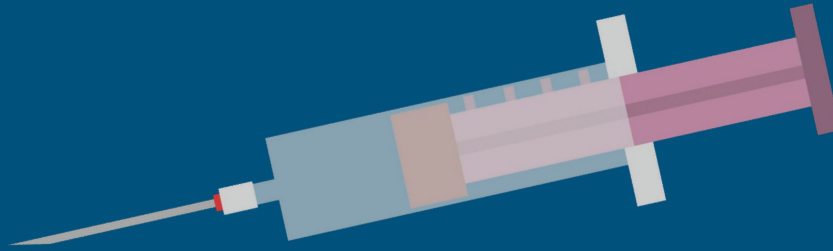


# Worcester Public Schools Flu Clinics



## Population Health Clerkship

Jugert Bango, Mike Chepanoske, Anna Gubala, Nick Leonard,  
Danny Nachreiner, Leanne Ondreicka, Shauna Rice,  
Matt Shuman, Brielle Tishler, Rebecca Web

# Definition of the Population

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# Population of Focus

- All children between the ages of 3 and 18 who attend the Worcester Public Schools
- “Routine annual influenza vaccination for all persons aged  $\geq 6$  months who do not have contraindications has been recommended by CDC and CDC’s Advisory Committee on Immunization Practices (ACIP) since 2010”

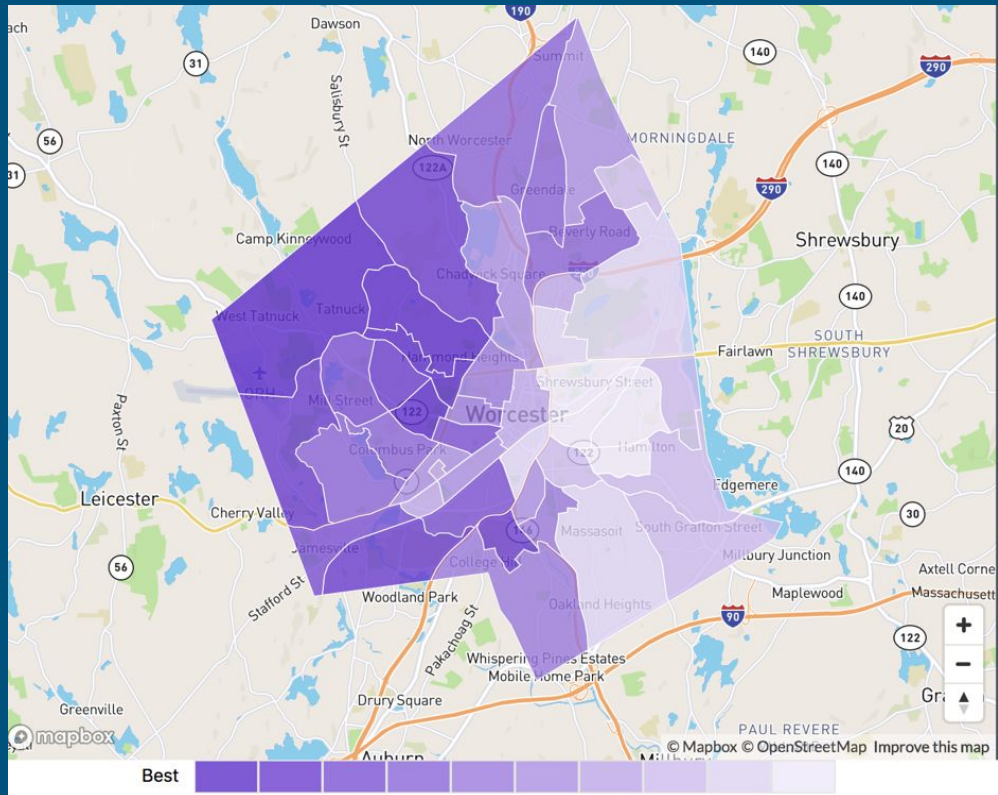
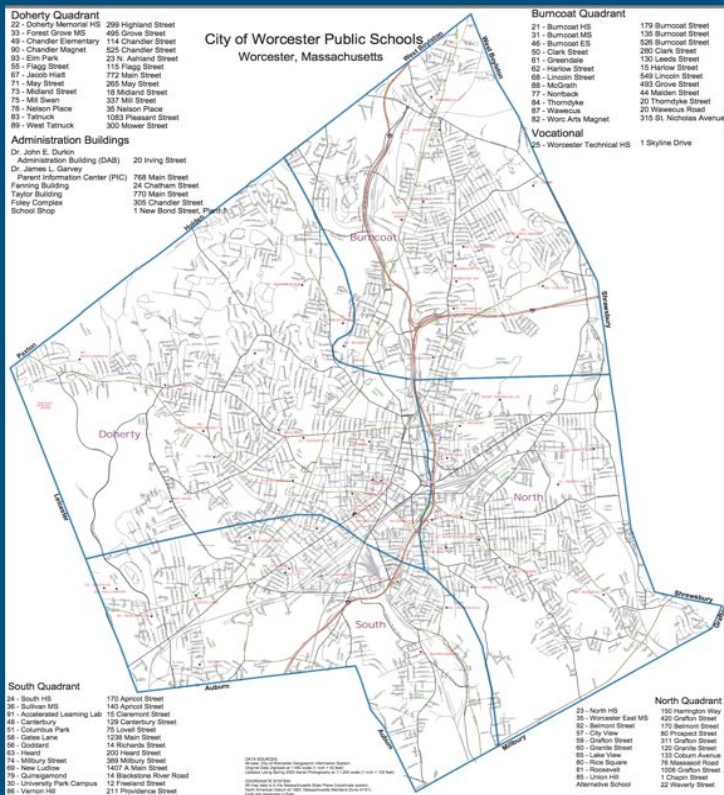


# Why is this a population that you should know more about?

- Young children and adolescents are vulnerable populations
- Good health and long term success are highly dependent on strong medical, social, and emotional support
- Factors such as child maltreatment, neglect, domestic violence, etc. can have long term negative consequences on health status



# Geographic Distribution



# WPS Student Population Demographics

## Race, Language, and Socioeconomic Status

Enrollment by Race/Ethnicity (2017-18)		
Race	% of District	% of State
African American	15.9	9.0
Asian	7.1	6.9
Hispanic	42.6	20.0
Native American	0.2	0.2
White	30.2	60.1
Native Hawaiian, Pacific Islander	0.0	0.1
Multi-Race, Non-Hispanic	4.2	3.6

Title	% of District	% of State
First Language not English	55.4	20.9
English Language Learner	34.4	10.2
Students With Disabilities	18.8	17.7
High Needs	77.5	46.6
Economically Disadvantaged	59.5	32.0



# Medical Risk Exposures

Behavior	%
Over the past 12 months, did you visit your primary care physician for a routine check-up?	87.11%
<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>	10.59%
<ul style="list-style-type: none"> <li>I do not have a primary care physician</li> </ul>	2.3%

On an average school night, how many hours of sleep do you get?	%
<ul style="list-style-type: none"> <li>4 or less hours</li> </ul>	4.89%
<ul style="list-style-type: none"> <li>5 hours</li> </ul>	6.57%
<ul style="list-style-type: none"> <li>6 hours</li> </ul>	13.23%
<ul style="list-style-type: none"> <li>7 hours</li> </ul>	23.59%
<ul style="list-style-type: none"> <li>8 hours</li> </ul>	30%
<ul style="list-style-type: none"> <li>9 hours</li> </ul>	15.29%
<ul style="list-style-type: none"> <li>10 or more hours</li> </ul>	6.43%

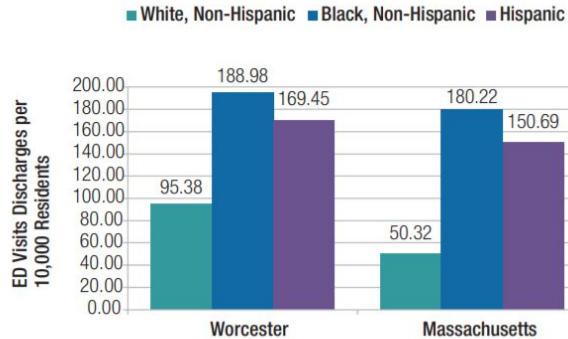


Figure 1: Age-Specific Rates of ED Visit Discharges due to Asthma Among Children Aged 19 and Younger, CY2008-2012

Data Source: CY2008–2012 Massachusetts Emergency Department Discharge Database, Massachusetts Center for Health Information and Analysis (CHIA)

How would you describe your weight?	%
<ul style="list-style-type: none"> <li>Very underweight</li> </ul>	2.51%
<ul style="list-style-type: none"> <li>Slightly underweight</li> </ul>	14.13%
<ul style="list-style-type: none"> <li>Right weight</li> </ul>	54.12%
<ul style="list-style-type: none"> <li>Slightly overweight</li> </ul>	24.83%
<ul style="list-style-type: none"> <li>Very overweight</li> </ul>	4.41%

# Social Risk Exposures

## A. Driving Behaviors that Contribute to Unintentional Injuries

Behavior	%
Have you ever ridden in a car driven by someone who had been drinking alcohol?	
• Yes	18.43%
• No	64.82%
• Not sure	16.75%

## B. Violence Related Behavior or Physical Violence

Behavior	%
Have you ever carried a weapon, such as a gun, knife, or club?	
• Yes	18.96%
• No	81.04%

Have you ever been bullied on school property	
• Yes	35.61%
• No	64.39%
Have you ever been electronically bullied? (count being bullied through texting, Instagram, Facebook or other social media)	
• Yes	20.01%
• No	79.99%
Have you ever bullied electronically on school property	
• Yes	4.54%
• No	36.35%
• I have never been electronically bullied	59.11%

## C. Depression Symptoms and Suicide Attempts

Behavior	%
During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?	
• Yes	25.74%
• No	74.26%
Have you ever seriously thought about killing yourself?	
• Yes	16.05%
• No	83.95%
Have you ever made a plan about how you would kill yourself?	
• Yes	11.27%
• No	88.73%
Have you ever tried to kill yourself?	
• Yes	5.7%
• No	94.3%



# Interprofessional Teams of Care

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# School Nurses

- **Qualifications**

- MA Registered Nurse (RN)
- DESE Professional Support Personnel License

- **Scope of practice**

- Leading role in the planning and implementation of all health-related services to students and staff within the school system

- **How/Where they provide care**

- Nurse's Office/School-based Health Center Collaboration with local physicians, parents/guardians, teachers, administration to properly provide care

- **Strengths/Limitations**

- SBHCs, quality of care tied with personally knowing the students / Ability to provide care depends on information from various sources (students, parents/guardians, physicians)



# Within the School Based Health Center

- **Nurse Practitioners**
  - Provides basic health services based on a primary care mental health model. Available to students enrolled in the school
- **Behavioral Health Clinicians**
  - Licensed clinical social worker or psychologist
  - Depression screening, substance use counseling, individual counseling, etc.
- **Community Health Workers**
  - Family outreach, home visits



# Interprofessional Interactions



- As clinicians, it is vital to have open lines of communication with school nurses and various other health professionals in the SBHCs
  - Integrated team - physicians, nurses, other health professionals, parents/children, etc
- Nurses provide much of the day-to-day, physicians provide extra services that may not be possible in the school setting
  - Nurses probably know the children better and are great sources of information
- Neither physicians nor nurses can do their jobs efficiently without knowing which services the other is providing

# Health Advocacy

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Healthcare Issues in WPS

Healthy Lifestyles in Elementary and Middle  
School Students

# Sexual Health Education

“Sex education is supported by numerous prestigious health and medical organizations”

- WPS are currently lacking comprehensive sex ed
  - 834 students out of more than 5,000 surveyed reported having multiple sexual partners and 705 said they didn't use condoms
  - 223 pregnant or parenting students in seventh through 12th grade as of this past April, including 55 just in seventh and eighth grade





# Worcester School Committee

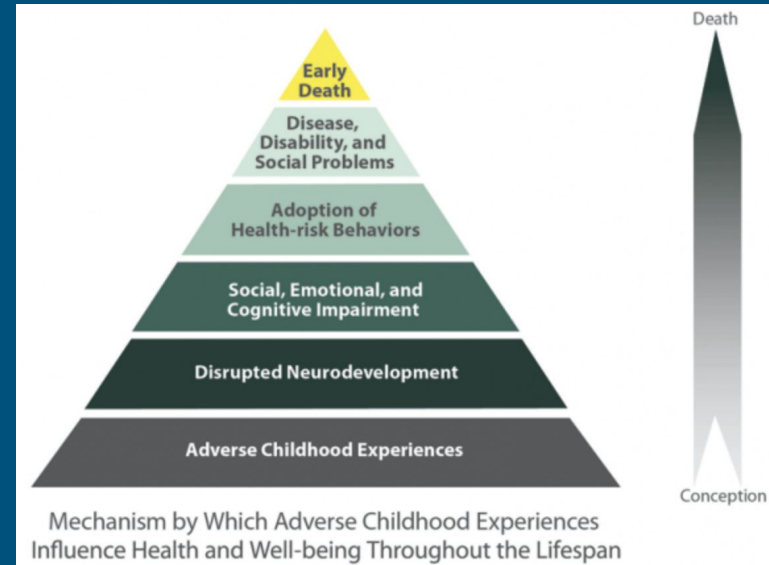
- Local group of elected officials
- Responsible for:
  - Developing and adopting policies, curriculum, and the budget
  - Including reproductive health education
- Consequences of this group succeeding or failing
  - Affects Policy for health education in the school system
- What can we as providers do?
  - Go to a meeting
  - Write letters
  - Gather signatures



# Adverse Childhood Experiences (ACEs)

- Initial Kaiser Permanente Study 1998
- Childhood trauma leads to
  - Adult onset of chronic diseases
  - Depression & other mental illness
  - Violence & being a victim of violence
- Trauma-informed approach in flu clinics
- Advocacy on the community, state, national, & international level

**Local initiative: Worcester HEARS**



# Worcester HEARS

- Pilot project in 5 Worcester public schools
  - Rice Square Elementary
  - Grafton Street Elementary
  - Roosevelt Elementary
  - City View Elementary
  - Worcester East Middle School
- Create environments that support children's health, social & emotional development, & academic success
- Combat effects of ACEs that profoundly harm developing brain
- Build resilience through MindUp mindfulness curriculum

# Worcester HEARS cont.

- Advocating to parents, teachers, principals, health providers, & community organizations
- Success of implementing this program for 3 years now – received grants
- Consequences of this program succeeding/failing
  - Impact on the health & education of children in those 5 schools
  - Whether or not the program is accepted into more schools

# Reducing Impact of ACEs

How can healthcare providers be involved?



[breakingthecycles.com](http://breakingthecycles.com)

- Screen, counsel & refer
- **Early intervention!**
- Spread awareness of ACEs among colleagues & in community

# Health Advocacy: Local

- **Public School Principals** – obtain funding to extend the school day to provide a third meal for students in need; reinstitute or expand the availability of health classes for students; physical education
- **United Way of Central Massachusetts** – mental health and well-being programs for school children; Short-term Planning or Pilot Grants aimed at jumpstarting community-wide strategies in addressing critical areas of need among school-age youth in the community
- **YMCA of Central Massachusetts** – weekly On the Go programs for boys and girls considered above healthy weight that features nutrition counseling and 60-minutes of coach-led physical exercise
- **Boys & Girls Club of Worcester** – physical recreation; positive health and life skills among city youth
- **Worcester Mental Health Coalition** – promotes empowerment through advocacy, education, training, and advancing consumer voice through public presentations, newsletters and community forums



**GREAT FUTURES START [HERE.](#)**



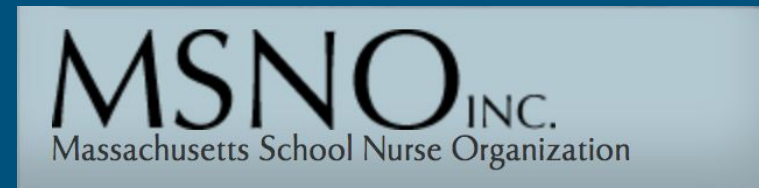
**BOYS & GIRLS CLUB  
OF WORCESTER**





# Health Advocacy: State

- **NARAL Pro-Choice Massachusetts** – support legislation which would make comprehensive health education part of the state’s core curriculum
- **Children’s Health Access Coalition** – 50 organizations; comprehensive health services for children, including mental services up to age 21
- **Massachusetts School Nurse Organization** – promotes and advances quality school health services and promotes rights, interest, and professional growth of members in the legislative, economic and education arenas
- **Massachusetts Public Health Association** – advocates for legislation to eliminate high-calorie foods and beverages in the state’s schools; to ensure only healthy snacks and drinks are sold in schools



# Health Advocacy: National



- **National Alliance for Nutrition and Activity (NANA)** – advocates national policies and programs to promote healthy eating and physical activity
- **CDC Active Community Environments Initiative** – promotes walking, bicycling and accessible recreation facilities
- **Stonyfield Farms** – promotes installation of vending machines carrying their healthy products in schools nationwide. Working with Connecticut state project Team Nutrition in concert Yale Center for Eating and Weight Disorders and Dept. of Public Health
- **American Medical Association and National Parent Teachers Association** – supports the *Child Nutrition Promotion and School Lunch Protection Act*
- **Health Care for All; MSPCC** – easier access to mental health services for children via legislative efforts



A BILL

To amend the Child Nutrition Act of 1966 to improve the nutrition and health of schoolchildren and protect the Federal investment in the national school lunch and breakfast programs by updating the national school nutrition standards for foods and beverages sold outside of school meals to conform to current nutrition science.

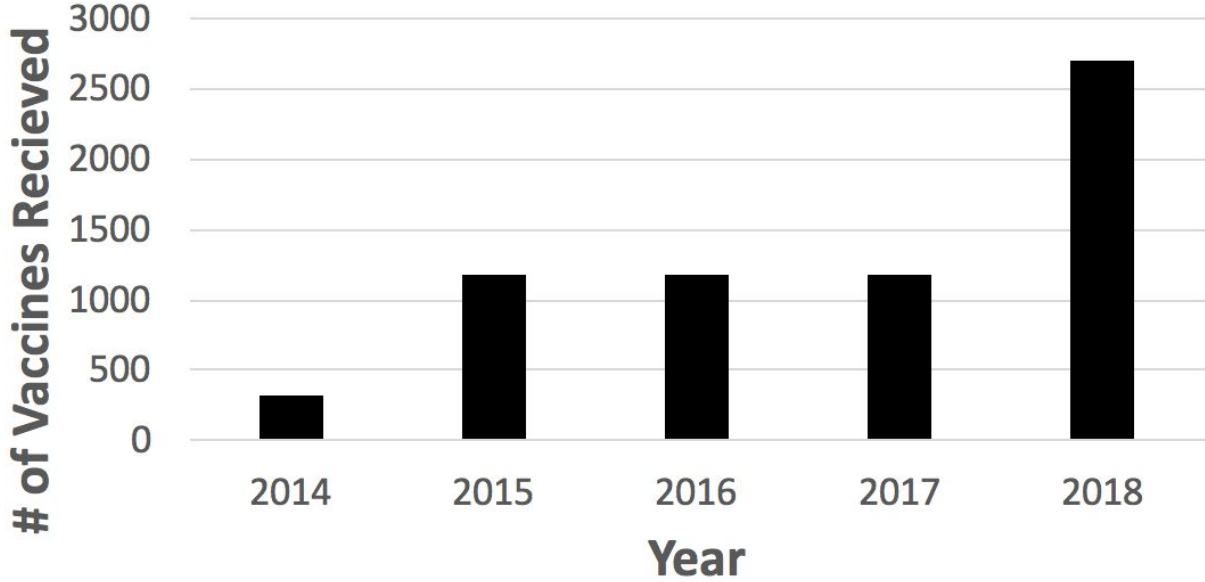
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**Section 1. Short title**

This Act may be cited as the “Child Nutrition Promotion and School Lunch Protection Act of 2009”.

**Sec. 2. Findings**

# Flu Clinic Totals



# Acknowledgements

- **Heather-Lyn Haley**, PhD, Assistant Professor Family Medicine and Community Health
- Dante Comparetto, School Committee Member
- Jennifer Davis Carey, Worcester Education Collaborative
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- School Based Health Centers we visited
  - Claremont/Woodland Academy
  - Goddard School of Science and Technology
  - Worcester East Middle School
  - Elm Park Community School
  - Dr. Arthur F. Sullivan Middle School
- Kendra L. Frederick, CCLS, CPST, Manager, Child Life Program, UMass Memorial Children's Medical Center
- Judy Freedman Fask, M.E.D., M.Ed., IC/TC, CI & CT, WPS Transition Rehab Specialist



# Worcester Public Schools

## ELEMENTARY SCHOOL

Belmont Street Community School · Burncoat Street Preparatory School · Canterbury Street · Magnet Computer-Based School · Chandler Elementary Community School · Chandler Magnet School · City View Discovery School · Clark Street Community School · Columbus Park · Preparatory Academy · Elm Park Community School · Flagg Street School · Francis J. Mcgrath Elementary School · Gates Lane School Of International Studies · Goddard School Of Science & Technology · Grafton Street School · Heard Street Discovery Academy · Jacob Hiatt Magnet School · Lake View School · Lincoln Street School · May Street School · Midland Street School · Nelson Place School · Norrback Avenue School · Quinsigamond School · Rice Square School · Roosevelt School · Tatnuck Magnet School · Thorndyke Road School · Union Hill School · Vernon Hill School · Wawecus Road School · West Tatnuck School · Woodland Academy · Worcester Arts Magnet School

## MIDDLE SCHOOL

Burncoat Middle School · Forest Grove Middle School · Dr. Arthur F. Sullivan Middle School · Worcester East Middle School

## HIGH SCHOOL

Burncoat High School · Claremont Academy · Doherty Memorial High School · North High School · South High Community School · University Park Campus School · Worcester Technical High School

# Sources

## ADVOCACY:

### Sexual Health Education And School Committee

- <https://www.plannedparenthood.org/learn/for-educators/whats-state-sex-education-us>
- <https://www.telegram.com/news/20180912/worcester-school-d-ept-to-review-proposed-sex-ed-curriculum-amid-concerns-about-content>
- <http://worcesterschools.org/school-committee/school-committee-members>
- <https://www.nsba.org/about-us/frequently-asked-questions>

### ACEs & Worcester HEARS:

- <https://www.wecollaborative.org/worcesterhears/>
- <https://www.cdc.gov/violenceprevention/acestudy/about.html>
- <https://www.hfcm.org/GrantsByInit/74>
- <https://centerforyouthwellness.org/>
- <https://www.youtube.com/watch?v=OMbYUfiUsco>

## Local, State, National:

- <https://www.umassmed.edu/contentassets/95b732d32587470d921680a3def33dba/chc---advocacy-group-20-2011-health-issues-and-health-care-in-worcester-public-schools.pdf>
- <https://unitedwaymassbay.org/2018-workplace-campaign-materials/united-way-logos-and-brand-usage/>
- <http://www.springfielddy.org/family-centers/springfield-y-family-center/>
- <https://www.bgcworcester.org/news-events/2018/watch-our-club-video>
- <http://www.msno.org/>
- <https://mapublichealth.org/>
- <https://www.hcfama.org/coalition/childrens-health-access-coalition-chac>
- <https://cspinet.org/resource/nana-model-beverage-and-food-vending-machine-standards>
- <https://www.stonyfield.com/>
- <https://www.govtrack.us/congress/bills/111/s934/text>
- <https://www.pta.org/>
- <https://www.cdc.gov/physicalactivity/index.html>
- <https://www.mspcc.org/>
- <http://www.msno.org/membership/licensure/>
- <http://www.wpsweb.com/nursing>