Social Determinants of Health in New Mexico: What makes us healthy

30th Annual Oregon Rural Health Conference
October 24, 2013

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Vice Chancellor for Community Health
University of New Mexico
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“The University of New Mexico Health Sciences Center will work with community partners to help New Mexico make more progress in health and health equity than any other state by 2020.”
Establishment of Office for Community Health

- Appointed Vice Chancellor of Community Health
- Goal: build bridges with community partners
- Programmatic efforts guided by extensive community input, guidance
Comments from a Sampling of Community Health Leaders

- Important to overcome image:
  - “University of ABQ”
  - “UNM only present while grant funds last”

- UNM needs to:
  - Commit to long term partnerships
  - Build upon local wisdom, leaders, organizations, programs
  - Create single UNM telephone number to help communities and providers navigate the UNM Health System
  - Have full-time presence in all communities like NMSU
Universities & Community Engagement

“Most university-community partnerships are one-sided altruism. The University gives things to a needy community, compensated by warm feelings and a grant until it ends.” – Howell Baum

“Shifting institutional leadership and grant-based funding often relegates community partnerships to boutique initiatives, paraded out when the university needs to demonstrate its engagement bona fides…”

– Mary Jane Brukardt
## Determinants of Health

<table>
<thead>
<tr>
<th>Contribution to Mortality</th>
<th>% Nat’l Health Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifestyle</td>
<td>43%</td>
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<tr>
<td>Biology/Genetics</td>
<td>27%</td>
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<tr>
<td>Environment</td>
<td>19%</td>
</tr>
<tr>
<td>Health Services</td>
<td>11%</td>
</tr>
</tbody>
</table>

Marc Lalonde (1974)
Quality Care is Not Enough ex. Diabetes in Native Americans

- Recommended Preventive Services:
  - Native Americans have best rates

- Deaths from Diabetes:
  - Native Americans have highest rates

New Mexico Dept of Health 2010 Report on Ethnic Disparities in Health
Education and Health

• High correlation of educational attainment and health
• 56% of New Mexicans had some college education (we rank 36th in nation)
• If 24% more (80%) had some college, we would avert 677 deaths/year

Source: Robert Wood Johnson Foundation Commission to Build a Healthier America
“Food Deserts” in New Mexico

Areas with Limited Access to Affordable and Nutritious Food
Adverse Childhood Experiences
Correlated with Chronic Disease in Adults

Childhood Abuse
- Physical
- Emotional
- Sexual

Adults in Home
- Mother beaten
- Mental Illness
- Alcohol of substance abuse
- Having been a prisoner

Access and Ethnicity

- Population is becoming more ethnically diverse
- But U.S. medical students from more upper income families
- Impact of ethnicity on access:

**Likelihood of African-American or Hispanic Physicians to Treat Patients of the Same Race or Ethnicity**

- African-American Physicians: 52%
- Other Physicians: 10%
- Hispanic Physicians: 54%
- Other Physicians: 15%
Growing Need for New, Integrated Models of Care

- “Status One” — top 5% of care users consume 50% of resources

- Social determinants of disease in high user subset
  - 70% underlying cause of high ER use “behavioral”
  - 70% of “behavioral” is alcohol and substance abuse

- Intense case management requires collaboration (medical, behavioral, social, community outreach)
The Social Health of the Fifty States: Where is New Mexico?

This combines in a single measure each state's performance on 16 social indicators representing different stages of life (ex. Child poverty, teen drug use, unemployment, suicide among elderly, food stamp coverage)

Source: Institute for Public Health
Tips for Staying Healthy

- Don’t be poor
- Don’t have poor parents
- Own a car
- Don’t work in a stressful, low paid manual job
- Don’t be unemployed
- Don’t live in damp, low quality housing

– Dave Gordon, 1999
New Mexico State University

Major Partners: State of New Mexico, USDA
New Mexico Association of Counties

Northern Extension District

Eastern Extension District

Southwest Extension District

Facility Locations
- County Cooperative Extension Service Offices
- Satellite County Offices
- Tribal Cooperative Extension Service Offices
- Agricultural Cooperative Extension Service District Offices
- Cooperative Extension Service District Offices
- Cooperative Extension Service Specialists Office
- University Government Affairs

- NMSU Branch Colleges
- Admissions Office
- Santa Fe Ranch Demonstration Site
- NMSU Main Campus
- Apache Point Observatory
- CES/New Mexico Works Program
Establish Health Extension Rural Offices

- Place full-time agents in rural communities across the state
- Link community health priorities with UNM resources
- Monitor effectiveness of university programs in addressing community health needs

HEROs Roles

• HERO Regional Coordinators, Agents HSC linked, community-based
• They decentralize AHC resources & expertise in all mission areas
• They facilitate community-campus engagement, partnerships
• They educate, advocate so AHC priorities, activities better align with community’s
SAN JUAN COUNTY
- Agreement that San Juan Regional Med becomes Northwestern NM Hub of UNM HSC
- Develop UNM HSC Family Medicine education
- Telehealth (e.g., neonatology)

McKINLEY COUNTY
- Plan for a Masters of Public Health Program
- Placement of Psychiatry Fellow
- Pipeline development for Health Professional Students
- Plan Teledermatology
- Train Diabetes Educators

SAN MIGUEL COUNTY
- Partner NM Northern AHEC
- Establish branch of Family Medicine Residency
- Establish Psychiatry residency rotation

Crownpoint (Navajo)
- Local training or more distance education opportunities
- Increase opportunities for resident education
- Coordinate patient care between Crownpoint and UNM doctors

VALENCIA COUNTY
- Pipeline development for Health Professional Students
- Plan development of Health Commons

GUADALUPE COUNTY
- Local training or more distance education opportunities
- Increase opportunities for primary care resident education
- Pipeline development for health professional students

CHAVES COUNTY
- Local training or more distance education opportunities
- Oral Health (Dental Residents and Hygienists)
- Joint research effort - maternal, child health
- Psychiatric support
- Opening food pantry/immunization sites

HIDALGO/GRANT COUNTIES
- Increase opportunities for primary care resident education
- Oral Health (Dental Residents)
- Research Support for diabetes and teen pregnancy initiatives
- Plan Telepharmacy
- Telepsychiatry in place
- Research in new healthcare model/policy

TAOS COUNTY
- Medical Billing/Coding Courses
- Pipeline development for Health Professional Students
- Plan to expand nurse education program

SANTA FE COUNTY
- Agreement that St. Vincent Regional Med Center becomes Northern Hub of UNM HSC
- Increase opportunities for resident and nursing education
- Pipeline development for Health Professional Students
- Research proposal - Emergency Medicine

LEA COUNTY
- Increase Health Science student training opportunities
- Pipeline development for Health Professional Students

DONA ANA COUNTY
- Field Case Management Program
- Agreement that Memorial Med becomes Southern NM Hub of UNM HSC
- Partner with Southern AHEC

Proposed HSC Health Extension Offices with accompanying coverage areas
* Native American communities participating with HERO extension offices
Youth/Pipeline Development into Health Professions

- “Grow our own”
- “Health Summit” – Eastern Navajo Mid-Schoolers
- Future mentoring
Hidalgo/Grant County

- Telehealth
- Telepharmacy
- Case Manage via Comm Health Workers
- “Health Commons Model”
- “The Hidalgo Initiative”
Rural Example of Coop Ext/Health Ext Collaboration

• NM HS grad rate is one of lowest in country, especially Hispanic, Native American communities; Health sector among biggest employers

• Ethnic diversity of health workforce not keeping pace with diversity of nation

• UNM’s pipeline programs working with NMSU’s 4-H program to recruit kids
Urban Example of Coop Ext/Health Ext Collaboration

• Primary care Community Health Centers without resources for patient education
• Diabetes, Obesity, Hypertension leading chronic diseases in primary care
• Health Ext. Coordinator recruited Coop Ext. Agent to teach nutrition classes within primary care clinic
Regional HERO Agents/Coordinators

Becoming Regional Academic Hubs

Location of HEROs

Expansion of HEROs to Academic Hubs
HEROs & AHEC Train
Community Health Workers

• Training Subjects (ex.)
  – Motivational Interviewing
  – Community Resources
  – Behavioral Health

• Range of Services Provided (ex.)
  – Navigation
  – Chronic Disease Management
  – Health Literacy

• Funding Sources
  – Managed Care
  – County
  – Research Grants
Health Extension, Cooperative Extension and CHWs Working Together on Social Determinants

Cooperative Extension gives nutrition classes in primary care clinics
Food Co-op
Economic development
    ollas
    honey
    eggs chickens
    plants
Housing renovation
Urban Gardening
Community Health Workers (“Promotoras”): Sustainable Funding via Medicaid Managed Care Organizations

- Managed Medicaid MCO profits reduced by high ER use
- Can’t locate high user group for their case managers
- Dept Fam & Comm Med received MCO contract to hire, train CHWs – assigned “panel” of high users to “manage” in field

Results:
- 62% reduction in cost to MCOs
- Program extended to 2 other MCOs
- Program expanded to 5 other regions of state
- Pilot: FM resident/CHW teams co-manage panel, teach each other
Charlie Alfero, Hidalgo Medical Services, Lordsburg, New Mexico
Health Priorities of NM Communities and HSC Research Priorities

- County Health Councils’ 2007 Priorities (in order)
  - Addictions & Mental Health
  - Obesity & Diabetes
  - Teen Pregnancy
  - Access to Care
  - Violence

- UNM HSC Research Priorities (“Signature Programs”)
  - Cancer
  - Cardiovascular and Metabolic Diseases
  - Infectious Disease and Immunity
  - Child Health
  - Environmental Health
HEROs and CTSC Researchers
2011: Examples

Marnie Nixon (HERO – Doña Ana County):
Helped Dept. of Psychiatry researcher with data collection and intervention with middle school 8th graders around violence (La Tierra Sagrada funding)

Nikki Zeuner (HERO – Grant/Hidalgo Counties):
Developed capacity-building training for local non-profits (Office for Community Health Funding)

Francisco Ronquillo (HERO – Bernalillo County):
Assisted College of Nursing study on impact of youth development on graduation rates and choice of health careers (Disparities Endowment Mini-Grant Award)
Sample County Health Report Card

Hidalgo County
Lordsburg, Cotton City, Animas, Playas, Clovedale, Virden

BACKGROUND DATA

<table>
<thead>
<tr>
<th>Quick Facts</th>
<th>Hidalgo County</th>
<th>New Mexico</th>
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</thead>
<tbody>
<tr>
<td>Land area (square miles)</td>
<td>3,446</td>
<td>1,210,586</td>
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<tr>
<td>Population (2006)</td>
<td>5,087</td>
<td>1,914,599</td>
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<tr>
<td>Persons per square mile (2000)</td>
<td>1.7</td>
<td>150</td>
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<tr>
<td>Median household income (2004)</td>
<td>$23,702</td>
<td>$37,838</td>
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<tr>
<td>Persons below poverty percent, 2004</td>
<td>21.2%</td>
<td>16.7%</td>
</tr>
<tr>
<td>Unemployment rate (November 2007)</td>
<td>2.2%</td>
<td>3.2%</td>
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<tr>
<td>High School Dropout Rate 2005-2006</td>
<td>Animas Public Schools</td>
<td>1.0%</td>
</tr>
<tr>
<td></td>
<td>Lordsburg Municipal Schools</td>
<td>8.2%</td>
</tr>
</tbody>
</table>

Legislative Districts

House
Dlt. 38, Rep. Dianne Miller Hamilton
Dlt. 39, Rep. Rodolpho “Buddy” Martinez

Senate
Dlt. 35, Sen. John Arthur Smith

LEADING CAUSES OF DEATH

<table>
<thead>
<tr>
<th>Rates per 100,000</th>
<th>Hidalgo County</th>
<th>New Mexico</th>
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</thead>
<tbody>
<tr>
<td>Diseases of the heart</td>
<td>156.2</td>
<td>176.8</td>
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<tr>
<td>Cancer</td>
<td>150.0</td>
<td>159.2</td>
</tr>
<tr>
<td>Accidents (unintentional injuries)</td>
<td>105.5</td>
<td>61.3</td>
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<tr>
<td>Chronic lower respiratory diseases</td>
<td>26.0</td>
<td>45.5</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>116.9</td>
<td>33.1</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>49.8</td>
<td>32.0</td>
</tr>
</tbody>
</table>

Healthcare Clinics and Resources

Hidalgo Medical Services
500 E DeMoss Street • Lordsburg NM 88045 • 505-542-8384
Provides primary care services.

Animas Valley Clinic (Hidalgo Medical Services)
PO Box 85 • Animas NM 88020 • 505-548-2299
Provides primary care services.

Lic. Health Professionals (Jan. 2008)

MD/DO Total per Licensing Board: 1

MDP: 1

DO: 0

Nurse Practitioners: 1

Physician Assistants: 1

Occupational Therapists: 0

Physical Therapists: 0

Dentists: 1

Nursing (NM Board of Nursing Statistics)

Total Nurses: 18

Registered Nurses: 6

Licensed Practical Nurses: 0

Certified Nurse Midwives (per NM DOH): 0

Pharmacists (4/2008): 1

Current Provider vacancies, Hidalgo County (Jan. 2008): Total 3

(Physician 2; CNM 1)

Comprehensive Health Planning Council Priority Needs of Hidalgo County (2007)

- Substance Abuse
- Teen pregnancy
- Suicide Prevention
- Family Resiliency
- Emergency Preparedness

Community Environmental Health Concerns

- Trains: Air pollution, Noise, Safety
- Ground Water Quality: Hazardous waste, nitrates, fluoride
- Waste Disposal: Illegal dumping
- Hazardous Material Disposal: Concerns about increase cancer
- Border Concerns: Drugs, alien traffic

HSC ACTIVITIES IN HIDALGO COUNTY (2007)

Education

- 1 UNM SOM student &/or resident grad practicing in county
  (UNM SOM Location Report 97)
- 2 Student/resident months supported by Area Health Education Center
- 13 Emergency Medical Services grad from the county
- 2 Months med student Community Immersion Experience w/ community preceptor

Services Provided to County

- 0.3 Specialty Extension Services days provided in 2007
- 79 calls to the New Mexico Poison Control Center in FY07
- 12 Pediatric Outreach Clinic hours provided (FY07)
- Department of Psychiatry / Center for Rural & Community
  Behavioral Health:
    - 100 Child & Adolescent Telepsychiatry consults in 2007
    - 6 County residents served at UNM Cancer Research & Treatment Center (FY07)
    - 174 total Hidalgo County patient visits at UNM Hospitals and Clinics (FY07):
      - 31 Charity Care
      - 38 Uninsured
      - 106 Compensated Care
- $25,226 in uncompensated costs for care to Hidalgo County residents (FY07)
# County Health Rankings

<table>
<thead>
<tr>
<th>County</th>
<th>Overall Rank</th>
<th>Health Outcomes</th>
<th>Health Determinants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Alamos</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Santa Fe</td>
<td>2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Lincoln</td>
<td>3</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Sandoval</td>
<td>4</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Taos</td>
<td>4</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Bernalillo</td>
<td>6</td>
<td>9</td>
<td>4</td>
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<tr>
<td>Otero</td>
<td>6</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Colfax</td>
<td>8</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>San Juan</td>
<td>9</td>
<td>6</td>
<td>10</td>
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<tr>
<td>Dona Ana</td>
<td>10</td>
<td>5</td>
<td>16</td>
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<tr>
<td>Grant</td>
<td>11</td>
<td>11</td>
<td>11</td>
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<tr>
<td>Curry</td>
<td>12</td>
<td>14</td>
<td>12</td>
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<tr>
<td>Roosevelt</td>
<td>12</td>
<td>12</td>
<td>14</td>
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<tr>
<td>McKinley</td>
<td>14</td>
<td>12</td>
<td>21</td>
</tr>
<tr>
<td>Lea</td>
<td>15</td>
<td>25</td>
<td>9</td>
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<tr>
<td>Eddy</td>
<td>16</td>
<td>22</td>
<td>13</td>
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<td>San Miguel</td>
<td>16</td>
<td>20</td>
<td>15</td>
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<tr>
<td>Cibola</td>
<td>18</td>
<td>18</td>
<td>18</td>
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<tr>
<td>Torrance</td>
<td>18</td>
<td>14</td>
<td>22</td>
</tr>
<tr>
<td>Valencia</td>
<td>18</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>Chaves</td>
<td>21</td>
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<td>17</td>
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<tr>
<td>Sierra</td>
<td>22</td>
<td>17</td>
<td>24</td>
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<tr>
<td>Rio Arriba</td>
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<tr>
<td>Quay</td>
<td>24</td>
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<tr>
<td>Luna</td>
<td>25</td>
<td>21</td>
<td>26</td>
</tr>
<tr>
<td>Socorro</td>
<td>26</td>
<td>26</td>
<td>23</td>
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Complied by Sara Araujo, Institute for Public Health
# Health Measures for Lea County: Red Flags

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>US</th>
<th>NM</th>
<th>Lea County</th>
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<tbody>
<tr>
<td><strong>Behavioral/Social Factors</strong></td>
<td></td>
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</tr>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>21</td>
<td>21</td>
<td>29</td>
</tr>
<tr>
<td>Prevalence of Obesity (percent adult population)</td>
<td>24</td>
<td>23</td>
<td>29</td>
</tr>
<tr>
<td>Motor Vehicle Deaths (per 100,000)</td>
<td>15</td>
<td>23</td>
<td>29</td>
</tr>
<tr>
<td>Teen Birth Rate (per 1,000)</td>
<td>22</td>
<td>37</td>
<td>52</td>
</tr>
<tr>
<td><strong>Demographics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Graduation (percent adults 25 or older)</td>
<td>84</td>
<td>82</td>
<td>67</td>
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<tr>
<td><strong>Health Access</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Uninsured population (percent under 65)</td>
<td>16</td>
<td>23</td>
<td>28</td>
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<tr>
<td><strong>Health Outcomes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>8</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>258</td>
<td>205</td>
<td>280</td>
</tr>
<tr>
<td>Cancer Deaths (per 100,000 population)</td>
<td>798</td>
<td>770</td>
<td>942</td>
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## Sample Measures and Targets

<table>
<thead>
<tr>
<th>Determinant/Outcome</th>
<th>Value</th>
<th>Rank</th>
<th>No. 1 State Value</th>
<th>2020 Target Value*</th>
<th>What this Means…</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Graduation (%)</td>
<td>59.1</td>
<td>48</td>
<td>88.6</td>
<td>64.1</td>
<td>~ 1500 more**</td>
</tr>
<tr>
<td>Lack of Health Insurance (%)</td>
<td>22.7</td>
<td>49</td>
<td>5.0</td>
<td>19.5</td>
<td>~ 65,900 more***</td>
</tr>
<tr>
<td>Primary Care Physicians / 100,000</td>
<td>113.5</td>
<td>27</td>
<td>191.3</td>
<td>116.0</td>
<td>~ 50 more***</td>
</tr>
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</table>

*Value of state ranked three levels above NM rank in 2010

**Calculation based on 30,026 9th grade students - U.S. Department of Education

***Calculation based on 2,059,179 NM population in 2010 from census.gov
# Health Professional Shortages in Lea County

<table>
<thead>
<tr>
<th>Professional</th>
<th>Estimated # of HLth Professionals Needed per Population</th>
<th>Licensed Health Professional Residing in Lea County</th>
<th>Provider Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>108</td>
<td>60</td>
<td>48</td>
</tr>
<tr>
<td>Nurse Practitioners</td>
<td>54</td>
<td>17</td>
<td>37</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>46</td>
<td>0</td>
<td>46</td>
</tr>
<tr>
<td>Physician Assistants</td>
<td>54</td>
<td>6</td>
<td>48</td>
</tr>
<tr>
<td>Occup.Therapists</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Physical Therapists</td>
<td>22</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>Dentists</td>
<td>39</td>
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<td>32</td>
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<tr>
<td>Registered Nurses</td>
<td>466</td>
<td>379</td>
<td>87</td>
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<tr>
<td>LPNs</td>
<td>144</td>
<td>0</td>
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<tr>
<td>Cert. Nur. Midwives</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Licensed Midwives</td>
<td>0</td>
<td>0</td>
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</tr>
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Health Extension and the Affordable Care Act

Section 5405 “Primary Care Extension Prog

• National program
• Health Ext agents help transform primary care
• Measures of success: community health as well as primary care transformation
• Authorized, not appropriated
Social Determinants – Contributors to a National Movement

• AAHC - Social Determinants of Health (Albuquerque 2011, Charleston 2012)

• AAMC, CDC - Regional Medicine-Public Health Education Centers (involves 30 schools)

• Affordable Care Act: Section 5405 “Primary Care Extension Program” (AHRQ’s IMPaCT grant involves 16 states)
Social Determinants – Contributors to a National Movement

- Commonwealth Fund: Natl dissemination of “Health Extension” program (involves 4 states)
- Beyond Flexner: Social Mission of Medical Schools (Geo Wash.U/Kellogg Foundation involves 6 schools)
- U-Health: AAMC, USU/APLU, NIMHD: Health workforce analysis to reduce health disparities (involves 5 schools)
States with Health Extension or Community Health Worker Programs

HEROs - 16 states
CHW - 10 states
National Dissemination of Health Extension

• AHRQ IMPaCT grant: 4 states funded, each linked with 3-4 others (18 states piloting Health Extension)

• Commonwealth grant: on-line toolkit – nat’l dissem. [www.healthextensiontoolkit.org](http://www.healthextensiontoolkit.org)

• Nat’l Invitational Conferences (NM, SC) on AHCs and the Social Determinants
WHAT IS HEALTH EXTENSION?

Health Extension is a method of helping communities, and the primary care practices that serve them, to overcome barriers to transformation by sharing common resources including local expertise coupled with the technical resources of universities, health departments and social services agencies available during and after the transformation process. Health Extension has developed over the last five years and is built on the agricultural Cooperative Extension Service model which was successful in the transformation of rural America through the modernization of agriculture and the diffusion of innovation. Click on the video at right for a quick introduction to the development of health extension.

WHY CREATE A TOOLKIT?

A growing number of states and communities around the country have sought information...