NE Implementation Science Network Meeting

MAPPING WORK GROUP BREAKOUT MEETING

Sturbridge, MA 2/27/2015

MAPPING GROUP'S RESEACH PRIORITIES FOR NEW ENGLAND

RESEARCH QUESTION # 1

1. In communities identified as hotspots for new incidents of HIV infection, can geospatial analysis methods help to identify which strategies best implement PrEP?
    a. In New England, how does PrEP script data map against new infections and do they overlap?
    b. Is PrEP underutilized in New England; yes according to CDC data
        i. Why
        ii. By whom
        iii. What are the barriers
        iv. Where are the hot spots for risk
        v. Where are the HEPC hot spots
        vi. What services are available in that area

2. Intervention: PrEP

    a. Does PrEP work as EBI/EVP

3. Target Population: Community
    a. What other community resources can be used to improve PrEP intervention
        i. Pharmacies
        ii. Churches
    b. What are benefits of a pharmacy-based PrEP intervention
        i. Might be more effective since people don't have to see a doctor and are more willing to go to a pharmacy

4. Outputs/Outcomes: Community Knowledge of PrEP
    a. PrEP prescription measures Are scripts denoted ART or at-risk?
    a.
    b. Incidence
    c. Clinical levels
    d. How to account for patient mobility
    e. Data is reported based on residence

5. IS Framework: REAIM

6. Use of existing data:

a. Can we get census track data for New England
    i. Map incidence and prevalence
    ii. CT data available
    iii. MA & RI to be determined
    iv. Take into account rates vs counts

7. Ethical/Human Subjects Issues:
    a. Protection of surveillance data

8. Funding: If we develop a more global focus it might be appropriate for R01 application.
    a. Allows for collection of lots of data

9. Network Collaboration: Hard to Reach Work Group

RESEARCH QUESTION #2

1. Can geospatial analyses identify clusters of HIV in New England, "hot spots within hot spots"?
    a. HEPC co-infection
    b. Spatial window of importance via 5-step geospatial process
    c. Qualitative research identifies structural and causation factors
    d. Prioritize the areas with most need; key places for intervention
    e. Use GIS methods (mapping/calculating geo-distance to generate hypothesis/geo analysis) to determine:
        i. Where are HIV+ with unknown risk factors?
        ii. Who are they and how do we find them
        iii. Where are HIV+ not in services
        iv. Who are they and how do we reach them for intervention?
        v. Use craigslist/grinder or other social media to identify where MSM are

2. Intervention: EIS (CT)
    a. Negative link to prevention programs, positive link to treatment

3. Target Population: MSM and MSM with IDU
    a. Use spatial statistics to establish areas and thresholds for prevalence and incidence

4. Outputs and Outcomes:
    a. Are Centers using EVP?
    b. Which ones from CDC?
    c. Use EIS to get perceptions of what's going on in communities, e.g., EBIs DEBIs, primary prevention

5. Implementation Science Framework: CFIR or REAIM

a. How to ensure fidelity and appropriate supervision

6. Use of existing data:
    a. Is census track level data available across New England
    b. What spatial data is available
    c. How to query ArcView
    d. What could be done with meta-analysis
    e. Good resource: Tom Stopka's interactive mapping data

7. Ethical/human subjects issues
    a. Protection of surveillance data

8. Funding:
    a. Study could be an aim in an R01; spatial/analytical piece or an R21

9. Collaboration with other Network Work Groups:
    a. Collaborate with Modelling Work Group to determine cost-effectiveness of locations
        i. Hotspots
        ii. Pharmacies
    b. And cost effectiveness of resources (services)
    c. Identify the most cost-effective place for intervention considering risk and resources
    d. CT DPH has done this analysis using mapping based on crime data and it is available
        i. Where risks are
        ii. Where programs are
    e. Can we use DPH data to identify vulnerable populations
        i. Crime data & site of crime (how is crime defined)
        ii. HIV residential data
        iii. Determine residence focus vs risk focus