Epidemiology, Evaluation, and Impact of Data for Homeless Populations at the Facility, Local, and State Level

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Disclosures

- Ben King – Project Manager; Hospital Physicians in Clinical Research, PLLC
  - NHCHC Research Coordinating Committee & Conference Abstract Reviewer
  - Ending Community Homelessness Collaborative (ECHO) Austin – Chair; Data Work Group
  - American Public Health Association – Chair; Caucus on Homelessness
  - International Street Medicine Institute – Member
Disclosures

- Daniel Gore – HMIS Project Manager; Texas Homeless Network
  - Ending Community Homelessness Collaborative (ECHO) Austin – Chair; HMIS committee;
  - Texas Interagency Council for the Homeless – Ex-Chair; Homeless Data Warehouse Committee

- Robert Dominguez – Practice Manager; Austin Resource Center for the Homeless (ARCH) HCH Clinic & Right to Sight Vision Clinic
  - Ending Community Homelessness Collaborative (ECHO) Austin – Member; Data Work Group
Overview

- Epidemiology & Homelessness  Ben King
- Data Systems
  - Facility perspective  Robert Rodriguez
  - Local HMIS & State perspective  Daniel Gore
  - Community Data perspective  Ben King
Epidemiology of Homelessness

• “Art, like morality, consists in drawing the line somewhere” – W.K. Chesterton

• Defining Homelessness
• Consent / Authorization
• Data Collection Strategies
  ▫ Characterization of populations
  ▫ Needs Assessments
  ▫ Utilization
Definitions

HUD (pre-HEARTH):

- An individual or family who lacks a fixed, regular, and adequate nighttime residence, which includes a primary nighttime residence of:
  - Place not designed for or ordinarily used as a regular sleeping accommodation (including car, park, abandoned building, bus/train station, airport, or camping ground)
  - Publicly or privately operated shelter or transitional housing, including a hotel or motel paid for by government or charitable organizations;
- Or being discharged from an institution where he or she has been a resident for 30 days or less and the person resided in a shelter or place not meant for human habitation immediately prior to entering that institution.
- Or being evicted within 7 days
- Or is fleeing a domestic violence housing situation and no subsequent residence has been identified and the person lacks the resources and support networks needed to obtain housing.

- No:
  - Living with friends or family
  - Housing instability
Definitions

McKinney Vento:

- In places not meant for human habitation, such as cars, parks, sidewalks, abandoned buildings (on the street).
- In an emergency shelter.
- In transitional or supportive housing for homeless persons who originally came from the streets or emergency shelters.
- In any of the above places but is spending a short time (up to 30 consecutive days) in a hospital or other institution.
- Is being evicted within a week from a private dwelling unit and no subsequent residence has been identified and the person lacks the resources and support networks needed to obtain housing.
- Is being discharged within a week from an institution, such as a mental health or substance abuse treatment facility or a jail/prison, in which the person has been a resident for more than 30 consecutive days and no subsequent residence has been identified and the person lacks the resources and support networks needed to obtain housing.
- Is fleeing a domestic violence housing situation and no subsequent residence has been identified and the person lacks the resources and support networks needed to obtain housing.
Definitions

HEARTH:

- (26 pages in the CFR to consolidate the “final rule”)

  ▫ An Individual or Family Who Lacks a Fixed, Regular, and Adequate Nighttime Residence
  ▫ An Individual or Family Who Will Imminently Lose Their Housing
  ▫ Unaccompanied Youth and Families With Children and Youth Defined as Homeless Under Other Federal Statutes
  ▫ Individual or Family Who Is Fleeing, or Attempting To Flee, Domestic Violence, Dating Violence, Sexual Assault, Stalking, or Other Dangerous or Life-Threatening Conditions
Consent / Authorization

- Research consent
  - Waiver
- HIPAA
  - Authorization to Use and Disclose PHI
  - Waiver
- Release of Information (ROI)
- Business Use Agreement
- Limited Data Sharing Agreement
Data Collection Strategies

Overview:

• Census / Registration
• Sampling:
  ▫ Convenience Sample
  ▫ Snowball Sample
  ▫ Peer to Peer
  ▫ Random Sampling
• Ex: 100,000 Homes Campaign
• Ex: Austin’s Point in Time Count Sample
Data Collection Strategies

• Selection Bias:
  ▫ Error in choosing the individuals or groups to take part in a study or assessment
  ▫ Causes distortion of the resulting data analysis
  ▫ Can lead to erroneous conclusions
Data Collection Strategies

Census:

• 100% of a population
  ▫ (therefore not a true sample)

• Examples:
  ▫ event registrations
  ▫ Institutional data
    • (patient population=population of interest)
  ▫ The Census
Data Collection Strategies

Convenience sample:

- Sample defined by a non-random variable
  - Usually a location or time window
- Typically characterized by ease of access
- Examples:
  - Institutional / Agency data
    - (if patient population = subset of population of interest)
  - ED patients presenting during business hours
Data Collection Strategies

Snowball Sampling:
- Also called: Chain sampling, referral sampling

- Existing subjects recruit future subjects from among their acquaintances
- Useful for accessing hidden populations (IVDUs, sex workers)
  - modification of selection bias issues
- Allows for environmental studies of social network structures
- Cannot make unbiased estimates of a population from snowball
  - Caveat: “respondent driven sampling”
Data Collection Strategies

Peer to peer sampling:

• Members of population being studied are used as data collectors

• Quality of data heavily depends on training & complexity of the assessment in question

• Example: CBP Community Health Workers as data collectors
Data Collection Strategies

Random sampling:

- Involving some component of unpredictability
- Observations (individual units of sample) are independent
- All units of population have an equal chance of being selected from the entire population

- Not perfectly representative of population sampled
  - Difference can be called ‘sampling error’, standard error, or confidence interval
Data Collection Strategies

Examples:

- 100,000 Homes campaign: Vulnerability Index
- HUD CoC - Point in Time Count
- Homeless Resource Fair

- Austin Point in Time Count - Survey
Healthcare for the Homeless

Our Mission: We will work with the community as peers with open eyes and a responsive attitude to provide the right care, at the right time, at the right place.
Austin/Travis County, Texas

- Largest safety net provider of primary care in Austin/Travis County; UDS 2011:
  - 57,296 unduplicated patients
  - 237,451 clinic visits
- 20 medical clinics, 4 dental clinics, 1 specialty care clinic
- Primary medical care, dental, behavioral health, specialty care: cardiology, dermatology, endocrinology, gastroenterology
- Vision screening services by referral to area providers through a local foundation grant
- Special population-of-focus clinics:
  - David Powell Clinic, serving Central Texas patients with HIV
  - ARCH, dedicated to serving Austin’s homeless
    - Began seeing patients in October 2004
    - HCH grantee under our HRSA 330 since 2005
History

- Local health department clinics funded and operated under the City of Austin and Travis County until March 1, 2009
- Transition from the City of Austin to the Travis County Healthcare District (Central Health)
CommUnity Care Timeline
ARCH, Austin Resource Center for the Homeless
• Resource Center owned by City of Austin
  – Constructed in 2003
  – Managed under contract by Front Steps, a local private non-profit
• Located in the heart of downtown Austin (2 on the map)
• Services provided at ARCH
  – Day Resource Center, emergency overnight shelter (100 beds), physical and mental health care (through CommUnityCare), legal assistance, substance abuse treatment
• Facilities include
  – large common-use room, showers and locker rooms, laundry facilities, computer room, art studio,
  – large commercial kitchen and dining room
Clinic services provided by CommUnityCare
- Family Medicine (Dr. Matthew Carlberg, MD and Jordan Swindle, PA-C)
- Dental (mobile dental provided off site)
- Vision- Right to Sight
- Behavioral Health Care
- Case Management (2 staff on site)
- Lab services and Class D Pharmacy

- 4 exam rooms in 1,500 sq ft of clinic space
- 9 FTEs on site, including two providers
- 40 hours of clinical coverage per week
- Eligibility Services- in house screening for MAP
- Network Pharmacy Services- patients can have prescriptions filled at any one of 17 local pharmacies
  - One location less than 2 miles from the clinic
  - Two more locations less than 3 miles from clinic
- Patients have no copay for services
- Transportation services: bus passes, cab service
HCH UDS 2011:

- **1,207 unduplicated patients**
  - 23% female, 77% male
  - 97% between 20 and 64 yo
    - 16 individuals younger than 20
    - 16 individuals older than 64
  - 98% under 100% FPL
    - 75% covered by MAP, local county program funded by Central Health (Travis County Healthcare District)
    - 11% unfunded
    - 8% Medicaid
    - 5% Medicare
    - **Race/Ethnicity**
      - 48% White
      - 32% African American
      - 18% Hispanic
      - 2% Asian, Native American, Pacific Islander

- **5,230 clinic visits**
  - 2,833 (54%) medical visits
  - 1,771 (34%) case management visits
  - 626 (12%) behavioral health visits
HCH UDS 2011, cont:

- **Diagnosis Profile**
  - Behavioral Health issues (~25% of patients)
    - Including depression, anxiety, PTSD, substance abuse
  - Hypertension (9%)
  - Diabetes (6%)
  - Hepatitis C (4%)
  - Respiratory illness (4%)
    - Including Asthma, bronchitis, emphysema
Data Systems and Collection

- NextGen Practice Management since 2004
  - Patient demographics, appointments, third party billing
- NextGen EHR since 2006
  - Early versions were highly customized and tailored to individual providers' needs
    - Moving away from extensive customization
      - LESS customization with MORE functionality and consistency across the network
  - Next EHR upgrade scheduled for June 15, 2012
    - Featuring improved process and workflow
Strategic and Operational Use of Data

- **OC3 metrics (Optimizing Comprehensive Clinical Care)**
  - A framework for redesigning the “system” to maximize health outcomes and remove unnecessary waits and delays for patients.
  - Measuring access, improving it, getting patients in when they need to be seen, and to be seen by their doctor
    - *See your own and don’t make them wait*
    - *Measures: Productivity, Cycle Time, Red Zone, No Show Rates, 3NA, Continuity, Panel size (supply & demand), clinical outcomes*

- **Forecasting placement of new clinics**
  - Patient demographics helped determine the placement of our new North Central location
Thank you!

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Homeless Service Data

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HUD Reporting Objectives

- To improve the capacity of local communities to collect high quality data;
- To enhance the way data are used to inform local, regional and national understanding of homelessness and the performance of homeless assistance programs and systems;
- To support informed decision making about resource needs and allocations;
- To build information partnerships with other agencies and systems to achieve goals; and,
- To manage grant cycles more efficiently so communities can focus on programming.
What is HMIS?

• A Homeless Management Information System is a *locally* administered, electronic data collection system that stores longitudinal client-level information on persons who access the homeless service system.
• A federal response to a congressional directive to capture better data on homelessness.
• Early efforts in the 80s – 90s by the National Human Services Data Consortium preceded congressional action in 2001’s McKinney-Vento Act.
• HUD publishes HMIS standards in 2004 via the Federal Register related to data collection, privacy and security (subsequent updates).
What is HMIS Important?

• Every Continuum of Care (CoC is required to implement an HMIS and participation is scored annually in the CoC Notice of Funding Availability (NOFA).

• Local data is submitted to HUD for the Annual Homeless Assessment Report (AHAR) to Congress (first report in 2007).

• Local systems support coordinated intake, eligibility determination, assessment and case management.
Key Stakeholders

- Continuum of Care lead agency/entity
  - Oversight, policies, protocols
- HMIS lead agency/entity
  - Implementation, training, support
- Participating agencies
- Grantors and local sponsors
- HUD Technical Assistance providers
- Software Vendors
- Users
- Clients

http://www.hudhre.info/
Why Integrated Data Systems?

- Identify the prevalence and patterns of service utilization within and across various systems;
- Identify the risk and protective factors associated with program use;
- Identify costs associated with various types of utilization;
- Design interventions or program investments in one or more domains (e.g. housing stabilization) to reduce costs in another domain (e.g. health care);
- Identify vulnerable subpopulations (e.g. preschool children) based on antecedents in other systems (e.g. child welfare);
- Inform policy decisions with analysis and demonstrable program outcomes (e.g. reduced teen pregnancies).
Texas Homeless Data Warehouse

• An effort to integrate data from 15 separate HMIS systems and other agencies providing mainstream services;
• Goals include the ability to report:
  • Trends in transactional data;
  • Population characteristics;
  • Unduplicated count of the state’s served homeless population; and
  • Performance measures and outcomes.
• Project is currently in Phase 1 of 4.
Project Timeline

• Phase 1: Planning
  • Identify Stakeholders (September 2010)
  • Benefits Analysis (May 2011)
  • Project Governance/Management (January 2012)
  • Request For Information (April 2012)
  • Define scope and requirements
  • Design data sharing agreements and security protocols
Project Timeline

- **Phase 2: Development**
  - Request For Offer (July 2012)
  - Request For Proposal (September 2012)
  - Budget approval from sponsor (TBA)
  - Select software vendor and implementation provider
  - Sign off on deliverables
Project Timeline

• Phase 3: Implementation
  • Integrated Homeless Service Data
  • Training and Technical Assistance
  • Reporting Tools
  • Monitoring and Evaluation
Project Timeline

- **Phase 4: Expansion**
  - Planning to integrate with other health and human service data
  - Review changes to project scope and product features
  - Iterative rollout (2020 – 2025)
Challenges

- No single statewide HMIS
- No statewide data warehouse
- No federal funding at this time
- Only a recent history of cross-departmental collaboration and governance on State IT projects
- Exclusive planning processes
- Lack of dialogue between key stakeholders
- Focus on cost and resources without first understanding need and requirements
Lessons Learned... So Far

- Building a data warehouse is a human process, NOT an IT project
- Build an infrastructure where it is needed and only when necessary
- Promote inclusive AND integrated planning processes
- Sustain momentum
- Embrace ambiguity
- Identify your project champion
Community Data

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Federal

- HUD
- NIDAA / SAMHSA
- CDC
- Census
- Bureau of Labor Statistics
- Advocacy

State

- State Housing Agency
- Data Warehousing
- Advocacy

Local

- AHAR
- HIC
- PITC (CoC)
- HMIS
- Community Reporting Metrics
- Advocacy
Community Reporting Metrics

• Reports

• White Papers
  ▫ Strategy / Planning
  ▫ Advocacy
  ▫ Fundraising support

• Graphics / GIS
Discussion...

Questions?