



ANNUAL REPORT 2016-2017



Injury Prevention Center



OUR MISSION

The Injury Prevention Center (IPC) conducts and facilitates research on the causes, treatment, and prevention of violence-related and unintentional injuries and promotes inter-disciplinary collaboration across academic and clinical disciplines, research and teaching institutions, and legislative, regulatory, and policy-making entities. Through education, research, and advocacy, the IPC fosters engagement in injury research among students, clinicians, and researchers.



Jonathan S. Olshaker, MD



Peter A. Burke, MD

We are pleased to present the 2016-2017 annual report of the Boston Medical Center (BMC) Injury Prevention Center. 2017 marks the seventh anniversary of the Center, which continues to grow under the leadership of Executive Director, Jonathan Howland, PhD, MPH, MPA; Deputy Director, Traci Green, PhD, MSc; and Senior Research Associate, Holly Hackman, MD, MPH, whom we welcomed to the Center in 2016. The Center brings together the Department of Emergency Medicine, Department of Surgery, Division of Acute Care and Trauma Surgery and many BMC, Boston University School of Medicine (BUSM) and Boston University School of Public Health (BUSPH) faculty and staff with the combined mission of injury prevention research, education, and advocacy. This report highlights our programs focusing on violence intervention, substance abuse treatment and harm reduction, older adult fall prevention and many other initiatives that are making significant contributions to local, national, and international injury prevention efforts.

Sincerely,

Jonathan S. Olshaker, MD
Professor and Chairman,
Department of Emergency Medicine
Boston University School of Medicine;
Chief, Department of Emergency Medicine
Boston Medical Center

Peter A. Burke, MD, FACS
Chief, Acute Care & Trauma Surgery,
Boston Medical Center;
Professor of Surgery,
Boston University School of Medicine

A UNITED VISION

The BMC Injury Prevention Center (IPC) was founded in July 2010 with support from the Department of Emergency Medicine and the Division of Trauma Surgery. The IPC combines the resources of the Boston Medical Center and the Boston University School of Medicine to establish a viable, self-sustaining, long-term institution for injury prevention research and practice. The IPC was founded on the shared belief that:

- Many of the injuries treated at BMC are preventable.
- Treatment should include intervention to prevent subsequent injury.
- BMC is positioned to become a nationwide leader in injury prevention research and intervention.



Boston University School of Medicine



LEADERSHIP COMMITTED TO IMPROVING LIVES

The IPC staff brings together a wealth of experience to create a world-class center for research and training in the field of injury prevention and education. The BMC Injury Prevention Center is staffed by the following individuals:

IPC EXECUTIVE ADMINISTRATION

Jonathan Olshaker, MD, *Chief of the Department of Emergency Medicine, BMC, Professor and Chair of the Department of Emergency Medicine at BUSM.* Dr. Olshaker is the Senior Editor of Forensic Emergency Medicine, co-editor of the new textbook Geriatric Emergency Medicine, and a co-editor of five editions of the Emergency Medicine Clinics of North America. He serves on the editorial board of the American Journal of Emergency Medicine, the Western Journal of Emergency Medicine, and is Section Editor for Public Health and Emergency Medicine in the Journal of Emergency Medicine. He is a nationally recognized lecturer and expert on managing Emergency Department (ED) overcrowding and is also a retired Captain in the United States Naval Reserve after a 26-year career.

Peter Burke, MD, FACS, *Chief of Trauma Services, BMC, Professor of Surgery at BUSM.*

Dr. Burke's major areas of interest are critical care and trauma and he has a broad surgical practice in all areas of general surgery. He is actively involved in medical student and resident teaching in the areas of trauma, shock, and sepsis. His professional interests include clinical and lab research on topics including: liver trauma, patient nutritional support in hospital and at home, and molecular, metabolic and immunologic responses in sepsis and injury.

IPC LEADERSHIP



Jonathan Howland, PhD, MPH, MPA –
*IPC Executive Director and Professor of
Emergency Medicine at BUSM.*

Dr. Howland has 30 years of experience in injury research with emphasis on traffic safety, older adult falls and alcohol's contribution to error in safety sensitive occupations. His research includes epidemiological studies of risk factors for burns, falls, traffic injuries, drowning, and non-combat military injuries, and experimental trials of interventions for traffic safety. His work also includes randomized alcohol administration trials on the acute occupational and neurocognitive effects of low-dose alcohol consumption and next day effects of intoxication. Howland has published many peer-reviewed papers and book chapters, primarily focused on injury causation and control. For 20 years, he taught program evaluation research methods at the Boston University School of Public Health (BU SPH).

**Traci Green, PhD, MSc – IPC Deputy Director,
Senior Scientist for Substance Abuse, and
Professor of Emergency Medicine at BUSM.**

Dr. Green is a nationally recognized leader in opioid overdose prevention. Her research and advocacy have centered on prescription/opioid use, injection drug use, opioid overdose surveillance, public health strategies for community-wide naloxone distribution, and prescription monitoring programs to address the epidemic of opioid overdose. Green is known for her ability to translate research to public policy. She has developed innovative community-based programs for overdose prevention in Rhode Island and Connecticut and has worked extensively with substance abuse clinicians and researchers at the BU schools of Public Health and Medicine. Her role as the Deputy Director of the IPC will greatly expand our ability to address the growing epidemic of opioid overdose in Massachusetts.





Lisa Allee Barmak, MSW, LICSW –
– IPC Director of Programs and Education, Instructor of Surgery at BUSM, and Director of Injury Prevention and the Community Violence Response Team for the Department of Surgery at BMC.
 Ms. Barmak develops, monitors and maintains evidence-based injury

prevention initiatives for the hospital. Her clinical background spans 10 years as BMC's Pediatric and Pediatric Intensive Care Unit (ICU) Social Worker, where she specialized in the care of trauma patients and their families during their time in the ICU, as well as end of life care. She transitioned to her role as an injury prevention professional in 2008. Ms. Barmak Co-Chairs the Massachusetts Statewide Injury and Violence Prevention Committee (MassPINN) and works both regionally and nationally in injury prevention efforts both with the Eastern Association for the Surgery of Trauma (EAST) as well as the American College of Surgeons' Committee on Trauma. Current projects include research on mental health in hospital based violence intervention programs, firearm injury prevention, older adult falls prevention, and resiliency and social support in trauma patients.



Thea James, MD – *IPC Director for Community Outreach, Associate Chief Medical Officer, Vice President of Mission, and Director of the Violence Intervention Advocacy Program at BMC; Associate Professor of Emergency Medicine at BUSM.*
 Dr. James is a founding member of the National Network of Hospital-based

Violence Intervention Programs (NNHVIP), serves on the Society of Academic Emergency Medicine, Women in Academic Emergency Medicine Task Force, and is the Chair of the Licensing Committee for the Massachusetts Board of Registration in Medicine. In 2008, she was awarded the Boston Public Health Commission's Mulligan Award for Leadership and Public Service. In October 2011, James was selected as one of 12 members of the Attorney General's National Task Force on Children Exposed to Violence, which

is part of the Defending Childhood Initiative. In 2014, she was awarded the Schwartz Center Compassionate Caregiver Award, recognizing her life-long commitment to reducing community violence and health care disparities among vulnerable populations. Her international humanitarian efforts include educational outreach and disaster relief efforts in Haiti, India and Ghana. James is a Supervising Medical Officer on the Metro-Boston Disaster Medical Assistance Team.

Ed Bernstein, MD – *IPC Director of Research, Director, Section of Public & Global Health, Director Faster Paths to Treatment Program, BMC; Vice Chair, Academic Affairs, Professor of Emergency Medicine, BUSM, Professor, Community Health Sciences, BU SPH.*



Dr. Bernstein is Medical Director of Project ASSERT and Director of the BMC's Faster Paths to Treatment/A Regional Opioid Urgent Care Center, which provides assessments and referrals to a continuum of substance use disorder treatment and community support services, including an onsite medication assessment and bridge treatment unit. He has been a national leader in ED overdose education and naloxone distribution. Bernstein is the author of 75 peer reviewed publications applying Public Health to Emergency Medicine and has served as principal investigator on a number of NIH funded research studies. He is currently serving a five-year term as Member of the Massachusetts DPH Public Health Council.

Elissa Schechter-Perkins MD, MPH, DTMH –
Vice Chair, Research, Department of Emergency Medicine, Assistant Professor of Emergency Medicine, BUSM. Dr. Perkins has been conducting research related to infectious diseases in the ED for over 10 years. Her current focus is on confronting the Hepatitis C Virus (HVC) epidemic that is affecting Boston as well as the nation. She is the Principal Investigator on a multi-disciplinary grant-funded program that aims to expand the diagnosis of HCV at Boston Medical Center and provide navigational support to help link patients to outpatient care. She supports the research arm of the Injury Prevention Center.





Patricia Mitchell, RN – *Director of Research Operations, Department of Emergency Medicine, BMC; Assistant Research Professor, BUSM.* Ms. Mitchell has over 20 years of clinical research experience at BMC. She has expertise in all aspects of the conduct of research including design, implementation, IRB/Human subjects, and budgeting. She has

implemented and managed single center and multicenter trials (NIH, industry funded/FDA regulated and unfunded) and her injury prevention research interests have focused on Screening, Brief Intervention and Referral to Treatment (SBIRT), substance use disorders, violence prevention, and social determinants of health. Ms. Mitchell has provided guidance and served as a mentor to numerous faculty and residents in the ethical conduct of research in emergency medicine. Her role is integral to the collaborative efforts of the Injury Prevention Center, Department of Emergency Medicine and Department of Trauma Surgery.



Elizabeth Dugan, LICSW – *Clinical Director, Violence Intervention Advocacy Program (VIAP), BMC.*

Ms. Dugan brings significant public health experience to her position as Clinical Director of the VIAP at Boston Medical Center. She is a member of the National Network of Hospital Based Violence Intervention Programs

(NNHVIP), and serves as the national chairperson of the NNHVIP Workforce Development Working Group. Ms. Dugan is a current member and past chairperson of the Board of Trustees at Victory Programs, one of the largest Boston-based agencies providing services to individuals and families facing homelessness, addiction, or other chronic illnesses, including HIV/AIDS. She is also a member of the Board of Trustees at the St. Francis House, the largest day shelter in Boston. St. Francis House provides a host of comprehensive services ranging from food and shelter to vocational training and healthcare services. Her passion is working with urban youth and families, and providing services, opportunity, and hope to some of the most at-risk individuals in the community.

Kelly Ogilvie-McLean – *Emergency Medicine Grants Administrator.* Ms. Ogilvie-McLean has worked for the Boston Medical Campus as well as another Boston research facility since 1994. She began her career as a research administrator in 2001 at Boston University School of Dental Medicine and received her Clinical Research Certification in 2001 from Boston University Metropolitan College. She is a current member of the Society of Research Administrators International.



Haley Fiske, MPH – *Research Coordinator.* Ms. Fiske has an MPH in Epidemiology and Health Policy and Management from Boston University School of Public Health. Before pursuing her MPH, she graduated from the University of Rhode Island with a B.S. in Biology. Haley joins the IPC to work on grant funded projects under the direction of Deputy Director, Traci Green.



Kathleen O'Hara, BS – *Research Assistant.* Ms. O'Hara earned her Bachelor of Science in Health Science from Sargent College at Boston University. She joined IPC Executive Director Jonathan Howland's team in 2016 after graduation and hopes to gain experience in emergency medicine and injury prevention clinical research that she can apply to her future career in the health field.



IPC RESEARCH ASSISTANTS

Alyssa Taylor, MPH – *IPC Research Coordinator.* Ms. Taylor received her MPH in Global Health from Boston University School of Public Health and joined the IPC to help develop and implement research programs aimed at identifying and evaluating injury prevention policies and interventions. She hopes to apply what she has learned in her future career as a physician.

Nicole Robertson, MPH – *Research Assistant.* Ms. Robertson received her MPH from Boston University. She works with Dr. Traci Green and Dr. Holly Hackman on projects related to continuing medical education course development and policy evaluation in Rhode Island and Massachusetts.



Maria Alfieri, BA, BS – *Research Assistant*. Ms. Alfieri earned her Bachelor of Science in Health Policy and Management and Bachelor of Art in Psychology at Providence College and is currently taking classes for her MPH at Boston University. She works with Dr. Traci Green on a grant funded project to increase public awareness about opioid safety.

Fiona Shea, BA – *Research Assistant*. Ms. Shea earned her Bachelor of Arts in English and Medical Humanities from Boston College in 2017. She works on two different grant funded projects within the IPC under the direction of Dr. Traci Green and Dr. Holly Hackman.

SENIOR SCIENTISTS



Kerrie Nelson, PhD – *IPC Biostatistician and Research Associate Professor in the Department of Biostatistics at BUSPH*. Dr. Nelson provides statistical support to investigators in BMC's Department of Emergency Medicine and also collaborates on many projects with medical and public health researchers at Boston University related to the Framingham Heart Study and diabetes. Originally from New Zealand, she received her PhD in Statistics from the University of Washington in Seattle.



Emily Rothman, ScD – *Senior Scientist for Interpersonal Violence and Associate Professor at BUSPH*. Dr. Rothman's primary research focus is the prevention of youth dating violence, with additional research projects on the topics of adult partner violence, sexual violence, human trafficking, and pornography. She has a secondary appointment in the Department of Pediatrics at BUSM and is also a visiting scientist at the Harvard Injury Control Research Center.

Holly Hackman, MD, MPH – *Senior Scientist, Injury Prevention Center, Department of Emergency Medicine; Assistant Professor at BUSM*. Dr. Hackman's work has focused on expanding the development and utility of state data systems for injury surveillance, developing operational methods and indicators for conducting surveillance, evaluating surveillance systems, and translating data findings into public health practice. At the Department of Public Health, she participated extensively in opioid overdose surveillance, led the development of the Massachusetts Violent Death Reporting System and standardized data collection on sudden unexpected infant deaths. She is currently the evaluator on contracts with the RI Department of Health and the Massachusetts Department of Public Health.



Alexander Walley, MD, MSc – *Associate Professor of Medicine at BUSM; Internist and Addiction Medicine Specialist at BMC; Director Addiction Medicine Fellowship Program at BUSM; Director, Inpatient Addiction Consult Services at BMC*. Dr. Walley trains addiction medicine specialist physicians in the addiction medicine fellowship program. He conducts clinical and research-related work on the medical complications of substance use, specifically HIV and overdose. Walley provides primary care and office-based buprenorphine treatment for HIV patients at BMC and methadone maintenance treatment at Community Substance Abuse Centers. He is the medical director for the Massachusetts Department of Public Health's Opioid Overdose Prevention Pilot Program which has trained over 60,000 people since 2007, and is also the medical director for several police and fire department naloxone rescue programs in Massachusetts that have documented over 750 overdose rescues with program naloxone since 2010.





Kalpana Narayan Shankar, MD, MSc, MSHP – Research Scientist for Health Services and Associate Professor of Emergency Medicine at BUSM. Dr. Shankar has a long-standing interest in health services research with particular focus on the quality of care provided to older adults. She has previously engaged in a variety of projects examining caregiver burden. Her current research interests lie in the area of geriatric falls and associated morbidity and she looks to use this information to promote falls awareness among physicians and nurses. Shankar's most recent endeavors include collaborations to establish a rapid follow-up process for older adults who are discharged from the ED after sustaining a fall, evaluate the rapid referral of hyperglycemic patients into a diabetes clinic, and assess the quality of interventions provided to sickle cell patients.



Robert A. Stern, PhD – Professor of Neurology, Neurosurgery, and Anatomy & Neurobiology at BUSM, and Director of the Clinical Core of the BU Alzheimer's Disease and CTE Center (one of only 30 Alzheimer's disease centers funded by the National Institutes of Health). Dr. Stern is a clinician, educator, and mentor, as well as an active clinical neuroscience researcher. A major focus of his research involves the long-term effects of repetitive head impacts in athletes, including the neurodegenerative disease, chronic traumatic encephalopathy (CTE). He is the lead co-PI of a \$16 million NIH grant for a multi-center, longitudinal study to develop methods of diagnosing CTE during life as well as examining potential risk factors of the disease. Stern's other current major area of funded research includes the assessment and treatment of Alzheimer's disease (AD). He has also published on various aspects of cognitive assessment and is the senior author of many widely used neuropsychological tests, including the Neuropsychological Assessment Battery (NAB). Stern has received numerous NIH and other national grants and he is a Fellow of both the American Neuropsychiatric Association and the National Academy of Neuropsychology. Stern has over 200 publications, is on several journal editorial boards, and is the co-editor of two upcoming books: Sports Neurology, which is part of the Handbook in Clinical Neurology series published by Elsevier, and The Oxford Handbook of Adult Cognitive Disorders, which is part of the Oxford Handbook collection. He is a member of the medical advisory boards of several leading biotech/pharma companies and was appointed to the four-member Medical Scientific Committee for the NCAA Student-Athlete Concussion Injury Litigation.



IPC FACULTY

EXPERTISE AT THE CORE

The IPC core faculty represents a wide range of disciplines and medical specialties. Their combined skills form a foundation for the advancement of the Center's mission. The IPC faculty includes the following individuals:

Tracey Dechert, MD, Attending Physician, Division of Trauma Surgery, BMC; Assistant Professor of Surgery, BUSM.

William DeJong, PhD, Professor, Department of Community Health Sciences, BUSPH.

K. Sophia Dyer, MD, FACEP, Attending Physician, Department of Emergency Medicine, BMC; Associate Professor of Emergency Medicine, BUSM; Clinical Instructor; Medical Director, Boston EMS, Boston Police Department, Boston Fire Department; Liaison to Boston MedFlight, Medical Control Physician, and Associate Medical Director.

James Feldman, MD, MPH, Attending Physician and Senior Investigator, Department of Emergency Medicine, BMC; Professor of Emergency Medicine and Chair, IRB Panel Blue, BUSM.

Angela Laramie, MPH, Epidemiologist at Massachusetts Department of Public Health.

Judith Linden, MD, Vice Chair of Education, Department of Emergency Medicine, BMC; Associate Professor of Emergency Medicine, BUSM.

James Liu, MS, Senior Research Assistant, Department of Emergency Medicine, BMC.

Lauren Nentwich, MD, Medical Director of Quality and Patient Safety, Department of Emergency Medicine, BMC; Assistant Professor, BUSM.

Alcy R Torres, MD, Director, Concussion Clinic, Assistant Professor of Medicine, BUSM.

Robert J. Vinci, MD, Chief, Department of Pediatrics, BMC; Joel and Barbara Alpert Professor and Chairman, Department of Pediatrics, BUSM.

Ziming Xuan, ScD, SM, MA, Associate Professor, Community Health Sciences, BUSPH.



FALL PREVENTION ACTIVITIES FOLLOWING EMERGENCY DEPARTMENT CARE FOR AN OLDER ADULT FALL INJURY

By Jonathan Howland, PhD, MPH, MPA and Kalpana Narayan Shankar, MD, MPH, MSHP



How does the health care system respond when an older adult is discharged from the ED after being treated for a fall? This is the question addressed by a study conducted by Drs. Shankar and Howland at the BMC IPC and recently published in the *Journal of Injury Epidemiology*¹. The question is important. Falls are the leading cause of injury death among older adults and fall mortality rates are increasing. Older adults who have fallen are at elevated risk for a subsequent fall. The likelihood of a subsequent fall can be reduced by various approaches including assessment of strength, balance, gait, and vision, review of medications that might potentiate falls, and participation in low-cost community programs.

Investigators enrolled 100 older adults being treated for fall injuries at the BMC ED and contacted them by 60 days after they were discharged home. A questionnaire was administered to determine what steps they and their primary care providers had taken to reduce the chances of another fall. Of the 87 that completed the

follow-up questionnaire, 71% had spoken to their primary care physician about their fall, but only 37% had spoken about fall prevention. Only 22% had spoken about how medications could increase risk for fall and only 11% had spoken about how vision impairment could increase risk for falls. None had participated in a community-based falls prevention program.

In a companion study, IPC investigators Howland, Hackman and Taylor surveyed primary care physicians (PCPs) at two Massachusetts healthcare organizations. Findings indicated that most PCPs were concerned about falls among their older adult patients, but many were unfamiliar with evidenced-based community fall prevention programs and few were aware of the STEADI (Stop Elderly Accidents, Deaths, and Injuries) Toolkit, an algorithm developed by the Centers of Disease Control and Prevention for assessing risk for falling among older adult patients.

A third study conducted by IPC investigators found that even when PCPs were aware of community falls prevention programs and referred their older adult patients to these programs, only 12-20% of referred patients completed the programs, even though the programs were provided at no cost.

In conclusion, the findings from these three studies indicate that primary care physicians and older adult patients, and their families, need more education about fall prevention and that discharge procedures from EDs for fall-injured patients should include information on how to reduce the likelihood of subsequent falls.

¹Shankar K, Treadway NJ, Taylor AA, Breaud AH, Peterson EW, Howland J. Older adult falls prevention behaviors 60 days post-discharge from an urban emergency department after treatment for a fall. *Inj Epidemiol.* 2017;4(1):18. PMID: PMC5474391. DOI: 10.1186/s40621-017-0114-y.



OPIOID OVERDOSE PREVENTION

NALOXONE ACADEMIC DETAILING TO PREVENT OVERDOSE

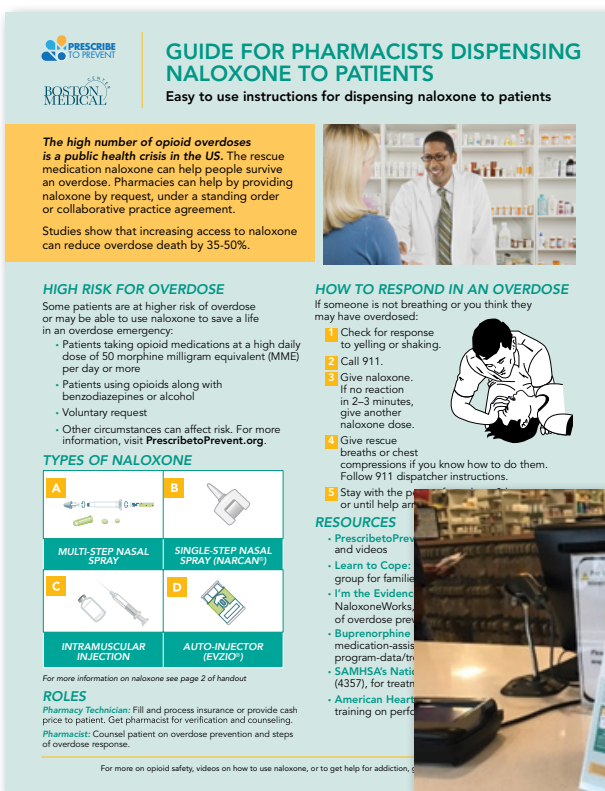
By Traci Green, PhD, MSc

Opioid overdose is the leading cause of accidental adult death.¹ Fortunately, there is a rescue medication called naloxone that can reverse an opioid overdose. Research shows that increasing the availability of naloxone in a community substantially reduces the risk of overdose death.² In Massachusetts and Rhode Island, the laws were recently changed to allow patients to get naloxone from the pharmacy directly, without having to see a medical prescriber first. In both states, pharmacists have been trained and most pharmacies can provide naloxone in this way.

The Maximizing Opioid Safety with Naloxone (MOON) Study aims to help pharmacies determine the best way to provide naloxone in the pharmacy setting. A key activity of the MOON Study is academic detailing. During an academic detailing visit, a MOON team member visits a pharmacy for a brief one-on-one conversation with pharmacists, pharmacy technicians, and/or pharmacy interns about opioid safety and naloxone provision. Pharmacy staff are provided with materials to facilitate conversations about naloxone and opioid safety. The pharmacies targeted for academic detailing were chain and independent pharmacy study collaborators in communities with high rates of opioid overdose deaths, defined as 27 or more opioid overdose deaths per 100,000 population. Over the course of the study, the MOON team has completed over 450 pharmacy visits in Massachusetts and Rhode Island.

To promote sustainability and engaged community-level opioid stewardship, the MOON study adopted the academic detailing training and materials for community-led implementation. MOON study staff have trained over a dozen members of the community in RI and MA to perform academic detailing of pharmacies to improve opioid safety. The community members, from various fields such as academia, public health, and peer

recovery support, are united in their desire to keep their communities safe from overdose and reduce the stigma of addiction. Thus far, community members have conducted over 75 visits across Massachusetts and Rhode Island. It is expected that the reach of community academic detailing will continue to grow, as the instructions and materials were recently hosted on the Prevent & Protect Website (prevent-protect.org). This website, developed by MOON Study staff and collaborators, is an important tool to disseminate lessons learned from the study and from our community partners.



Distributed as part of Academic Detailing: Pharmacist Guide (above) is kept behind counter for pharmacists to use when dispensing naloxone. Display Pad (right) on display at a participating pharmacy.

¹ Centers for Disease Control and Prevention. (2016). Drug Overdose Death Data: www.cdc.gov/drugoverdose/data/statedeaths.html.

² Walley, AY, Xuan Z, Hackman HH, Quinn E, Doe-Simkins, M, et al. Opioid overdose rates and implementation of overdose education and nasal naloxone distribution in Massachusetts: interrupted time series analysis. *BMJ*. 2013;346:f174. PMID: MC4688551. doi: 10.1136/bmj.f174.



Faster Paths to Treatment

OPIOID OVERDOSE AND USE DISORDER

AN INNOVATIVE ROLE THE HOSPITAL AND EMERGENCY DEPARTMENT CAN PLAY IN ADDRESSING THE CRISIS

By Edward Bernstein, MD

In August, 2016, BMC, in collaboration with the Massachusetts Department of Public Health (DPH) and the Boston Public Health Commission (BPHC), launched Faster Paths to Treatment. Faster Paths, a new opioid urgent care center created to provide rapid access to a full continuum of treatment services to patients with Substance Use Disorders (SUD), was funded by a four-year, \$3.1 million grant from the Massachusetts Department of Public Health Bureau of Substance Abuse Services. Faster Paths is one of three regional Opioid Urgent Care Centers (OUCC) established in response to overdose epidemic that cost the lives of 2,107 Massachusetts residents in 2016. Fifty-four percent (1,146) of these deaths occurred in the Faster Paths catchment area of Suffolk, Essex, Middlesex and Norfolk Counties. The new program expands access to medical and mental health treatment for patients with SUDs. Faster Paths serves as a short-term addiction treatment home to improve coordination across BMC programs and departments, capture economies of scale, increase resources, and improve collaboration with community and agency partners and BPHC.

Situated adjacent to the BMC ED, the Outpatient Laboratory, and Pharmacy sites, Faster Paths builds upon the existing addiction services provided by BMC and BPHC. Faster Paths fills the gaps in care to create a seamless continuum across agencies and across treatment modalities, from overdose prevention education and syringe services programs to Medication Addiction Treatment (MAT), detox, transition, clinical stabilization and residential programs. Faster Paths has no signage referencing opioids or addiction and patients are seen in a private office environment. Faster Paths is a collaborative effort of several long-standing initiatives that can be viewed as a program nodes affiliated with Faster Paths network.

Faster Paths has already demonstrated that it can rapidly evaluate, motivate, and refer patients with SUDs to a comprehensive network of mental health and medical care services. Project ASSERT's Alcohol and Drug Counselors (Faster Path's Central Intake) conduct intake assessment, determine initial level of care, provide counseling, overdose education and naloxone rescue kit distribution, and arrange placement in primary care, shelters and a continuum of treatment options, seven days a week. The program also provides MAT, Monday through Friday.

The Faster Paths staff has nine physicians, including addiction medicine and psychiatry fellows, who are waived to prescribe buprenorphine for the treatment of Opioid Use Disorders (OUD), one addiction nurse specialist, ten licensed alcohol and drug counselors (LADCs), PAATHS (Providing Access to Addictions Treatment, Hope and Support) Recovery Support Navigator Specialists, and a pharmacy technician.

We have made important strides to create a system of addiction health services that integrates the strength of a peer professional counseling and community support model into medical approaches, fostering partnerships across the BMC departments of Emergency Medicine, General Internal Medicine, Family Medicine, Psychiatry, Obstetrics, and Pediatrics. Massachusetts still needs to increase treatment capacity, especially for medication therapy programs and residential/safe housing, and other social determinants of addiction to accommodate the needs of patients. Faster Paths' sustainability will depend on the ability to bill for services provided to patients and integrate with the BMC Accountable Care Organization.





Faster Paths Team: (l to r) Devin Larkin, Lia Beltrame, Brent Stevenson, Commissioner Monica Bharel, Ludy Young, John Cromwell, Issac Rutledge, Edward Bernstein, Jonathan Olshaker, Patricia Mitchell, Moses Williams (not pictured: Jessica Kehoe and Gina Kelleher).

In the past year, January 1, 2017, through December 31, 2017, the Faster Paths/Project ASSERT collaboration resulted in services and referrals provided to 2,870 unique patients during 6,560 visits. Our patients were 70% male, 30% female; 25% Black, 74% White and of those 17% were Hispanic; 86% were Medicaid insured,

6% Medicare, 4.7% Privately insured and 4% uninsured Free Care. Patients walked in or were referred from BMC ED/Inpatients and outpatient clinics, BPHC PAATHS referrals, residential and outpatient programs, other patients and agencies.

Faster Paths/Project ASSERT Services Delivered During 2017

Total Unique Patients Served	Total Patient Visits	Male	Female	Received Addiction Medical Therapy	Transfer to Addiction Medical Therapy or Long Term Treatment	Detox Placement	Medical Exam
2,870	6,560	70%	30%	578	244	1,309	1,817

1,309 patients were placed and transported to acute treatment/detox facilities. 244 of the 578 who were started on medication therapy in our MAT clinic were transferred to continuing care in Office Base Addiction Treatment (OBAT) or other MAT programs. 598 patients were offered a bystander naloxone rescue kit and 174

received one. Faster Paths/Project ASSERT provided 2,502 other services and referrals including primary care appointments, outpatient treatment, NA/AA, integrated medicine (acupuncture massage and yoga) RMV I.D. vouchers, transportation, and shelters placement.



ALCOHOL, MARIJUANA AND DATING ABUSE PERPETRATION

YOUNG ADULT EMERGENCY DEPARTMENT PATIENTS HELP RESEARCHERS UNDERSTAND RELATIONSHIP ABUSE

By Emily Rothman, ScD

As many as 20% of girls attending U.S. high schools report having been physically or sexually hurt by an intimate partner in the past year, and 10% of high school-attending boys report experiencing one or more instances of dating violence. The problem with dating violence is that its negative effects are not limited to the physical and mental injury caused in the moment of an assault. Research studies confirm that experiences of abuse victimization in adolescence can worsen chronic illnesses later in life including gastrointestinal and respiratory diseases, heart disease, anxiety, depression, a propensity for self-harm, and can place victims at increased risk for subsequent victimization by another partner. It may be counter-intuitive to think about the effects of violence perpetration on the perpetrator, but there is a small body of evidence suggesting that perpetrating partner abuse is also bad for one's health. It is easy to imagine the ripple effects that even one incident of severe partner violence can have on a family, a circle of friends, and even a community. In short, partner violence has to be stopped — but educators, mental health clinicians, health care professionals and activists are frustrated by the relatively small effects of our existing prevention and intervention strategies.

One possibility for improving dating abuse (DA) prevention is getting better information about risk factors in order to target the strategies more precisely and ensure the content aligns with what we know about why DA happens. In 2012, IPC investigators conducted a longitudinal cohort study of young adults recruited from BMC Pediatric ED to find out whether and how alcohol and/or marijuana may be associated with the perpetration of DA. The novel aspect of this study is that there had only been one prior study of young adults that followed them day-by-day prospectively to see if alcohol or marijuana had an acute, proximal effect on dating abuse perpetration. For the BMC

study, 60 patients who met the eligibility criteria, which included having had a drink of alcohol in the past month and having perpetrated at least two acts of dating abuse in the past three months, were asked to call into an interactive voice response telephone system once a day, every day, for the next 12 weeks following enrollment. Collectively, the patients called in on 1,364 days, which was 27% of all possible days. They reported perpetrating (DA) on 34% of the days when they had contact with an intimate partner, reported using alcohol on 28% of the days when they had partner contact, and using marijuana on 45% of those days.

In keeping with the primary hypotheses of the study, researchers found that alcohol use doubled the risk that an individual would perpetrate DA within 24 hours (OR 2.17, 95% CI 1.38-3.42). The relative odds were even higher when focus was narrowed to only the more severe and injurious forms of DA (OR 4.19, 95% CI 1.50-11.69). Marijuana use, on the other hand, was not strongly associated with DA perpetration (OR 1.40, 95% CI 0.89-2.21). The researchers stratified the sample into men and women to assess effects by biological sex, and the relationship between using alcohol and perpetrating DA was stronger for men than for women. The researchers wondered if being a victim of DA as well as a perpetrator might change the results—for example, maybe some people were only “perpetrating” DA in response to a provocation from their partner, which would perhaps mean that their use of alcohol would be less important. The data did not support the idea that being a victim of DA as well as a perpetrator made a difference in terms of whether a person drank alcohol before perpetrating DA.



What can we conclude from this study? The case that alcohol is causally related to DA perpetration is compelling—not just on the basis of these results, but many prior studies using samples of older adults that demonstrate alcohol elevates risk for aggression in couples. Questions about marijuana use and partner violence perpetration remain open, however. In the 1970s, a commission under the Nixon administration investigated the possibility that



marijuana was associated with increased aggression, and that commission concluded that it was not. In fact, throughout the 1980s researchers who conducted experimental studies tended to find that marijuana made people more “drowsy and passive” than aggressive. It is only in recent years that marijuana has come under suspicion once again as a possible contributor to violence. To be clear, marijuana use may well be associated with increased risk of aggression—its use may impair cognition and make misunderstandings more likely, or be related to job loss or educational difficulties, which in turn increase risk for partner abuse. On the whole, we still know too little about marijuana use—particularly marijuana use in present-day society and context—to draw firm conclusions about its relationship to dating abuse perpetration. Because of the generosity of the patients of BMC who volunteered to be in this, and perhaps future studies on the topic, we may soon know more about substance use, DA perpetration, and prevention.

VIOLENCE INTERVENTION ADVOCACY PROGRAM (VIAP)

VIAP LAUNCHES PILOT HOME VISITING NURSING PROGRAM

By Elizabeth Dugan, LICSW, Clinical Director, VIAP



With support from the Philanthropic Board at BMC, VIAP is piloting a new home visiting nurse initiative. Frequently VIAP clients are discharged to home from health care facilities and face many barriers to follow-up

on their medical care. This puts them at high risk for re-admittance due to infection, not having the appropriate medications or supplies, or simply lack of connection to a medical home. VIAP is piloting a Nursing Home Visiting Program (NHVP) to address this gap in the continuum of care. A VIAP/BMC Nurse participates in conducting home visits with the VIAP Advocates. The VIAP NHVP is modeled after The Nurse Family Partnership (NFP) model, an evidence based model of service delivery, and is based in the relationship with the client.



Julie Swain, RN ,
VIAP Home
Visiting Nurse

VIAP NHVP was created to achieve the following objectives:

- Increase patient satisfaction
- Decrease Recidivism
- Decrease utilization of ER visits (cost savings)
- Decrease number of inpatient days (cost savings)
- Decrease morbidity and mortality
- Increase health literacy
- Increase medication monitoring
- Provide link to medical home

According to client self-report, when asked what they would have done if the VIAP team had not come to their home, overwhelmingly the response was that they would have returned to the ED. In 2017, the VIAP Team has prevented over 73 return Emergency Room visits for things that were treatable at home. Qualitative data from clients include:

"I can't do this on my own, not with a drain in place. They said my Insurance won't cover a VNA home visit, I don't know how anyone is supposed to do this on their own ... I was wondering if you could come by later in the week and change it again, I have an appointment on Wednesday at the clinic and they can change it, but I might need another before I'm comfortable on my own."

"After all this time, you still are taking care of me and helping me. I feel like everyone around me has forgotten about how difficult my life is, but you are still here helping me and I am so grateful, I don't know what I would do without you. I think people don't realize how hard it is for me to even book my appointment."

VIAP NHVP will continue to pursue funding for sustainability. This is a best practice model and the goal is to incorporate this continuum of care into the VIAP service model.



BACK TO WORK!

Jelani is a Union Ironworker that sustained a life threatening GSW. Jelani was at home, discharged from the hospital and not confident he would or could ever return to work. Through the VIAP home visiting nursing/advocate team, some potential life threatening complications were avoided, and he was able to get the care he needed. This is Jelani on his first day back at work and he had this to say:



Once again Julie [VIAP nurse]: you saved my life ... what would I have done if you and Curtis [VIAP Advocate] didn't reach out to me ... thank God I have you on my side.

I owe you my life. My mother is so thankful for you and VIAP. Thank you so much for taking such good care of me and for being a great nurse."

– Jelani

DEPARTMENT OF JUSTICE/OFFICE FOR VICTIMS OF CRIME GRANT

Through the "Supporting Male Survivors of Violence (SMSV)" grant, VIAP conducted a gap analysis with clients, family members, community partners, and other hospital staff. Employment and housing were identified as the two greatest barriers to self-sufficiency and independence. In response, VIAP has initiated the following:

VIAP Workforce Development/Job Training Program

The VIAP Workforce Development/Job Training Program assists victims of violence to understand that work and education are paths to attaining self-sufficiency and breaking the cycle of violence. VIAP initially provided one-to-one career counseling that focused on educational needs, resume development, interviewing skills, job search strategies, and workplace behavior. After collecting feedback from clients and staff, VIAP understood the value of expanding into the community and partnering with the Madison Park Development Corporation to provide career counseling in a community-based group setting. This allows VIAP clients to benefit from the support of peers who face problems similar to their own.

Our goal is to assist our clients in identifying employment skills that will match the hiring needs of employers. VIAP works to connect our clients with opportunities to participate in internships and job placement at BMC or at other community partners. VIAP clients are paid during their internships and are able to concurrently work on their High School Equivalency, if needed. During the internship, or job placement, VIAP clients receive weekly coaching and guidance on workplace competencies, continued learning, and personal development.

In 2017, the VIAP Workforce Development Program assisted clients with securing 28 jobs, 18 of those were full time and 10 were part time. Additionally, one person

obtained their CDL License, one obtained their HiSET (formerly GED), four are working on obtaining their HiSet, and eight completed the intensive VIAP Workforce Development Group or completed an internship with a community partner.



The VIAP Workforce Development and Job Training Group, a partnership between VIAP and the Madison Park Development Corporation

VIAP has many community partners that have provided employment opportunities for clients, but the Human Resource Department at BMC has worked especially diligently on implementing the program. Since last year's program inception, VIAP has assisted in placing clients in 40 new jobs — of these, 13 were at BMC and 27 at other agencies or businesses. These jobs included employment at food and hospitality services, other Boston hospitals, Gillette Corporation, cleaning companies, machine shops, warehouses, construction contractors, and customer service and sales at retail establishments.



VIAP Transitional Housing Partnership

The VIAP Transitional Housing Partnership was established to help clients access and sustain independent housing. Clients must be employed, be demonstrating financial literacy, and continue to engage in weekly home visits with VIAP staff in order to be part of the VIAP Housing Program. Through a partnership with a local property management company, VIAP clients are provided housing. VIAP supports clients by paying their rent for a one year period. The intent is for the client to assume the rent payments and sustain the apartment at the end of the year. Life skills such as food shopping, accessing resources, managing bank accounts, budgeting, and overall apartment management are covered in the ongoing case management. VIAP has four clients housed and plan to house 12 over the course of the grant.



Julio Sanchez, VIAP housing participant, in his new home with VIAP Clinical Director Elizabeth Dugan.

CARING BEYOND TREATMENT

HOLISTIC APPROACH TO TRAUMA SURGERY

By Megan Janeway, MD, SRS, Research Fellow

Socially Responsible Surgery (SRS), is a unique group in the Department of Surgery at BMC committed to establishing social responsibility as a core value of surgical practice. Launched in 2014 by Tracey Dechert, MD, BUSM Assistant Professor of Surgery and BMC trauma surgeon, SRS aims to reduce health disparities by increasing equitable access to surgical care, increasing patient advocacy, and educating the local community. SRS has provided a venue for medical students, residents, faculty, and staff looking to combine their interest in surgical care with their passion for serving the underserved.

SRS has developed many projects targeting improvement in access to surgical care, health literacy, and peri-operative nutrition, with the goal of advancing social justice by improving surgical outcomes.

Some examples of recent projects demonstrate the scope and diversity of SRS activities. SRS has implemented a program to improve surgical outcomes, patient satisfaction, and health literacy amongst high-risk patients. Participating medical students are trained and paired with vulnerable patients to provide them

with peri-operative support and health education and to aid them in accessing appropriate resources for their specific needs prior to discharge. The program has been well received by patients, students, and the clinical teams and SRS currently is seeking resources to expand the project to include patients in the ED.

SRS paired with the BMC food pantry and local affordable food organizations to address food insecurity among surgical patients. SRS providers identify patients with nutritional needs to help them obtain access to healthy quality food to improve nutrition and healing.



A novel project, presented at the 2017 annual meeting of the Association for Surgical Education, studied medical students' changing attitudes of toward healthcare disparities following education on patients' barriers to surgical care.



SRS is expanding its research on the impact of socioeconomic factors on access to surgical care and surgical outcomes. In 2017, the group added a NIH-funded fellow who will focus on this research. SRS's goal is to have a permanent fellowship for surgical residents interested in health equity. Fellows would spend two years of structured academic time researching socio-economic disparities and developing innovative projects to mitigate their effects on health outcomes.

SRS is also teaming up with hospital-based and local community advocacy groups as part of continuing efforts to increase trainee exposure to advocacy and

policy for increasing healthcare provider impact on reducing healthcare disparities.

These and other SRS activities have gained national attention and the BMC group is collaborating with other institutions to form similar programs around the country.



CARING FOR CONCUSSION IN MASSACHUSETTS

IMPLEMENTATION OF SPORTS CONCUSSION LEGISLATION

By Jonathan Howland, PhD, MPH, MPA and Holly Hackman, MD, MPH

Sports and recreation-related concussion is a common and potentially serious health problem. A recent study estimated that between 1.1 and 1.9 million sports and recreation concussions occur annually in US children under age 19 years. Massachusetts was among early adopters of sports concussion legislation, with passage of its 2010 law, Chapter 166, An Act Relative to Safety Regulations for School Athletic Programs. In 2015, the Massachusetts Department of Public Health (MDPH) engaged the BMC IPC to conduct focus groups with Massachusetts middle and high school School Nurses (SNs) and Athletic Trainers (ATs) to assess implementation of regulations relative to the management of students' head injuries incurred during extracurricular sports. Four focus groups were

conducted. Findings indicated that overall SNs and ATs supported the sports concussion legislation; felt that implementation had gone well; indicated that the law empowered them in managing return-to-school/play for students with concussion; and, experienced support from their school administrators. Moreover, some SNs reported that they apply return-to-activity protocols to all students with concussion, regardless of how or where the injury occurred.

Working with school health and injury prevention staff at the MDPH, IPC investigators subsequently developed and conducted a survey of a half sample of Massachusetts high school nurses (N=227) to assess the extent to which sports concussion return-to-activity and learn protocols had been generalized to all high school students, not just students injured in extracurricular sports. The survey response rate was 80%. Results indicated that 94% of SNs had generalized regulations to apply to all students who experienced concussion, regardless of cause (e.g., traffic crash, skate board injury, fall) and 92% of responding SNs cared for all students' concussion as a matter of school policy. This study will provide legislators and public health leaders with data to inform future development of statewide infrastructure to treating concussion among Massachusetts adolescents.



INFANT SAFETY IN MASSACHUSETTS 2013 – 2015

ASSESSING BIRTHING HOSPITALS' POLICIES AND PRACTICES TO PROMOTE INFANT SAFE SLEEP

By Holly Hackman, MD, MPH and Jonathan Howland, PhD, MPH, MPA

Sudden Unexpected Infant Death (SUID) is a leading cause of death among U.S. infants and the leading cause of death among infants' ages 1-11 months.^{1,2} In 2013, SUID accounted for 3,422 deaths, or 14.6% of all U.S. infant deaths.¹ Reducing SUID rates is a national Healthy People 2020 health objective.³ To reduce the risk of Sudden Unexpected Infant Death, the American Academy of Pediatrics recommends that hospitals adopt safe infant sleep policies consistent with the Academy's updated recommendations, educate their staff on safe sleep techniques, and model these techniques to families of newborns. This project examined the extent to which birthing hospitals in Massachusetts followed these recommendations at baseline and following public health interventions to improve their status.

In 2015, the Massachusetts Department of Public Health (MDPH) engaged the BMC IPC to conduct a survey of nurse managers within maternity departments at all Massachusetts birthing hospitals to examine the extent to which they followed the AAP's recommendations. This was a follow-up to a survey conducted in 2013 by the Harvard School of Public Health (HSPH) and MDPH, enabling longitudinal comparisons. The survey response rate obtained in 2013 was 100% and 84% in 2015.

The proportion of respondents reporting that their hospital had a written policy on safe sleep was 43.5% in 2013 and 73.7% in 2015 (increasing 29.7 percentage points in the matched pair analyses ($p = 0.019$)). Policy content specific to supine sleep, avoidance of soft items in the sleep environment and avoiding co-sleeping with

an adult was present in all hospital policies by 2015, although only 57.1% reported their policy had all six safe sleep content areas listed in the survey. Side positioning for vomiting in healthy infants was reported to occur at least occasionally by the majority of hospitals at both time points, decreasing 13.5 percentage points in the matched pair analyses ($p=0.227$). Patient and family beliefs was the leading barrier identified by hospitals. Overall, Massachusetts' birthing hospitals showed statistically and clinically significant improvements in infant safe sleep policies and practices from 2013 to 2015 coinciding with public health programming. This study identifies areas where additional work is needed.



¹ Mathews, T. J., MacDorman, M. F., & Thoma, M. E. (2015). Infant mortality statistics from the 2013 period linked birth/infant death data set. *National Vital Statistics Reports*, 64(9), 1.

² U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. (2014). *Child Health USA 2014*. Rockville, Maryland: U.S. Department of Health and Human Services.

³ U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. *Healthy People 2020*. Washington, DC: www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives. Accessed May 1, 2017



The IPC works with the Boston University Schools of Medicine and Public Health to provide injury prevention education to students.

GMS INTERNSHIP/MPH PRACTICUM

Students at BU's School of Public Health have opportunities to participate in research practicum experiences on various injury prevention topics. They receive mentorship in conducting pilot studies and intervention evaluations. IPC core faculty members teach courses on intimate partner violence and sexual violence intervention and prevention. In addition, students in the Graduate Medical Science program are offered year-long internships to develop injury prevention research projects as part of their thesis requirement.

INJURY PREVENTION CENTER GRAND ROUNDS

Starting in the fall of 2013, the IPC initiated a series of monthly lectures on injury epidemiology and prevention for Emergency Medicine faculty, residents, and the community of interest. Lectures are presented by clinicians, researchers, epidemiologists, and public health program directors. The aim is to introduce physicians to injury surveillance data, intervention strategies — particularly those based in clinical settings — risk assessments and policy changes in areas including domestic violence, older adult falls, infant sleep death, opioid overdose, motor vehicle trauma and concussion, among others. The series is embedded in the Emergency Medicine Department's resident training program but is open to the Boston Medical campus and public health practitioners throughout the greater Boston area.

MEDICAL STUDENT TRAINING

Lisa Allee Barmak, BMC Injury Prevention Coordinator, provides training to medical students during their orientation to their surgical rotation on injury prevention topics including falls, distracted driving, bicycle safety, substance abuse, safe sleep, child passenger safety and violence prevention. Medical students learn injury trends at BMC and how to incorporate the discussion of injury prevention into their work with surgical patients. They also learn ways to prevent injuries in their own lives. Many medical students participate in injury prevention research with the trauma service during their time at BUSM and are provided mentorship by our IPC.

PHYSICIANS IN TRAINING

The IPC-BMC faculty provides lectures and trainings to emergency medicine, surgical, and pediatric residents on injury prevention topics including brief intervention for substance abuse, violence intervention, and childhood injury. These training activities are continuous throughout the year and are conducted at seminars, classes, and weekly conferences.



PROGRAM EVALUATION

Evaluation of Massachusetts Core Injury Prevention Program (Howland, Rothman, Taylor, O'Hara):

The IPC was selected for the second time by the Massachusetts Department of Public Health as the external evaluator for the state's CDC-funded core Injury prevention program. The Department's new five-year injury prevention initiative began in August 2016 and targets traffic safety, youth sports concussion, child sexual abuse, and interpersonal violence.

Prescription Drug Overdose-Prevention for States, RI (Green, Hackman):

This four-year cooperative agreement between the CDC and the Rhode Island Department of Health provides support to conduct opioid overdose surveillance, prevention, intervention, and monitoring activities in RI. As part of this agreement, the IPC is evaluating the implementation and impact of several RI policies including the Good Samaritan law, mandated registration of the Prescription Drug Monitoring Program, access to naloxone, and mandating 48 hour reporting of opioid overdoses. The Injury Prevention Center is also coordinating a newly formed multidisciplinary review team, which is conducting in-depth reviews of drug overdose deaths and identifying structural and community-based points for intervention.

Prescription Drug Overdose – Prevention for States, MA (Green, Hackman):

This CDC-funded cooperative agreement provides support to the Massachusetts Department of Public Health to expand overdose prevention initiatives. As part of this agreement, the Injury Prevention Center has been contracted to evaluate several state policies including the Good Samaritan law and prescribing policies. In addition, the Injury Prevention Center is also conducting a rapid assessment project in the Merrimack Valley, collecting data from persons who use drugs to inform overdose prevention activities.

OLDER ADULT FALLS

Medication Review to Reduce Fall Risk among Older Adults Patients at an ACO (Howland, Hackman):

IPC investigators are collaborating with pharmacotherapists and physicians at the Cambridge Health Alliance (CHA), an Accountable Care Organization (ACO), to conduct a trial of a program of medication review for older adult patients. The review focuses on prescriptions for medicines that are associated with increased risk for falling. Pharmacists review prescriptions of patients who are receiving specific fall-risk drugs to identify opportunities to eliminate, or reduce the dosage of, these medications. Recommended changes in medication are discussed with primary care physicians, psychiatrists and other specialists. If consensus is reached on changes, patients are counseled by the pharmacist and followed for one year to assess frequency of falling and other health effects.

STATE & LOCAL
WORK

BMC IPC members were noted for the following in the New England region:

Ed Bernstein, MD, spoke on “New Models of Care in Addiction: Faster Paths to Treatment” at the Massachusetts Society for Addiction Medicine Annual Meeting in Waltham, Mass.

Emily Rothman, ScD, gave the Sexual Assault Awareness Month lecture at Harvard School of Public Health entitled “Locker room talk, revenge porn, and commercial sex – Public health challenges for sexual assault prevention in the 21st century.”

Jonathan Howland, PhD, MPH, MPA presented a report on “A Pilot Survey of MA Primary Care Providers: Older Adult Fall-Risk Assessment, Intervention & Referral” at the Massachusetts Commission on Falls Prevention.

Traci Green, PhD, MSc, presented “The Current and Future Roles of the Pharmacist to Maximize Safe Opioid Use: Focus on Naloxone” at the Massachusetts Pharmacists Association Spring conference in Norwood, Mass.



Older Adult Falls Prevention Behaviors 60 Days Post-discharge from an Urban Emergency Department after Treatment for a Fall

(Shankar, Treadway, Taylor, Howland): This study interviewed older adults 60 days after they were discharged from the BMC ED following treatment for a fall-related injury. Results are featured in *Focus on Falls*. (Shankar K, Treadway NJ, Taylor AA, Breaud AH, Peterson EW, Howland J (2017). *Older adult falls prevention behaviors 60 days post-discharge from an urban emergency department after treatment for a fall*. *Injury Epidemiology*, (2017)4:18)

BPHEC Prevention and Wellness Trust

(Shankar): Boston was one of nine municipalities to receive funding from the Massachusetts Department of Public Health from the Prevention and Wellness Fund. The purpose of this grant is to establish an e-referral system to connect clinical providers to community services. One of the focus areas of this grant is older adult falls. We are working with both community health centers and community service providers to help connect older adults at risk of falling to evidence based, community interventions.

Clinical Referrals to Community-Based Health Programs: Patient Uptake and Completion

(Howland, Shankar, Taylor): IPC investigators worked with state and municipal health departments to implement and evaluate the Massachusetts Prevention and Wellness Trust program. This program aimed to increase physician referrals to community-based self-management programs for health problems, including pediatric asthma, uncontrolled hypertension, and falls. These programs are typically marketed directly to patients, who often self-select to participate. There is little information on whether patients will participate when they have self-selected, but have been referred by their physician. This study followed 1,247 patients who were referred by their physician to participate in a chronic disease self-management program for hypertension control or a program to reduce fear of falling and other fall risks. Of all referred patients, only 44% enrolled in these programs and only 12% completed the programs. These results indicate that for evidence-based community wellness programs to have public health impact at the population level, innovative approaches are required to promote these programs to patients referred by their physicians.

Older Adult Fall Risk Assessment and Referral Practices among Massachusetts Primary Care Physicians

(Howland, Taylor, Hackman): This survey of Massachusetts primary care physicians was conducted by IPC investigators on behalf of the Massachusetts Falls Prevention Commission and the Massachusetts Executive Office for Elder Affairs. The purpose of the survey is to determine the extent to which Massachusetts primary care physicians are assessing their older patients for fall risk and referring these patients to community-based fall prevention programs. Results are featured in *Focus on Falls*.

INTERPERSONAL VIOLENCE

Project REAL TALK: Dating Abuse Perpetration Research

(Rothman): The aim of this study is to test the efficacy of a brief motivational interview intervention to prevent the perpetration of dating aggression by youth. This study uses a randomized controlled trial design and was conducted at the BMC Pediatric ED. Data collection is now complete, and the analysis phase has begun.

My Life My Choice: An Evaluation of Programs for Child Victims of Commercial Sexual Exploitation

(Rothman): The aim of this study is to test the efficacy of two services provided by the Boston-based My Life My Choice (MLMC), an agency which works to prevent the commercial sexual exploitation of children. MLMC provides mentorship services to survivors of sex trafficking who are younger than 18 years old and also delivers a 10-session prevention group for youth who appear to be at risk for being sex trafficked. The mixed-methods evaluation study design follows youth longitudinally for one year. Data collection will be complete in December 2017.

Evaluation of a Training for Emergency Medical Services Workers on Human Trafficking

(Dyer, Stoklosa, Rothman): By measuring pre- and post-test changes in portrayal, knowledge, and attitudes, this study evaluates a one-session training for emergency medical personnel on de-identifying victims of human trafficking. Data collection is in progress.



NATIONAL WORK

The National Network of Hospital-based Violence Intervention Programs (NNHVIP), of which VIAP is a founding member, held its annual conference in September 2017 in Milwaukee, WI. The VIAP Team presented “Challenges and Successes through Program Expansion- Riding the Waves” with their mental health partners, the BMC Community Violence Response Team.

Emily Rothman, ScD presented a paper on interpersonal violence at the 72nd annual meeting of the American Society for Criminology, New Orleans, Louisiana.

Jonathan Howland, PhD, MPH, MPA and colleague Damaris Rohsenow, PhD were invited to present their work on next-day effects of heavy drinking at the FDA’s Joint Meeting of the Nonprescription Drugs Advisory Committee and the Drug Safety and Risk Management Advisory Committee in Maryland.

K. Sophia Dyer, MD presented EMS Goes into Overtime for Super Bowl LI at EMS State of the Science: A Gathering of Eagles XIX.

Robert A. Stern, PhD, was the keynote speaker at the CTE Conference 2016 in Honolulu, HI. He spoke on “Chronic Traumatic Encephalopathy in 2016: What We Know and What We Need to Know Next.”

Ed Bernstein, MD spoke about Faster Paths and Project ASSERT at the National Webinar for the Medicaid Innovation Accelerator Program, which focused on “Emergency Department Treatment and Follow-Up Strategies for Opioid Use Disorders.”

Minors Engaged in Storing or Carrying Firearms for Other People

(Rothman): This study estimates the prevalence of having stored or carried a firearm for another person in a sample of adolescent outpatients and ED patients. Patients complete a one-page survey anonymously. Data analysis is in progress.

CHILDHOOD INJURY

Birthing Hospital Infant Safe Sleep Policies

(Hackman, Howland, Taylor): This study assessed changes in infant safe sleep policies and practices among maternity services at Massachusetts hospitals before and after a state-wide forum on preventing sudden unexplained infant death. An electronic survey of Nurse Managers at maternity departments at all Massachusetts birthing hospitals was conducted in 2013 and repeated in 2015. The proportion of respondents reporting that their hospital had a written policy on safe sleep was 43.5% in 2013 and 73.7% in 2015 (increasing 29.7 percentage points in the matched pair analyses). Policy content specific to supine sleep, avoidance of soft items in the sleep environment, and co-sleeping with an adult was present in all hospital policies by 2015, while 57.1% included all six safe sleep content areas listed in the survey. Massachusetts’ birthing hospitals showed statistically and clinically significant improvements in infant safe sleep policies and practices from 2013 to 2015 coinciding with public health programming. Interventions to further improve practices may be necessary.

TRAFFIC SAFETY

Reporting Impaired Drivers

(Allee Barmak): In response to the Massachusetts 2010 Safe Driving Law, the BMC Division of Trauma and Acute Care Surgery developed a protocol for reporting impaired drivers. Under this law, patients who evidence driving impairment due to substance abuse or compromised neurocognitive function can be reported without impunity to the Massachusetts Registry of Motor Vehicles (RMV) for consideration of administrative license suspension/revocation. The purpose of the current study is to assess the effectiveness of the reporting program in terms of the number of cases by the RMV.





SUBSTANCE ABUSE

Advancing Patient Safety Implementation through Pharmacy-Based Opioid Medication Use Research: the MOON study (Green, Walley, Baird): This three-year grant from the Agency for Healthcare Research and Quality (U.S. Department of Health & Human Services) is a multi-faceted demonstration project that seeks to expand and evaluate a pharmacy-based naloxone (Narcan) program in Massachusetts and Rhode Island. The study aims to address the growing public health problem of opioid use disorder and overdose, and could become a national model for naloxone distribution. Key study outcomes include increase awareness and distribution of the lifesaving drug, naloxone from pharmacies.

Clinical Addiction Research and Education (CARE Program) (Samet, Walley): This program exposes physicians-in-training to addiction clinical research and immerses chief residents and infectious disease fellows in addiction medicine to facilitate their teaching and inclusion of drug abuse issues into HIV research.

IMPROVHISE: Implementation to Motivate Physician's Response to Opioid Dependence in HIV Setting (Walley, Green): This implementation study evaluates the effectiveness of academic detailing for promoting physician best practices for preventing opioid overdose among this patient population. The academic detailing aims to increase naloxone prescribing, prescribing medication assisted therapies, and uptake of medication assisted therapy training. The project measures physician prescribing changes in 11 study sites across the country. A supplement to this study will

develop and validate a methodology to measure the effectiveness of naloxone distribution and use through existing reporting mechanisms in the state prescription monitoring program.

Improving Physician Opioid Prescribing for Chronic Pain in HIV-infected Persons (Samet, del Rio, Walley): This is a multisite randomized controlled trial to test whether a collaborative care intervention for physicians can improve the delivery of chronic opioid therapy (COT) for HIV-infected person by (1) increasing physician adherence to opioid prescribing guidelines, (2) improving patient level outcomes and (3) increasing physician and patient satisfaction with care. The study also seeks to create and follow an observational cohort of HIV-infected patients on COT.

Optimizing Patient Engagement in a Novel Pain Management Initiative (Green, Baird, Donovan): This study evaluates a component of a program that aims to reduce emergency medical services among patients who experience chronic pain. This program provides Medicaid waiver for reimbursement of complementary and alternative healthcare services, such as massage therapy and acupuncture. Specifically, the study uses a randomized trial to test the effectiveness of a texting-based platform for reminding chronic pain patients of their alternative care appointments.

INTERNATIONAL WORK

Alcy Torres, MD, presented "Concussion in Children" at the 2017 International Conference in Asuncion, Paraguay.

Alexander Y. Walley, MD, MSc was a plenary speaker at the British Columbia Addiction Conference and Research Day. He spoke on "Public Health and Clinical Approaches to Address the Opioid Epidemic" at St. Paul's Hospital, Vancouver, British Columbia.



Pregnancy and Opioid Use: Using Prescription Monitoring Programs to Improve Care (Green):

This study seeks to develop and evaluate a Continuing Medical Education (CME) program for prescribers in identifying and responding to prescription opioid use, misuse, and addiction among pregnant women patients and “academic detailing” of prescribers treating pregnant women using opioids. The evaluation will document clinical outcomes associated with these interventions.

Prescription Opioid Use, Misuse, Disorders and HIV Outcomes (Green): This project will employ innovative approaches to understand the types and impact of prescription opioid use among HIV+ patients with chronic pain, and to understand the complex patient and provider factors that influence health outcomes for this population.

Bloomberg American Health Initiative (Sherman, Green): This project tests the feasibility for public health applications of four forensic laboratory instruments typically used by law enforcement for drug identification in the field. It will also collect information from drug consumers about their current drug use patterns, coping with fentanyl, and prospects for using drug checking services.

Pharmacy Naloxone Distribution: Assessing a New Tool to Reduce Overdose Mortality (Pollini, Green, Walley): The goal of this study is to examine the impact of pharmacy-based naloxone distribution and to assess barriers and facilitators to appropriate naloxone dispensing practices.

Addressing Medication Safety Through Pharmacy Based Interventions (Green): This demonstration project will expand, evaluate, and document the provision of pharmacy-based naloxone (PBN) at CVS and other retail pharmacies in two New England states.

CLINICAL PRACTICE

The IPC works closely with various departments to integrate injury prevention into the clinical care of patients.

Emergency Department Concussion Study (Stern, Burke, Howland, Olshaker): The ED is often the first and primary point of contact for the diagnosis and treatment of concussion. This study surveyed EDs throughout New England to assess the extent to which evidence-based clinical practice guidelines were being used for concussion evaluation and management. In 2013, an on-line survey was deployed to 88% (149/168) of the EDs in Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, and Maine. Thirty-five percent reported lack of clinical practice guidelines, and 57% reported inconsistency in the type of guidelines used. Although 94% provided written discharge instructions, there was inconsistency in the recommended time frame for follow-up care (13% provided no specific time frame), the referral specialist to be seen (25% did not recommend any specialist), and return to activity instructions. These findings suggest that there is variation in the application of evidence-based clinical practice guidelines in the evaluation and management of concussions in New England EDs and that strategies are needed to promote adherence to guidelines for concussion management in EDs. [Stern RA, Seichepine D, Tschoe C, Fritts NG, Alosco ML, Berkowitz O, Burke P, Howland J, Olshaker J, Cantu RC, Baugh CM, Holsapple (2016). Concussion care practices and utilization of evidence-based guidelines in the evolution and management of concussion: A survey of New England emergency departments. *Journal of Neurotrauma* 33:1-8.]

Pediatric Concussion Program (Torres, Barmak): BMC is committed to educating and treating patients with sports concussion. Patients admitted with a concussion receive a Pediatric Neurology consult as well as bedside education on treatment, recovery process and prevention of subsequent injury. IPC has partnered with Pediatric Neurology and the Family Medicine and Sports Medicine Departments to ensure concussion follow up care. The IPC is also actively involved in legislative advocacy relative to concussion and other brain injury.



Screening, Brief Intervention, and Referral to Treatment (SBIRT) Project for Trauma Patients

(Barmak): Substance abuse in general, and alcohol use in particular, have been clearly linked to fatal and non-fatal injury. Alcohol intoxication has been associated with 35-56% of all traffic fatalities, 25-35% of all non-fatal motor vehicle crashes, 40% of all falls, and 32-54% of homicides. The clinical social workers in the Care Management Department screen all trauma patients for high risk substance use using the National Institute on Alcohol and Alcoholism guidelines and provide SBIRT to all those who screen positive. The social workers are also involved in recovery of all trauma patients and their families and follow them throughout the hospitalization.

African American CRASH Study (Feldman, Mitchell):

The African-American CRASH (AA CRASH) study was an NIH-funded, multicenter, prospective study that enrolled 900 African-Americans patients who presented to the ED within 24 hours of Motor Vehicle Collision (MVC). The BMC ED was one of 13 EDs across the country to



enroll participants. Study procedures involved a detailed ED interview that includes an assessment of crash history, current post-traumatic symptoms and health status prior to the MVC. Serial mixed-mode assessments six weeks, six months and one year after MVC included an assessment of adverse sequelae, general health status and health service utilization. The results

from this study provided insights into the incidence and pathogenesis of persistent pain and other post-traumatic sequelae in African-Americans experiencing MVC. This study resulted in several publications in peer-reviewed journals.

Linnstaedt SD, Hu J, Liu A Y, Soward A C, Bollen KA, Wang H. E., ... McLean, S. A. (2016). Methodology of AA CRASH: a prospective observational study evaluating the incidence and pathogenesis of adverse post-traumatic sequelae in African-Americans experiencing motor vehicle collision. *BMJ Open*. 2016;6(9):e012222. DOI: 10.1136/bmjopen-2016-012222

Longitudinal Assessment of Post-traumatic Syndromes (AURORA) (McLean, McGrath, Mitchell):

The newly launched AURORA study, a NIH-funded multicenter project, has three overarching goals: to characterize posttraumatic disorders at a fundamental biological level; to determine how these disorders develop; and, to develop tools that will help clinicians identify individuals at high risk in the early aftermath of trauma. BMC will enroll patients who are discharged from the ED after a traumatic event. The goal of the AURORA study is to develop new insights to prevent morbid outcomes that are common in military veterans and civilian trauma survivors.

The DIAGNOSE CTE Research Project (Diagnostics, Imaging, And Genetics Network for the Objective Study and Evaluation of Chronic Traumatic Encephalopathy)

(Stern, Cummings, Reiman, Shenton): The DIAGNOSE CTE Research Project is a multi-center, multi-disciplinary, seven-year, longitudinal study designed to develop and refine methods of diagnosing CTE during life and to examine risk factors for CTE. Participant enrollment began in November 2016. This project involves a longitudinal examination (baseline and three year follow-up) of 45-74 year old symptomatic and asymptomatic former NFL players, symptomatic and asymptomatic former college football players, and an asymptomatic control group without a history of head trauma or contact sport participation. Participants are evaluated at one of four centers (in Boston, Las Vegas, Scottsdale/Phoenix, and New York City). They undergo clinical exams (neurological, motor, neuropsychological, neuropsychiatric, and daily functioning), neuroimaging (PET tau and amyloid scans, advanced MRI scans), lumbar puncture, and blood and saliva collection. The following are the goals of the DIAGNOSE CTE Research Project:

- Collect and analyze neuroimaging and fluid biomarkers for the detection of CTE during life.
- Characterize the clinical presentation of CTE.
- Examine the progression of CTE over a three-year period.
- Refine and validate diagnostic criteria for the clinical diagnosis of CTE.
- Investigate genetic and head impact exposure risk factors for CTE.
- Share project data with researchers across the country and abroad in order to expedite growth in our understanding and treatment of this disease.



The IPC's mission includes not only research on the causes and prevention of injury, but also the development and implementation of evidence-based programs to serve the community. Working closely with several BMC departments, the IPC is conducting a number of injury prevention programs and services for Boston residents.

Violence Intervention Advocacy Program

Provides comprehensive resources to victims of intentional violence.

Thea James, MD; Elizabeth Dugan, LICSW

Supporting Male Survivors of Violence

Provides innovative interventions to address gaps in services, specifically housing and employment for high risk victims of violence.

Thea James, MD; Elizabeth Dugan, LICSW

Senator Charles Shannon Community Safety Initiative

Supports the City of Boston comprehensive strategy aimed at reducing gun, gang and youth violence.

Elizabeth Dugan, LICSW

Community Violence Response Team

Works to reduce psychological trauma associated with violence through counselling and other interventions.

Lisa Allee Barmak, MSW, LICSW

Faster Paths

Provides rapid access and treatment to appropriate level of care including acute treatment services and medically assisted treatment for those experiencing substance use disorders.

Ed Bernstein, MD; Regina Kelleher, M.Ed, LADC-1

Child Passenger Safety Program

Provides car seat installations, inspections, and education. *Lisa Allee Barmak, MSW, LICSW*

Low Cost Bicycle Helmet Program

The IPC works in collaboration with the Boston Public Health Commission and the Play Safe Campaign to provide low-cost bicycle helmets to Boston residents.

Lisa Allee Barmak, MSW, LICSW

Matter of Balance

The IPC conducts a community-based program to reduce older adult fear of falling and to train student Physical and Occupational therapists.

Lisa Allee Barmak, MSW, LICSW

Project ASSERT

Reaching out to ED, inpatient and walk-in clients, an experienced team of Health Promotion Advocates provide services for those with substance use disorder, such as: linkage to primary care; shelter; opioid overdose prevention and continuous advocacy and ongoing support.

Ed Bernstein, MD, Ludy Young, M.Ed, LADC-1

Cribs for Kids

Provides parents of newborns with cribs and information on infant safe sleep practices.

Lisa Allee Barmak, MSW, LICSW

Boston Public Schools Outreach

The IPC Director of Programs and Education pairs with one of the BMC Trauma Surgeons for monthly presentations at Succeed Boston of Boston Public Schools. These presentations offer a realistic picture of the physical and psychological challenges facing victims with gunshot and stabbing injuries. This presentation is provided to youth identified by the Boston Public Schools as being at high risk for interpersonal violence.

Lisa Allee Barmak, MSW, LICSW

Critical Incident Response to Schools

This program conducts parent/child forums that stress the importance of healthy choices and seat belt use, the risks of distracted driving, and the realities of injuries that may be sustained during a car crash.

Lisa Allee Barmak, MSW, LICSW





HAPPY TENTH ANNIVERSARY VIAP

Since September 2006, VIAP has provided services to 5,121 victims of community violence. The goal of VIAP is to assist with, and provide access to, evidence-based services that allow victims to begin physical and emotional recovery after a violence-related injury. In a qualitative study published in *Academic Emergency Medicine*, co-authors Thea James, Director of VIAP and Elizabeth Dugan, Clinical Director of VIAP wrote that after examining the lives of 20 VIAP clients, “participants described positive, life-changing behaviors on their journey to healing through connections to caring, supportive adults.” After conducting a gap analysis that included clients, family members, community partners, and BMC hospital staff, employment and housing were identified as the biggest barriers to self-sufficiency. In 2017, VIAP focused on addressing the gaps in services, obtained housing for 29 clients and/or their family members, and assisted in securing new employment for 17 clients. VIAP also provided Trauma Informed Care training to over 100 BMC employees, including nurses, doctors, and social workers.



VIAP held a 10-year anniversary celebration in Hiebert Lounge at BUSM.

HONORS AND RECOGNITIONS

The Center values our members’ world-class talents and hard work in promoting our mission. It is especially rewarding when the medical world at large also pays tribute to their dedication and successes:

K. Sophia Dyer, MD, received the Lynn Stevens Award, to be used for research or practice improvement projects. Lynne Stevens, LICSW, BCD (1946-2009) was a clinician, activist and researcher who worked locally, nationally, and internationally, specializing in evaluation of the quality of care offered to women who were victims of violence.

Edward Bernstein, MD, received the Richard and Hinda Rosenthal Award from the American College of Physicians for his leadership as director and founder of Project ASSERT.

Alexander Y. Walley, MD, MSc, received the Association for Medical Education and Research in Substance Abuse Mentorship Award.

Robert A. Stern, PhD, was given the Faculty Research Award from the BUSM Department of Neurology.



LOOKING FORWARD

Youth Concussion

Finding from the survey of high school nurses, conducted by IPC investigators (*Howland, Hackman, Olshaker, Stern, Taylor, O'Hara*), indicated that over 90% had generalized return-to-activity protocols to all students, not just student athletes, as specified by the Massachusetts sports concussion law regulations. These investigators will present this finding to state legislators and relevant interest groups with the recommendation that the law be amended to apply to all Massachusetts middle and high school students, regardless of how or where they experienced a concussion.

As a companion the IPC survey of Massachusetts high school nurses investigators (*Howland, Hackman, Olshaker, Torres, Stern, O'Hara*) have received funding to conduct a survey of Massachusetts high school Athletic Directors to ascertain their perspective on implementation of the Massachusetts sports concussion law.

Childhood Injuries

IPC investigators (*Howland, Hackman*) are collaborating with the injury prevention center at Rhode Island Hospital/Brown University on a project to develop a texting intervention to provide education and enhance self-efficacy around injury prevention for the infants and toddlers of teen mothers. The grant application for this project is currently under review at National Institute for Child Health and Development.

IPC investigators (*Howland, Hackman, O'Hara*) are working with the Department of Pediatrics and the Massachusetts Center for Infant and Child Loss (based at BMC) to provide to each infant discharged from the Boston Medical Center maternity service with a onesie printed with a message reminding parents and care givers to place infants on their back for safe sleep. The aim of the onesie project is to reduce the incidence of Sudden Unexpected Infant Death (SUID) and Sudden Infant Death Syndrome (SIDS). The prone (stomach) sleep position is associated with an increased risk of infant death. In 1992, the American Academy of Pediatrics (AAP) recommended that infants be placed

for sleep in a supine (back or side) position. In 1994, the National Institute of Child Health and Human Development launched the 'Back to Sleep' campaign, which is credited with lowering the rate of SIDS between 1992 and 2001 by 53%. Similar declines in SUID occurred in Norway when public health education programs promoted back sleeping for infants. Norway instituted a program that provided THIS SIDE UP onesies to all newborns.

Little is known about factors that influence parental behaviors relative to injury prevention for their children. IPC investigators (*Hackman, Howland*) are collaborating with colleagues at the injury prevention center at Rhode Island Hospital/Brown University on a grant application to develop an instrument that predicts parental child injury prevention. Such an instrument could help pediatricians and other healthcare, or social service, providers to prospectively identify parents who could benefit from child safety education.

Violence and Trauma

The US Department of Justice, Office of Justice Programs has approved an additional \$660,000 in funding under the Supporting Male Survivors of Violence grant to VIAP. Under this grant, VIAP has implemented the Workforce Development/Job Training Program and the Transitional Housing Partnership.

Vicarious traumatization (VT) is a symptom of trauma in workers and caregivers that results from empathic engagement with traumatized clients. It is a special form of countertransference stimulated by exposure to the client's traumatic experience. VIAP will be performing a VT pilot study on fatigue and burnout among trauma support and care-giving personnel.



PUBLICATIONS 2016-2018

- Allee L, Dechert T, Rao SR, Crandall M, Christmas A, Eastman A, Duncan T, Foster S. The Eastern Association for the Surgery of Trauma's Injury Control and Violence Prevention Committee's Annual Distracted Driving Outreach Event: Evaluating attitude and behavior change in high school students. *J Trauma Acute Care Surg.* 2018; 84(1):31-6. PMID: 28538628. DOI: 10.1097/TA.0000000000001589
- Alosco ML, Jarnagin J, Tripodis Y, Martin B, Chaisson C, Baugh CM, Torres A, Nowinski CJ, Cantu RC, Stern RA. Utility of providing a concussion definition in the assessment of concussion history in former NFL players. *Brain Inj.* 2017;31(8):1116-23. PMID: 28471243. DOI: 10.1080/02699052.2017.1294709
- Alosco ML, Jarnagin J, Tripodis Y, Platt M, Martin B, Chaisson CE, Baugh CM, Fritts NG, Cantu RC, Stern RA. Olfactory function and associated clinical correlates in former NFL players. *J Neurotrauma.* 2017;34(4):772-80. PMID: PMC5314992. DOI: 10.1089/neu.2016.4536
- Alosco ML, Kasimis AB, Stamm JM, Chua AS, Baugh CM, Daneshvar DH, Robbins CA, Mariani M, Hayden J, Conneely S, Au R, Torres A, McClean MD, McKee AC, Cantu RC, Mez J, Nowinski CJ, Martin BM, Chaisson CE, Tripodis Y, Stern RA. Age of first exposure to American football and long-term neuropsychiatric and cognitive outcomes. *Transl Psychiatry.* 2017;19;7(9):e1236. PMID: 28926003. DOI: 10.1038/tp.2017.197.
- Alosco ML, Mez J, Kowall NW, Stein TD, Goldstein LE, Cantu RC, Katz DI, Solomon TM, Kiernan PT, Murphy L, Abdolmohammadi B, Daneshvar D, Montenigro PH, Nowinski CJ, Stern RA, McKee AC. Cognitive reserve as a modifier of clinical expression in chronic traumatic encephalopathy: A Preliminary Examination. *J Neuropsychiatry Clin Neurosci.* 2017;29(1):6-12. PMID: PMC5288278. DOI: 10.1176/appi.neuropsych.16030043.
- Alosco ML, Tripodis Y, Jarnagin J, Baugh CM, Martin B, Chaisson CE, Estochen N, Song L, Cantu RC, Jeromin A, Stern RA. Repetitive head impact exposure and later-life plasma total tau in former NFL players. *Alzheimers Dement (Amst).* 2016;7:33-40. PMID: PMC5312499. DOI: 10.1016/j.dadm.2016.11.003.
- Anderson ES, Lippert S, Newberry J, Bernstein E, Alter HJ, Wang NE. Addressing Social Determinants of Health from the Emergency Department through Social Emergency Medicine. *West J Emerg Med.* 2016;17(4):487-9. PMID: PMC4944812. DOI: 10.5811/westjem.2016.5.30240
- Ashendorf L, Alosco ML, Bing-Canar H, Chapman KR, Martin B, Chaisson CE, Dixon D, Steinberg EG, Tripodis T, Kowall NW, Stern RA. Clinical utility of select Neuropsychological Assessment Battery tests in predicting functional abilities in dementia. *Arch Clin Neuropsychol.* 2017;8:1-11. PMID: 29126099. DOI: 10.1093/arclin/acx100.
- Baghdanian AH, Baghdanian AA, Armetta A, Krastev M, Dechert T, Burke PA, LeBedis CA, Anderson SW, Soto JA. Effect of an Institutional Triage Algorithm on the Use of Multidetector CT for Patients with Blunt Abdominopelvic Trauma over an 8-year period. *Radiology.* 2017;282(1):84-91. PMID: 27618453. DOI: 10.1148/radiol.2016152021
- Bagley SM, Forman LS, Ruiz S, Cranston K, Walley AY. Expanding access to naloxone for family members: The Massachusetts experience. *Drug Alcohol Rev.* 2017. PMID: 28429378. DOI: 10.1111/dar.12551.
- Bernstein J, Bernstein E, Hudson D, Belanoff C, Cabral HJ, Cherpitel CJ, Bond J, Ye Y, Woolard R, Villalobos S, Ramos R. Differences by gender at twelve months in a brief intervention trial among Mexican-origin young adults in the emergency department. *J Ethn Subst Abuse.* 2017;16(1):91-108. PMID: PMC4733888. DOI:10.1080/15332640.2015.1095667
- Bernstein J, Dorfman D, Lunstead J, Topp D, Mamata H, Jaffer S, Bernstein E. Reaching Adolescents for Prevention: The Role of Pediatric Emergency Department Health Promotion Advocates. *Pediatr Emerg Care.* 2017;33(4):223-9. PMID: 26999582. DOI: 10.1097/PEC.0000000000000662.
- Besser LM, Alosco ML, Gomez LR, Zhou H, McKee AC, Stern RA, Gunstad J, Schneider JA, Chui H, Kukull WA. Late-life vascular risk factors and Alzheimer's disease neuropathology in individuals with normal cognition. *J Neuropathol Exp Neurol.* 2016;75(10):955-62. PMID: PMC5029440. DOI: 10.1093/jnen/nlw072



PUBLICATIONS 2016-2018

Bouvier BA, Wayne KM, Elston B, Hadland SE, Green TC, Marshall BDL. Prevalence and correlates of benzodiazepine use and misuse among young adults who use prescription opioids non-medically. *Drug Alcohol Depend.* 2017;183:73-7. PMID: 29241103 DOI: 10.1016/j.drugalcdep.2017.10.023.

Bouvier BA, Elston B, Hadland SE, Green TC, Marshall BDL. Willingness to use a supervised injection facility among young adults who use prescription opioids non-medically: a cross-sectional study. *Harm Reduct J.* 2017;14(1):13. PMCID: PMC5319157 DOI: 10.1186/s12954-017-0139-0.

Brouillette NM, Quinn MM, Kriebel D, Markkanen PK, Galligan CJ, Sama SR, Gore RJ, Laramie AK, Davis L. Risk of sharps injuries among home care aides: Results of the Safe Home Care survey. *Am J Infect Control.* 2017;45(4):377-83. PMID: 28063731. DOI:10.1016/j.ajic.2016.11.018

Carroll J, Marshall BDL, Rich J, Green TC. Exposure to fentanyl-contaminated heroin and overdose risk among illicit opioid users in Rhode Island: A mixed methods study. *Int J Drug Policy.* 2017;46:136-45. PMCID: PMC5560423. DOI: 10.1016/j.drugpo.2017.05.023

Cheripitel CJ, Ye Y, Bond J, Woolard R, Villalobos S, Bernstein J, Bernstein E, Ramos R. Brief Intervention in the Emergency Department Among Mexican-Origin Young Adults at the US-Mexico Border: Outcomes of a Randomized Controlled Clinical Trial Using Promotores. *Alcohol Alcohol.* 2016;51(2):154-63. PMCID: PMC4755550. DOI: 10.1093/alcalc/agv084

Cherry JD, Tripodis Y, Alvarez VE, Huber B, Kiernan PT, Daneshvar DH, Mez J, Montenegro PH, Solomon TM, Alosco ML, Stern RA, McKee AC, Stein TD. Microglial neuroinflammation contributes to tau accumulation in chronic traumatic encephalopathy. *Acta Neuropathol Commun.* 2016;4(1):112. PMCID: PMC5084333. DOI: 10.1186/s40478-016-0382-8

Choi HJ, Elmquist J, Shorey RC, Rothman EF, Stuart GL, Temple JR. Stability of alcohol use and teen dating violence for female youth: A latent transition analysis. *Drug Alcohol Rev.* 2017;36: 80-7. DOI: 10.1111/dar.12462.

Coe LJ, St John JA, Hariprasad S, Shankar KN, MacCulloch PA, Bettano AL, Zotter J. An Integrated Approach to Falls Prevention: A Model for Linking Clinical and Community Interventions through the Massachusetts Prevention and Wellness Trust Fund. *Front Public Health.* 2017;6:5:38. PMCID: PMC5337485. DOI: 10.3389/fpubh.2017.00038

Cooper Z, Maxwell CA, Fakhry SM, Joseph B, Lundeborg N, Burke PA, Baracco R. A position paper: The convergence of aging and injury and the need for a Geriatric Trauma Coalition (GeriTrac). *J Trauma Acute Care Surg.* 2017 Feb;82(2):419-22. PMID: 27893640. DOI: 10.1097/TA.0000000000001317

Dahn CM, Manasco AT, Breaud AH, Kim S, Rumas N, Moin O, Mitchell PM, Nelson KP, Baker W, Feldman JA. A critical analysis of unplanned ICU transfer within 48 hours from ED admission as a quality measure. *Am J Emerg Med.* 2016 Aug; 34(8):1505-10. PMID: 27241571. DOI: 10.1016/j.ajem.2016.05.009

DeJong W. (2016). Boards of Trustees must assume responsibility for making alcohol prevention on campus a top priority. *Journal of American College Health.* 2016;64(1): 80-4. PMID: 26158381. DOI: 10.1080/07448481.2015.1048455

Donovan E, Ranney ML, Baird J, Patry E, Cabral S, McKenzie M, Green TC. Beliefs about a complementary and alternative therapy-based chronic pain management program for a Medicaid population. *Pain Med.* 2017 Sep 1;18(9):1805-16. PMID: 28398544. DOI: 10.1093/pm/pnx051. P

Donovan E, Ranney ML, Reid AM, Baird J, Green TC. Chronic Pain in the Emergency Department. *R I Med J.* 2017 Feb 1;100(2):25-9. PMID: 28146596

Dorji G, DeJong W, Bor J, DeSilva MB, Sabin L, Feeley FR, Udon P, Wangchuck N, Wangdi U, Choden T, Gurung MS, Chogyel T, Wangchuk D, Kypri K. (2016). Increasing compliance with alcohol service laws in a developing country: Intervention trial in the Kingdom of Bhutan. *Addiction.* 2016;111;(3): 467-74. PMID: 26476020. DOI: 10.1111/add.13202



Drainoni ML, Koppelman EA, Feldman JA, Walley AY, Mitchell PM, Ellison J, Bernstein E. Why is it so hard to implement change? A qualitative examination of barriers and facilitators to distribution of naloxone for overdose prevention in a safety net environment. *BMC Res Notes*. 2016 Oct 18;9(1):465. PMCID: PMC5070095. DOI: 10.1186/s13104-016-2268-z

Ellison J, Walley AY, Feldman JA, Bernstein E, Mitchell PM, Koppelman EA, Drainoni ML. Identifying Patients for Overdose Prevention With ICD-9 Classification in the Emergency Department, Massachusetts, 2013-2014. *Public Health Rep*. 2016 Sep; 131(5):671-75. PMCID: PMC5230809 DOI: 10.1177/0033354916661981

Evans TI, Liebling EJ, Green TC, Hadland SE, Clark MA, Marshall BDL. Associations between physical pain, pain management, and frequency of nonmedical prescription opioid use among young adults: A sex-specific analysis. *J Addict Med*. 2017;11(4):266-72. PMID:28514234 PMCID: PMC5536999. DOI: 10.1097/ADM.0000000000000318

Evans TI, Hadland SE, Clark MA, Green TC, Marshall BDL. Factors associated with knowledge of a Good Samaritan Law among young adults who use prescription opioids non-medically. *Harm Reduc J*. 2016; 13(1):24. DOI: 10.1186/s12954-016-0113-2. PMCID: PMC4960738. DOI: 10.1186/s12954-016-0113-2

Exner-Cortens D, Eckenrode J, Bunge J, Rothman EF. (2017). Revictimization after adolescent dating violence in a matched, national sample of youth. *J Adolesc Health*. 2017;60(2):176-83. PMID: 28109451. DOI: 10.1016/j.jadohealth.2016.09.015

Fairbairn NS, Walley AY, Cheng DM, Quinn E, Bridden C, Chaisson C, Blokhina E, Lioznov D, Krupitsky E, Raj A, Samet JH. Mortality in HIV-Infected Alcohol and Drug Users in St. Petersburg, Russia. *PLoS One*. 2016;11(11):e0166539. PMCID: PMC5127495. DOI: 10.1371/journal.pone.0166539

Faul M, Stevens JA, Sasser SM, Allee L, Deokar AJ, Kuhls DA, Burke PA. Older Adult Falls Seen by Emergency Medical Service Providers: A Prevention Opportunity. *Am J Prev Med*. 2016; 50(6):719-26. PMCID: PMC4932831. DOI: 10.1016/j.amepre.2015.12.011

Finch JAM, Chiamphas G, Mutharasan RK, Contursi M, D'Hemecourt P, Dyer S, Troyanos C, Baggish A. Electrocardiogram utilization in the marathon medical tent. *JACC*. 2016 Apr;67(5):1638. DOI: 10.1016/S0735-1097(16)31639-4

Freeman P, Goodin A, Troske S, Strahl A, Fallin A, Green TC. Pharmacists' Role in Opioid Overdose: Kentucky Pharmacists' Willingness to Participate in Naloxone Dispensing. *Journal Am Pharm Assoc*. 2017;57(2S):S28-S33. PMID: 28139459. DOI: 10.1016/j.japh.2016.12.064

Galetta KM, Chapman KR, Essis MD, Alosco ML, Gillard D, Steinberg E, Dixon D, Martin B, Chaisson CE, Kowall NW, Tripodis Y, Balcer LJ, Stern RA. Screening utility of the King-Devick Test in mild cognitive impairment and Alzheimer's disease dementia. *Alzheimer Dis Assoc Disord*. 2017;31(2):152-8. PMCID: PMC5154783. DOI: 10.1097/WAD.0000000000000157

Gavett BE, Gurnani AS, Saurman JL, Chapman KR, Steinberg EG, Martin B, Chaisson CE, Mez J, Tripodis Y, Stern RA. Practice effects on story memory and list learning tests in the neuropsychological assessment of older adults. *PLoS One*. 2016;11(10):e0164492. PMCID: PMC5053775. DOI: 10.1371/journal.pone.0164492

Gnatienco N, Han SC, Krupitsky E, Blokhina E, Bridden C, Chaisson CE, Cheng DM, Walley AY, Raj A, Samet JH. Linking Infectious and Narcology Care (LINC) in Russia: design, intervention and implementation protocol. *Addict Sci Clin Pract*. 2016;11(1):10PMCID: PMC4855723. DOI: 10.1186/s13722-016-0058-5

Godersky ME, Vercammen LK, Ventura AS, Walley AY, Saitz R. Identification of non-steroidal anti-inflammatory drug use disorder: A case report. *Addict Behav*. 2017;70:61-4. PMID: 28214737 PMCID: PMC5370578. DOI: 10.1016/j.addbeh.2017.02.008

Goncy EA & Rothman EF. The reliability and validity of the Dating Abuse Perpetration Acts Scale in an urban, emergency department-based sample of male and female youth. *J Interpers Violence*. 2016. DOI: 10.1177/0886260516660299. PMID: 27443413. DOI: 10.1177/0886260516660299



PUBLICATIONS 2016-2018

- Green JG, Xuan Z, Kwong L, Holt MK, Comer JS. Teachers' reports of outreach to school-based providers of mental health services following the 2013 Boston Marathon attack. *Children & Schools*. 2016;38(4):227-234. <https://doi.org/10.1093/cs/cdw035>.
- Green TC, Case P, Fiske H, Baird J, Cabral S, Burstein D, Schwartz V, Potter N, Walley AY, Bratberg J. Perpetuating stigma or reducing risk? Perspectives from naloxone consumers and pharmacists on pharmacy-based naloxone in two states. *J Am Pharm Assoc*. 2017;57(2S):S19-S27.e4. PMID: 28214219. DOI: 10.1016/j.japh.2017.01.013
- Green TC, Potter N, Bratberg J. Detecting naloxone prejudices in the pharmacy setting. *J Am Pharm Assoc*. 2017;57(2S):S10-S11. PMID: 28159504. DOI: 10.1016/j.japh.2016.12.068
- Gutman R, Sammartino C, Green TC, Montague B. Error Adjustments for File Linking methods using encrypted Unique Client Identifier (eUCI) with Application to Recently Released Prisoners who are HIV+. *Stat Med*. 2016;15;35(1):115-29. PMCID: PMC4715569. DOI: 10.1002/sim.6586
- Hadland SE, Xuan Z, Sarda V, Blanchette J, Swahn MH, Heeren TC, Voas RB, Naimi TS. Alcohol Policies and Alcohol-Related Motor Vehicle Crash Fatalities among Young People in the US. *Pediatrics*. 2017;139(3). PMCID: PMC5330403. DOI: 10.1542/peds.2016-3037
- Hanchate AD, Paasche-Orlow MK, Dyer KS, Baker WE, Feng C, Feldman J. Geographic Variation in Use of Ambulance Transport to the Emergency Department. *Ann Emerg Med*. 2017;70(4):533-543. PMCID: PMC5614809. DOI: 10.1016/j.annemergmed.2017.03.029
- Henry EG, Thea D, Musokotwane K, Chibwe K, Biemba G, Hamer DH, DeJong W, Semrau K. (2016). The impact of a multi-level maternal health programme on facility delivery and capacity for emergency obstetric care in Zambia. *Glob Public Health*. 2017;10:1-14. DOI: 10.1080/17441692.2017.1385824. PMID: 28994352. DOI: 10.1080/17441692.2017.1385824
- Howland J, Hackman H, Taylor A, Brown L, Gapinski MA, Mills JK, Thornton K. Evaluation of Implementation of Massachusetts Sports Concussion Regulations. 2017. *J Sch Nurs*. PMID: 28378627. DOI: 10.1177/1059840517702697
- Jesin M, Rashewsky S, Shapiro M, Tobler W, Agarwal S, Burke PA, Salama A. Predictors of mortality, hospital utilization, and the role of race in outcomes in head and neck trauma. *Oral Surg Oral Med Oral Pathol Oral Radiol*. 2016;121:12-16. PMID: 26455290. DOI: 10.1016/j.oooo.2015.07.013
- Johnson RM, LaValley M, Schneider KE, Musci RJ, Pettoruto KP, Rothman EF. Marijuana use and physical dating violence among adolescents and emerging adults: A systematic review and meta-analysis. *Drug Alcohol Depend*. 2017;174:47-57. PMCID: PMC5521998. DOI: 10.1016/j.drugalcdep.2017.01.012
- Kahn JH, Magauran BG Jr, Olshaker JS, Shankar KN. Current Trends in Geriatric Emergency Medicine. *Emerg Med Clin North Am*. 2016 Aug;34(3):435-52. PMID: 27475008. DOI: 10.1016/j.emc.2016.04.014
- Kalesan B, Adhikarla C, Pressley JC, Fagan JA, Xuan Z, Siegel MB, Galea S. The Hidden Epidemic of Firearm Injury: Increasing Firearm Injury Rates During 2001-2013. *Am J Epidemiol*. 2017;185(7):546-53. PMID: 28338922. DOI: 10.1093/aje/kww147
- Kobayashi L, Green TC, Bowman SE, Ray M, McKenzie M, Rich JD. Patient Simulation for Assessment of Layperson Management of Opioid Overdose with Intranasal Naloxone in a Recently Released Prisoner Cohort. *SimulHealthc*. 2017;12(1):22-7. PMCID: PMC5300264. DOI: 10.1097/SIH.0000000000000182
- Koerte IK, Hufschmidt J, Muehlmann M, Tripodis Y, Stamm JM, Giwerc MY, Coleman MJ, Baugh CM, Fritts NG, Heinen F, Lin A, Stern RA, Shenton ME. Cavum septi pellucidi in symptomatic former professional football players. *J Neurotrauma*. 2016;33(4):346-53. PMCID: PMC4761807. DOI: 10.1089/neu.2015.3880
- Koerte IK, Mayinger M, Muehlmann M, Kaufmann D, Lin AP, Steffinger D, Fisch B, Rauchmann BS, Immler S, Karch S, Heinen F, Ertl-Wagner B, Reiser M, Stern RA, Zafonte R, Shenton ME. Cortical thinning in former professional soccer players. *Brain Imaging Behav*. 2016;10(3):792-98. PMID: 26286826. DOI: 10.1007/s11682-015-9442-0
- Kuhls DA, Campbell BT, Burke PA, Allee L, et al. Survey Of American College of Surgeons Committee on trauma members on firearm injury. *J Trauma Acute Care Surg*. 2017;82(5):877-86. PMID: 28240673. DOI: 10.1097/TA.0000000000001405



Lasser KE, Shanahan C, Parker V, Beers D, Xuan Z, Heymann O, Lange A, Liebschutz JM. A Multicomponent Intervention to Improve Primary Care Provider Adherence to Chronic Opioid Therapy Guidelines and Reduce Opioid Misuse: A Cluster Randomized Controlled Trial Protocol. *J Subst Abuse Treat*. 2016;60:101-9. PMID: PMC4679615. DOI: 10.1016/j.jsat.2015.06.018

LeBedis CA, Anderson SW, Bates DDB, Khalil R, Matherly D, Wing H, Burke PA, Soto JA. CT Imaging signs of surgically proven bowel trauma. *Emerg Radiol*. 2016;23(3):213-9. DOI: 10.1007/s10140-016-1380-7. PMID: 26873603. DOI: 10.1007/s10140-016-1380-7

Liebling EJ, Yedinak JL, Green TC, Hadland SE, Clark MA, Marshall BDL. Access to substance use treatment among young adults who use prescription opioids non-medically. *Subst Abuse Treat, Prev Policy*. 2016;11(1):38. PMID: PMC5127054. DOI: 10.1186/s13011-016-0082-1

Liebschutz JM, Xuan Z, Shanahan CW, LaRochelle M, Keosaian J, Beers D, Guara G, O'Connor K, Alford DP, Parker V, Weiss RD, Samet JH, Crosson J, Cushman PA, Lasser KE. Improving Adherence to Long-term Opioid Therapy Guidelines to Reduce Opioid Misuse in Primary Care: A Cluster-Randomized Clinical Trial. *JAMA Intern Med*. 2017;177(9):1265-72. PMID: PMC5710574. DOI: 10.1001/jamainternmed.2017.2468

Lim JK, Bratberg JP, Davis CS, Green TC, Walley AY. Prescribe to Prevent: Overdose Prevention and Naloxone Rescue Kits for Prescribers and Pharmacists. *J Addict Med*. 2016;10(5):300-8. PMID: PMC5049966. DOI: 10.1097/ADM.0000000000000223

Linnstaedt SD, Hu JunMei, Liu AY, Soward AC, Bollen KA, Wang HE, Hendry PL, Zimny E, Lewandowski C, Velilla MA, Damiron K, Pearson C, Domeier R, Kaushik S, Feldman J, Rosenberg M, Jones J, Swor R, Rathlev N, McLean SA. Methodology of AA CRASH: A Prospective Observational Study Evaluating the Incidence and Pathogenesis of Adverse Post-Traumatic Sequelae in African-Americans Experiencing Motor Vehicle Collision. *BMJ Open*. 2016;6(9):e012222. PMID: PMC5020668. DOI: 10.1136/bmjopen-2016-012222

Lunze K, Raj A, Cheng DM, Quinn EK, Lunze FI, Liebschutz JM, Briden C, Walley AY, Blokhina E, Krupitsky E, Samet JH. Sexual violence from police and HIV risk behaviours among HIV-positive women who inject drugs in St. Petersburg, Russia—a mixed methods study. *J Int AIDS Soc*. 2016;19(4Suppl 3):20877. PMID: PMC4951542.

Macmadu A, Carroll JJ, Hadland SE, Green TC, Marshall BDL. Prevalence and correlates of fentanyl-contaminated heroin exposure among young adults who use prescription opioids non-medically. *Addict Behaviors*. 2017;68:35-8. PMID: PMC5291510. DOI: 10.1016/j.addbeh.2017.01.014

Maculan B, Lozzi E, Rothman EF. (2017). Mixed-gender shelter-based service provision to child survivors of commercial sexual exploitation (CSEC) in Veneto, Italy: A case study. *Journal of Social Service Research*. <http://dx.doi.org/10.1080/01488376.2017.1299828>

Manasco AT, Griggs C, Leeds R, Langlois BK, Breaud AH, Mitchell PM, Weiner SG. Characteristics of state prescription drug monitoring programs: a state-by-state survey. *Pharmacoepidemiol Drug Saf*. 2016;25(7):847-51. PMID: 2706134. DOI: 10.1002/pds.4003

Marshall BDL, Green TC, Yedinak JL, Hadland SE. Harm reduction for young people who use prescription opioids extra-medically: Obstacles and opportunities *Int J Drug Policy*. 2016;31:25-31. PMID: PMC4975034. DOI: 10.1016/j.drugpo.2016.01.022

Marshall BDL, Krieger MS, Yedinak JL, Ogera P, Banerjee P, Alexander-Scott NE, Rich JD, Green TC. Epidemiology of fentanyl-involved drug overdose deaths: A geospatial retrospective study in Rhode Island, USA. *Int J Drug Policy*. 2017;46:130-5. PMID: 28601512. DOI: 10.1016/j.drugpo.2017.05.029

Mez J, Daneshvar DH, Kiernan PT, Abdolmohammadi B, Alvarez VE, Huber BR, Alosco ML, Solomon TM, Nowinski CJ, McHale L, Cormier KA, Kubilus CA, Martin BM, Murphy L, Baugh CM, Montenegro PH, Chaisson CE, Tripodis Y, Kowall NW, Weuve J, McClean M.D, Cantu RC, Goldstein LE, Katz DI, Stern RA, Stein TD, McKee AC. Clinicopathological evaluation of Chronic Traumatic Encephalopathy in players of American football. *JAMA*. 2017;318(4):360-70. PMID: 28742910. DOI: 10.1001/jama.2017.8334



PUBLICATIONS 2016-2018

- Montenigro PH, Alosco ML, Martin BM, Daneshvar DH, Mez J, Chaisson CE, Nowinski CJ, Au R, McKee AC, Cantu RC, McClean MD, Stern RA, Tripodis Y. Cumulative head impact exposure predicts later-life depression, apathy, executive dysfunction, and cognitive impairment in former high school and college football players. *J Neurotrauma*. 2017;34(2):328-40. PMCID: PMC5220530. DOI: 10.1089/neu.2016.4413
- Naimi T, Ross C, Siegel M, DeJong W, Jernigan D. (2016). Amount of televised alcohol advertising exposure to television and the quantity of alcohol consumed by youth. *J Studies Alcohol Drugs*. 2016;77(5):723-29. PMCID: PMC5015467
- Naimi TS, Stockwell T, Zhao J, Xuan Z, Dangardt F, Saitz R, Liang W, Chikritzhs T. Selection biases in observational studies affect associations between 'moderate' alcohol consumption and mortality. *Addiction*. 2017;112(2):207-214. PMID: 27316346. DOI: 10.1111/add.13451
- Naimi TS, Xuan Z, Cooper SE, Coleman SM, Hadland SE, Heeren TC, Swahn MH. Alcohol Policies and Alcohol-Involved Homicide Victimization in the U.S. *J Stud Alcohol Drugs*. 2017 ;78(5):781-8. PMID: 28930066.
- Naimi TS, Xuan Z, Cooper SE, Coleman SM, Hadland SE, Swahn MH, Heeren TC. Alcohol Involvement in Homicide Victimization in the United States. *Alcohol Clin Exp Res*. 2016; 40(12):2614-21. PMCID: PMC5134733. DOI: 10.1111/acer.13230
- Padon AA, Rimal RN, DeJong W, Siegel M, Naimi T, Jernigan D. Assessing youth-appealing content in alcohol advertisements: Application of a Content Appealing to Youth (CAY) Index. *Health Commun*. 2018;33(2):164-73. PMID: 27982709. DOI: 10.1080/10410236.2016.1250331.
- Padon AA, Rimal RN, Jernigan D, Siegel M, DeJong W. Tapping into motivations for drinking among youth: Normative beliefs about alcohol use among underage drinkers in the United States. *J Health Commu*. 2016;21(10):1079-87. PMCID: PMC5155584. DOI: 10.1080/10810730.2016.1222030
- Park TW, Saitz R, Nelson KP, Xuan Z, Liebschutz JM, Lasser KE. The association between benzodiazepine prescription and aberrant drug-related behaviors in primary care patients receiving opioids for chronic pain. *Subst Abus*. 2016;37(4):516-20. PMCID: PMC5708125. DOI: 10.1080/08897077.2016.1179242
- Penti B, Liebschutz JM, Kopczka B, Xuan Z, Odell C, Saper R. Novel peer review method for improving controlled substance prescribing in primary care. *J Opioid Manag*. 2016 Jul-Aug; 12(4):269-79. PMID: 27575828. DOI: 10.5055/jom.2016.0342
- Quinn MM, Markkanen PK, Galligan CJ, Sama SR, Kriebel D, Gore RJ, Brouillette NM, Okyere D, Sun C, Punnett L, Laramie AK, Davis L. Occupational health of home care aides: Results of the safe home care survey. *Occup Environ Med*. 2016 Apr;73(4):237-45. PMCID: PMC4819650. DOI: 10.1136/oemed-2015-103031
- Rinker DV, Diamond PM, Walters ST, Wyatt TM, DeJong W. Distinct classes of negative alcohol-related consequences in a national sample of incoming first-year college students: A latent class analysis. *Alcohol and Alcoholism*. 2016;51(5):602-8. PMID: 27325885. DOI: 10.1093/alcac/agw036
- Rothman EF. Should US physicians support the decriminalization of commercial sex? *AMA J Ethics*. 2017;19(1):110-21. PMID: 28107163. DOI: 10.1001/journalofethics.2017.19.1.sect1-1701
- Rothman EF & Wang N. A feasibility test of a brief motivational interview intervention to reduce dating abuse perpetration in a hospital setting. *Psychology of Violence*. 6(3), 433-441. *Psychol Violence*. 2016 Jul;6(3):433-41. PMCID: PMC4979562. DOI:10.1037/vio0000050
- Rothman EF, Heeren T, Winter M, Dorfman D, Baughman A, Stuart G. Collecting self-reported data on dating abuse perpetration from a sample of primarily Black and Hispanic, urban-residing, young adults: A comparison of timeline followback interview and interactive voice response methods. *J Interpers Violence*. 2016. PMID: 27920359. DOI: 10.1177/0886260516681154



Rothman EF, Baldwin SB, Stoklosa H, Chisolm-Straker M, Kato Price R, Atkinson H. Public health research priorities to address U.S. human trafficking.

Am J Public Health. 2017 Jul;107(7):1045-47. PMID: 28590857. DOI: 10.2105/AJPH.2017.303858

Rulison KL, Wahesh E, Wyrick DL, DeJong W. Parental influence on drinking behaviors at the transition to college: The mediating role of perceived friends' approval of high-risk drinking. *J Stud Alcohol Drugs.* 2016 Jul;77(4):638-48. PMID: 27340969

Samuels EA, Dwyer K, Mello MJ, Baird J, Kellogg AR, Bernstein E. Emergency Department-based Opioid Harm Reduction: Moving Physicians From Willing to Doing. *Acad Emerg Med.* 2016;23(4):455-65. PMID: 26816030. DOI: 10.1111/acem.12910

Saucier C, Zaller ND, Macmadu A, Green TC. An initial evaluation of law enforcement overdose training in Rhode Island. *Drug Alcohol Depend.* 2016 May 1;162:211-8. PMID: 27020323. DOI: 10.1016/j.drugalcdep.2016.03.011

Schultz V, Stern RA, Tripodis Y, Stamm J, Wrobel P, Lepage C, Weir I, Guenette JP, Chua A, Alosco ML, Baugh CM, Fritts NG, Martin BM, Chaisson CE, Coleman MJ, Lin AP, Pasternak O, Shenton ME, Koerte IK. Age at first exposure to repetitive head impacts is associated with smaller thalamic volumes in former professional American football players. *J Neurotrauma.* 2017. PMID: 28990457. DOI: 10.1089/neu.2017.5145

Shankar KN, Magauran BG Jr, Kahn JH. Geriatric Emergencies. *Emerg Med Clin North Am.* 2016 Aug;34(3):xvii-xviii. PMID: 27475023. DOI: 10.1016/j.emc.2016.06.001

Siegel M, DeJong W, Cioffi D, Leon-Chi L, Naimi TS, Padon AA, Jernigan DH, Xuan Z. Do alcohol advertisements for brands popular among underage drinkers have greater appeal among youth and young adults? *Subst Abus.* 2016; 37(1):222-9. PMCID: PMC4641838. DOI: 10.1080/08897077.2015.1023485

Siegel M, Pahn M, Xuan Z, Ross CS, Galea S, Kalesan B, Fleegler E, Goss KA. Firearm-Related Laws in All 50 US States, 1991-2016. *Am J Public Health.* 2017 Jul;107(7):1122-29. DOI: 10.2105/AJPH.2017.303701. PMID: 28520491. DOI: 10.2105/AJPH.2017.303701

Siegel MB, Rothman EF. Firearm ownership and the murder of women in the United States: evidence that the state-level firearm ownership rate is associated with the nonstranger femicide rate. *Violence and Gender.* 2016;3(1):20-26. <https://doi.org/10.1089/vio.2015.0047>

Siegel M, Rothman EF. Firearm ownership and suicide rates among US men and women, 1981-2013. *Am J Public Health.* 2016 Jul;106(7):1316-22. PMCID: PMC4984734. DOI: 10.2105/AJPH.2016.303182.

Smith VM, Siegel M, Xuan Z, Ross CS, Galea S, Kalesan B, Fleegler E, Goss KA. Broadening the Perspective on Gun Violence: An Examination of the Firearms Industry, 1990-2015. *Am J Prev Med.* 2017 Nov;53(5):584-91. PMID: 28648260. DOI: 10.1016/j.amepre.2017.05.002

Somerville NJ, O'Donnell J, Gladden RM, Zibbell JE, Green TC, Younkin M, Ruiz S, Babakhanlou-Chase H, Chan M, Callis BP, Kuramoto-Crawford J, Nields HM, Walley AY. Characteristics of Fentanyl Overdose - Massachusetts, 2014-2016. *MMWR Morb Mortal Wkly Rep.* 2017;66: 382-6. PMID: 28406883. DOI: 10.15585/mmwr.mm6614a2

Stern RA, Abularach LM, Seichepine DR, Alosco ML, Gavett BE, Tripodis Y. Office-based assessment of driving in older adults with and without cognitive impairment. *J Geriatr Psychiatry Neurol.* 2016;29(6):352-360. PMID: 27647790. DOI: 10.1177/0891988716666378

Stern RA, Seichepine D, Tschoe C, Fritts NG, Alosco ML, Berkowitz O, Burke P, Howland J, Olshaker J, Cantu RC, Baugh CM, Holsapple JW. Concussion Care Practices and Utilization of Evidence-Based Guidelines in the Evaluation and Management of Concussion: A Survey of New England Emergency Departments. 2017;34(4):861-8. PMCID: PMC5314982. [Available on 2018-02-15]. DOI: 10.1089/neu.2016.4475

Stern RA, Tripodis Y, Baugh CM, Fritts NG, Martin BM, Chaisson C, Cantu RC, Joyce JA, Shah S, Ikezu T, Zhang J, Gercel-Taylor C, Taylor DD. Preliminary Study of Plasma exosomal tau as a potential biomarker for chronic traumatic encephalopathy. *J Alzheimers Dis.* 2016;51(4):1099-1109. PMCID: PMC4833534. DOI: 10.3233/JAD-151028



PUBLICATIONS 2016-2018

- Stoklosa H, Dawson MB, Williams-Oni F, Rothman EF. A review of US health care institution protocols for the identification and treatment of victims of human trafficking. *Journal of Human Trafficking*. 2017;3(2):116-24. <https://doi.org/10.1080/23322705.2016.1187965>
- Stoklosa H, Showalter E, Melnick A, Rothman EF. Health care providers' experience with a protocol for the identification, treatment, and referral of human-trafficking victims. *Journal of Human Trafficking*. 2017;3(3):182-92. <https://doi.org/10.1080/23322705.2016.1194668>
- Stopka TJ, Donahue A, Hutcheson M, Green TC. Nonprescription naloxone and syringe sales in the midst of opioid overdose and hepatitis C virus epidemics: Massachusetts, 2015. *J Am Pharm Assoc* (2003). 2017 Mar - Apr;57(2S):S34-S44. PMID: 28189540 PMCID: PMC5352522. [Available on 2018-03-01]. DOI: 10.1016/j.japh.2016.12.077
- Tripodis Y, Alosco ML, Ziropiannis N, Gavett BE, Chaisson C, Martin B, McClean MD, Mez J, Kowall N, Stern, RA. The effect of traumatic brain injury history with loss of consciousness on rate of cognitive decline among older adults with normal cognition and Alzheimer's disease dementia. *J Alzheimers Dis*. 2017;59(1):251-63. PMCID: PMC5614490. DOI: 10.3233/JAD-160585
- Tupler LA, Zapp D, DeJong W, Ali M, O'Rourke S, Looney J, Swartzwelder HS. Alcohol-related blackouts, negative alcohol-related consequences, and motivations for drinking reported by newly matriculating transgender college students. *Alcohol Clin Exp Res*. 2017 ;41(5):1012-23. PMCID: PMC5404959 [Available on 2018-05-01]. DOI: 10.1111/acer.13358
- Ventura AS, Winter MR, Heeren TC, Sullivan MM, Walley AY, Holick MF, Patts GJ, Meli SM, Samet JH, Saitz R. Lifetime and recent alcohol use and bone mineral density in adults with HIV infection and substance dependence. *Medicine*. 2017; 96:17:e6759. PMCID: PMC5413268. DOI: 10.1097/MD.00000000000006759
- Walley AY, Cheng DM, Quinn EK, Blokhina E, Gnatienco N, Chaisson CE, Krupitsky E, Coffin PO, Samet JH. Fatal and non-fatal overdose after narcology hospital discharge among Russians living with HIV/AIDS who inject drugs. *Int J Drug Policy*. 2017;39:114-20. PMCID: PMC5191979. DOI: 10.1016/j.drugpo.2016.10.022
- Weiner SG, Griggs CA, Mitchell PM, Langlois BK, Friedman FD, Nelson KP et al. Clinician Impression Versus Prescription Drug Monitoring Program Criteria in the Assessment of Drug-Seeking Behavior in the Emergency Department. *Ann Emerg Med*. 2013;62(4):281-9. MID: 23849618. DOI: 10.1016/j.annemergmed.2013.05.025
- Weiner SG, Horton LC, Green TC, Butler SF. A Comparison of an Opioid Abuse Screening Tool and Prescription Drug Monitoring Data in the Emergency Department. *Drug Alcohol Depend*. 2016; 159:152-7. PMID: 26743334. DOI: 10.1016/j.drugalcdep.2015.12.007
- Weiner SG, Mitchell PM, Temin ES, Langlois BK, Dyer KS. Use of Intranasal Naloxone by Basic Life Support Providers. *Prehosp Emerg Care*. 2017;21(3):322-26. PMID: 28166446. DOI: 10.1080/10903127.2017.1282562
- Xuan Z, Naimi TS, Kaplan MS, Bagge CL, Few LR, Maisto S, Saitz R, Freeman R. Alcohol Policies and Suicide: A Review of the Literature. *Alcohol Clin Exp Res*. 2016; 40(10):2043-55. PMCID: PMC5048547. DOI: 10.1111/acer.13203
- Xuan Z. Moderate drinkers may not have reduced risk of all-cause mortality: a lifecourse perspective. *Evid Based Med*. 2016; 21(5):194. PMID: 27555636. DOI: 10.1136/ebmed-2016-110490
- Yedinak JL, Kinnard EN, Hadland SE, Green TC, Clark MA, Marshall BDL. Social context and perspectives of non-medical prescription opioid use among young adults in Rhode Island: A qualitative study. *Am J Addict*. 2016; 25(8): 659-65. PMCID: PMC5278633. DOI: 10.1111/ajad.12466



BOARD OF VISITORS

Karen Antman, MD,
Boston University Medical
Campus Provost and
Dean of Boston University
School of Medicine

**Alice Bonner, Ph.D.,
RN, FAANP, FGSA,**
Secretary of the
Massachusetts Executive
Office of Elder Affairs

Michael Botticelli, M.Ed,
Executive Director of
the Grayken Center for
Addiction, Boston Medical
Center

**Ed Davis, President and
CEO,** Edward Davis, LLC

David Hemenway, PhD,
Professor of Health Policy,
Harvard T.H. Chan School
of Public Health, Director
of the Harvard Injury
Control Research Center

**Sandro Galea, MD, MPH,
DrPH,** Robert A. Knox
Professor and Dean at the
Boston University School
of Public Health

Jes Lauritzen, MD,
Professor of Orthopedics,
University of Copenhagen

**Monica Valdes Lupi, JD,
MPH,** Executive Director
of the Boston Public
Health Commission

Guhoa Li, DrPH, MD,
Finster Professor of
Epidemiology, Director
of the Center for Injury
Epidemiology and
Prevention, Mailman
School of Public
Health, Professor of
Anesthesiology, College of
Physicians and Surgeons,
Columbia University, Editor
of the Journal of Injury
Epidemiology

Michael Mello, MD, MPH,
Professor of Emergency
Medicine and Professor
of Health Services, Policy
and Practice at Brown
University, Director of the
Injury Prevention Center
at Rhode Island Hospital/
Hasbro Children's Hospital

**Mathew Miller, PhD,
MD,** Professor of Health
Sciences and Epidemiology
at Northeastern University
and Co-Director of the
Harvard Injury Control
Research Center

Carlene Pavlos, M.T.S.,
Executive Director of the
Massachusetts Public
Health Association,
Former Director of
Bureau of Community
Health and Prevention
at the Massachusetts
Department of Public
Health

**Cynthia Rodgers,
M.S.P.H.,** Coordinator of
the CDC-funded Northeast
and Caribbean Injury
Prevention Network and
Project Specialist for the
Children's Safety Network

**Melissa Shannon,
JD,** Vice President for
Government Affairs,
Boston Medical Center

Jonathan Woodson, MD,
Lars Anderson Professor
in Management and
Professor of the Practice
at the Boston University
Questrom School of
Business; Professor of
Surgery at the School of
Medicine; and Professor
of Health Law, Policy and
Management at the School
of Public Health, Director
of the Institute for Health
System Innovation and
Policy





INJURY PREVENTION CENTER

IPC EXECUTIVE DIRECTOR

Jonathan Howland, *PhD, MPH, MPA*

617.638.5158

jhowl@bu.edu

IPC DEPUTY DIRECTOR

Traci Green, *PhD, MSc*

617.414.5976

tcgreen@bu.edu

Department of Emergency Medicine

771 Albany Street, Dowling 1S, Boston, MA 02118



Boston University School of Medicine

Follow us online to learn
about our injury prevention
work year round:



bmc.org/bostontrauma