

PUBLIC & GLOBAL HEALTH

Boston Medical Center
Department of Emergency Medicine



Chief & Chairman
Jonathan Olshaker, MD
Department of Emergency Medicine

It will always be exciting for us as emergency physicians to deliver life-saving acute care. There is a tremendous satisfaction in the successful resuscitation of a patient shot in the chest or barely breathing with a severe asthma attack. However, it is just as rewarding to play a role preventing violence, getting an asthmatic's disease under good outpatient control, or helping to stop a citywide hepatitis outbreak. Our section of Public and Global Health continues to champion these and other efforts to make positive changes locally, nationally and globally.

September 2008 marked the completion of year two for the Violence Intervention Advocacy Program (VIAP) at BMC. This innovative program on intervention and case management for ED patients who are victims of violence has been a marked success and has now been disseminated to six other Massachusetts EDs through

a grant from the Department of Public Health. The program played a major role in the passage of a bill in the Massachusetts Legislature to standardize violence intervention in the health-care settings.

The Brief Negotiated Interview and Acute Referral to Treatment Institute (BNI-ART) continues its remarkable success at BMC and throughout the country with numerous accomplishments including: dissemination of the BNI throughout the state; active participation in the 2008 White House SBIRT Leadership summit; and being the inspiration for the Academic Emergency Medicine Consensus Conference on "Public Health in the ED: Surveillance, Screening and Intervention" to take place at the Society of Academic Emergency Medicine Annual Meeting in New Orleans in May 2009.

The department continues to be a leader in the important national drive to alleviate Emergency Department overcrowding. We continue to handle increased volume and admissions with one of the best throughput times in the country for safety net hospitals and only a few hours of ambulance diversion per month. Many of our procedures are widely accepted throughout the state and country as *best practices*.

The section has been involved in significant global endeavors including the International Campaign to Ban Landmines as well as humanitarian projects in Iraq, Ghana, Argentina and Lebanon. Dr. Hani Mowafi is the co-chair of the working group on Human Resources in Humanitarian Health at the upcoming Humanitarian Action Summit to be held in Cambridge, Massachusetts, March 2009.

This newsletter edition outlines in greater detail the activities, projects and research of our Section of Public & Global Health. Faculty, residents and special contributors continue to show that advocacy, research and most of all passion result in a significant, positive impact on our community and the world we share.

MISSION STATEMENT:

By utilizing the principals of epidemiology and public health, the Department of Emergency Medicine - Section for Public & Global Health - strives to promote and improve the health of the populations we serve. We are dedicated to excellence in emergency care through Research, Education, Advocacy, Clinical Competency and Humanitarianism - (REACH).



Commissioner John Auerbach
Massachusetts Department of Public Health

“Helping People Lead Healthy Lives In Healthy Communities”

As Commissioner of the Department of Public Health I am committed to “Helping People Lead Healthy Lives In Healthy Communities, and to protect, preserve, and improve the health of all the Commonwealth’s residents.” The Emergency Departments and EMS system in our state provide high quality safety-net services to all our residents, and we value our partnership.

I want to congratulate the Emergency Department at Boston Medical Center for championing major public programs for ED patients at BMC and throughout the state. Thousands of Massachusetts residents across 13 EDs have benefited from the safe haven created by the ED Alcohol and Drug Screening Brief Intervention and Referral to Treatment (MA ED SBIRT) and the Violence Intervention Advocacy Program (MA ED VIAP). The public health approach to prevention that is used in both of these initiatives is peer educators employed by each ED and functioning with the team of ED clinicians. This approach makes it possible to identify problems, empower patients to make changes and link them with community resources for continued support and recovery.

We have been delighted to work together on these important programs and we look forward to an ongoing collaboration. I applaud what your Emergency Department has accomplished as the articles in this edition of the Public and Global Health Section newsletter demonstrate.

The Emergency Department at BMC is providing important leadership to improve the health and safety of the people of Massachusetts.



James Feldman, MD, MPH
*Research Director; Chair, IRB BUSM
President MACEP*

MACEP, BMC Emergency Medicine & Public Health Update

Several members of the Emergency Medicine faculty have been actively involved through MACEP in public health issues that affect our state. Dr. William Fernandez recently became Chair of the MACEP Public Health Committee. Among the immediate issues for the committee is a request from the Department of Public Health to collaborate on tuberculosis screening and awareness in the ED. Of the 224 cases of active TB reported to the DPH in 2007, 110 cases were reported from 36 hospitals located throughout Massachusetts. Many were seen in Emergency Departments, often with multiple visits before diagnosis. One patient had three separate visits, a prolonged delay in diagnosis resulting in morbidity to the

patient, exposure of ED staff and infection of the PCP. Another patient with multidrug resistant TB had separate ED visits exposing staff in the ED and radiology. Dr. Fernandez will be working with the Department of Public Health to develop a response to this health concern. MACEP has continued to work with Dr. Edward Bernstein and Dr. Judith Bernstein on efforts to address substance abuse through the MA-SBIRT collaborative (seven EDs) and on the public health crisis of violence through the violence advocate program (six EDs) led by Drs. Thea James and Ed Bernstein. MACEP has continued to work collaboratively with the Departments of Public Health and Mental Health on behavioral health care in our state. Several task forces have been working on access, disrobing and restraint procedures among other issues.

As MACEP President, I have focused most of my efforts on ED crowding and boarding. Please review the MACEP newsletter available on line (www.macep.org) about the progress in our state on this issue and the work of the MDPH Crowding and Diversion Taskforce co-chaired by Commissioner John Auerbach and Dr. Alan Woodward. MACEP also is working on preparedness legislation to improve our state’s ability to respond to disasters and to resolve liability concerns to emergency personnel who could face great challenges should pandemic flu or some other major event overwhelm our ability to provide care to all those in need. Finally, MACEP has raised the issue of access to primary care and specialty care in our state to legislators and public health officials. During the year ahead and during this challenging fiscal environment, MACEP will continue to advocate for our patients and the preservation of the safety net that Emergency Departments provide.

VULNERABLE POPULATIONS

Violence Intervention Advocacy Program



Thea James, MD

Director, Violence Intervention Advocacy Program (VIAP)
President Elect (2010) – BMC Medical & Dental Staff

Violence Intervention Advocacy Program (VIAP) BMC and Statewide Programs “One and Two Years Later”

September 2008 marked the completion of year two for the Violence Intervention Advocacy Program (VIAP) at Boston Medical Center (BMC). At its inception two years ago, BMC VIAP was exclusive to Boston Medical Center which had two Violence Intervention Advocates (VIAs); however, at the end of year one, at the request of the Governor, the model was widely disseminated to other MA EDs.

Year One:

In year one of the VIAP program, quantitative as well as qualitative data was collected and studied. The data was taken from weekly work activity reports submitted by two BMC VIAs. The data informed us about recurrent themes among the victims of violence seen at BMC, and the services that would be most needed by victims of violence. We developed our service partners based upon these needs.

Recurrent Themes of Victims of Violence:

- Abbreviated Education
- Unemployment
- Lack of Life-Skill Coaching
- Lack of Mentoring
- Lack of Health Care
- Substance Use

Year Two:

Funded through a grant from the Bureau of Substance Abuse Services. In year two, six Massachusetts EDs were selected to use VIAs performing case management with victims of violence. This

resulted with victims connecting to resources and services that would offer opportunities for positive change. The EDs selected had the highest rates of penetrating trauma in the state.

Lessons Learned in the Last 12 Months

Our experiences over the last year taught us a number of lessons that will be invaluable as we continue with this program. We have a better understanding of the best practices for case management, for approaching and engaging patients, as well as improved knowledge of how to develop rapport, relationship and TRUST with clients and their families over time. We also learned that there is a strong association between victims of violence and substance use, as well as how to identify and address co-occurring violence and substance use.

Finally, it is important for VIAs to practice self-care because this is challenging work and unfortunately, you can't save everyone.

Year Two:

New Activity

In year two, a roster of appropriate community service providers was identified to address the needs of our clients. The original program model was improved to include *individual case management*. In year two, rather than simply being given referrals and expected to follow up on their own, VIAs *directly accompany clients to referrals – based upon self-identified needs assessment*.

Needs Assessment and Services Provided:

Among the first 45 VIAP enrollees who completed a needs assessment, 43% identified educational needs and 85.7% of those completed referrals allowed us to offer services. 44% identified employment needs of which 80% completed referrals resulted in 25% getting new jobs. Other needs assessment data revealed:

- 44% identified housing needs, among whom 80% completed housing assistance referrals and 30% found new housing.
- 37.8% of clients identified mental health and/or anger management needs, among whom 72.2% completed a psychiatry referral and 61.1% are currently in counseling.
- 40 clients reported drug use, 21 clients reported high risk/dependent drinking, and 19 clients reported tobacco use. Six clients reported reduced drug use after enrollment, three entered substance abuse treatment, two stopped drinking, four clients completed a smoking cessation referral, and two clients have stopped smoking.

- 60.5% identified personal safety needs (establishing a safety plan to avoid violence/become non-violent, reconsider retaliation and relocation), of whom 15.4% were relocated temporarily for safety.
- 20 clients identified legal aid needs, and (45%) received referrals for legal aid; six clients received a lesser sentence for their offense due in part to VIAP advocates accompanying them to court and testifying about program participation.

1. Following Clients through “Stages”

In year two, we developed a “Stages” model to follow client progress on a continuum to inform us of where more intervention is needed and what characteristics of clients or elements of intervention influence how well people move through the stages from entrance to discharge.

BMC VIAP Stages of Change

STAGE 1

Intake: Inpatient or recently discharged: relationship, trust building, daily contact, safety plan, assessment, documents

STAGE 2

Services: Transitional Assistance, Victims Assistance, housing, medical/surgical f/u, primary care, mental health

STAGE 3

Personal development: education, mental health, job readiness, job training, employment

STAGE 4

Independence: maintenance, nurturing, growth and development

2. Discharge Protocol

Leroy Muhammad, one of our VIAs, began attending Trauma Service discharge meetings this summer. His attendance at these meetings resulted in the development of a comprehensive discharge protocol for victims of violence. He uses the protocol form to make certain that *post-discharge service needs are addressed and in place prior to discharge*.

3. Former VIAP Client enrolled as Boston EMS Intern

One of our former VIAP clients is presently enrolled as an intern with Boston EMS. He sustained a spinal cord injury nearly two years ago. He said that one of our service partners who sustained a spinal cord injury many years ago was a mentor to him in the nascent stages of his recovery. He said that his mentor was the impetus for his rehabilitation. In addition to being a Boston EMS intern, he also is a mentor for other patients at BMC with spinal cord injuries. He is a model of one of the VIAP’s most important

goals – clients reenter society and build communities through strengthening others from what they’ve learned.

4. Newest Addition to VIAP team

BMC VIAP has a new addition to the team, Project Assistant Rebecca Bishop, MSW. Rebecca hails from Connecticut and came to Boston to complete a Masters of Social Work (MSW) at Boston College. Upon graduation she worked at Beth Israel Deaconess Medical Center in their Violence Intervention Program. She subsequently worked at the MA Department of Public Health. Rebecca has had a strong interest in youth violence for some time and her fierce passion for this work has been evident since her arrival to BMC. She hit the ground running and has been a great asset to our program with her energy, ideas, and enthusiasm for the work we do. Rebecca also attends the daily Trauma Service discharge meetings tracking our patients from admission to discharge. Already, “Becca” has developed a system of increasing the VIAP capture rate of patients who are treated at BMC. She has also developed a referral list for patients who exceed the age range for case management in our program.

6 MA VIAP Sites and Resulting Data

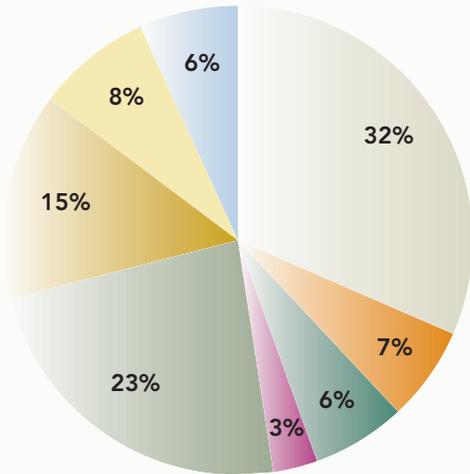
1. Boston Medical Center
2. Brockton Hospital, Brockton
3. Lawrence General Hospital, Lawrence
4. Massachusetts General Hospital, Boston
5. Baystate Medical Center, Springfield
6. UMass Memorial, Worcester

MOST RECENT DATA

1,676 young victims of violence were contacted in the hospital after an incident of violent trauma:

- 554 were approached, but refused to talk
- 602 communicated but did not accept services
- 804 accepted services

Types of Services Provided by MA VIAP



- TRANSPORTATION
- EDUCATION
- EMPLOYMENT
- RELOCATION
- SOCIAL SERVICES
- MED/MH REFERRAL
- LEGAL ADVOCAY
- SA REFERRAL

SCREENING AND BRIEF INTERVENTION SUBSTANCE ABUSE PREVENTION



Edward Bernstein, MD

*Professor and Vice Chair for Academic Affairs
Director, Section of Public & Global Health
Director, BUSPH BNI-ART Institute/Project ASSERT
Boston University School of Medicine*

Screening, Brief Intervention, and Referral to Treatment (SBIRT): Making a Difference Across the State

Emily Shaw, BNI-ART Institute

In June 2006 after 12 years of success with Project ASSERT in the BMC Emergency Department, the Bureau of Substance Abuse Services of the MA Department of Public Health funded the BNI-ART Institute, a partnership between the BU School of Public Health and the BMC ED, to challenge other EDs across the state and support efforts to institute screening and early intervention for patients with high risk and dependent drinking and other substance use (the ED SBIRT program).

Nineteen EDs applied from all six state regions including urban academic centers, suburban, and rural community hospitals. A committee comprising major professional organizations and key players from public health agencies selected Mercy Medical Center, South Shore, St. Anne's, Athol Memorial, Haywood, Whidden Memorial and Boston Children's hospitals based on criteria of intensity of patient need and promise of institutional commitment.

Twelve health promotion advocates (HPAs) were recruited from pools of applicants with peer educator or outreach experience. The HPAs and their supervisors were trained by ED faculty, staff and the Project ASSERT HPAs from BMC using the BNI-ART Institute's manualized curriculum (see <http://www.ed.bmc.org/sbirt>).

The teams were then sent to their local sites to create ED SBIRT programs and to improve the quality of care delivered in their hospitals' EDs.



Joining Drs. Judith Bernstein and Thea James are the Violence Intervention Advocates to our Massachusetts ED SBIRT team: Jason Casey, Brockton Hospital, Winifred Atwell, Baystate Medical Center, Rosemary Hall, Lawrence General Hospital, Nixon Corney, MGH, Anthony Christian, BMC and Leroy Muhammad, BMC. (Not pictured: Amy Villanueva - VIA at UMass Memorial in Worcester)

Over the past 14 months, HPAs have performed 13,246 screens, identified 4,252 positive screenings for alcohol or other drug use, conducted 3,478 brief negotiated interventions for alcohol or other drugs, and referred 2,810 patients to substance abuse treatment and other services. Referrals included 1,160 detox/inpatient substance abuse service referrals, 517 mental health referrals, and 440 primary care referrals (40% of those without a primary care physician). HPAs assisted 47 uninsured patients who needed treatment to obtain health insurance. HPAs also built collaborations among local EDs, the substance abuse treatment system, community organizations and regional resources. While we often measure program outcomes using numbers, behind these numbers are the lives and journeys of individuals and families who have come through our doors. For example, one of the HPAs from St. Anne's Hospital recently shed tears while sharing the success story of one of his patients from a year ago who, with his help and the services of community treatment and aftercare agencies, was able to regain custody of her three children. In another patient story, the HPA from Heywood Hospital said she was called to duty to diffuse a difficult situation in the ED when the staff called hospital security and the local police on one of her clients. Not only was the HPA able to calm the young lady and de-escalate the situation but afterward she was also able to get the patient a bed at a detox facility and to arrange for her transportation there.



HPA, supervisors and billing staff from Athol Memorial and Heywood Hospitals at the program-wide ED SBIRT conference in Worcester to discuss sustainability.

We also measure success in the lessons learned from programs. Throughout the first two and a half years of the ED SBIRT program we have learned that positive changes in the attitudes and cultures of EDs are possible. We witnessed the feasibility of implementing a peer-in-reach model into the overcrowded, time-pressured environment of seven diverse EDs across the state. We realized that quality of care can be improved for individuals with high risk and dependent alcohol and other drug use. We also discovered that screening can be incorporated into triage forms and nurse and physician assessments in order to generate referrals to HPAs

and that the results of SBIRT can be incorporated into paper and electronic medical records. Importantly, we learned that HPAs can efficiently and effectively screen, intervene and provide referrals to treatment for patients with high risk and dependent alcohol and other drug use. Lastly, we now recognize that there is a need for sustainability planning from the beginning including a strategy for reimbursement involving medical records staff, billing and coding personnel, hospital administrators, health providers, the health promotion advocates and their supervisors, and that documentation of value-added services provided by the program is essential.



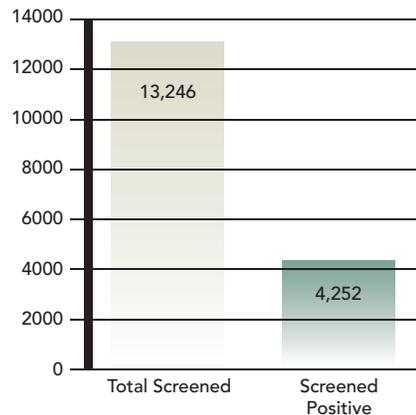
Project ASSERT hosts an open house at St. Anne's Hospital in Fall River attended by community agencies, treatment programs, members of the community, the HPAs from South Shore Hospital, and many others to celebrate the launch of a new quick reference guide for substance abuse services in the greater Fall River area.

The supervisors and administration at each ED SBIRT site have truly championed the patient advocacy, program building, and outreach done by their HPAs. The task ahead for each site now is to develop a plan for sustainability. We are partnering with the finance and medical records teams at each hospital to enable the HPAs and other providers to bill private insurers using approved CPT codes as well as Medicare and Medicaid while also working to include SBIRT into the facility E&M code billing as a more intense level of service. Additionally, we are identifying and measuring the value-added services provided by the ED SBIRT program to the hospitals, which include improving ED patient flow, increasing patient satisfaction, enhancing the hospital's treatment resource network, building the reputation of the hospital within the community, and providing a documented service to fulfill the "community benefits" clause for CMS: Medicare.

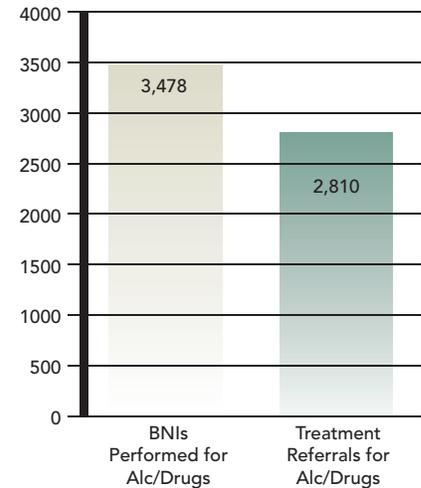
For more information on the BNI-Art Institute go to:
ed.bmc.org/sbirt

BMC has implemented a program that significantly improves the quality of ED care in seven EDs across the state.

**UNIVERSAL SCREENING
(n=13,246)**



**POSITIVE SCREENS (n=4,252)
BI (n=3,478) RT (n=2,810)**



PROJECT ASSERT: A Reflection on 15 Years of Change

By Emily Shaw

This spring, Project ASSERT will celebrate its fifteenth year of service to the hospital and to the community. To reflect on the years past, I talked to Ludy Young and Brent Stevenson, two of the long-time Health Promotion Advocates (HPAs) at Project ASSERT and their medical director, Edward Bernstein, MD.

To begin, Dr. Bernstein shared a little history with me. In 1993, the Center for Substance Abuse Treatment, a branch of the Substance Abuse & Mental Health Services Administration of the federal Department of Health and Human Services funded the development and implementation of Project ASSERT in the Boston Medical Center (BMC) Emergency Department (ED) as the first Screening, Brief Intervention, and Referral to Treatment (SBIRT) program in the nation. The staff of Project ASSERT, composed of six HPAs hired from the community, started working collaboratively with ED professionals to screen, intervene, and facilitate access to primary care,



**Ludy Young,
Project ASSERT HPA**



**Brent Stevenson,
Project ASSERT HPA,
with a patient.**

mental health, preventive services and substance abuse treatment in 1994. In 1998, Project ASSERT became a hospital budget line item, providing multi-lingual services daily from 8:30am until midnight. This past October, 2008 Project ASSERT welcomed its new Nurse Manager, Barbara Healey, to the team.

I spent some time with Ms. Young and Mr. Stevenson, asking them to think about the past fifteen years and the challenges of the future. Looking back, Mr. Stevenson mentioned much has changed since they started helping people looking for services in 1994. He said, "There have been changes in the level of care and treatment. When we first started there used to be more [detox] beds available...With the budget cuts in 2001, five major detox facilities closed and we lost around 180 beds." Now, Ms. Young and Mr. Stevenson say that finding free-care beds at detox facilities is much



Gary Johnson, Project ASSERT client, signs his name on the Project ASSERT quilt.

more difficult and that they have to turn people down every day. "Seeing their faces when you have to tell them there isn't a bed is really hard," explained Mr. Stevenson. Ms. Young shared that this population of patients is more vulnerable, especially in the winter months, to injury and illness. Mr. Stevenson shared the painful story of one of his very first clients, a gentleman who used to come to the ED all the time. He and several others in Boston froze to death on the streets after the budget cuts forced these detox facilities to close their doors. Over the years, the HPAs at Project ASSERT also have seen the rise in prescription medication abuse among youth and its impact on youth crime, the increasing availability of certain drugs in more and more neighborhoods across the county and the state, the resurgence of heroin use due to greater availability and decreases in price, staggering recent increases in homelessness of entire families due to evictions, and many other troubling trends affecting their patients.

Fortunately, not all of the work done by the HPAs is emotionally draining. Mr. Stevenson says that the meaningfulness of his work comes simply from "helping someone who's looking for help." Gary Johnson, one of their clients who Ms. Young says is "truly a miracle," said, "They've seen things in me that I didn't see in myself and they reached out constantly to help." Ms. Young expressed, "If we can inspire a little beacon of hope, even a little tiny one, that is priceless." According to their patients, they inspire hope every day. Ms. Young also finds meaning in her responsibility as a member of a hospital committee focused on finding the families of frequent ED users to obtain guardianship and pursue other options like mandatory treatment to coordinate and redirect their care. She said that this committee is "helping clients and their families turn the tide" and giving them another chance at improving their health and quality of life.

The other service that the HPAs provide that Ms. Young finds especially rewarding is providing clients with primary care and medical insurance coverage that they need in order to get re-integrated into the health care system and that allows them, for the first time, to focus on prevention. Another important role the HPAs have taken on is assisting BMC staff and their family members in need of alcohol treatment, drug treatment and/or other services. The HPAs wear many hats and impact peoples' lives on many levels. The most significant work they do on a national level is to teach and train HPAs and ED clinicians all over the country in SBIRT and the Project ASSERT peer-in-reach model of care. They have trained and given presentations to educators and advocates from more than 11 states including California, Colorado, Kansas, Michigan, Connecticut, New Jersey, 13 sites in Massachusetts and five sites in New York, and researchers from Sweden and Switzerland.

Although visitors to Project ASSERT will hear only modesty in HPAs' descriptions of their work, the HPAs exemplify the hospital's mission of providing exceptional care without exception. Ms. Young comments that *"although our office is humble and not the fanciest place in the hospital, we do good work here and we help everyone who comes through our door. As colleague Brent Stevenson says, 'everyone is someone when they get here,' and we help them feel like they're someone. If it's for 10 minutes or an hour it doesn't matter how disheveled or what happened on the road to here. You're going to be respected and, most of all, be taken care of."*



John Cromwell, Project ASSERT HPA, with a patient.



Patient Advocacy Resources in the ED: A Fourth-Year Resident's view of the value of Project ASSERT

By Annemieka Atema, MD, EM3

- ***How does Project ASSERT exemplify the hospital's mission "to provide exceptional care without exception?"***

Project ASSERT gives patients with substance abuse problems the continuing care they need while trying to access detox facilities and other necessary resources. As an emergency physician it is my job to address a patient's immediate problems. It would be great if I could help to coordinate more long-term solutions, however the busy and demanding work environment of the ED does not allow the time required for me to place these patients. This inability to assure continued care can feel frustrating at places that do not have a program such as Project ASSERT because more often than not, these people are just discharged back to the environment from which they came and are very likely to continue the behaviors that caused them to come to the ED in the first place.

- ***Can you share a meaningful experience where Project ASSERT has allowed you to provide better quality of care for your patient?***

Project ASSERT provides the vital link between a patient and recovery. I feel good as a physician working in an environment that pays attention to these important issues and actively addresses them. I like when I can tell a patient who is asking for help with detox "I CAN help you with that." Then, instead of just handing them a list of places to call (which in itself can present many underserved patients with challenges), I call Project ASSERT whose staff acts as Health Promotion Advocates (HPAs). Even when the patient is not actively asking for help, I am able to call Project ASSERT to assist in the process to try to get the patient to recognize their addiction. Often the ED is a person's only contact with the health profession. Project ASSERT is often our only opportunity as a community to reach these people.

- ***How has Project ASSERT and their staff of dedicated Health Promotion Advocates (HPAs) affected you as an ED physician?***

Addiction is the principal reason that I call Project ASSERT, but the HPAs are available for many other reasons. Their role as Health Promotion Advocates enables them to assist patients in getting an appointment with a primary care doctor. Having recently found a new doctor myself, I know how challenging this can be even for a health care professional! I cannot imagine how difficult this can be for a person who does not have access to resources or understand the complicated health care system, or speak little or no english.

- ***How would life be for you if you did not have Project ASSERT to help you and your patients?***

Project ASSERT greatly improves the work environment and provider satisfaction. They help with both immediate and continuing care of our patients and are an integral part of the health care team. They are able to take the time to address issues that would be very difficult for me to address. They fill a significant gap in the health care system that is not always recognized. As a physician, I like to help people and the better I can do that, the better I feel about my job. With Project ASSERT I feel that I am providing better care for patients and this makes me feel better about my job.

RESEARCH HIGHLIGHTS



William Fernandez, MD, MPH

Assistant Professor

Associate Director, Section of Public & Global Health

Chair, Public Health Committee

Massachusetts Chapter of ACEP (MACEP)

Does Mandatory In-Patient Alcohol Detoxification Reduce ED Recidivism or Hospital Admission for Patients with Chronic, Severe Alcohol Dependence?

Duong D, McGrath M, Mitchell P, Rathlev N.

In Massachusetts, patients with chronic alcohol dependence can be involuntarily committed to an inpatient treatment facility for 30 days for mandatory alcohol detoxification (MAD). The investigators wanted to examine the effects of MAD on the number of emergency department (ED) visits, hospital admissions, and emergency medical services (EMS) transports for these patients. This study identified all patients in our urban ED who were committed to MAD during a one-year period. These patients had multiple ED visits for severe alcohol dependence and were committed by a judge to MAD prior to this study. The investigators compared the number of ED visits and hospital admissions in our institution for one, three, and six month periods before and after the institution of the MAD policy. Boston EMS transports to any facility in the six months were also measured before and after the MAD policy went into effect. The thirty day MAD period was excluded from analysis. Overall, ten subjects were enrolled in this pilot project. Comparing the periods before and after the MAD policy, the mean number of ED visits fell from 6.5 to 2.7 in the first month, 14.2 to 9.3 in three months, and 25.6 to 17.7 in six months. The mean number of hospital admissions also declined: 1.3 to 0.1 in one month, 2.3 to 0.9 ($p=0.06$) in three months, and 3.2 to 1.9 ($p=0.08$) in six months. The mean number of EMS transports fell 13.9 to 10.0 comparing six months before and after MAD. In conclusion, in this pilot study MAD was associated with an immediate reduction in ED visits in the first month that did not appear to persist long-term. It was associated with a reduction in hospital admissions without a change in EMS transports. Trends in ED visits for patients with severe chronic alcohol dependence who were not subject to MAD were not assessed.

Lasting Effect of a Brief Motivational Intervention on Self-reported Safety Belt Use among Emergency Department Patients

Fernandez W, Winter M, Mitchell P, Colton T, Bullock H, Donovan J, St. George J, Gallagher S, McKay M, Bernstein E, Feldman J.

Previous research demonstrates that the consistent use of safety belts by motorists reduces motor vehicle death by 45%. Researchers at Boston University reported that a brief motivational intervention (BMI) improved self-reported safety belt use (SBU) among emergency department (ED) patients at three months. In this study, the investigators wanted to determine if these effects were sustained at six months after enrollment. Adult emergency department patients were asked about their overall SBU. Those that stated their belt use was anything less than "I always wear my seat-belt" were asked to participate. The participants were randomly assigned to be in either the Control Group or the Intervention Group. The Control Group received an injury prevention brochure; the Intervention Group received a BMI by a trained interventionist, as well as the brochure. Participants were phoned at three and six months after enrollment to determine if there were changes in their safety belt use. Overall, 292 participants were enrolled in the study. The mean age of participants was 32 years (39% of participants were female, 61% were male). At enrollment, the Intervention Group and Control Group had similar mean self-reported safety belt use scores. At the six-month follow-up interval, the mean safety belt use score among participants that were in the Intervention Group was statistically higher than those that were in the Control Group. Also, these differences were sustained from the three-month follow-up interval. In conclusion, our previously reported finding that ED patients who received a BMI reported higher safety belt use at three months compared to a Control Group was sustained at the six-month follow-up interval. The investigators suggest that a BMI may enhance lasting safety belt use behavior among high-risk ED patients.



Emergency Medicine Residents & the Community: Incoming Residents Community Orientation Tour

Lauren Nentwich, MD, EM3

The BMC community is made up of not only our fine hospital and clinics but also the neighborhoods and community organizations that surround our hospital and assist us in serving our patients. The surrounding neighborhoods of the South End, Roxbury and Dorchester are home to many of our patients and provide the foundation of BMC. The many local community organizations and shelters that serve and care for our patients are vital to realizing the mission of BMC. Due to the hospital's strong community ties, it is important for the people who work at BMC to have an understanding of the local communities and community organizations.



Residents and staff of the Boston Medical Center Emergency Medicine Department with *Eternal Presence*, a sculpture by John Wilson located on the grounds of the Museum of the National Center of Afro American Artists in Roxbury.

Each year, a new group of residents joins the Boston Medical Center Emergency Medicine residency program. A diverse and unique group of people, they come from all over the country to learn from and care for the patients of Boston Medical Center. As part of their training, the new residents participate in a four-week orientation to both BMC and emergency medicine in general. During their orientation, the Section of Public and Global Health introduces our new residents to the BMC community via a neighborhood tour and individual site visits to a few of the community organizations that provide service and assistance to our patients.

This year, the community orientation for the residents began with a tour of the South End and Roxbury neighborhoods led by Executive Director of Dudley Square Main Streets, Joyce Stanley. Beginning

at Boston Medical Center, the tour briefly stopped at the nearby Pine Street Inn shelter and then proceeded down Washington Street while the tour guide shared some of the history of the South End. The tour then continued to historic Dudley Square, a multicultural commercial district in the heart of Roxbury. From Dudley Square, the tour traveled through Mission Hill where the guide relayed the history of this racially and culturally diverse section of the city. The formal educational part of the community tour ended with the Museum of the National Center of Afro American Artists in Roxbury. Here the director of the museum, Mr. Edmund Barry Gaither, led the residents through the museum's wide range of historical and contemporary expressive art exhibits representing the global black visual arts.

At the conclusion of the tour, lunch was held at *Merengue*, a locally-owned Roxbury restaurant that serves Dominican cuisine. The lunch was well attended by BMC Emergency Medicine residents and staff as well as numerous leaders of community organizations and the students of The City School, an organization that educates teenagers of the community on social justice through formal didactics and work-study experiences. During lunch, the residents had the opportunity to meet and speak with many of these community leaders.

The second part of the resident community orientation was individual site visits by the residents to nearby community organizations. In groups of three, the residents each spent an afternoon visiting one of four community organizations that were specifically



Historic Dudley Square, a multicultural commercial district in the center of Roxbury.



The Barbara McInnis House, the inpatient medical respite program of the Boston Health Care for the Homeless Program.

chosen to provide an overview of the many programs and services available to our patients. The first group of residents visited Pine Street Inn, a shelter located in close proximity to BMC that offers housing, education, job training and health care to many of Boston's homeless population. The second group of residents toured Rosie's Place, a nearby women's shelter that provides emergency and long-term housing assistance to women of the community. The third group of residents learned about substance abuse treat-

ment at the Dimock Center, a community based health center offering comprehensive health and human services including substance abuse treatment and residential recovery. The final group of residents had the opportunity to tour the newly opened Barbara McInnis House, a short-term, inpatient medical respite facility that provides medical care for homeless people too sick for the shelters but not sick enough to warrant a hospital stay. At the completion of their site visits, the residents met to share with each other the information they had learned about the various community services offered to their patients and how to avail their patients of these services.

BMC's mission is to provide exceptional care without exception to all of our patients. It is the collaboration of the people and the community of Boston Medical Center that makes this mission a reality. Each year, the Department of Emergency Medicine attracts some of the best residents in the country to care for the patients of Boston Medical Center. This community orientation provided by the Section of Public and Global Health introduces the residents to the Boston Medical Center community so as to aid them in joining this community and caring for our patients in keeping with our hospital's noble mission.



Student Internship Program CITY SCHOOL

Megan Salinas, MD, EM 2

*The City School Summer Leadership Program Boston
Medical Center Section of Public and Global Health*

During July and August the Emergency Department was fortunate to have an intern from the City School Summer Leadership Program. The City School is an organization of local high school students who are interested in social justice issues. The City School enables students to get involved in areas of social concern and then provides an educational and instructive forum for students to discuss the problems they observe and solutions for change. The Summer Leadership Program is a branch of the City School that allows students to participate in eight-week internships in various areas of the community. BMC's Section of Public & Global Health sponsored an internship as a follow up to the work begun by Dr. Alex Lam, a recent graduate of the BMC emergency medicine training program, and a continuation of the work of the Manuel DelValle Institute for Emergency Preparedness funded by the department.

Initially the partnership with the City School was initiated as a means of involving students in the arena of public health and encouraging them to become future leaders. As a program mentor, Dr. Ed Bernstein describes, "We need to meet people where they are at and put them in the driver seat of their own education for change to happen."

The project evolved into an eight-week course of one student paired with the residents and Ms. Ludy Young of Project ASSERT. Our intern, *pseudonym Jane*, was in the department two days a week for four hours each session. The goal of the internship was to expose our City School student to the underserved populations that call BMC their hospital. Initially the idea was that "Jane" would interview patients who suffered from asthma or substance abuse issues, keep a diary and then write some sort of final project

to be published. Early in the course of the internship, however, it was obvious that these goals would require modification. Although "Jane" was not necessarily interested in public health, substance abuse issues were something she could relate to and understand, having had experience with close friends who had used substances before.

Instead of asthma, we decided to focus on access to health care, since this is an issue that was easier to relate to, and the great majority of our patients face this problem on any given day.

During the course of the internship we ran into even greater difficulties. Our intern had an upheaval in her personal life. As she faced the difficulty of the situation, "Jane" learned about perseverance and taking initiative, with great help and prompting from Ludy Young, Project ASSERT. As Ludy reminded us each time we fall, we have to pick ourselves up and take each setback as a new learning opportunity. As we struggled with "Jane's" own personal challenges, we had to turn each problem into a life lesson as well. We talked about handling situations with professionalism and respect, regardless of how upset one might be at an individual or the system in general. I have yet to meet a nineteen-year-old who could face a similar situation with such strength.

After every patient interview I would ask "Jane":

- her thoughts on how the interview went
- what she had learned from that particular patient
- whether the issues the patient was facing were similar to others

We attempted to find common themes, such as coping mechanisms, wider public health matters, as well as focusing on an individual patient's concerns. For the final project I asked "Jane" to write a letter to the City School students about her experience. This format, I presumed, would be easiest for her to relate to. She did return the following week with a draft of the letter, but we did not have time to complete a final draft.

An excerpt from "Jane's" letter:

"I would recommend the internship to all the City School students that are interested in Public Health. I want to say thank you to all of the people I worked with at Boston Medical Center and all at the City School. I just wanted to let them know how much me coming to Boston Medical Center means to me..."

Perhaps the greatest outcome of the internship was to watch "Jane" grow. In the beginning she required either Ludy or me to stay with her during the entire interview and it was obvious in watching her that interviewing was difficult, as it would be for any high school student. It was a pleasure to observe her develop her independence and interviewing skills. By the end, I was able to watch her conduct an interview by herself without my assistance. My hope is that despite the challenges and setbacks we faced, our intern appreciated and benefited from her time spent with us at BMC.

Most certainly I learned a great deal myself and am grateful for the time I was able to speak to patients without rushing. When I was solely able to focus on issues for the patient, that meant more than the world to me.

Special thanks to Ludy Young, Project ASSERT HPA and Dr. Lauren Nentwich. Without their help I never could have succeeded in completing this project.



GLOBAL HEALTH UNIVERSAL MEDICINE

Hani Mowafi, MD, MPH, Director, Global Health

Assistant Professor, Emergency Medicine

Fellow, Harvard Humanitarian Initiative

Dr Hani Mowafi has been working closely with Dr. Suzie Sarfaty, Assistant Dean of Academic Affairs at Boston University School of Medicine, to both help prepare medical students for international electives through a short course offered at the medical school as well as help review student applications for funding for such electives. In addition to serving on a panel on Humanitarian Health at ACEP in Chicago this past October, Dr. Mowafi is the Co-Chair of the Working Group on Human Resources in Humanitarian Health at the upcoming Humanitarian Action Summit in March 2009 in Cambridge, Massachusetts.

The Summit is an international meeting of experts on humanitarian health that will take place for the third time this spring, in Boston. It will bring together humanitarian actors, government officials, researchers and academicians to help develop policy around humanitarian affairs.

What Wars Leave Behind...

Hani Mowafi, MD, MPH

According to Landmine Monitor, the research arm of the International Campaign to Ban Landmines, there were almost 6,000 casualties from landmines and other unexploded remnants of war in 68 nations and other areas in 2006 alone (latest reported data.) While this number may seem small compared to the tens of thousands lost in active wars around the world, it remains only the tip of the iceberg of the problem of explosive remnants of war (ERW) for many reasons.

1. ERW remains in the field for decades after the cessation of hostilities leaving populations exposed over a very long period of time yielding a much greater total number of casualties
2. As is the case during the time of hostilities the vast majority of victims are civilian non-combatants
3. Reported numbers are likely to represent significant under-reporting of the problem as reporting systems are inadequate or totally absent in all but four countries reporting victims in 2006



Furthermore, what is missing from most assessments of impact is the total impact on communities. Most research done to date on the problem of ERW involves the impact on victims and sometimes of that on their families. No studies to date have analyzed the impact on communities as a whole as a result of the mere presence of ERW.

What is the burden of disease as a result of the difficulty accessing health services? How much agricultural land is left fallow and not put to use? How are livelihoods disrupted when the heart of a village has been destroyed by cluster bombs leaving residents living on the periphery isolated from one another?

These types of questions focus not only on the personal security of individuals but require analysis using a *human security* framework – one that is meant to bring to people's livelihoods, a sense of place and attachment to a community as a source of their resilience in the face of adversity.

In this country we saw after the tragedies of 9/11 and countless natural disasters like Hurricane Katrina in the Gulf Coast how the resources of the local community were instrumental in their response to such calamities. It is the sense of familiarity and attachment to community that led individuals to heroic actions – neighbors rescuing neighbors in canoes from rising flood waters and co-workers carrying out injured co-workers from the wreckage at the Pentagon.

It is this human security that is the focus of a planned CDC-funded study of the effects on communities impacted by explosive remnants of war. Dr Hani Mowafi, Co-Director of the section of Public and Global Health, along with colleagues from the Harvard Humanitarian Initiative are conducting a multi-country study using both qualitative and quantitative measures to assess these effects in multiple countries around the world including Angola and Lebanon (planned for 2009).

Dr. Mowafi and senior resident Dr. Lewis Earnest were part of a team that led a scout trip to Lebanon this summer as a feasibility study for the upcoming planned research in spring/summer 2009. Lewis' perspective on that trip follows.



INTERNATIONAL PUBLIC HEALTH ELECTIVE "A Resident's Perspective"

Lewis Earnest, MD, EM3

This summer, I had the opportunity to join Dr. Hani Mowafi and Dr. Gregg Greenough on a trip to Beirut, Lebanon to take part in an international public health elective. The purpose of our trip was to make preparations for a large CDC-funded multi-country study on the impact of land mines and cluster munitions on human security.

Human security is an evolving paradigm that argues that global security issues should also be viewed from the individual or human perspective rather than only the nation/state perspective. More specifically, human security seeks to explain the status of individuals in terms of economic, food, health, environmental, personal and political security. Field experts often refer to it as the interconnection between *freedom from fear* and *freedom from want*. Theoretically, a fall in an observable level of human security indicators might precede and predict conflict enabling policy makers to intervene before conflict erupts or enable people to mitigate the effects of inevitable disasters.

Previous studies have looked at the health care costs and economic losses of victims of landmines. The purpose of this project is to examine the *community effects* of such explosive remnants of war. Goals for the trip included identifying potential local partners and co-investigators, gaining a greater understanding of the scope of the problem and local factors influencing data collection, and establishing relationships with key players in the landmine community. To do so, we met with landmine victims and activists, epidemiologists, public health researchers, an army general, United Nations agencies, de-mining organizations, community officials, and other critical stakeholders in this region.

Through this process I learned through firsthand experience the process of background work necessary to conduct field research, especially in areas that are politically or militarily unstable. Investigations in post-conflict areas are noticeably sensitive. Community officials often have a self-protective and instinctual distrust of outside investigators; they have military, political, and social concerns that need to be addressed before they let anyone *walk* through their neighborhoods, let alone ask extensive questions of community members. Without proceeding cautiously and meeting with all the stakeholders, it was clear that even the best planned project could easily be thwarted.

Guest Profile: Philip Seidenberg, MD

Country Director, Boston University Center for International Health and Development in Zambia (CIHD-Z).

New Relationships, New Opportunities

The Section of Public and Global Health was very excited to host Dr. Phil Seidenberg for a panel discussion of the state of public health in Zambia and an overview of emergency medicine and critical care medicine as practiced at the University Teaching Hospital (UTH) in Lusaka, the main teaching hospital for the country. UTH is an 1,800-bed facility that serves as the medical school and only tertiary facility in Zambia.

Dr. Seidenberg is a US-trained emergency physician from Texas who has been living and working in Zambia for many years. Dr. Seidenberg is a graduate of the University of New Mexico. Starting in the summer of 2007, he joined the Center for International Health and Development at the BU School of Public Health managing the center's Zambia health research programs. Dr. Seidenberg remains an emergency physician at heart, and his public health interests match up with the core mission of our section. He has been conducting Critical Care rounds for the residents one day a week, helping with Trauma Services, and recently jumping into the ER to help with their re-structuring.

In the future, he would like to be involved in clinical/implementation research in the acute-care setting. We have been in discussions to develop a longer-term relationship through which joint research and training programs can be carried out together with EM residents and faculty from our department.

– HANI MOWAFI, MD, MPH



United For Global Healing (UFGH):

UFGH is a nonprofit organization that provides culturally competent health services and promotes the advancement of health education.

Improving the well-being of underserved communities internationally using multidisciplinary teams

The vision of UFGH is to provide a network of health-care providers, social workers, and artists working together to promote global health through direct service, health education and cultural awareness.

In the mid '90s, Thea James, MD, of Boston University School of Medicine developed an emergency medicine elective at the Albert Schweitzer Hospital in HAITI. In 2007, after more than 10 years of taking multiple teams of Emergency Medicine residents to Haiti, Dr. James, along with the first Emergency Medicine (Elective) Resident who accompanied her to Haiti – Dr. Sandra Scott, co-founded a nonprofit organization -- Unified for Global Healing (UFGH).

The idea for diversifying the medical mission and forming a nonprofit came from the social worker, Zola Bruce. Her vision is that the use of artistic expression enhances a cross-cultural exchange aiding communication across cultural barriers. The international clinical and education work was diversified creating a multidisciplinary approach and the beginnings of UFGH.

International Elective to Ghana, Africa on behalf of UFGH

Suzanne Bigelow, MD, Boston Medical Center

Graduate: Department of Emergency Medicine – June 2008

I walked out of the airplane and into the warm, damp air and the smell of burnt trash mixed with tropical plants. The sun sent my right hand reaching for my sunglasses and my hair instantly started to curl. We had arrived in Africa, 13 people, all members of Unified for Global Healing's (UFGH) inaugural mission. The team was composed of a mix of doctors, nurses, social workers, and artists. We had assembled to spend two weeks in the town of Swedru, in the West African country of Ghana.



Dr. Thea James, MD, tends to the medical needs of a young child in Ghana.

Ghana is a country of roughly 28 million people and is located six degrees north of the equator. Temperatures range from somewhat hot to hellishly scorching. The land varies from tropical rain forest to savanna. A majority of Ghana's population still lives on subsistence farming, with access to health care a major hurdle. Recently, Ghana changed its approach to providing health care to its citizens.

Previously, inability to pay for health care often meant no care or termination of the current care. Some hospitals have gone as far as to have gates with guards in the stairwells—not to keep people out, but to keep patients in until the bill is paid. Recently, the Ghanaian government decided to tackle this issue head-on. It implemented a national health insurance program. At \$12 a year, this seems like an incredible bargain, but for those who most need the insurance, that amount is still untenable. This is where UFGH comes in.

From November 1-16, 2007, the team was in Ghana, providing direct medical care as well as performing a needs assessment around malaria prevention and intervention.

Objectives of the Team:

- Provide medical services for indigent patients in need of emergent care in the hospital (via Swedru Hospital).
- Teach health-care providers and social workers partnering in health settings new, sustainable, prevention and intervention strategies to alleviate the current health crisis (specifically malaria)
- Create programming that links the hospital setting to the community at large (this trip was the planning and needs assessment phase).
- Conduct research about culturally competent health services to communities who lack resources and knowledge about current health practices (assessing frequency of bed nets at home and their usage by those who had them).
- Develop creative arts programming around public health initiatives (Dominase Secondary School art project about malaria).

Focusing on malaria prevention, UFGH joined with Allies in Development Action (AIDA), a Ghanaian NGO run by Emmanuel Amokwandoh. AIDA's major focus is malaria prevention, especially making sure people have access to free or low-cost bednets. In partnership with AIDA, our social work and arts team ran a community arts program at local schools, employing visual arts as a medium to discuss community health needs and concerns around malaria. At Dominase Secondary School (high school), a multi-day project using puppets, visual art, and sculpture clay, students expressed what they knew about malaria and how to obtain and maintain basic health. The social workers and artists also helped the students at the women's training center create a quilt. A third program revolved around sports—getting the students out playing soccer and volleyball. The soccer and volleyballs were donated to the school.

The medical team spent a majority of its time at Swedru Government Hospital. Nurses integrated into the various hospital wards, rotating daily to experience several departments. Staff also volunteered at a local blood drive for Swedru Government

Hospital. During the two weeks in Ghana, over 500 patient contacts were made.



The village clinics (in Dominase and Dabanyin) were set up with AIDA's help. Mr. Amokwandoh made it clear that the villagers have a very difficult time getting to the hospital – hence, we

went to them. On the first day, we had one of AIDA's workers act as a translator and were able to see roughly 20 patients over a few hours. As we were not in the same village every day, there were challenges in getting the word out we were in town. People would



trickle in over the first few hours, but by the end of the day, we usually had to turn people away.

Several methods to evaluate needs proved effective in Ghana. Meeting

with both the local chiefs and the hospital head we discussed what they felt they most needed. In the villages, simple observation was extremely helpful. Long-term benefits of the workshops for UFGH include having an established relationship with multiple sites in the Goma district and a much better understanding of what future trips will entail as well as more effective ways to complete the goals of each subsequent trip. On the Ghanaian side, hopefully UFGH has



inspired Ghanaians to continue with the teaching of malaria prevention.

The basic approach used by UFGH is one that is applicable for communities in need of public health

initiatives and training. First and foremost is identifying population needs which is best done over an extended period of time, - - but can be done over shorter duration international missions by meeting with community heads and asking them to define major issues; going to an area where one anticipates maintaining a long-term relationship; utilizing the inaugural trip as more of a fact-finding, needs assessment event; focusing on education and preventive measures, rather than giving large sums of cash that

may not end up where the organization intended; and maintaining the longevity of the project by involving the local citizens and leaders, so they are invested in the project and its continued success.

UFGH has been careful to move slowly and thoughtfully. They also have a sharp sense of where their strengths lie and what they are able to bring to the village. The nonprofit and Goma District are a good match.

UFGH UPDATE:

Dr. James and the UFGH team recently returned from their second trip to Ghana and this mission was expanded even more.

Highlights of the November 2008 trip will be presented at Grand Rounds in February 2009.

UPDATES FROM BOSTON EMS

Where Public Health Meets Public Safety



Boston Emergency Medical Services (EMS), a bureau of the Boston Public Health Commission, is one of the nation's oldest providers of pre-hospital care. It traces its beginnings back more than 100 years.

In addition to providing emergency care, Boston EMS has a dual responsibility to serve the Commission's public health goals by identifying the underlying causes of much of the emergencies we see and preventing these crisis situations through education and other forms of outreach.

The physician leadership of Boston EMS comes from the Department of Emergency Medicine of Boston Medical Center:

Peter Moyer, MD, MPH, Medical Director
 Sophia Dyer, MD, Associate Medical Director
 Lori Harrington, MD, MPH, Assistant Medical Director
 David Hirsch, MD, EMS Fellow

The Boston EMS Prehospital Simulation Center

Why are ambulance doors in a classroom?

The Boston EMS Prehospital Simulation Center will be available to assist in the training of new EMTs as well as continuing education for both EMTs and Paramedics at Boston EMS. With the support of Boston EMS and the Boston Public Health Commission the center will be a welcome addition to the education of prehospital providers. Unlike other medical simulation centers that are designed to recreate a hospital environment, this simulation center is different.

Designed by Dr. Sophia Dyer, Associate Medical Director-Boston EMS, this center represents the prehospital environment. Supported by state-of-the-art electronics, one side is arranged to represent an apartment and with the assistance of fleet services, the back of a Boston EMS ambulance compartment was assembled within the simulation center. The physician group of Boston EMS is looking forward to using this new educational tool.



BOSTON EMS
Simulation Center

Innovations in Public Access Defibrillation

Boston EMS will be going 'live' with an innovative approach to public access defibrillation. In addition to early CPR, the use of automated defibrillators (AED) improve survival in sudden cardiac death. Boston EMS has long been a supporter of citizen CPR and Public Access Defibrillation. Under the direction of Medical Director Dr. Peter Moyer and Cardiac Arrest Coordinator Deputy Claire McNeil, RN, EMT-P connecting a victim of sudden death with a public access defibrillator is possible. Now when a call comes in to the Boston EMS 911 dispatch center and the address of the emergency is entered into the Computer Aided Dispatch system the system will search for any AED in or around that geographic location. The 911 call taker will then instruct the caller on not only CPR but the use of the AED. Over 526 PAD units are identified in this system. We are excited about the combination of these two technologies which will hopefully improved survival from sudden cardiac death in our community.

- SOPHIA DYER, MD, PETER MOYER, MD, MPH

Bringing Therapeutic Hypothermia to the Prehospital Providers



Boston EMS recently started instituting Therapeutic Hypothermia to victims of cardiac arrest who have 'return of spontaneous circulation' (ROSC). Dr. Lori Harrington, Assistant Medical Director of Boston EMS, is managing the Therapeutic Hypothermia Database for Boston

EMS. The database is kept by Deputy Claire McNeil and assisted by Dr. Harrington. Sixty Boston EMS prehospital providers on ALS level were trained in how to institute the therapy, over 200 providers on the BLS level also received instruction on how to assist in the instituting of this therapy. Boston EMS ALS units had refrigerators installed for field availability of chilled saline. At the end of September, 20 patients have received this therapy, with 10 of those patients surviving to discharge. Boston EMS will continue to collect data on this field intervention.

- SOPHIA DYER, MD AND LORI HARRINGTON, MD, MPH

Intranasal Naloxone at The EMT-B Level



In fall 2005 Boston EMS received approval from the Commonwealth of Massachusetts Office of Emergency Medical Services to administer intranasal naloxone to patients suffering from respiratory depression or arrest in the setting of opiate abuse. Providers were trained on the use of this

medication, including the several exclusion criteria in the protocol. During the two-year period of 2006 and 2007, 178 patients received prehospital intranasal naloxone from EMT-Basic level providers, with 172 patients responding to the therapy. Boston EMS is excited to continue this program and has received approval from the Office of Emergency Medical Services to continue our pilot program. We look forward to continue studying this intervention at the EMT-B level. Several other ambulance services in the Commonwealth have also adopted the 'Boston EMS Intranasal Naloxone for EMT-B' program.

- SOPHIA DYER, MD

CPR ANYTIME KITS Teaching Boston high school freshmen how to save a life

Boston has a low cardiac arrest bystander CPR rate -13% - compared to national rate of 20% (still low). In response, last year Boston EMS taught 4,300 (of 5,000) Boston Public High school freshmen how to save a life. Zoll, Philips and Medtronic each gave \$20K for the high school CPR Anytime Kits. We also taught more than 300 Spanish-speaking members of the Boston community through a Medtronic grant.

This academic year we plan on teaching all 5,000 freshmen in the Boston public school system.

- PETER MOYER, MD, MPH

FACULTY SPOTLIGHT



Mark Mycyk, MD
Associate Professor

Director, Resident and Medical Student Research
Residency: Boston Medical Center
Fellowship: Medical Toxicology, Cook County Hospital/Toxikon

Prior to joining the faculty at BMC in April 2008, Dr. Mycyk was the Director of Clinical Toxicology and Toxicological Research at Northwestern Memorial Hospital in Chicago. In addition to continuing his toxicology work at the Cook County Hospital, Illinois Poison Center and the MA/RI Poison Center, he serves as an Associate Editor of Academic Emergency Medicine.

Since new millennium medical education should not be limited by the four walls of a conference room or the hours on a clock, he produces an innovative monthly podcast for listeners interested in learning more about toxicology research and education. It is called "Chicago Toxcast" and is available for free on the internet at any hour of the day from anywhere in the world.



Kristin Carmody, MD, RDMS
Assistant Professor

Associate Director, Emergency Medicine Ultrasound
Residency: SUNY Downstate
Fellowship: Emergency Ultrasound, Yale University

Dr. Carmody's primary research interests include the ultrasound findings of right ventricular heart strain in pulmonary embolism patients and the use of ultrasound in procedural applications. Dr. Carmody has authored peer-reviewed publications relating to head trauma patients presenting to the emergency department. She has also authored emergency medicine chapters concerning the use of ocular ultrasound and also its use in diagnosing abscesses. Dr. Carmody actively participates as a lecturer and instructor at ultrasound courses, including the national convention held by the American Institute of Ultrasound in Medicine and the New England Ultrasound course held yearly.



Elissa Schechter, MD, MPH, DTMH
Assistant Professor

Residency: Yale-New Haven Hospital
Fellowship: International Emergency Medicine LAC/USC Medical Center

Dr. Schechter's global research interests include rapid HIV testing in the

Emergency Department, development of emergency medicine residency training programs in Colombia and India, and training Karen (an ethnic minority group living in Burma) medics to care for trauma patients along the Burma/Thailand border. (See story below.)

Rapid HIV Testing:

It is estimated that one in four HIV positive people in the United States is unaware of their positive status. Awareness of HIV positive status is important not only because it enables people to access medications that can improve the duration and quality of their lives, but also for public health purposes, since behavioral studies have shown that following a diagnosis of HIV infection, people are likely to reduce high-risk sexual activities that place others at risk of contracting the virus. Unfortunately, most people with HIV do not find out their status until late in the course of their disease. In recognition of the importance of increasing awareness of HIV status, the Centers for Disease Control and Prevention (CDC) in November 2006 changed their recommendations for HIV testing to advise more widespread HIV testing, including the adoption of screening programs at all points of contact with the health care system. They make large-scale screening programs more feasible, even in high-volume acute-care settings, by making the process of testing significantly less onerous via eliminating the need for pre-test counseling and separate written consent.

New tools for HIV testing have been developed over the last few years as well. There are now a number of rapid HIV-antibody detection tests that are FDA approved that provide results in under 30 minutes, eliminating the problem of failure to obtain test results. In 2004 the FDA approved an oral fluid based rapid HIV test kit that diagnoses both HIV1 and HIV2 with greater than 99% accuracy, and later that year a CLIA waiver was granted for that same test.

The implication of the revised guidelines for HIV screening and the new technology available is that it is now practical to consider implementing HIV screening in EDs, and this is being done in a number of institutions in the United States. Testing for HIV in EDs opens the possibility of increasing the number of HIV tests

performed considerably. There are more than 110 million ED visits per year, and approximately 10% of all ambulatory care visits across the country are to Emergency Departments. Additionally, a significant proportion of ED visits are made by people without other sources of care. The ED visit provides a chance to reach patients who might not otherwise be identified.

At present, most people at-risk for HIV who utilize the ED at BMC do not receive an HIV test, nor do they get advice from their providers about their HIV status. However, in conjunction with the Department of Infectious Diseases, BMC was recently awarded a grant from Gilead Sciences to implement a Rapid HIV testing program in the ED. So stay tuned as this important public health project will be coming soon to an ED near you! - **ELISSA SCHECHTER, MD, ASSISTANT PROFESSOR**

Faculty Publications Pertaining to Public Health:

James T, Aschkenasy M, Eliseo L, Olshaker J, Mehta S. Responses to Hepatitis A Epidemic: Emergency Department Collaboration with Public Health Commission. *J Emerg Med* 2008 Mar 21; [Epub ahead of print]

Mowafi H, Spiegel P. The Iraqi refugee crisis: familiar problems and new challenges. *JAMA* 2008 Apr 9;299(14):1713-5.

Spector J, Rathlev NK. Pertussis in an Elderly Asian-American Man: A Case Report. *J Emerg Med* 2008 May 5. [Epub ahead of print]

Fernandez WG, Mitchell PM, Jamanka AS, Winter MR, Bullock H, Donovan J, George JS, Feldman JA, Gallagher SS, McKay MP, Bernstein E, Colton T. Brief motivational intervention to increase self-reported safety belt use among emergency department patients. *Acad Emerg Med* 2008 May;15(5):419-25.

Bernstein E, Berstein J. Effectiveness of Alcohol Screening and Brief Motivational Intervention in the Emergency Department Setting. Injury Prevention/Editorial. *Ann Emerg Med* June 2008;51(6):751-4.

D'Avolio D, Feldman J, Mitchell P, Strumpf N. Access to care and health-related quality of life among older adults with nonurgent emergency department visits. *Geriatr Nurs*. 2008 Jul-Aug;29(4):240-6.

Kalish J, Burke P, Feldman J, Agarwal S, Glantz A, Moyer P, Serino S, Hirsch E. The effectiveness of pre-hospital tourniquets for civilian penetrating extremity injuries. *JEMS*. 2008 Aug;33(8):44-6, 49-50, 52, 54

Pearlman MK, Tanabe P, Mycyk MB, Zull D, Stone DB. Evaluating disparities in door-to-EKG time for patients with non-cardiac chest pain. *J Emerg Nur* 2008 Oct;34(5):414-18.

Emergency Medicine Faculty Public Health Appointments: Congratulations!

James A. Feldman, MD, MPH

Associate Professor
Research Director; Chair, IRB BUSM
Appointment: President, MACEP

William G. Fernandez, MD, MPH

Assistant Professor
Associate Director, Section of Public and Global Health
Appointment: Chair, Public Health Committee Massachusetts Chapter of ACEP (MACEP)

Thea L. James, MD

Assistant Professor
Director, Violence Intervention Advocate Program
Appointment: President Elect (2010) – BMC Medical & Dental Staff

David Hirsch, MD, EMS Fellow

Appointment: Associate Editor, ACEP/Disaster Section

Coming in *Annals* December 2008: Injury Prevention

Seat Belt Use in 2007—

Demographic Results (NHTSA Notes)

Commentary: William Fernandez, MD, MPH

MEETINGS / CONFERENCES / SPECIAL DATES

2008 White House Leadership Summit on Screening and Brief Intervention (SBI) for Substance Abuse



Edward Bernstein, MD, Judith Bernstein, RNC, MSN, PhD, and Richard Saitz, MD, MPH, were invited by the White House Office of National Drug Control Policy to attend the 2008 White House Leadership Summit on Screening and Brief Intervention (SBI) for Substance Abuse on September 5, 2008, held in the Eisenhower Executive Office Building.

The 2008 White House SBIRT Leadership Summit was called by the White House Office of National Drug Control Policy (ONDCP) to review progress made since 2003 when the HHS Substance Abuse and Mental Health Services Administration (SAMHSA) requested grant proposals from states to “expand and enhance State substance abuse treatment service systems by: expanding the State’s continuum of care to include screening, brief intervention, referral, and brief treatment (SBIRT) in general medical and other community settings.” As of 2008 five-year grants totaling \$188 million were awarded to 15 states, including a grant to the Massachusetts Bureau of Substance Abuse and BMC.

A study of National SBIRT conducted on a 10% sample at six SBIRT sites demonstrated decreases in drug use, arrest status, homelessness and emotional problems and increases in employment and health status when comparing baseline to six month follow-up data. ONDCP reported that of the approximately 500,000 individuals screened in the six SBIRT states, 23% were positive substance use and of those 70% received a brief intervention, 16% were referred for brief treatment and 14% for more intense substance abuse treatment.

At the conference it was announced that 11 academic medical centers received \$19 million in funding to incorporate SBIRT into their graduate medical education medical residency training programs. Also ONDCP reported that CMS (Medicare/Medicaid) has allocated \$265 million for SBIRT reimbursement and the new AMA CPT codes allow for physician billing.

Speakers from the Veterans Administration, Aetna Insurance and the American College of Surgeons’ Committee on Trauma presented their new programs requiring SBI from participating physicians. Drs. Judith and Edward Bernstein were invited to attend the Summit because of their landmark BMC Project Link study funded by the National Institute of Drug Abuse. Project Link showed the efficacy of the Project ASSERT peer model to reduce cocaine and heroin use. While there is extensive research evidence for the effectiveness of SBIRT for high risk and dependent drinking, Project Link is currently the only US study recognized by the US Preventive Medicine Task Force as supporting the effectiveness of SBIRT for drug abuse. Further studies are underway (including one at BMC under Dr. Richard Saitz) to gain sufficient evidence to enable the US Preventive Medicine Task Force to extend its screening and brief intervention recommendations to cover drugs.

AEM Consensus Conference on “Public Health in the ED: Surveillance, Screening, and Intervention”

May 13, 2009 – New Orleans, LA

The 2009 AEM Consensus Conference that will take place at SAEM on Public Health in the ED: Surveillance, Screening, and Intervention” represents 25 years of practice integrating public health into emergency medicine. It also represents recognition by our specialty of the growing body of federally funded quality research. In the mid 1980s EM public health research and advocacy focused on safety restraints, drinking and driving and motor cycle helmets. Over the last 25 years our research, clinical practice and advocacy has broadened to encompass access to care, overcrowding, injury prevention and surveillance, youth and intimate partner violence, STI, HIV testing, depression and suicide screening and SBIRT interventions to address alcohol, tobacco and drug risk behaviors. Our professional organizations played an important role in incorporating access to emergency care, reduction of ED-related injury visits and screening and referrals for substance abuse as objectives in “Healthy People 2010,” our nation’s public health agenda.

Steven L. Bernstein, MD, Co-Chair with Gail D’Onofrio, MD, MS, of Consensus Conference had the following to say about the pioneering public health role of the Boston Medical Center’s Emergency Medicine Department:

“If I had to cite one paper that launched the conversation about emergency medicine and public health, it’d be Dr. Bernstein’s 1994 landmark article, ‘A public health approach to emergency medicine: preparing for the twenty-first century.’

“And if I had to pick one place where public health and emergency medicine first came together, it’d be the ED at Boston Medical Center in the 1990s, when Drs. Ed and Judith Bernstein launched Project ASSERT. Their work created new insights into the ability of emergency care providers to intervene in altering risky health behaviors. EDs no longer had to be only places to suture the injured, and let the intoxicated get sober. We now had tools, effective tools, to help these individuals make positive changes in their lives.

“The work at Boston Medical Center sparked a revolution in emergency care, leading researchers and clinicians to pursue interventions for patients with a variety of risky health behaviors, including abuse of alcohol, tobacco and other drugs, unsafe sexual behavior, injury, intimate partner violence, and mental health disorders.

“These activities, known collectively as screening, brief intervention, and referral to treatment (SBIRT), have been endorsed by a wide variety of organizations, including NIAAA, SAMHSA, and CDC, and are now reimbursable through new codes by CMS.

The SBIRT revolution led directly to the creation of the 2009 Academic Emergency Medicine Consensus Conference, “Public Health in the ED: Surveillance, Screening, and Intervention.”

- AEM CONSENSUS CONFERENCE 2009

Note: There will be a panel discussion moderated by Dr. Edward Bernstein, MD: Controversies in ED-Based Public Health Interventions: Screening, Brief Intervention, and Referral to Treatment: *Has the enthusiasm outpaced the evidence?*

Boston Medical Center, Department of Emergency Medicine Public & Global Health Committee

The Department of Emergency Medicine’s Section of Public and Global Health has many faculty members with advanced degrees and education in the field, including Masters in Public Health (MPH) and International EM Fellowship training.

- Jonathan Olshaker, MD/Chair, Department of Emergency Medicine
- Edward Bernstein, MD/Director, Public & Global Health Section
- William Fernandez, MD, MPH/Associate Director, Public Health Section
- Hani Mowafi, MD, MPH/Director, Global Health Section
- Thea James, MD/Director VIAP/Steering Committee
- James Feldman, MD, MPH, FACEP/Steering Committee
- Elissa Schechter, MD, MPH, DTMH/Steering Committee

PUBLIC & GLOBAL HEALTH NEWSLETTER:

Kathleen Shea, Project Management/Editor,
BMC Emergency Medicine/Research Section

Maria Pantages, Production Supervisor/
BMC Corporate Communications

mediumstudio, newsletter design

Go to: www.ed.bmc.org for more information on the Department of Emergency Medicine at BMC and Public and Global Health Section

Go to: www.ed.bmc.org/sbirt for more information on the BNI Art Institute.



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