

# PUBLIC HEALTH SURVEILLANCE: HEALTH OF BOSTON 2016-2017

March 7, 2017

# Objectives

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- Describe BPHC public health surveillance goals, data sources and analytic capacity
- Review the goals and content of the Health of Boston Report
- Discuss future surveillance priorities

# Primary Functions of Research and Evaluation Office

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- Public Health Surveillance
- Data Dissemination Services
- Evaluation Services
- Research
- Aligns with 4 essential public health services:
  - ▣ Monitor health status to identify community health problems
  - ▣ Inform, educate, and empower individuals and communities by providing data about health
  - ▣ Evaluate effectiveness, accessibility, and quality of personal and population-based health services
  - ▣ Research for new insights and innovative solutions to health problems

# BPHC Public Health Surveillance Goals

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- Assess the health of Boston residents
  - ▣ Estimating the scope and magnitude of health events and determinants
  - ▣ Estimating the geographic, demographic, and temporal distribution of health events and determinants
  - ▣ Focusing on health inequities, social determinants of health (SDoH) and outcomes/status over the life course
  - ▣ More “what” than “why”
- Dissemination, dissemination, dissemination, and liberation
  - ▣ Put data into the hands of those who can and want to use it
  - ▣ Trigger other requests for data

# BPHC Surveillance Goals, contd.

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- ▣ Promote variety of data use cases
  - Facilitate and inform public health planning (programs, policies, systems, built environment etc.)
  - Detect and monitor changes in health events and practices
  - Evaluate policies and programs
  - Support grant applications
  - Generate hypotheses and stimulate applied research
- ▣ Advocate for access to public health surveillance data
  - 2014 An Act Relative to Public Health Data Sharing

# Public Health Surveillance Data

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- Boston Behavioral Risk Factor Surveillance System
- Youth Risk Behavior Survey
- U.S. Census
- Vital Records
- Hospital Case Mix
- Other: Infectious Disease, STI, Cancer Incidence, PRAMS, HIV/AIDS Surveillance, Lead Screening, Substance Abuse Treatment, map layers from various agencies/sources

# Data Sources

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- Receive data from state and local partners
- Challenges include timeliness and quality
- 2014 law was supposed to relieve administrative burden of data sharing with DPH and CHIA
  - ▣ CHIA MOU put in place March 2015

# Specialized Analytic Tools

- Boston Population Estimates Project (B-PEP)
  - Generates intercensal (2001-2009) and postcensal (2011-2016) population estimates
  - Totals by any combination of Race/Ethnicity, Sex, Age, and Neighborhood
- Boston Health Rate Generator
  - Age-Adjusted and Age-Specific Rates
  - Statistical Significance Testing of Differences Between two groups or over time (trend analysis)
  - Allows for individual year or combined years analyses



# Health of Boston (HOB) Report

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- Core part of BPHC surveillance activities, but not the only part of it
- 2009: significant expansion and integration of multiple data sources
- Each year, BPHC has added data sources and stratifications, and made changes based on feedback
- Only includes population data, not program data

# HOB Goals

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- Assess the health of Boston residents, and
- Share information with those who can use it (e.g., community-based organizations, hospitals, CHCs, academic partners, etc.)

# Positive Feedback on HOB

- Identified as a valuable resource by partners across many sectors (see Local Public Health System Assessment)
- Provides comprehensive, stratified surveillance data from multiple sources
- Focus on social determinants and health equity helps shape and support the work of BPHC and its external partners
- Helps partners to understand what data are available and generates data requests
- Technically sound

# Opportunities for Improvement

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- Data time lag; some data 2-3 years old
- Not interactive; static
- Web presence is extremely limited
- Desire for additional stratifications or geographic cuts; deeper dives
- Dense report: too much information, a lot of data packed into a single report

# 2017 Report

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- Will be released in April 2017
- New layout, leveraging in-house BPHC graphic designer
- Policy perspectives on key health issues from thought leaders/experts in the field
- Program perspectives from BPHC programmatic leaders
- Community Perspectives from Boston residents with personal experiences with particular health issues.
- Additional domains: Community Assets, Environmental Health, Injury
- Continued focus on health equity and SDOH
- Additional geographic analysis and more maps
- Use of infographics to make data more visually appealing

# Key domains

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- Health Equity
- Demographics
- Social Determinants of Health
- Community Assets
- Environmental Health
- Access to Care
- Maternal and Child Health
- Health-related behaviors
- Chronic Disease
- Cancer
- Infectious Disease
- Sexual Health
- Injury and Exposure to Violence
- Mental Health
- Substance Use Disorders
- Death

# Looking forward...

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- Embrace technology to improve access to timely and relevant local data
- Build informatics infrastructure and capacity across the BPHC
- Web-based portal for internal and external data access
  - ▣ All available data including state data sets, syndromic surveillance, EMS, program data
  - ▣ Need to ensure appropriate analytics
    - Methodological rigor is critical
  - ▣ Provide multiple stratifications ,geographically granular
  - ▣ Features may include data visualization: e.g., mapping tool

# Q&A