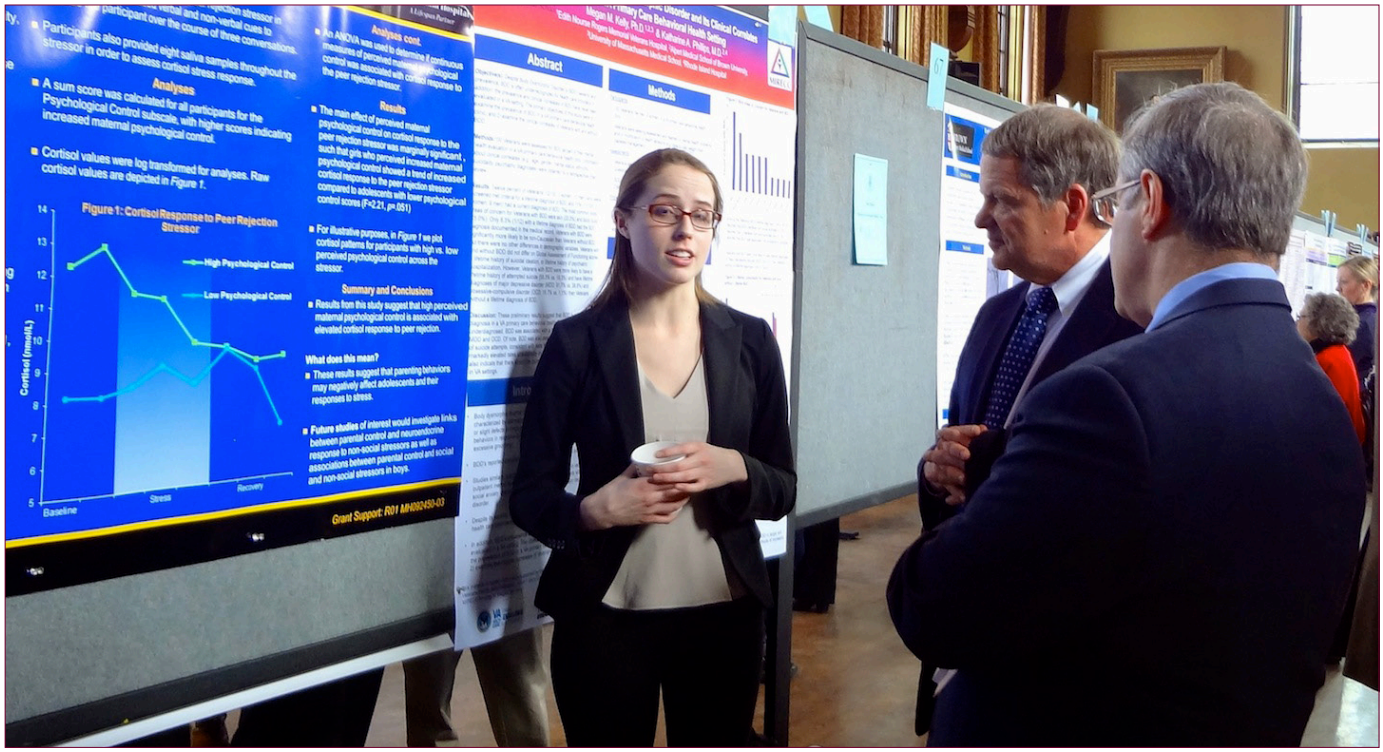
The study involved patients with infections documented from 2006 to 2011 that were due to extended-spectrum beta-lactamase (ESBL)-producing bacteria. These bacteria are resistant to most antibiotics in the penicillin and cephalosporin families of antibiotics. The incidence of infections due to these microorganisms is increasing, which creates a challenge regarding appropriate antimicrobial therapy, especially in a community or outpatient setting where oral antibiotics are used.

The study noted the emergence of community-acquired infections due to ESBL-producing bacteria, a significant increase in healthcare-associated infections, as well as E. coli becoming the predominant pathogen in all three acquisition groups (community-acquired, healthcare-associated, and hospital-acquired). The researchers found high levels of resistance to the antibiotics Ciprofloxacin and Trimethoprim-Sulfamethoxazole (TMP-SMZ), which could lead to poor outcomes in the community as these are the commonly used antibiotics in outpatient settings for urinary tract infections.

"Recognizing the strains that are resistant to common antibiotics is critical to providing proper treatment and better outcomes," Dr. Mermel said. "The incidence of overall antibiotic resistance is also on the rise, likely due to overuse in both humans and farm animals, so what may have been effective in the past, may no longer work to fight infection today. Therefore, greater efforts in controlling unnecessary antibiotic use in the community, healthcare settings, and in agriculture are critical."

"The overuse of antibiotics is a big concern, with real implications for patients," said co-author **STEVE KASSAKIAN, MD**. "It's imperative that we determine why these bacteria are resistant to some antibiotics so that we can develop new ones to combat dangerous, and possibly fatal infections." ❖

MindBrain Research Day



PHOTOS BY MARY KORR

Dr. Steven Rasmussen and Alpert Medical School Dean Jack Elias speak to one of the presenters at the inaugural MindBrain Research Day held March 25th at Brown University. The poster display was followed by a keynote lecture, given by Emory University Professor Helen Mayburg, MD, a psychiatrist and an expert on deep brain stimulation (DBS) and the neurocircuitry of depression

Students, physicians and researchers affiliated with the Brown Institute for Brain Science and the Norman Prince Neurosciences Institute and the Alpert Medical School and its affiliated hospitals presented 157 research projects in a poster display in a packed Sayles Hall. The day builds upon an 18-year tradition begun by the Department of Psychiatry and Human Behavior in the Alpert Medical School, and was also sponsored by the Departments of Neurology and Neurosurgery.

WOMEN & INFANTS

Pictured at the ribbon cutting for Women & Infants' new Obstetric Evaluation Unit are, left to right: Angelleen Peters-Lewis, RN, PhD, senior vice president of patient care services and chief nursing officer; Dr. Roxanne Vrees, medical director of emergency obstetrics & gynecology; Dr. Maureen Phipps, chief of obstetrics & gynecology; Mark Marcantano, president; Dr. Ray Powrie, Care New England chief medical quality officer and senior vice president for quality and clinical effectiveness; and Tracey Casala, nurse manager, emergency obstetrics and gynecology.

Women & Infants Unveils Obstetric Evaluation Unit

PROVIDENCE – Women & Infants Hospital held a ribbon-cutting ceremony on April 3 for its new Obstetric Evaluation Unit in the Division of Emergency Obstetrics and Gynecology. This new, state-of-the-art, seven-bed unit, an expansion to the hospital's current Emergency Department, will serve as a dedicated space to provide high quality, efficient care to obstetric patients. In addition, the Obstetric Evaluation Unit will foster a more integrated model of care between the Emergency Department and the hospital's Labor, Delivery and Recovery Unit.

The expansion increases the Emergency Department's bed capacity by 60% to 19 total beds, and also provides two dedicated ultrasound rooms, a three-bed triage bay, and a dedicated infant resuscitation area for Women & Infants' neonatal intensive care unit team to safely and effectively evaluate infants following an imminent delivery.

"This new unit provides a beautiful, state-of-the-art space for pregnant women. Our new space will improve a patient's experience by reducing emergency department wait times, enabling health care providers to see patients sooner and streamlining care," said **MAUREEN G. PHIPPS, MD, MPH**, chief of obstetrics and gynecology at Women & Infants Hospital, executive chief of obstetrics and gynecology at Care New England Health System, Chair and Chace-Joukowsky Professor in the Department of Obstetrics & Gynecology and assistant dean for teaching and research in women's health at The Warren Alpert Medical School of Brown University.

ROXANNE VREES, MD, medical director of emergency obstetrics and gynecology at Women & Infants, said, "Our new Obstetric Evaluation Unit allows our highly skilled team to continue to provide efficient, high quality care while emphasizing our dedication to a family-centered model." ❖

Women & Infants Researchers Present Study at National Conference

Work uses technology to isolate cancer in the sentinel lymph node

PROVIDENCE – A team of researchers from Women & Infants Hospital of Rhode Island's Program in Women's Oncology and Division of Pathology and Laboratory Medicine presented the results of a study evaluating the use of sentinel lymph node dissection in women with vulvar malignancies, and then follow the patients for complications and recurrence.

The team – **DRS. RICHARD G. MOORE, DARIO ROQUE, CAROLYN MCCOURT, ASHLEY STUCKEY, PAUL A. DISILVESTRO, JAMES SUNG, MARGARET STEINHOFF, CORNELIUS GRANAI III, AND KATINA ROBISON** – presented their work at the annual meeting of the Society of Gynecologic Oncologists (SGO) in Tampa. The oral presentation was part of the main plenary session at the meeting.

The study is entitled "Isolated sentinel lymph node biopsy with conservative management in women diagnosed with vulvar cancer." Using radioactive dye and blue dye, gynecologic oncology surgeons are able to identify and remove just the sentinel node.

"The object of this study was to examine the sentinel lymph node alone in women with squamous cell carcinoma of the vulva and evaluate their recurrence in the groin and any complication rates," Dr. Moore explains. "We discovered that removing just the sentinel node had decreased complication while maintaining a low rate of further occurrence of malignancy.

"This should be considered an option for women with squamous cell carcinoma of the vulva."

The study, the largest prospective trial on sentinel lymph node dissection among women with vulvar cancer in the United States, included 73 women with 69 undergoing sentinel node dissection. Fifty-seven of those women were managed conservatively. Three experienced groin recurrences, for a recurrence rate of 5.2 percent.

Women whose sentinel node tested negative for metastasis were followed clinically without further treatment. Women with metastasis to the sentinel lymph node underwent full groin node dissection and were then followed by standard treatment protocols. ❖

Researchers Identify Similarities Between HIV-AIDS and Opioid Addiction Epidemics

PROVIDENCE – There are important parallels between the early years of the HIV/AIDS epidemic and the current epidemic of opioid addiction – ones that could trigger a significant shift in opioid addiction prevention, diagnosis and treatment.

Josiah D. Rich, MD, MPH

These are the findings of a comparative review of HIV/AIDS and addiction by researchers **JOSIAH D. RICH, MD, MPH**, director of the Center for Prisoner Health and Human Rights, based at The Miriam Hospital; **TRACI C. GREEN, PHD, MSC**, Department of Emergency Medicine at Rhode Island Hospital and assistant professor of Emergency Medicine and Epidemiology at the Warren Alpert Medical School of Brown University; and lead author **SARAH E. WAKEMAN, MD**, Department of Medicine and Center for Community Health Improvement, Massachusetts General Hospital. The paper is published online in advance of print in the *American Journal of Medicine*.

"Deaths documented by the Centers for Disease Control and Prevention have been on the rise, and that profile bears a striking resemblance to the beginning stages of the human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS) epidemic," said Dr. Rich. "There are lessons learned from the HIV/AIDS epidemic that should be heeded and should drive a parallel response to today's crisis: addiction."

In the paper, "From Documenting Death to Comprehensive Care: Applying Lessons from the HIV/AIDS Epidemic to Addiction," researchers detail how the HIV/AIDS epidemic spurred a novel public health approach centered on human rights. That included biomedical breakthroughs and life-saving treatment, and community advocacy and activism played key roles. Fast forward 30 years and the global response to HIV/AIDS has attracted an unprecedented commitment of resources and international aid, and there are predictions for its end. Researchers assert that a parallel response is needed in response to the epidemic of addiction.

Similar to HIV/AIDS, many addiction victims are young, previously healthy and already stigmatized. Effective care is compromised by a public perception that only certain groups become addicts. The death toll of the two epidemics is comparable, but the response to opioid addiction is not yet as effective: every 19 minutes another American dies from an unintentional overdose.

Affecting 40 million Americans, or 15.9 percent of the population, addiction to drugs, alcohol and tobacco has a greater public impact than heart conditions, diabetes or cancer. Opioid-use disorders are the fastest-growing type of drug problem. According to researchers, much of the current exposure to opioids is linked to the explosion of widely available, potent prescription painkillers that have an identical effect in the brain as heroin. Although many benefit from substantial pain relief and improved quality of life, prescription opioids now kill more people than heroin and cocaine combined. Researchers note that while prevalent, addiction has been marginalized as a social problem setting it apart from other diseases, with barriers to treatment ranging from stringent criteria for entry to limited availability of treatment.

Dr. Rich and others are spearheading a RI "collaborative practice agreement" that allows anyone to walk into a Walgreens in RI and obtain naloxone (or Narcan) – a drug that quickly reverses an opioid overdose, along with training on how to use it.

Researchers described the need for a comprehensive prevention, diagnosis and treatment campaign to fight overdose, along with standard-of-care treatment models based on existing evidence. They propose more education for the medical community and that educational resources for addiction in medical training be on par with that of other chronic diseases. Also, as with HIV/AIDS, patients suffering from addiction should be involved in the design and implementation of programs and products designed to serve them.

Immediate steps that can address the catastrophic death toll from unintentional overdose include a balance of harm reduction and supply-side and demand-oriented interventions, such as:

Regularly prescribe, train in use of, and distribute naloxone.

Reformulate pain medications and decrease availability of painkillers through physical education, prescription drug-monitoring programs, and crackdowns on "pill mills."

Increase access to evidence-based treatment, including medications like buprenorphine and methadone.

Funding to support the investigators, all of whom are affiliated with The Center for Prisoner Health and Human Rights, has been received from The National Institute on Drug Abuse (NIDA), The National Institute on Allergy and Infectious Diseases (NIAID), and the Centers for Disease Control and Prevention (CDC). ❖

Sen. Sheldon Whitehouse gave the keynote lecture on health and climate change at Brown's annual Dr. and Mrs. Frederick W. Barnes Jr. Lecture.

Sen. Whitehouse Sounds Alarm on Climate Change, Health

MARY KORR
RIMJ MANAGING EDITOR

PROVIDENCE – Brown's Public Health Research Day in April took on a sense of urgency as Sen. Sheldon Whitehouse delivered a sobering lecture on climate change and its effects on public health "in a time of unprecedented carbon release in the air and oceans."

Introduced by Brown President Christina Paxson, Senator Whitehouse delivered the annual Dr. and Mrs. Frederick W. Barnes Jr. Lecture on the interface of medicine, society and public health. He targeted climate-change deniers "who ignore all the scientific evidence," including colleagues in Congress.

He also stated his opposition to the Keystone XL Pipeline. "Keystone would pump tar sands oil – one of the filthiest fuels on earth – a carbon impact equivalent of adding 5.7 million cars to our roads," he said.

Recently he met with doctors, researchers and people who live near tar sands mining operations, refineries and dumps to discuss the specific health problems they see there: asthma, lung disease, cancer, heart disease. "With the support of the American Public Health Association and the National Association of County and City Health Officials, Sen. Barbara Boxer (CA) and I have asked the State Department to conduct an independent study of the human health effects of tar sands oil and the Keystone pipeline before making a decision on whether it should proceed."

Sen. Sheldon Whitehouse considers a question from Brown School of Public Health Dean Terrie Fox Wetle during his Public Health Research Day keynote lecture.

Carbon pollution

In the lecture, Senator Whitehouse also noted the improvements in air quality and health savings ($30 saved in health costs for every $1 spent) achieved through the Clean Air Act are being eroded as ground-level ozone (smog), a major pollutant on 'bad air' days, increases.

In Rhode Island, he said, about 12% of children and 9% of adults suffer from asthma, higher than the national average, so these bad air days hit home. There are days in summer when "even healthy people are urged to limit their activities."

> **'In Rhode Island, about 12% of children and 9% of adults suffer from asthma, higher than the national average, so these bad air days hit home.' —Sen. Whitehouse**

He also noted:

- Climate change prolongs the allergy season; since 1995, ragweed season has increased across the country anywhere from 13-25 days.
- Warming oceans and lakes cause rising algae bloom levels, 'red tides', which can lead to neurotoxic shellfish poisoning.
- Longer summers and shorter winters are predicted to increase exposure to ticks, mosquitoes and the diseases they carry.
- Increased risk of floods, sewage overflow and potential contamination to the water supply, as happened in Warwick several years ago, resulting in the city shutting down the sewage treatment plant.
- Increases the risk for more severe weather, heat waves and droughts.

What RI is doing

Sen. Whitehouse said the R.I. Climate Change and Health Project, part of a national effort supported by a CDC initiative, is helping the state and public prepare for the health effects related to climate change with an emphasis on identifying vulnerable populations. For example, the Rhode Island Dept. of Health is working with the Dept. of Elderly Affairs in this effort.

He also said the Dept. of Health is working with the Dept. of Environmental Management (DEM) and the Dept. of Transportation (DOT) to pilot a Lyme disease prevention program for outdoor workers.

In 2010, he added, Rhode Island created a Climate Change Commission, which has identified climate risk to key infrastructures. He also noted that for the past four years, the state has been a part of the Regional Greenhouse Gas Initiative (RGGI). "Our region caps carbon emissions and sells emission allowances through auctions, which has created economic incentives for utilities to invest in renewable energy development," he said. "This spurs innovations and creates green jobs."

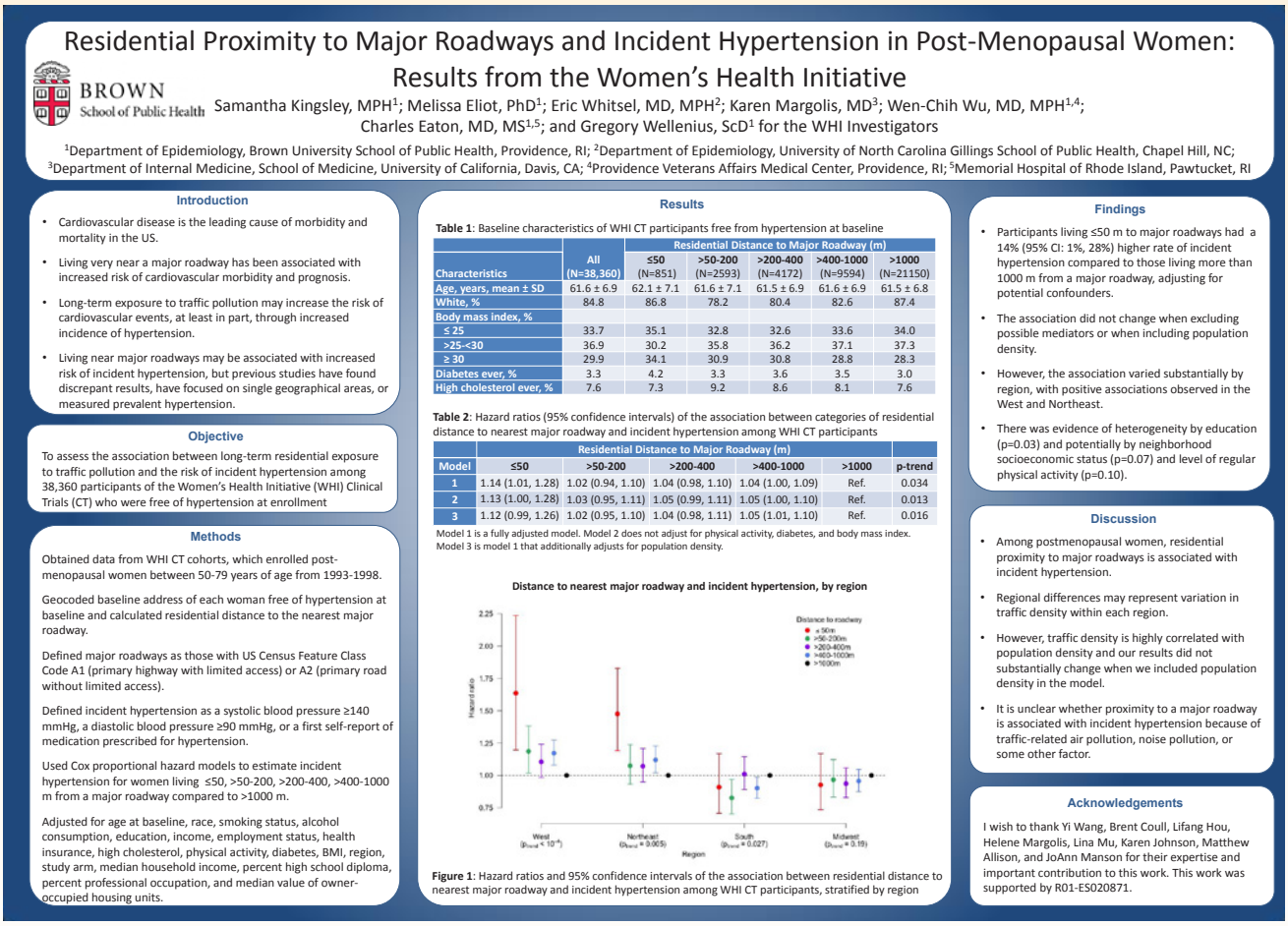
He ended his talk by stating that "Congress is asleep and Congress needs to wake up."

In the Q&A following the talk, Dr. Richard Besdine, professor of medicine and professor of health services policy & practice, said: "The health consequences of what we've done to the planet are so striking…Public health is out in front of this, but in organized medicine there might be some allies to bring to the battle who can be more effective in the health argument."

Data-driven evidence is key, Sen. Whitehouse responded, and noted the partnership of Brown's School of Public Health and the Dept. of Health to examine correlations between rising temperatures and hospital admissions.

Another member of the audience expressed concern about possible toxins in the plastic baby bottles she uses. Sen. Whitehouse admitted the road ahead to fight carbon and other pollutants is a tough one, exacerbated by industry lobbyists, but the duty of this generation.

The research day was sponsored by the Brown School of Public Health, the Environmental Change Initiative, the Rhode Island Department of Health, and the Rhode Island Public Health Association.



Residential Proximity to Major Roadways and Incident Hypertension in Post-Menopausal Women: Results from the Women's Health Initiative

BROWN School of Public Health

Samantha Kingsley, MPH[1]; Melissa Eliot, PhD[1]; Eric Whitsel, MD, MPH[2]; Karen Margolis, MD[3]; Wen-Chih Wu, MD, MPH[1,4]; Charles Eaton, MD, MS[1,5]; and Gregory Wellenius, ScD[1] for the WHI Investigators

[1]Department of Epidemiology, Brown University School of Public Health, Providence, RI; [2]Department of Epidemiology, University of North Carolina Gillings School of Public Health, Chapel Hill, NC; [3]Department of Internal Medicine, School of Medicine, University of California, Davis, CA; [4]Providence Veterans Affairs Medical Center, Providence, RI; [5]Memorial Hospital of Rhode Island, Pawtucket, RI

Introduction

- Cardiovascular disease is the leading cause of morbidity and mortality in the US.
- Living very near a major roadway has been associated with increased risk of cardiovascular morbidity and prognosis.
- Long-term exposure to traffic pollution may increase the risk of cardiovascular events, at least in part, through increased incidence of hypertension.
- Living near major roadways may be associated with increased risk of incident hypertension, but previous studies have found discrepant results, have focused on single geographical areas, or measured prevalent hypertension.

Objective

To assess the association between long-term residential exposure to traffic pollution and the risk of incident hypertension among 38,360 participants of the Women's Health Initiative (WHI) Clinical Trials (CT) who were free of hypertension at enrollment

Methods

Obtained data from WHI CT cohorts, which enrolled post-menopausal women between 50-79 years of age from 1993-1998.

Geocoded baseline address of each woman free of hypertension at baseline and calculated residential distance to the nearest major roadway.

Defined major roadways as those with US Census Feature Class Code A1 (primary highway with limited access) or A2 (primary road without limited access).

Defined incident hypertension as a systolic blood pressure ≥140 mmHg, a diastolic blood pressure ≥90 mmHg, or a first self-report of medication prescribed for hypertension.

Used Cox proportional hazard models to estimate incident hypertension for women living ≤50, >50-200, >200-400, >400-1000 m from a major roadway compared to >1000 m.

Adjusted for age at baseline, race, smoking status, alcohol consumption, education, income, employment status, health insurance, high cholesterol, physical activity, diabetes, BMI, region, study arm, median household income, percent high school diploma, percent professional occupation, and median value of owner-occupied housing units.

Results

Table 1: Baseline characteristics of WHI CT participants free from hypertension at baseline

		Residential Distance to Major Roadway (m)				
Characteristics	All (N=38,360)	≤50 (N=851)	>50-200 (N=2593)	>200-400 (N=4172)	>400-1000 (N=9594)	>1000 (N=21150)
Age, years, mean ± SD	61.6 ± 6.9	62.1 ± 7.1	61.6 ± 7.1	61.5 ± 6.9	61.6 ± 6.9	61.5 ± 6.8
White, %	84.8	86.8	78.2	80.4	82.6	87.4
Body mass index, %						
≤ 25	33.7	35.1	32.8	32.6	33.6	34.0
>25-<30	36.9	30.2	35.8	36.2	37.1	37.3
≥ 30	29.9	34.1	30.9	30.8	28.8	28.3
Diabetes ever, %	3.3	4.2	3.3	3.6	3.5	3.0
High cholesterol ever, %	7.6	7.3	9.2	8.6	8.1	7.6

Table 2: Hazard ratios (95% confidence intervals) of the association between categories of residential distance to nearest major roadway and incident hypertension among WHI CT participants

	Residential Distance to Major Roadway (m)					
Model	≤50	>50-200	>200-400	>400-1000	>1000	p-trend
1	1.14 (1.01, 1.28)	1.02 (0.94, 1.10)	1.04 (0.98, 1.10)	1.04 (1.00, 1.09)	Ref.	0.034
2	1.13 (1.00, 1.28)	1.03 (0.95, 1.11)	1.05 (0.99, 1.11)	1.05 (1.00, 1.10)	Ref.	0.013
3	1.12 (0.99, 1.26)	1.02 (0.95, 1.10)	1.04 (0.98, 1.11)	1.05 (1.01, 1.10)	Ref.	0.016

Model 1 is a fully adjusted model. Model 2 does not adjust for physical activity, diabetes, and body mass index. Model 3 is model 1 that additionally adjusts for population density.

Distance to nearest major roadway and incident hypertension, by region

Figure 1: Hazard ratios and 95% confidence intervals of the association between residential distance to nearest major roadway and incident hypertension among WHI CT participants, stratified by region

Findings

- Participants living ≤50 m to major roadways had a 14% (95% CI: 1%, 28%) higher rate of incident hypertension compared to those living more than 1000 m from a major roadway, adjusting for potential confounders.
- The association did not change when excluding possible mediators or when including population density.
- However, the association varied substantially by region, with positive associations observed in the West and Northeast.
- There was evidence of heterogeneity by education (p=0.03) and potentially by neighborhood socioeconomic status (p=0.07) and level of regular physical activity (p=0.10).

Discussion

- Among postmenopausal women, residential proximity to major roadways is associated with incident hypertension.
- Regional differences may represent variation in traffic density within each region.
- However, traffic density is highly correlated with population density and our results did not substantially change when we included population density in the model.
- It is unclear whether proximity to a major roadway is associated with incident hypertension because of traffic-related air pollution, noise pollution, or some other factor.

Acknowledgements

I wish to thank Yi Wang, Brent Coull, Lifang Hou, Helene Margolis, Lina Mu, Karen Johnson, Matthew Allison, and JoAnn Manson for their expertise and important contribution to this work. This work was supported by R01-ES020871.

At the poster session, researchers in the Brown University School of Public Health, the Environmental Health Initiative, the Rhode Island Department of Health, and others displayed and discussed posters describing their research in Rhode Island and around the world. The environmental theme winner was Samantha Kingsley for the poster entitled "Residential Proximity to Major Roadways and Incident Hypertension in Post-Menopausal Women: Results from the Women's Health Initiative."

MEMORIAL HOSPITAL

From left, Memorial Hospital of Rhode Island's, Michael Pepi, MD, obstetrician/ gynecologist-in-chief; Shirley Picard, RN, nurse manager of The Birthing Center; Susanna Magee, MD, MPH, director of the Maternal Child Health Program; and Edward Schottland, acting president, at the ceremonial opening of the renovated Birthing Center.

Memorial Cuts Ribbon on Updated Labor-Delivery-Recovery Rooms

PAWTUCKET – Clinical staff and leadership at Memorial Hospital of Rhode Island recently cut the ribbon on newly refreshed labor-delivery-recovery (LDR) rooms in the hospital's Birthing Center.

Each of the four LDRs and the adjacent hallway and nurse's station were repainted, flooring was repaired and a new counter was installed at the nurse's station, configured for improved staff workflow. The result is a larger, more inviting and more patient- and family-centered environment.

The work was made possible through a fundraiser "Labor of Love," coordinated by staff in The Birthing Center, which raised more than $20,000.

"Memorial Hospital has distinguished itself as the place for a personalized birthing experience," says **MICHAEL PEPI, MD**, obstetrician- and gynecologist-in-chief at Memorial, noting that The Birthing Center is recognized by the Childbirth and Postpartum Professional Association for providing excellence in mother-friendly maternity care.

"Our laboring mothers deserve a serene place in which to give birth and these updated LDRs reflect the commitment we have to providing a homey, comfortable environment for them," adds **SUSANNA MAGEE, MD, MPH**, who helped coordinate the fundraising efforts for the work.

The Birthing Center offers showers and a spacious labor tub for hydrotherapy during labor. There are also birth balls, music therapy, aromatherapy and a labor support box for each LDR so partners, nurses and doulas have supplies on hand to provide for individualized birth experiences. ❖

Memorial Dedicates Room to Honor Blood Donors

PAWTUCKET – Memorial Hospital of Rhode Island recently dedicated the main lobby waiting room in honor of its own and its employees' commitment to blood donation.

It was dedicated as a Seasons' Pass room. The Rhode Island Blood Center's Seasons' Pass program was initiated 12 years ago, to recognize and thank four-time-a-year blood donors and four-time-a-year blood drive sponsors.

Since the program began, the number of four time a year donors has more than doubled to over 10,000. Conservatively in its first 11 years more than 55,000 additional pints of blood have been collected because of the program, meaning that more than 165,000 individuals and families have been given hope and life – virtually the population of Providence.

MEMORIAL HOSPITAL

Pictured left to right, Christine Hannon, artist; Edward Schottland, acting president, Memorial Hospital of Rhode Island; Scott Asadorian, chief operating officer, Rhode Island Blood Center; Frank Prosnitz, communications manager, Rhode Island Blood Center; and Michael Gama, a former Narragansett police officer who received a marrow transplant and several blood transfusions while battling leukemia a few years ago.

Memorial Hospital, which has been running four or more blood drives a year, held its first blood drive in November 1980. Since then, hospital blood drives have collected nearly 6,200 pints of blood. Each pint of blood that is collected is separated into three components, distributed to three different recipients, resulting in the Memorial blood drive program potentially helping well over 18,000 individuals.

At the press conference, Michael Gama, a former Narragansett police officer, shared his story of survival. Michael, who was suffering from leukemia, received a marrow transplant and several blood transfusions on his road to recovery. Recently, he met his marrow donor, Catherine Prince of North Carolina at an event sponsored by the Rhode Island Blood Center.

Edward Schottland, acting president, Memorial Hospital, praised the dedication of blood donors and the hospital's commitment to blood donation. Scott Asadorian, the Rhode Island Blood Center's chief operating officer, recognized that it is organizations like Memorial Hospital that help assure a regular and consistent blood supply for patients that need it. Christine McIntyre-Hannon, this year's Seasons' Pass artist, signed prints of her painting for four-time-a-year donors. ❖

2014
Heart Ball
SATURDAY
June 14th
Marble House Mansion
Newport, Rhode Island
Join us for an elegant evening of dinner and dancing at one of Newport's architectural gems, as we highlight research and education, focused on children with congenital heart defects.
David Rozen, Chair
CFO, Alex and Ani
Reserve your seat at
SNEHeartBall.heart.org
or call 401-330-1706
American Heart Association®
heart ball

Memorial Opens Comprehensive Hernia Center

PAWTUCKET – Memorial Hospital of Rhode Island has opened The Comprehensive Hernia Center, led by surgeons **PETER S. GILL, MD, FACS**, surgeon-in-chief at Memorial, and **ALFREDO C. CORDOVA, MD**, both members of Affinity Physicians, an affiliate of Care New England Health System. The center offers highly specialized care for people with all types of hernias, including all the latest treatments in hernia surgery, to ensure the best possible outcomes.

"This is the only place where a patient with a hernia can find expert surgical care as well as access to a comprehensive group of medical professionals, including wound care specialists, nutritionists, physical therapists, pain service specialists, gastroenterologists and diagnostic imaging specialists," Dr. Gill explains.

"Surgery isn't always the answer. Some patients may feel relief from dietary changes or other lifestyle modifications," adds Dr. Cordova, who is Spanish speaking. "We provide both medical and surgical approaches to caring for all types of abdominal cavity hernias and carefully tailor the approach to each patient's needs."

Both doctors are part of the American Hernia Society Quality Collaborative and specialize in the most advanced minimally invasive techniques. ❖

Total Joint Center at Miriam Awarded Joint Commission Gold Seal of Approval

PROVIDENCE – The Total Joint Center at The Miriam Hospital has earned The Joint Commission's Gold Seal of Approval for its total knee and total hip replacement programs. The certification recognizes the Total Joint Center's compliance with national standards for health care quality and safety in a disease-specific care set by The Joint Commission. It also acknowledges the center's dedication to continuous compliance with The Joint Commission's state-of-the-art standards.

"Achieving The Joint Commission's Gold Seal of Approval is a terrific show of support for the unprecedented integrated way we deliver total joint replacement surgery at The Miriam Hospital," said **JOHN A. FROEHLICH, MD**, program director. "In using the most advanced technologies and with our ongoing commitment to meeting high standards, the Total Joint Center reflects our dedication to providing exceptional multi-faceted medical and surgical services, and personalized, patient-centered care."

To receive this designation, The Miriam Hospital's Total Joint Center recently underwent a rigorous on-site review that evaluated its compliance with standards of care specific to the needs of patients and families, including infection prevention and control, leadership and medication management. Certification requirements address three core areas: compliance with consensus-based national standards; effective use of evidence-based clinical practice guidelines to manage and optimize care; and an organized approach to performance measurement and improvement activities.

Now in its third year, the Total Joint Center at The Miriam Hospital is a program of the Orthopedic Institute at Rhode Island and The Miriam hospitals that focuses on patient education, patient satisfaction, exceptional surgical technique and nursing care, and consistent post-operative therapy in a welcoming, comforting setting. The center invests in the most advanced and current technologies and equipment to meet high targets on quality measures. More than 1,300 joint procedures were performed in 2013. ❖

Samuels Sinclair Dental Center at RIH helps to 'Give Kids a Smile'

PROVIDENCE – On April 4th the Samuels Sinclair Dental Center celebrated the 12th annual "Give Kids a Smile Day" (GKAS) with underserved, uninsured and underinsured children throughout Rhode Island receiving dental care in clinics and private dental offices statewide. Eighty-seven children received dental care at Rhode Island Hospital's event.

"Dentists, hygienists and dental assistants from private practices, and other volunteers donated their time and talents along with the staff at the Samuels Sinclair Dental Center to make this event happen for the 12th year now," said **SHIRLEY SPATER FREEDMAN, DMD**, center director. "We were able to provide chair-side education, preventive and restorative care to dozens of low-income children who don't have access to dental care, ultimately providing them with a dental home, and a much needed level of primary care."

As the centerpiece to National Children's Dental Health Month, and sponsored by the Rhode Island Dental Association and the American Dental Association, GKAS was designed to provide dental care to low-income children who would not otherwise have access to care, while also raising awareness of the importance of dental coverage for children's health.

The event included visits from Paws, the PawSox mascot, a group of superheroes, pet therapy dogs and the Tooth Fairy. Members of Team Hasbro, Hasbro, Inc's employee volunteer program, brought toys and games to entertain the children while they waited to see their dentist and dental hygienist, many for the very first time. Dental supplies for the day were donated by national sponsor Henry Schein and Patterson Dental. ❖

RHODE ISLAND HOSPITAL

Children received dental screenings, oral examinations, radiographs, cleanings, fillings and educational materials at Rhode Island Hospital's Samuels Sinclair Dental Center.

Hasbro Designated Level 1 Pediatric Trauma Center by ACS

PROVIDENCE – Hasbro Children's Hospital, the pediatric division of Rhode Island Hospital, has been designated a Level 1 Pediatric Trauma Center by the American College of Surgeons (ACS). This is the first time the hospital has been verified specifically for the care of injured children. Rhode Island Hospital has been a Level 1 Adult Trauma Center for more than 20 years, and has been reverified.

Hasbro Children's Hospital had previously been included as a "pediatric commitment" in the Rhode Island Hospital Level 1 Trauma Center certification, but is now eligible to apply for standalone Level 1 status under the new ACS guidelines. The two hospitals are the only Level 1 Trauma Centers in Rhode Island.

This three-year certification is the highest designation a trauma center can receive, and recognizes the hospital's dedication to providing optimal care for injured patients. Level 1 trauma centers provide a full range of services, including designation as an academic medical center, conducting research and providing medical education.

"This certification is a validation of the fully coordinated, multidisciplinary care we have been providing to injured children since Hasbro Children's Hospital opened its doors 20 years ago," said **FRANCOIS LUKS, MD**, director of pediatric trauma. "It is the first time that we have sought – and obtained – independent verification for the care we provide to injured children, and that is a recognition of how comprehensive our pediatric trauma care has become."

To qualify as a Level I trauma center, a hospital must be fully prepared to treat victims of traumatic injuries – from falls, car crashes, gunshots, assaults, etc. – and offer the highest level of medical and surgical care, with surgeons and anesthesiologists on duty 24 hours a day. Level 1 trauma centers must have a wide range of specialists, such as orthopedic surgeons and neurosurgeons, promptly available if needed, and be involved in education and efforts to prevent traumatic injuries in the community.

Dr. Luks added that the designation means the hospital has to be ready for anything. "Being a Level 1 Trauma Center means that whoever comes through our doors, regardless of the type of injury, we are prepared to offer the entire spectrum of care," he said. "This means more than just initial life-saving efforts, ready and available at a moment's notice, but also everything a patient needs throughout the entirety of his or her healing process."

To be verified as a trauma center, Hasbro Children's Hospital underwent an on-site review earlier this year under the guidelines established by the ACS. The criteria the hospital must meet and maintain include:

- An ongoing quality assurance program.
- Standard response for treatment of major trauma.
- Nurses trained and experienced in delivering acute care.
- Operating rooms open and staffed around the clock.
- State-of-the-art imaging and monitoring equipment to provide quick evaluation and diagnosis.
- Rescue squads and response teams that are prepared to maximize pre-hospital care and fast transport. ❖

$1 Million Gift Funds New Nursing Graduate Program at Salve Regina

NEWPORT – At a ceremony April 23rd, Salve Regina officials were joined by Sen. Jack Reed (D-RI) in announcing the establishment of the University's new graduate program in nursing, as well as a $1 million gift from the Rodgers Family Foundation to help launch it.

Enrollment for the 78-credit, practice-based program resulting in the terminal degree in the field, the Doctor of Nursing Practice (DNP), is underway for classes beginning in fall 2014.

"We are proud to continue our longstanding tradition of educating nursing professionals to be exceptional caregivers and leaders in their field – hallmarks of the Salve Regina nursing graduate," said President Jane Gerety, RSM.

Established in 1948, Salve Regina's baccalaureate degree nursing program is the oldest in Rhode Island. The new DNP curriculum builds on the baccalaureate program by providing clinical preparation as an advance practice nurse, education in evidence-based practice, quality improvement, and systems thinking among other key areas.

DNP graduates will likely seek practice leadership roles such as advanced practice nurses, managers of quality initiatives, executives in health care organizations, directors of clinical programs, and faculty responsible for clinical program delivery and clinical teaching.

The program will admit nurses prepared with Bachelor of Science degrees in nursing. The first 48 credits of the program will allow students to earn a Master of Science degree in nursing and prepare them to sit for the family nurse practitioner certification examination. The second 30 credits of the program will allow students to proceed to the terminal DNP degree.

Offered at the Center for Adult Education in Warwick, hybrid courses are specifically designed for nurses seeking to balance their professional careers and academic pursuits. Part-time students can complete the DNP program in five years, including summer instruction.

Salve Regina's baccalaureate program is accredited by the Commission on Collegiate Nursing Education (CCNE), which represents the highest level of nursing accreditation possible for baccalaureate nursing programs. ❖

Position Available — Live on Block Island!

Block Island Health Services seeks a board certified family practice physician to provide primary and urgent care at the only medical facility in an Island community. Share practice with a certified family nurse practitioner. Generous benefits including housing. The Center serves approximately 2,200 unduplicated patients per year. In the winter there are about 1,000 residents, but in the summer the population swells to 13,000 or more. October through early June is a slower pace, but there is a busy pace mid June through Labor Day.
Block Island Health Services is affiliated with Warren Alpert Medical School of Brown University and University of New England College of Osteopathic Medicine.

Block Island was designated by the Nature Conservancy as one of twelve "last great places" due to its commitment to sustain natural habitat in balance with human recreation. This position is ideal for someone who appreciates a small town, the natural environment, ocean-based recreation, and is comfortable with both primary and emergency care.

Contact Barbara Baldwin, Executive Director
Block Island Medical Center, PO Box 919, Block Island, RI 02807
or e-mail bbaldwin@bihealthservices.com
Please indicate your salary requirements.

Photo courtesy of Kari Curtis/Block Island Times

Brown School of Public Health to Launch Center for Long-Term Care

PROVIDENCE – The American Health Care Association and the National Center for Assisted Living have awarded the Brown University School of Public Health $1 million to launch the Long Term Care Quality and Innovation Center.

The center will work to improve the quality of long-term and post-acute care by studying best practices, conducting other research, and developing training and leadership programs in the field.

"A major goal of our research and teaching is to improve the quality of care, and therefore the quality of life, for our nation's elderly and post-acute populations," said **VINCENT MOR, PhD**, the Florence Pirce Grant Professor of Health Services, Policy, and Practice, who will direct the center. "We look forward to working with AHCA and NCAL's support to discover, evaluate, advance, and apply practices that could benefit millions of people and their loved ones."

The center is designed to become self-sustaining after three to five years. ❖

Flu Declared Widespread

Masking Rule in Effect

PROVIDENCE – Director of Health **MICHAEL FINE, MD**, recently declared the flu to be widespread again in Rhode Island. This declaration triggers the requirement that healthcare workers who have not been vaccinated against the flu wear surgical masks during direct patient contact.

Rhode Island is seeing a second wave of flu that is even more intense than the first. The dominant strains in this late-season wave have been H3N2 – which has a great impact on the elderly – and influenza B.

The majority of the 13 flu-related deaths this season have been people in their 80s and 90s. There have been 464 flu-related hospitalizations this season. Seventy of these hospitalizations occurred between April 6 and April 12.

The masking requirement for healthcare workers will remain in effect until the widespread declaration is lifted. The flu was also widespread this year from January 8 until February 27. ❖

Kent Hospital to Seek Regulatory Approval to Develop Angioplasty Program

WARWICK – Kent Hospital is seeking approval to perform both emergency and elective coronary angioplasty procedures. The hospital submitted a letter of intent (LOI) to the Rhode Island Department of Health recently stating "intent to develop a coronary angioplasty program within one year" and within the next eight weeks Kent will submit a full application for a certificate of need.

Currently, there are three hospitals in the state (The Rhode Island and Miriam Hospitals and Landmark in Woonsocket) that offer the procedure.

"Kent Hospital is an extremely busy and important community hospital that is vital to its large catchment area in the southern half of Rhode Island. Community hospitals, like Kent, need to be able to provide emergency cardiac services for its patients," said **CHESTER HEDGEPETH, III, MD, PhD**, executive chief of cardiology for Care New England Cardiovascular Care and the Brigham and Women's Cardiovascular Associates at Care New England. "Kent Hospital has made major investments in building its cardiology program in the last four years and is well-positioned to provide this lifesaving program to the community."

Kent Hospital and Care New England have entered into a clinical affiliation with Brigham and Women's Hospital of Boston (BWH), whose cardiovascular specialists serve on staff at Kent and Memorial hospitals. The design of the proposed angioplasty program is happening under the supervision of BWH.

"Ample data now convincingly demonstrate the value of acute angioplasty for patients with heart attacks. With proper supervision, equipment and training of physicians and staff, PCI can be provided in the community setting with excellent results. By making PCI more accessible, patients with heart attacks can have treatment earlier and expect to experience less heart damage," said **DAVID O. WILLIAMS MD**, senior physician at Brigham and Women's Hospital and Care New England director of invasive cardiac services.

In 2008, Kent was granted a certificate of need to pursue angioplasty, but the program was not launched because of difficulty in securing on-call coverage, a program requirement. During that implementation process, Kent worked with its staff and rescue personnel around its service area to provide advanced training while equipping ambulances with the latest monitoring equipment to assess patients for the possible need for angioplasty.

When the decision was made in 2010 to suspend the pursuit of angioplasty, it was noted that Kent would conduct a thorough review of its cardiology services to determine the future of the program.

The creation of the Brigham and Women's Cardiovascular Associates at Kent Hospital and more recently the expansion of this service across the Care New England Health System, including the integration of existing BWH cardiology services at Memorial Hospital, means patients have improved local accessibility to advanced cardiac care.

Cardiovascular services available now include advanced imaging such as cardiac CT, valvular heart disease service, heart failure and transplant consultation. Cardiovascular clinical trials, telemedicine, congestive heart failure management and a full range of cardiac arrhythmia diagnostic and therapeutic procedures are also available. When appropriate, patients can receive seamless coordination of care at BWH and then quickly return home for follow up care. ❖

Whah Wonder

an interpretive portrait in wool of Jimi Hendrix

In the words of the designer Ned Baker:

I am lifelong student and admirer of 60's-70's music - particularly the explosive evolution of the electric guitar and the iconic imagery of the albums and posters from that era.

This rug is a tribute to this period of social unrest and the breaking of barriers AND new ground. The contrast of bold design against a plainer, more organic background shows how the music and sentiments of the time contrasted with what was heretofore considered "normal."

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Phase I Cancer Immunotherapy Trial at Roger Williams Shows Promising Results

PROVIDENCE – Researchers at the Roger Williams Cancer Center have shown encouraging results from a recently completed trial involving immunotherapy for cancer patients. Final results from the "Hepatic Immunotherapy for Metastases (HITM) Phase 1 trial (NCT01373047)" for patients with stage IV colon cancer and liver metastases were recently presented at the 2014 Society of Surgical Oncology (SSO) meeting. The SSO funded the study. In six patients whose disease had been progressing on standard therapy, genetically-modified T cells were delivered directly into the liver's arterial circulation. The treatment was shown to be well tolerated.

In several patients, the team – which included **DR. STEVEN KATZ**, **DR. RICHARD JUNGHANS**, and **DR. N. JOSEPH ESPAT** – reported encouraging evidence of clinical activity. Tumor markers decreased and biopsies of liver tumors demonstrated evidence of tumor cell killing in patients who had been treated with multiple lines of conventional chemotherapy. One patient has survived more than 12 months following treatment.

"This is an important advance for the treatment of liver metastases," said Dr. Katz, the principal investigator for the HITM trial. "We are combining a potent immunotherapeutic tool with a powerful and rational delivery strategy to minimize side effects and optimize clinical effect. Our platform is still at an early stage and we look forward to future clinical trials to define the best immunotherapy strategy for liver metastases."

Ongoing work in the Roger Williams Immunotherapy Laboratory, funded by the NIH, will guide the design of future trials. ❖

RIH Physician Finds Legalizing Medical Marijuana Does Not Increase Use Among Adolescents

Study reviewed data of self-reported marijuana use in high school students

PROVIDENCE – According to a new study at Rhode Island Hospital which compared 20 years worth of data from states with and without medical marijuana laws, legalizing the drug did not lead to increased use among adolescents. The study is published online in advance of print in the *Journal of Adolescent Health*.

"Any time a state considers legalizing medical marijuana, there are concerns from the public about an increase in drug use among teens," said principal investigator **ESTHER CHOO, MD**, an attending physician in the department of emergency medicine at Rhode Island Hospital. "In this study, we examined 20 years worth of data, comparing trends in self-reported adolescent marijuana use between states with medical marijuana laws and neighboring states without the laws, and found no increase in marijuana use that could be attributed to the law."

Dr. Choo continued, "This adds to a growing body of literature published over the past three years that is remarkably consistent in demonstrating that state medical marijuana policies do not have a downstream effect on adolescent drug use, as we feared they might."

Currently, medical marijuana is legal in 21 states and the District of Columbia.

The study examined a nationally representative sample of high school students. The data showed that past-month marijuana use was common, at nearly 21 percent of the study population. However, there were no statistically significant differences in marijuana use before and after policy changes in any state pairing.

"Researchers should continue to monitor and measure marijuana use," Dr. Choo said. "But we hope that this information will provide some level of reassurance to policymakers, physicians, and parents about medical marijuana laws." ❖

RI scientists, collaborators closer to designing vaccine for H. pylori pathogen

PROVIDENCE – Researchers from the University of Rhode Island are championing a recent breakthrough in the laboratory with hopes it could lead to a vaccine against the pathogen responsible for stomach cancer and to therapeutics for inflammatory diseases.

The results were published in April in the journal PLOS ONE in an article titled, "Human Immune Response to H. pylori HLA Class II Epitopes Identified by Immunoinformatic Methods." This is the first time that human immune responses to the H. pylori pathogen have been described in such detail, and the researchers believe that a vaccine against the pathogen is within reach.

Helicobacter pylori, or H. pylori, is a bacterium that infects the stomach of half of the human population, leading to chronic gastric inflammation in all of those infected while also causing other adverse health effects. It is the most common cause of peptic ulcers, and its persistence in the stomach also gradually promotes gastric cancer development.

Recently, H. pylori infection has also been found to have some beneficial effects. It has been linked to protection against unrestrained inflammation in conditions such as asthma, inflammatory bowel disease, esophageal reflux and esophageal adenocarcinoma.

"The dual personality of H. pylori is a novel, unexpected finding," said URI Assistant Research Professor **LENNY MOISE, PhD**. Dr. Moise is one of the leaders on the project, working alongside URI Research Professor **ANNIE DE GROOT, MD**, and Brown Alpert Medical School Professor **STEVEN MOSS, MD**.

To investigate how H. pylori stimulates both harmful and beneficial human immune responses, the research team used the recent availability of multiple H. pylori genome sequences coupled with advances in computerized algorithms (provided to the researchers by local biotech company EpiVax, Inc.) to identify 90 H. pylori-derived peptide sequences considered as potential immune epitopes. Testing them against human immune cells, the researchers found that these sequences elicited significantly higher inflammatory and immunosuppressive responses in those patients already infected by H. pylori.

"These experiments demonstrate the utility of immunoinformatics to identify vaccine and immunotherapeutic candidates," said Dr. De Groot, director of the Institute for Immunology and Informatics located on the URI Providence campus.

The research program is funded by a $13 million National Institutes of Health award entitled "Translational Immunology Research and Accelerated [Vaccine] Development," also known as the TRIAD program headed by Dr. De Groot. ❖