



HEALTH DATA MAPS: NAVIGATING PHI, UNDERSTANDING UNDERSERVED POPULATIONS

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OVERVIEW:

- **Who/what is Fenway Health and how do we use ArcGIS?**
- **What is Protected Health Information (PHI)?**
- **Mapping needs vs. HIPAA regulations**
- **Understanding underserved populations**

F E N W A Y  H E A L T H

“The mission of Fenway Health is to enhance the wellbeing of the lesbian, gay, bisexual and transgender community and all people in our neighborhoods and beyond through access to the highest quality health care, education, research and advocacy.”

F E N W A Y  H E A L T H

fenwayhealth.org



FENWAY HEALTH

- “One stop shopping” health care
 - Medical
 - Dental
 - Behavioral Health
 - Optometry
 - Specialty services
- Specialty populations
 - Transgender
 - HIV+

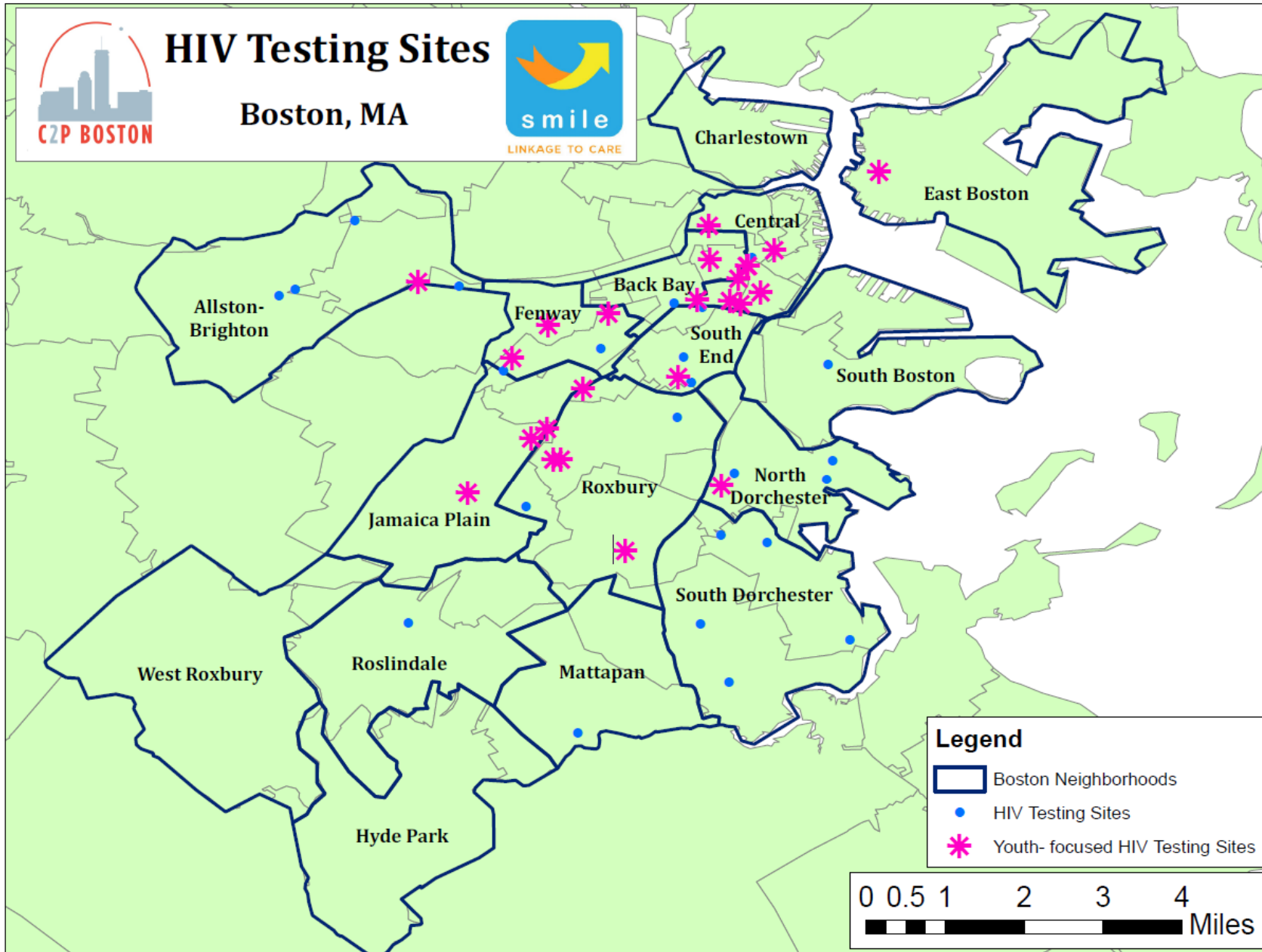


MAPS WITHOUT PATIENT DATA



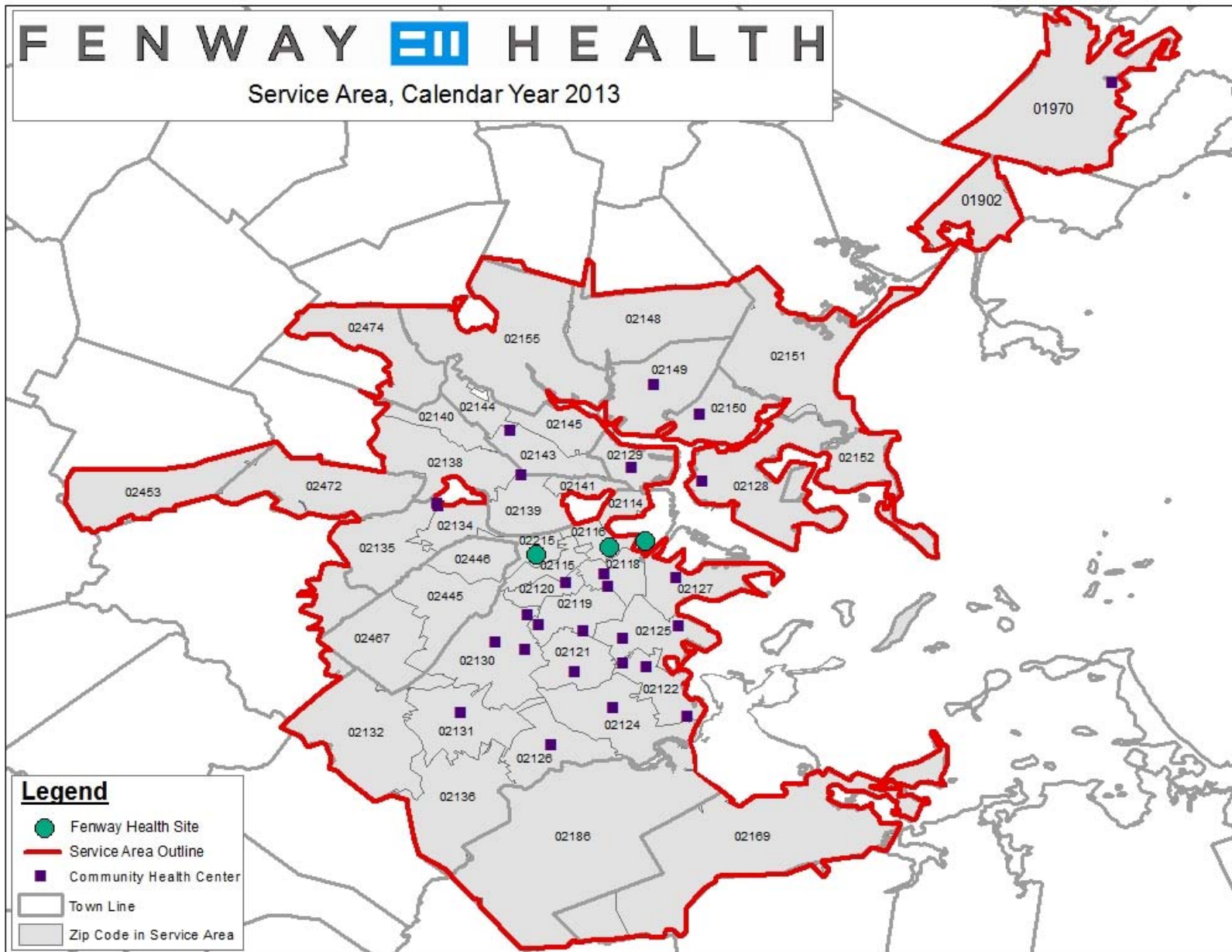
HIV Testing Sites

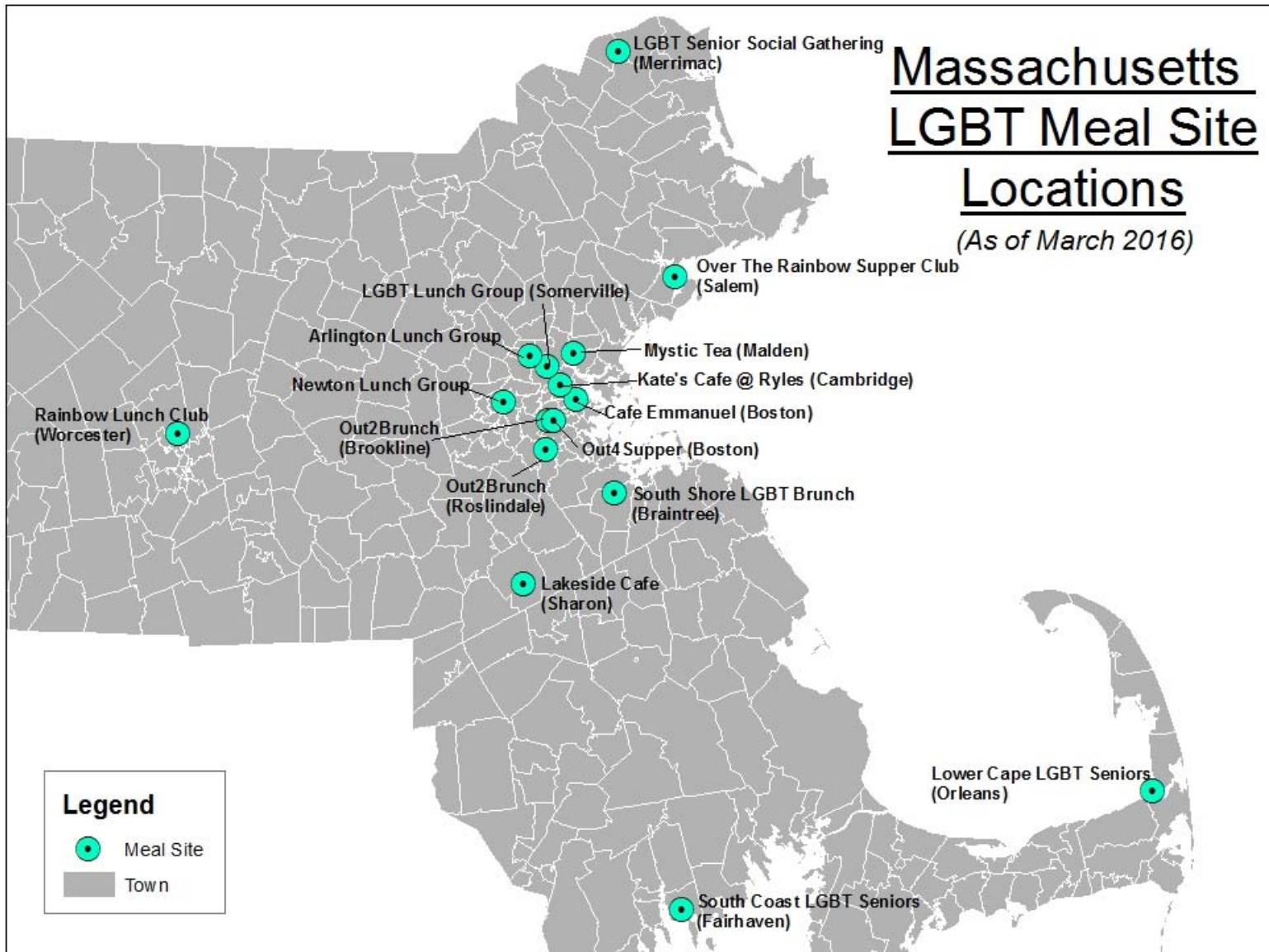
Boston, MA



FENWAY HEALTH

Service Area, Calendar Year 2013





... BUT HOW CAN WE MAP
PATIENT DATA WHILE STILL
COMPLYING WITH HIPAA
REGULATIONS?

WHAT IS PROTECTED HEALTH INFORMATION?

- **PHI or Protected Health Information** includes any patient information specified by HIPAA (Health Insurance Portability and Accountability Act) that can potentially identify the patient without his/her consent.

HIPAA § 164.514: IDENTIFIERS TO REMOVE TO ENSURE DE- IDENTIFICATION OF PHI

- Names
- Geographic subdivisions smaller than a State, including street address, city, county, precinct, zip code, and their equivalent geocodes
- Dates related to individual (except year)
- All ages over 89
- Telephone numbers
- Fax numbers
- E-mail
- SSN
- Medical record numbers
- Health plan beneficiary numbers
- Account numbers
- Certificate/license numbers
- Vehicle identifiers/serial numbers
- Device identifiers/serial numbers
- URLs
- IP address numbers
- Biometric identifiers (i.e. fingerprints)
- Full face photographic images
- Any other unique identifying number, characteristic or code



HIPAA MAPPING GUIDELINES

- No specific federal standards for mapping
- HIPAA regulations (§ 164.514)
 - Protected health information (PHI) must be removed before data collection, analysis and/or publication, unless explicit permission (“informed consent”) is granted by the subject(s) from whom the information issues
 - All geographical subdivisions smaller than state including address, city, county, precinct, zip code and their equivalent geo-codes (latitude and longitude) must be eliminated from the data to be considered de-identified. The only exception is that the initial three digits of a zip code may be published, if the represented geographic area that has a population greater than 20,000

WORKAROUNDS & BEST PRACTICES

- Aggregate data
 - Zip code instead of addresses
 - Combine zip codes (i.e. town, congressional districts, using the first 3 digits only, etc.)
 - Geocode by address to get accurate counts, but map by larger group (i.e. congressional district)
 - Use urban/rural code
- Don't report data if potentially identifying, and write "Data insufficient for reporting"
- Consider your scale and increments (1-5 people, 1-50 people, 1-500 people)
- Rates vs. actual numbers

WORKAROUNDS & BEST PRACTICES

Evaluate whether the data will allow a patient to be identified

- How detailed are your demographic/location criteria?
- Can you answer your question with less criteria?

Be particularly mindful when mapping by specific diagnosis or health condition (i.e. HIV)

Have different maps for internal and external use

- Data that is broken down by zip code or smaller regions (<20,000 people) should be internal
- Maps with detailed demographics should be internal
- Clearly mark maps for internal use only

**** It is better to err on the side of caution! ****

USING HIPAA WORKAROUNDS AND INTERNAL PROCESSES TO UNDERSTAND UNDERSERVED POPULATIONS

MAP IMAGE:

Transgender patients in New
England by state, Calendar Year
2015

**UNDERSTANDING
UNDERSERVED
POPULATIONS:**

**TRANSGENDER
PATIENTS**

MAP IMAGE:

Transgender patients in New
England by county, Calendar Year
2015

**UNDERSTANDING
UNDERSERVED
POPULATIONS:**

**TRANSGENDER
PATIENTS**

UNDERSTANDING UNDERSERVED POPULATIONS: HIV+ PATIENTS

MAP IMAGE:

HIV+ patients in Massachusetts by Congressional District, Calendar
Year 2013

UNDERSTANDING UNDERSERVED POPULATIONS:

HIV+ PATIENTS

MAP IMAGE:

HIV+ patients in New England by
County, Calendar Year 2013

THANK YOU!
ANY QUESTIONS?

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