NEW MEXICO COMMUNITY DATA COLLABORATIVE

CHALLENGES FOR PARTICIPATORY COMMUNITY ASSESSMENT

SPRING, 2012

Thomas Scharmen, MA, MPH
New Mexico Dept Health, Public Health Division, Regions 1,3

THE NM EARLY CHILD DATA WAREHOUSE IS A PROJECT OF THE NM EARLY LEARNING ADVISORY COUNCIL

With support from NM CYFD and NM DOH
Objectives

1. **What** are the key challenges and incentives for data collaborators?

2. **How** does NMCDC contribute to public health practice and community assessment?

3. **Demonstrate** uses of maps and data in community assessment

4. **Discuss** benefits, impediments and promotors of collaboration

5. **Show and discuss** innovative uses of technology for data use and collaboration
ABC HEAT (Albuquerque-Bernalillo County Health Equity Assessment Tool) grew out of Bernalillo County Place Matters and the DOH Community Assessment Intitiative.

NMCDC extends the work of ABC HEAT.

• A collaborative health equity assessment initiative with the goal of providing communities and decision-makers in our city, county and state with evidence to build health into public and private policies and practices.

• Good decisions require reliable data on health status, disparities, and the effects of social determinants of health.

• Data must be monitored at the local level in collaboration with the people and families who live there and the agencies and organizations that work with them.

• Funding must be available to promote community participatory assessment to understand these health effects and to promote the application of findings to decision-makers.
Upstream . . . Downstream

**Upstream:** Everyone in all communities should have these conditions.

**Midstream:** Move people from conditions that decrease health & well-being to conditions that support them.

**Downstream:** Act to change behaviors or conditions causing stress & poor health.

- **Pro-Equity Policies**
  - Affordable Housing
  - Safe Neighborhoods
  - Fair Standards of Living
  - No Racism
  - Healthy Environment

- **Midstream:**
  - Good Paying Jobs
  - Quality Education
  - Access to Healthcare
  - Access to Transportation

- **Downstream:**
  - Incarceration
  - Obesity
  - Homelessness
  - Low Birth Weight
  - Untreated Mental Illness
  - Poor Health Status

Need action at Societal Level → Need action at Community Level → Need action at Individual and Family Level
New Directions for Community Assessment

- **Sub-County Data** – Growing demand for neighborhood-level data that can help improve health, design interventions and policies, and attract funding

- **Social Determinants Data** – The social, cultural, physical and service environments that may describe root causes of health, health disparities and health equity

- **Cross Sector Collaboration** – Facilitate SHARING: of data, methods, tools, training resources and labor among government, university and community analysts and actors

- **Internet-Based Technologies** – Geographic information systems, social networking and new forms of interactive media – in conjunction with development of the associated ‘people skills’ – democratize data and ensure broader participation in assessment and action.
Key Challenges

1. **Share Population Based Data & Methods** – State and local government agencies (keepers of the data) must collaborate with each other and with community-based organizations.

2. **Build Analytic & Community Engagement Capacity** – The need for creative analysts who can work with diverse audiences and users to explore and apply data.

3. **Improve Data Quality** – Sub-county data requires Geo-Coding of Addresses, community-relevant boundaries, detailed denominators.

4. **Use Technology Strategically** – On-line mapping tools and query systems make the data available to all.

*(from 2011 NMPHA Presentation)*
NM HEALTH INFORMATION SYSTEMS ACT:

“Any person may obtain any aggregate data”

HB 18: Section 24-14A-2 NMSA 1978, Modified March 2012
INDIVIDUAL CLIENT DATASETS

- **NO PERSONAL INFORMATION**

- **BEHIND CYFD/DOH FIREWALL by AGENCY ANALYSTS**

1- ADDRESSES ARE GEOCODED to Latitude x Longitude

2- ADDRESSES ARE REMOVED & Replaced with Neighborhood ID

3- DATATOOL DEVELOPED with Key Indicators

4- DATA AGGREGATED TO CENSUS TRACT

5- READY FOR SAFE SHARING and Mapping
COMMUNITY AGGREGATED DATASETS

- **NO PERSONAL INFORMATION**
- **NO INDIVIDUAL LEVEL DATA**

1. DATASETS CAN BE SHARED WITH COMMUNITY PARTNERS e.g., UNM CEPR, NMECDP, NMVC, etc.
2. DATASETS CAN BE MAPPED ON PUBLIC WEBSITES e.g., NM IBIS http://ibis.health.state.nm.us
3. LINK AND CORRELATE INDICATORS to examine problems strategically
4. TARGET PROGRAMS BY RISK, NEED AND SERVICE GAPS
5. FACILITATE UNDERSTANDING OF ROOT CAUSES
CASE STUDY

ASSESSMENT OF HOME VISITATION NEEDS AND EARLY CHILDHOOD RISK & SERVICES

(COUNTY, SCHOOL DISTRICT, CENSUS TRACT)
ASSESSMENT OF HOME VISITATION AND EARLY CHILDHOOD RISK & SERVICES

RISKS:

Vital Records Birth Files, 2000-09 (DOH, BVRHS - geocoded by EDAC): 11 Part Risk Index

Domestic Violence, Child Abuse, Juvenile Incarceration (CYFD)

SERVICES:

Child Care Centers (CYFD, ELS)

PRE-K Sites (CYFD, ELS)

HeadStart Sites (CYFD, ELS & Federal Datasets)

Family Infant Toddlers (DOH)

Other Home Visitation Sites (ECAP)

OUTCOMES:

3rd Grade Reading & Math Scores, Graduation/Drop Out (NMPED)

Juvenile Incarceration (CYFD)

Youth Substance Abuse (DOH, YRRS)
DATA PARTNERS INVOLVED:

DOH, PHD Maternal & Child Health Bureau
DOH, ERD Bureau of Vital Records
DOH, PHD, Reg 3, Office of Community Assessment
CYFD Protective Services Division
CYFD Early Learning Services Division
CYFD Juvenile Justice Division
Early Learning Advisory Council
UNM Center for Developmental Disability
UNM Center for Education Policy Research
APS Health and Wellness Dept & Contractors
New Mexico Voices for Children
NM Early Childhood Development Partnership
New Mexico First & Numerous Early Childhood Coalitions and Provider Groups
An index combining 4 key factors was used to identify 6 contiguous South Valley and South Central Albuquerque census tracts with the highest need for a home visitation program.

This slide shows all Albuquerque census tracts evaluated for those 4 risk factors.

The numbers on the map represent the relative level of risk.
Are there high quality Child Care programs in the areas most at risk in Albuquerque?

The Albuquerque neighborhood of highest risk (with a population of 35,000) is served by 1 high quality child care program, 1 City of Albuquerque preschool, and 4 Head Start programs.
Are there high quality Child Care programs in the areas most at risk in Albuquerque?
Early Childhood Learning Services and Related Risks, NM 2011 - V2

Early childhood service centers (points) are mapped along with income, child population, FIT Clients, and child abuse rate for New Mexico census tracts (background colors). Type an address into the search space to locate an area of interest.
Early Childhood Learning Services and Related Risks, NM 2011 - V2

Early childhood service centers (points) are mapped along with income, child population, FIT Clients, and child abuse rate for New Mexico census tracts (background colors). Type an address into the search space to locate an area of interest.
Head Start, Pre-Kindergarten and Child Care sites in New Mexico.

New Mexico Counties

Combined Risk Factor Index
Teen Birth Rate, % Late Pre-Natal Care, % Low Birth Weight, % Families in Poverty

- Highest Risk (1st - 6th)
- Above Average Risk (7th - 12th)
- Average Risk (13th - 19th)
- Below Average Risk (20th - 26th)
- Lowest Risk (27th - 33rd)

▲ Pre-Kindergarten Sites
★ State Head Start Centers
● 4 & 5 Star Licensed Child Care Facilities

NEW MEXICO COMMUNITY DATA COLLABORATIVE
Analysis contributed by: NMDOH-CYFD
Key Challenges

1. **Share Population Based Data & Methods** – State and local government agencies (keepers of the data) must collaborate with each other and with community-based organizations.

2. **Build Analytic & Community Engagement Capacity** – The need for creative analysts who can work with diverse audiences and users to explore and apply data.

3. **Improve Data Quality** – Sub-county data requires Geo-Coding of Addresses, community-relevant boundaries, detailed denominators.

4. **Use Technology Strategically** – On-line mapping tools and query systems make the data available to all.
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Key Challenges

Ensure indicators are assigned to proper census tract
DOH Environmental Public Health Tracking program and DOH Small Area Workgroup are enhancing the quality of birth, death and hospitalization geo-coding
Multiple partners improving and sharing address directories

Define geographies that are true communities
Small Area Analysis Workgroup – Task: Build ~100 small areas out of 500 NM census tracts

Build comparable denominator sets
Reliable, agreed upon population data for rate estimations
  DOH/CYFD project, UNM-BBER, NM-IBIS, BCPM all contribute
Welcome to the NM-IBIS interactive query system. This system allows users to query public health datasets directly. The public health datasets on NM-IBIS are managed and provided by NM-IBIS data stewards in programs through the New Mexico Department of Health.

NM-IBIS query system data are intended to support evidenced-based decision making for public health in New Mexico to plan and improve service delivery, evaluate health care systems, and inform policy decisions. Other uses are not permissible.

**Getting Started**

Follow these four basic steps to query a dataset. For examples see the tutorials below.

1. Select a dataset from the menu buttons on the left.
2. Click on a blue bar and "drill down" (click on further selections) to select a measure to query.
3. Follow the steps to build your query.
4. When you are done building your query, click "Submit Query" in the last step to get your results.

**News and Updates**

- 2010 data were added for the Behavioral Risk Factor Surveillance System (BRFSS) Query Module. The BRFSS Query Module now includes data from 2004 through 2010. The BRFSS data are maintained by the New Mexico Department of Health (updated: 4/5/12)
- NM-IBIS query system has been updated with new post-censal population data that uses information from the 2010 U.S. Decennial Census to improve New Mexico population estimates. (updated: 2/22/12)

**User Help**

- Tutorial. There is a powerpoint presentation tutorial that will lead you through a basic query. Right-click on the "tutorial" link to open the presentation in a new browser window.
- Dataset Specific resources, such as survey questionnaires, ICD code lists and more.

http://ibis.health.state.nm.us/query
SMALL AREAS = 109 COMMUNITIES WITH ~20,000 RESIDENTS

http://ibis.health.state.nm.us/query
SMALL AREAS = 109 COMMUNITIES WITH ~20,000 RESIDENTS

<table>
<thead>
<tr>
<th>NM Small Area Version 1.3.3</th>
<th>Number of Deaths</th>
<th>Number in the Population (person-years)</th>
<th>Deaths Per 100,000 Population (Age-adjusted)</th>
<th>95% CI LL</th>
<th>95% CI UL</th>
<th>Statistical Stability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2,979</td>
<td>9,949,810</td>
<td>29.4</td>
<td>28.3</td>
<td>30.4</td>
<td></td>
</tr>
<tr>
<td>1-Bernalillo County, Central Penn</td>
<td>67</td>
<td>135,533</td>
<td>62.4</td>
<td>47.3</td>
<td>77.4</td>
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<tr>
<td>2-Bernalillo County, Central Tabo</td>
<td>43</td>
<td>141,346</td>
<td>32.7</td>
<td>22.9</td>
<td>42.5</td>
<td></td>
</tr>
<tr>
<td>3-Bernalillo County, East Gateway</td>
<td>17</td>
<td>94,056</td>
<td>14.0</td>
<td>7.3</td>
<td>20.7</td>
<td></td>
</tr>
<tr>
<td>4-Bernalillo County, Lomas San Mateo</td>
<td>31</td>
<td>102,676</td>
<td>19.9</td>
<td>12.6</td>
<td>27.2</td>
<td></td>
</tr>
<tr>
<td>5-Bernalillo County, Lomas Girard</td>
<td>12</td>
<td>74,092</td>
<td>15.4</td>
<td>6.5</td>
<td>24.3</td>
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<tr>
<td>6-Bernalillo County, Gibson University</td>
<td>6</td>
<td>63,232</td>
<td>11.3</td>
<td>2.1</td>
<td>20.5</td>
<td>† Warning</td>
</tr>
<tr>
<td>7-Bernalillo County, Rio Bravo Second</td>
<td>19</td>
<td>47,501</td>
<td>49.0</td>
<td>26.4</td>
<td>71.5</td>
<td></td>
</tr>
<tr>
<td>8-Bernalillo County, Lomas Broadway</td>
<td>29</td>
<td>103,290</td>
<td>27.8</td>
<td>17.6</td>
<td>38.0</td>
<td></td>
</tr>
<tr>
<td>10-Bernalillo County, Isleta Gun Club</td>
<td>17</td>
<td>67,305</td>
<td>28.6</td>
<td>14.4</td>
<td>42.7</td>
<td></td>
</tr>
<tr>
<td>11-Bernalillo County, Arenal Unser</td>
<td>11</td>
<td>66,546</td>
<td>41.6</td>
<td>11.4</td>
<td>71.7</td>
<td>† Warning</td>
</tr>
<tr>
<td>12-Bernalillo County, Chavez OneEighteenth</td>
<td>20</td>
<td>101,237</td>
<td>38.3</td>
<td>20.2</td>
<td>56.4</td>
<td></td>
</tr>
<tr>
<td>13-Bernalillo County, Southwest</td>
<td>16</td>
<td>50,108</td>
<td>57.6</td>
<td>27.3</td>
<td>87.9</td>
<td></td>
</tr>
<tr>
<td>14-Bernalillo County, Arenal Tapia</td>
<td>33</td>
<td>97,979</td>
<td>34.5</td>
<td>22.7</td>
<td>46.3</td>
<td></td>
</tr>
<tr>
<td>15-Bernalillo County,</td>
<td>41</td>
<td>110,147</td>
<td>39.6</td>
<td>27.4</td>
<td>51.8</td>
<td></td>
</tr>
</tbody>
</table>

http://ibis.health.state.nm.us/query
**NMDOH Standard Geocoding Process**

**Input dataset**

1. **Maintenance Step 1**: Procure and maintain geocoding reference datasets.
   - NAVTEQ
   - TomTom
   - ESRI street files
   - Parcel files
   - Other files

2. **Maintenance Step 2**: Develop and maintain ancillary lists.
   - Road lists
   - PO box/GD lists
   - Subdivision lists
   - Facility lists
   - Other lists

3. **Step 0.a**: AUDIT ADDRESS TYPE
   - VISUALLY AUDIT all addresses and categorize by type (See Table 1)

4. **Step 0.b**: Standardize complete addresses
   - (address type codes 1-3)
   - Submit records with complete addresses to address clean-up software (e.g., Semaphore ZP4)

5. **Step 1**: Geocode records with complete addresses
   - (address type codes 1-3)
   - a) First pass: Use NAVTEQ NM Road Centerline network
   - b) Second pass: Use TomTom Multinet street network
   - c) Third pass: Use ESRI street network
   - d) Fourth pass: Use local, high-quality geocoding reference files (e.g., parcel files)
   - Unmatched records are then reviewed and corrected with Interactive Mapping function

6. **Step 2**: Geocode records with incomplete addresses that match an ancillary list
   - (Types 04-07, 09, 11-15, 20, 22, 87, 88) FLAG

7. **Step 3**: Manually geocode records with locations in place of addresses
   - (Type 08)
   - Using live map, search engine & address locators (e.g., Google maps / Google, ArcGIS) FLAG

8. **Step 4**: Geocode records with city and/or zipcode only
   - Use GNIS (City) centroid; only use Zip Code centroid if a city larger than 50,000 or with >1 zip code; FLAG

**Table 1. Address type codes**

<table>
<thead>
<tr>
<th>ADDRESS TYPE CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>01=Complete street address (St R, St Name, Quad, City, County, Zip)</td>
</tr>
<tr>
<td>02=Street name complete (without street number)</td>
</tr>
<tr>
<td>03=Street intersection</td>
</tr>
<tr>
<td>04=Route, rural road, or star route,</td>
</tr>
<tr>
<td>05=Highway contract route (HCR)</td>
</tr>
<tr>
<td>06=PO Box</td>
</tr>
<tr>
<td>07=General Delivery</td>
</tr>
<tr>
<td>08=Location</td>
</tr>
<tr>
<td>09=Subdivision, ranch, neighborhood, MHP w/o street address</td>
</tr>
<tr>
<td>10=Facility - LT Health</td>
</tr>
<tr>
<td>11=Facility - military</td>
</tr>
<tr>
<td>12=Facility - Correctional</td>
</tr>
<tr>
<td>13=Facility - Other</td>
</tr>
<tr>
<td>14=Housing Authority</td>
</tr>
<tr>
<td>15=Homeless, transient, shelter, halfway house</td>
</tr>
<tr>
<td>16=Private mobile home business</td>
</tr>
<tr>
<td>17=Highway Mile Marker</td>
</tr>
<tr>
<td>18=Incomplete street name/address</td>
</tr>
<tr>
<td>19=Miscellaneous non-address info</td>
</tr>
<tr>
<td>20=NM county only</td>
</tr>
<tr>
<td>21=Out of State Address</td>
</tr>
<tr>
<td>22=New Mexico only</td>
</tr>
</tbody>
</table>

**Output dataset**

Dataset geocoded with highest possible level of accuracy (Goal = correct census tract); with flags characterizing accuracy of geocoding (address and address type used)
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Early Childhood, Health and Social Indicators

Click on a map image below to view the interactive map. Under "Legends," the map layers can be turned on or off.

Questions? . . . Discussion?

• What are factors that have promoted or impeded data collaboration for you or your organization?

• What are you doing to reach the goal of communities owning and using their own data?

• How are you using social media?

• What data are you using in community participatory programs? What are you missing?

• Share something that you’ve done or seen that represents innovation in data use that you would like to try?

• Who Owns Information? How does Power come into play?
MAPPING & NETWORKING ON FACEBOOK @ ABC HEAT GROUP
My Community
New Mexico
http://mycommunitynm.org/
Combined Risks and Five Focused Programs

Births to Women Under 20 Combined Risk Factor Index
Combines measures of teen fertility proportion, teen fertility burden, repeat births to teens, low birth weight births, premature births, access to prenatal care, and childhood poverty.

- Lowest Risk
- Low Risk
- Average Risk
- High Risk
- Highest Risk

Source: NMDOH, BVRHS; NMDOH, PHD, FPP; NMAS
Analysis: NMDOH, PHD, REG 3, OCAPE

- School Based Health Center with Title X
- School Based Health Center
- GRADS Program
- TOP or Cuidate Program
- Title X Clinic

New Mexico School Districts
INFANT MORTALITY

PLACE MATTERS – ABC HEAT
Years 1990 through 2005, N = 934

Source: NMDOH, BVRHS