

Injury Prevention IS Public Health

M. Fryer; M. Lero; V. Molla; E. Njoroge, RN; M. Parand, RN; J. Perry; A. Schmidt; S. Place; A. Stetson; M. Suzor; T. Ross, RN; C. Thomson Faculty: M. Hirsh, MD; J. Therrien, PhD, ANP-BC; A. Simpson

The City of Worcester Division of Public Health (WDPH)

Effort to measurably improve population health in the community by leading a comprehensive health planning process including 2 principal components:

- A Community Health Assessment (CHA)
 - Engages individuals, hospitals, the US Census, and existing reports to provide input into region's health challenges and positive resources
 - Informative tool for the community regarding health concerns, resources, and priorities of the residents
- A Community Health Improvement Plan (CHIP)
 - Long-term, systemic and comprehensive community health planning effort to measurably improve population health in the Central Mass Regional Public Health Alliance (CMRPHA)



The Evolving Opioid Epidemic



Massachusetts Dept. of Public Health. Data Brief: Opioid-Related Overdose Deaths Among Massachusetts Residents 2000-2017, August 2018.

The Evolving Opioid Epidemic

•Cause of increase

•Fentanyl found in 89% of opioid related deaths with an available toxicology screen (1)

Response

- •Removing stigma Addiction is a Chronic Disease
- •Opioid prescribing practices
- Medication-Assisted Treatment
- •Naloxone without a Rx (2)

Massachusetts Dept. of Public Health. Data Brief: Opioid-Related Overdose Deaths Among Massachusetts Residents 2000-2017, August 2018.
 Massachusetts Dept. of Public Health. The Board of Registration in Pharmacy. Policy No. 2018-04: Naloxone Dispensing via Standing Order. October 4, 2018.

Worcester District Recovery Court (Drug Court)

- Specialty court whose mission is to reduce recidivism among SUD participants with criminal behaviors
- Facilitates intensive SUD treatment and community supervision
- MDT with reps from law enforcement, criminal justice, SUD treatment clinicians
- Treatment involves an initial assessment, treatment planning and case management.
- Treatment is phased over 12-15 months where certain expectations must be met over time.

Team meets every Thursday prior to court session to discuss progress of participants.



ACEs

• ACE = adverse childhood experience

• Abuse, neglect, incarceration, substance use disorder, domestic violence, etc.

ACEs lead to adverse health outcomes

•Earlier alcohol/tobacco use

Higher risk of substance use disorder
Higher incidence of depression, suicide attempts, physical health problems (e.g. diabetes), sleep disorders, etc.
Higher # of ACEs ---> worse outcomes

 How do ACEs impact the developing brain? When and how can we intervene?



Suicide

High-Risk Populations

• Veterans

Adolescents

• Police/First Responders

Adolescents are the only group in which a peer suicide increases the risk of subsequent suicide attempts

[Age Groups										
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	Total
1	Congenital Anomalies 4,816	Unintentional Injury 1,261	Unintentional Injury 787	Unintentional Injury 847	Unintentional Injury 13,895	Unintentional Injury 23,984	Unintentional Injury 20,975	Malignant Neoplasms 41,291	Malignant Neoplasms 116,364	Heart Disease 507,118	Heart Disease 635,260
2	Short Gestation 3,927	Congenital Anomalies 433	Malignant Neoplasms 449	Suicide 436	Suicide 5,723	Suicide 7,366	Malignant Neoplasms 10,903	Heart Disease 34,027	Heart Disease 78,610	Malignant Neoplasms 422,927	Malignant Neoplasms 598,038
3	SIDS 1,500	Malignant Neoplasms 377	Congenital Anomalies 203	Malignant Neoplasms 431	Homicide 5,172	Homicide 5,376	Heart Disease 10,477	Unintentional Injury 23,377	Unintentional Injury 21,860	Chronic Low. Respiratory Disease 131,002	Unintentional Injury 161,374
4	Maternal Pregnancy Comp. 1.402	Homicide 339	Homicide 139	Homicide 147	Malignant Neoplasms 1,431	Malignant Neoplasms 3,791	Suicide 7,030	Suicide 8,437	Chronic Low. Respiratory Disease 17.810	Cerebro- vascular 121,630	Chronic Low. Respiratory Disease 154.596
5	Unintentional Injury 1,219	Heart Disease 118	Heart Disease 77	Congenital Anomalies 146	Heart Disease 949	Heart Disease 3,445	Homicide 3,369	Liver Disease 8,364	Diabetes Mellitus 14,251	Alzheimer's Disease 114,883	Cerebro- vascular 142,142
6	Placenta Cord. Membranes 841	Influenza & Pneumonia 103	Chronic Low. Respiratory Disease 68	Heart Disease 111	Congenital Anomalies 388	Liver Disease 925	Liver Disease 2,851	Diabetes Mellitus 6,267	Liver Disease 13,448	Diabetes Mellitus 56,452	Alzheimer's Disease 116,103
7	Bacterial Sepsis 583	Septicemia 70	Influenza & Pneumonia 48	Chronic Low Respiratory Disease 75	Diabetes Mellitus 211	Diabetes Mellitus 792	Diabetes Mellitus 2,049	Cerebro- vascular 5,353	Cerebro- vascular 12,310	Unintentional Injury 53,141	Diabetes Mellitus 80,058
8	Respiratory Distress 488	Perinatal Period 60	Septicemia 40	Cerebro- vascular 50	Chronic Low Respiratory Disease 206	Cerebro- vascular 575	Cerebro- vascular 1,851	Chronic Low. Respiratory Disease 4.307	Suicide 7,759	Influenza & Pneumonia 42,479	Influenza & Pneumonia 51,537
9	Circulatory System Disease 460	Cerebro- vascular 55	Cerebro- vascular 38	Influenza & Pneumonia 39	Influenza & Pneumonia 189	HIV 546	HIV 971	Septicemia 2,472	Septicemia 5,941	Nephritis 41,095	Nephritis 50,046

Complicated

Pregnancy

472

Septicemia 897

Homicide 2,152

Nephritis 5,650

Complicated

Pregnancy 184

10 Leading Causes of Death by Age Group, United States - 2016

Data Source: National Vital Statistics System, National Center for Health Statistics, CDC. Produced by: National Center for Injury Prevention and Control, CDC using WISQARS™

Chronic Low

Respiratory

Disease

51

Benign

Neoplasms

31

Septicemia

31

460

Neonatal

Hemorrhage

398

10



Septicemia

30,405

Suicide 44,965

Seat belt survey

Seat Belt Use Among Drivers in 3 locations in Worcester

120



Seat belt No Seat belt Unknown

Male drivers were 27% less likely to wear a seat belt



CHECK UP

Car seat training



AIDS Project Worcester and Narcan Secret Shopping

Background

AIDS Project Worcester has been providing services to those living with HIV/AIDS since 1987. One of their initiatives is to reduce the amount of overdoses occuring in and around Worcester. Widely available Narcan, and training in use of Narcan, will help this initiative succeed.

Secret Shopping

Six students went to 12 pharmacies in Worcester and the surrounding areas to inquire about purchasing Narcan. Students noted whether Narcan was available, the cost with and without insurance, the type of Narcan, and whether the pharmacy provided any training.

<u>Results</u>

- Stocked and available at all locations
- Nasal available at every location and autoinjection at 3 locations
- Cost out of pocket was ~\$130 at most locations; \$90 at select CVS, and under ~\$20 at two locations
- Cost with insurance depended on insurance type
- Need for identification and OTC vs prescription varied based on site
- Training offered at all locations



LEGEND FOR FREQUENCY OF NARCAN DISPENSAL

- "frequently", "every day", "multiple times per week"
- "infrequently", "not very often"
- unsure

Safe Routes to School

Background:

Half of the students at Woodland Academy Elementary school walkt to school. There have been reports of dangerous driving habits repeatedly around the school. In order to help improve safety for students and families, three instreet pedestriation stop signs were placed in preselected cross walks.

Method:

Students waited at the three crosswalks in the morning and afternoon and counted the number of cars that failed to yield for pedestrians at the crossalks.

Results:

Claremont and Main had the highest amount of vehicles that failed to yield for pedestrians and should be the target of future projects.

Intersection	# of Vehicles that Failed to Yield Morning	# of Vehicles that Failed to Yield Afternoon
Kilby-Main	9	7
Claremont-Main	29	20
Oberlin-Woodland	6	4
Total	44	31



Disaster Training



- Purpose: Save the largest amount of people from a given mass casualty event
- Mass event: is individualized to resources of community
- In the field: remodel our thought process on who receives the most attention
- START triage system
 - Expectant, Immediate, Delayed, Minor groups



Sexual Exploitation and Human Trafficking

Living In Freedom Together (LIFT)

- Support for survivors of the commercial sex trade
- Advocacy for policy changes
- Training for health care professional and law enforcement
- Education and outreach through programming for the community

YWCA Domestic Violence Education: In Her Shoes Exercise



- Role playing exercise developed to help students understand the experience and decision-making processes of individuals living with domestic abuse.
- Also emphasizes the roles of institutions in handling domestic abuse
 - Including barriers to accessing help
- Created by the Washington State Coalition Against Domestic Violence

Guns, Gangs, and Safety





WORCESTER POLICE DEPARTMENT



- Guns are a risk factor for community violence and violence in the home despite being purchased for safety
- Goods for Guns is a gun buyback program where people in the community can turn in old guns and receive compensation
 - Also offers an opportunity to teach the public about safe gun storage and operation
- Gangs are present in the city of Worcester and we need to know how to recognize and treat them in a safe manner

References

- Central Massachusetts Regional Public Health Alliance. (2016). Greater Worcester Community Health Improvement Plan 2016. Retrieved from: <u>http://healthycentralma.com/wp-</u> <u>content/uploads/2016/06/2016-CHIP-final-6-27-16-for-web.pdf</u>
- LIFT Services. Retrieved from <u>https://liftworcester.org/lift-services/</u>
- Massachusetts Dept. of Public Health. Data Brief: Opioid-Related Overdose Deaths Among Massachusetts Residents 2000-2017, August 2018.
- Massachusetts Dept. of Public Health. The Board of Registration in Pharmacy. Policy No. 2018-04: Naloxone Dispensing via Standing Order. October 4, 2018.
- wscadv@wscadv.org



Special thanks to UMass Medical School, Worcester Department of Public Health, AIDS Project Worcester, Worcester Drug Court, UMass Amherst Human Factors Lab, Worcester City Hall, and YWCA

