Mapping the Landscape of Nursing in New Mexico, Part 1

Presentation Prepared For:
The New Mexico Nursing Education Consortium
Statewide Meeting
June 9, 2013

Part 2 to be presented at the next statewide NMNEC meeting

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Data... Insight... Impact
Overview

Part 1:
• The Goals Of The New Mexico Nursing Education Consortium
• What Are The Changing Health Care Needs Of New Mexico?
  – The New Mexico Context
  – What is the Current Status of the Health of New Mexicans?
  – What Factor are Changing the State’s Health Care Need?
• The Critical Role Of Registered Nurses In Health Care Provision
• Will There Be Enough Nurses To Take Care Of New Mexicans?

Part 2 (to be presented at the next NMNEC statewide meeting):
• The Landscape of Nursing in New Mexico
  – Who are New Mexico’s Existing Nurse?
  – Who are New Mexico’s Future Nurse?
  – Who is Educating New Mexico’s Future Nurse?
  – What is the Current Employment Picture for Nurses in New Mexico?
The Goals Of The
New Mexico Nursing Education Consortium
The New Mexico Nursing Education Consortium (NMNEC) is committed to improving the health care of all New Mexicans, now and in the future. In order to meet that commitment, NMNEC has focused on three critical goals:

1. Increase the number of nurses with BSN and graduate degrees in New Mexico.

2. Improve efficiency, quality, and educational outcomes of nursing education through cooperation among community colleges and universities.

3. Increase workforce diversity by improving nursing education for minorities, particularly in rural areas.
This Report

This purpose of this report is to inform and support NNNEC’s effort by examining the following questions:

• What are the potential benefits of the NMNEC initiative for the health and well-being of New Mexican, and for New Mexico’s nurses themselves?

• What is the state of the current pipeline for nursing preparation programs in the state?

• What are the current and projected landscapes for nursing careers in New Mexico?

• How can the initiative be strengthened to best meet the needs of all key stakeholders?

• As NMNEC partners monitor implementation of the initiative, what data should be gathered to ensure that the positive effects of the initiative are maximized?
What Are The Changing Health Care Needs Of New Mexico?
The New Mexico Context
The majority of New Mexico’s population of 2,059,179 is located in a few counties. Even in those counties, however, New Mexico is often rural and spacious.

Counts where the White/Non-Hispanic population exceeds the statewide average of 40.5%

Counts where the Hispanic population exceeds the statewide average of 46.3%

Counts where the Native American population exceeds the statewide average of 8.5%

What Is The Current Status Of The Health Of New Mexicans?
Key Measures of General Health Status

The U.S. Department of Health and Human Services Healthy People 2020 initiative tracks specific measures to determine a population’s general health status:

- Life Expectancy
- Years of Potential Life Lost
- Chronic Disease Prevalence

Source: www.healthypeople.gov/2020/about
Leading Causes Of All New Mexico Deaths, 2002-2011, Per 100,000 Population

<table>
<thead>
<tr>
<th>Cause</th>
<th>Deaths per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Disease</td>
<td>163.2</td>
</tr>
<tr>
<td>Cancer</td>
<td>154.9</td>
</tr>
<tr>
<td>Unintentional Injury</td>
<td>62.2</td>
</tr>
<tr>
<td>Chronic Respiratory Disease</td>
<td>46.8</td>
</tr>
<tr>
<td>Stroke/Circulatory Disease</td>
<td>35.3</td>
</tr>
<tr>
<td>Diabetes</td>
<td>30.1</td>
</tr>
</tbody>
</table>

Distribution of Health Challenges Across Counties

Just as population and racial/ethnic groups are unevenly distributed across New Mexico’s diverse geography, so are the health needs of the state. The disparate needs of the state are seen in the following county-by-county comparison across nine key indicators of health status:

- Heart deaths per 100,000 pop.
- Cancer deaths per 100,000 pop.
- Unintentional injury deaths per 100,000 pop.
- Premature Deaths (years of potential life lost) per 100,000 pop.
- Life expectancy from age 65
- Adult diabetes prevalence
- % Adults obese
- % of population over age 65
- % of population uninsured

Counties are colored on the following map according to how many bottom eight rankings they had across all nine indicators.
<table>
<thead>
<tr>
<th>County</th>
<th>Heart Deaths per 100,000 Pop.</th>
<th>Years of Potential Life Lost per 100,000 Pop.</th>
<th>Life Expectancy After Age 65</th>
<th>Cancer Deaths per 100,000 Pop.</th>
<th>% of Adult Pop. With Diabetes</th>
<th>Unintentional Injury Deaths per 100,000 Pop.</th>
<th>% of Adults Obese</th>
<th>% Pop. over 65 (2010)</th>
<th>% of Pop. Uninsured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bernalillo</td>
<td>191.5</td>
<td>12,496</td>
<td>19.1</td>
<td>151.9</td>
<td>6</td>
<td>60.7</td>
<td>19.9</td>
<td>0.122</td>
<td>17.1%</td>
</tr>
<tr>
<td>Catron</td>
<td>127.3</td>
<td>15,126</td>
<td>19.8</td>
<td>160.1</td>
<td>6.3</td>
<td>84</td>
<td>23.7</td>
<td>0.279</td>
<td></td>
</tr>
<tr>
<td>Chaves</td>
<td>218.4</td>
<td>15,320</td>
<td>18.2</td>
<td>185.1</td>
<td>7.5</td>
<td>66.5</td>
<td>29.3</td>
<td>0.142</td>
<td>20.5%</td>
</tr>
<tr>
<td>Cibola</td>
<td>176.7</td>
<td>16,321</td>
<td>18.3</td>
<td>164.9</td>
<td>11.2</td>
<td>78.6</td>
<td>32</td>
<td>0.128</td>
<td>27.1%</td>
</tr>
<tr>
<td>Colfax</td>
<td>198.7</td>
<td>15,501</td>
<td>19</td>
<td>136.5</td>
<td>6.2</td>
<td>58.7</td>
<td>20.7</td>
<td>0.201</td>
<td></td>
</tr>
<tr>
<td>Curry</td>
<td>292.6</td>
<td>11,823</td>
<td>18</td>
<td>146.2</td>
<td>8.6</td>
<td>46.9</td>
<td>27</td>
<td>0.114</td>
<td>17.1%</td>
</tr>
<tr>
<td>De Baca</td>
<td>192.5</td>
<td>16,920</td>
<td>19.7</td>
<td>149.6</td>
<td>6.7</td>
<td>118.7</td>
<td>22</td>
<td>0.229</td>
<td></td>
</tr>
<tr>
<td>Doña Ana</td>
<td>174</td>
<td>10,761</td>
<td>18.9</td>
<td>154.6</td>
<td>6.9</td>
<td>45.2</td>
<td>25.6</td>
<td>0.124</td>
<td>21.3%</td>
</tr>
<tr>
<td>Eddy</td>
<td>252.2</td>
<td>15,163</td>
<td>18.1</td>
<td>181.4</td>
<td>9.9</td>
<td>63.9</td>
<td>30.8</td>
<td>0.14</td>
<td>14.2%</td>
</tr>
<tr>
<td>Grant</td>
<td>210.8</td>
<td>16,393</td>
<td>18.6</td>
<td>166</td>
<td>6</td>
<td>61.6</td>
<td>23.1</td>
<td>0.213</td>
<td>14.9%</td>
</tr>
<tr>
<td>Guadalupe</td>
<td>384.4</td>
<td>14,120</td>
<td>17.9</td>
<td>225.6</td>
<td>6.3</td>
<td>88.6</td>
<td>24.7</td>
<td>0.155</td>
<td></td>
</tr>
<tr>
<td>Harding</td>
<td>101.1</td>
<td>12,024</td>
<td>22.1</td>
<td>95.7</td>
<td>6.2</td>
<td>86.9</td>
<td>27.2</td>
<td>0.292</td>
<td></td>
</tr>
<tr>
<td>Hidalgo</td>
<td>192.9</td>
<td>15,554</td>
<td>18.3</td>
<td>123.6</td>
<td>6.1</td>
<td>38.6</td>
<td>23.7</td>
<td>0.167</td>
<td></td>
</tr>
<tr>
<td>Lea</td>
<td>206.1</td>
<td>12,807</td>
<td>18.1</td>
<td>159.2</td>
<td>7.8</td>
<td>63.8</td>
<td>31.7</td>
<td>0.108</td>
<td>23.3%</td>
</tr>
<tr>
<td>Lincoln</td>
<td>141</td>
<td>14,200</td>
<td>20.1</td>
<td>137.6</td>
<td>5.5</td>
<td>62</td>
<td>20.3</td>
<td>0.22</td>
<td>17.6%</td>
</tr>
<tr>
<td>Los Alamos</td>
<td>123.6</td>
<td>8,316</td>
<td>21.2</td>
<td>114.4</td>
<td>5.3</td>
<td>30.4</td>
<td>18.7</td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td>NM average</td>
<td>203.8</td>
<td>13,175</td>
<td>18.7</td>
<td>160.9</td>
<td></td>
<td>62.3</td>
<td></td>
<td>0.132</td>
<td>19.7%</td>
</tr>
<tr>
<td>US average</td>
<td>190.9</td>
<td>17.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15.2%</td>
</tr>
</tbody>
</table>

Sources: New Mexico Death Certificate Database, Bureau of Vital Records and Health Statistics, New Mexico Department of Health; Centers for Disease Control, Diagnosed Diabetes Percentage, 2009, New Mexico by County; New Mexico Department of Health, Indicator-Based Information System, [http://ibis.health.state.nm.us/indicator/view_numbers/NMPopDemoAge_65_Cnty.html](http://ibis.health.state.nm.us/indicator/view_numbers/NMPopDemoAge_65_Cnty.html); U.S. Census Bureau, Health Insurance Coverage Status, American Community Survey, 3-Year Estimates, 2009-2011.
## Health Status Indicators, by County (con’d)

*yellow indicates a ranking in the bottom 8 of 33 NM counties

<table>
<thead>
<tr>
<th>County</th>
<th>Heart Deaths per 100,000 Pop.</th>
<th>Years of Potential Life Lost per 100,000 Pop.</th>
<th>Life Expectancy After Age 65</th>
<th>Cancer Deaths per 100,000 Pop.</th>
<th>% of Adult Pop. With Diabetes</th>
<th>Unintentional Injury Deaths per 100,000 Pop.</th>
<th>% of Adults Obese</th>
<th>% Pop. over 65 (2010)</th>
<th>% of Pop. Uninsured</th>
</tr>
</thead>
</table>
| Luna       | 325.8                         | 16,481                                        | 18                          | 184.4                           | 7.1                           | 58.4                        | 26.8            | 0.196                 | 22.9%
| McKinley   | 212.2                         | 15,456                                        | 17.8                        | 175.6                           | 12.4                          | 100.3                      | 36.2            | 0.095                 | 38.0%
| Mora       | 310.6                         | 16,041                                        | 19                          | 136.2                           | 6.7                           | 84                          | 21.4            | 0.187                 | 19.9%
| Otero      | 293.4                         | 13,777                                        | 18                          | 171.2                           | 7.8                           | 40.6                        | 25.7            | 0.15                  | 19.9%
| Quay       | 192.7                         | 20,221                                        | 18.8                        | 159.1                           | 6.1                           | 54.8                        | 24.1            | 0.206                 | 19.9%
| Rio Arriba | 219.1                         | 18,606                                        | 18.2                        | 179.1                           | 6.3                           | 105.3                      | 24.5            | 0.141                 | 18.8%
| Roosevelt  | 257.9                         | 12,113                                        | 18                          | 197.3                           | 5.9                           | 50.72                      | 27.2            | 0.119                 | 21.6%
| Sandoval   | 211.6                         | 11,086                                        | 18.7                        | 169.2                           | 6.4                           | 48.7                        | 24.3            | 0.121                 | 15.5%
| San Juan   | 168.4                         | 13,817                                        | 18.5                        | 146.4                           | 8.5                           | 78.43                      | 29.8            | 0.108                 | 30.1%
| San Miguel | 221.8                         | 16,259                                        | 17.8                        | 183.6                           | 6.4                           | 77.3                        | 22.5            | 0.152                 | 14.4%
| Santa Fe   | 180.3                         | 11,589                                        | 19.6                        | 158                             | 3.9                           | 60.8                        | 14              | 0.151                 | 19.9%
| Sierra     | 266.6                         | 25,793                                        | 17.7                        | 204.8                           | 6.1                           | 63                          | 25.1            | 0.306                 | 19.9%
| Socorro    | 247.1                         | 16,847                                        | 17.4                        | 223.9                           | 7.3                           | 79.6                        | 26.7            | 0.142                 | 19.9%
| Taos       | 180                           | 13,656                                        | 19.3                        | 164.6                           | 5.9                           | 76.4                        | 18.7            | 0.171                 | 20.4%
| Torrance   | 312.4                         | 15,331                                        | 16.5                        | 248.4                           | 6.5                           | 87.8                        | 25.3            | 0.142                 | 15.8%
| Union      | 123.8                         | 12,690                                        | 18                          | 123.5                           | 5.9                           | 64                          | 23.8            | 0.179                 | 15.8%
| Valencia   | 277.5                         | 14,236                                        | 17.1                        | 211.5                           | 7                             | 70.1                        | 27.6            | 0.127                 | 15.8%
| NM         | 203.8                         | 13,175                                        | 18.7                        | 160.9                           | 62.3                          | 0.132                      | 19.7            | 15.2                  |
| US         | 190.9                         | 17.7                                          |                             |                                 |                               |                             |                 |                       |                     |

Sources: New Mexico Death Certificate Database, Bureau of Vital Records and Health Statistics, New Mexico Department of Health; Centers for Disease Control, Diagnosed Diabetes Percentage, 2009, New Mexico by County; New Mexico Department of Health, Indicator-Based Information System, [http://ibis.health.state.nm.us/indicator/view_numbers/NMPopDemoAge_65Only.html](http://ibis.health.state.nm.us/indicator/view_numbers/NMPopDemoAge_65Only.html); U.S Census Bureau, Health Insurance Coverage Status, American Community Survey, 3-Year Estimates, 2009-2011.
This map depicts the frequency with which counties ranked in the bottom 8 of 33 counties for the following health status indicators:

- Heart deaths per 100,000 pop.
- Cancer deaths per 100,000 pop.
- Unintentional injury deaths per 100,000 pop.
- Premature Deaths (years of potential life lost) per 100,000 pop.
- Life expectancy from age 65
- Adult diabetes prevalence
- % Adults obese
- % of population over age 65
- % of population uninsured

Number of Times County Appears in Lowest Rankings By Health Status Indicator

What Factors Are Changing The Safety Care Need?
Prevalence Of Multiple Chronic Conditions By Annual Income And Educational Level, Age 45+, New Mexico, 2011

Source: NM Behavioral Risk Factor Surveillance System, NMDOH. Note: Multiple Chronic Conditions include two or more of the following: cardiovascular disease (heart attack, coronary heart disease, and/or stroke), current asthma, cancer (excluding skin cancer), COPD, arthritis, kidney disease, or diabetes.
The U.S. Census Bureau projects dramatic growth in the proportion of New Mexico’s population age 65 and over, in the coming decade.

65% in this group will manage more than one chronic condition by 2030.

Percentage Of Adults Age 65 And Over, By County, 2010

Statewide average in 2010 was 13.2%

<table>
<thead>
<tr>
<th>County</th>
<th>Number of Uninsured Adults, Ages 18-64, Living Below 140% FPL, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Juan</td>
<td>12,487</td>
</tr>
<tr>
<td>Rio Arriba</td>
<td>2,940</td>
</tr>
<tr>
<td>Taos</td>
<td>2,768</td>
</tr>
<tr>
<td>San Miguel</td>
<td>1,695</td>
</tr>
<tr>
<td>Santa Fe</td>
<td>11,295</td>
</tr>
<tr>
<td>Sandoval</td>
<td>6,584</td>
</tr>
<tr>
<td>Cibola</td>
<td>2,920</td>
</tr>
<tr>
<td>Valencia</td>
<td>5,028</td>
</tr>
<tr>
<td>Bernalillo</td>
<td>42,455</td>
</tr>
<tr>
<td>Curry</td>
<td>2,601</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>1,689</td>
</tr>
<tr>
<td>Lincoln</td>
<td>1,218</td>
</tr>
<tr>
<td>Rio Grand</td>
<td>1,764</td>
</tr>
<tr>
<td>Luna</td>
<td>2,573</td>
</tr>
<tr>
<td>Dona Ana</td>
<td>21,061</td>
</tr>
<tr>
<td>Otero</td>
<td>4,926</td>
</tr>
<tr>
<td>Eddy</td>
<td>2,604</td>
</tr>
<tr>
<td>Lea</td>
<td>4,519</td>
</tr>
<tr>
<td>Chaves</td>
<td>5,089</td>
</tr>
<tr>
<td>Grant</td>
<td>1,633</td>
</tr>
</tbody>
</table>

Total for Counties Reported = 145,862

New Mexico’ Growing Primary Care Provider Shortage

- The vast majority of the projected 170,000 adults in NM newly eligible for Medicaid in 2014 and beyond have not previously had primary care health homes.
- NM has already struggled to maintain an adequate primary care network (primary care physicians, nurse practitioners, and physician assistants.)
- Already, 32 of 33 NM counties are designated as Health Professional Shortage Areas, or medically underserved.
- 40.5% of NM’ population live in a Primary Care Health Professional Shortage Area. Nationally, the rate is 19.1%.

Percentage Of Population Living In A Primary Care Health Professional Shortage Area, 2012, By State

Ratio Of Population To Primary Care Physician, By County, 2012

The number shown represents the number of county residents to each primary care physician working in the county. For example, a ratio of 1,914:1 means that there are 1,914 people for every 1 primary care physician working in the county.

The 2013 County Health Rankings and Roadmaps sets a national benchmark ratio at 1,067:1.

The statewide average ratio is 1,409:1.

The number shown represents the number of county residents to each Nurse Practitioner working in the county. For example, a ratio of 1,423:1 means that there are 1,423 people for every 1 Nurse Practitioner working in the county.

The statewide average ratio is 2,100:1.

Source: New Mexico Board of Nursing Annual Report for FY2012
Ratio Of Population To Primary Care Providers (Physicians and NPs), By County, 2012

The number shown represents the number of county residents to primary care providers working in the county. For example, a ratio of 1,423:1 means that there are 1,423 people for every 1 Primary Care Physician or Nurse Practitioner working in the county.

The statewide average ratio is 836:1.

County Provider-to-Needs Gap: Primary Care (MDs and NPs)

Map colors depict the frequency with which counties ranked in the bottom 8 of 33 counties for the seven major health status indicators.

The number shown represents the number of county residents to each Nurse Practitioner working in the county. For example, a ratio of 2,439:1 means that there are 2,439 people for every 1 nurse practitioner.

The statewide average ratio is 836:1.

The Critical Role Of Registered Nurses In Health Care Provision
RN as Primary Service Providers

Though health needs and disparities in care provision vary for populations across the state, all rely heavily on health care services of the largest group of health care professionals—Registered Nurses.

RN provide the bulk of health care service to the state’s residents, whether relatively healthy, suffering from chronic disease, aging, or newly insured.

The health care need of New Mexico’s population in 2012 were met in part by the following:

<table>
<thead>
<tr>
<th>Provider Type</th>
<th>Number</th>
<th>Ratio of Pop:Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Care Physicians:</td>
<td>1,467</td>
<td>1,409:1</td>
</tr>
<tr>
<td>Nurse Practitioners (primary care):</td>
<td>970</td>
<td>2,100:1</td>
</tr>
<tr>
<td>Registered Nurses:</td>
<td>19,403</td>
<td>105:1</td>
</tr>
</tbody>
</table>

The number shown represents the number of county residents to each Registered Nurse working in the county. For example, a ratio of 131:1 means that there are 131 people for every 1 Registered Nurse working in the county.

The statewide average ratio is 105:1.

Ratio of Population to Registered Nurses

<table>
<thead>
<tr>
<th>Range</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>81 - 101</td>
<td>#F7FBDC</td>
</tr>
<tr>
<td>102 - 133</td>
<td>#C9E3EC</td>
</tr>
<tr>
<td>134 - 164</td>
<td>#9BBB59</td>
</tr>
<tr>
<td>165 - 234</td>
<td>#66BB6A</td>
</tr>
<tr>
<td>235 - 381</td>
<td>#336699</td>
</tr>
</tbody>
</table>

Total = 19,403

Source: New Mexico Board of Nursing Annual Report for FY2012
Counties Provider-To-Needs Gap: Registered Nurses

Map colors depict the frequency with which counties ranked in the bottom 8 of 33 counties for the seven major health status indicators.

The number shown represents the number of county residents to each Registered Nurse working in the county. For example, a ratio of 98:1 means that there are 98 residents in the county for each Registered Nurse.

The statewide average ratio is 105:1.

Number of Times County Appears in Lowest Rankings By Health Status Indicator

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4 - 5</th>
</tr>
</thead>
</table>

Sources: NM Board of Nursing 2012 Annual Report; New Mexico Death Certificate Database, Bureau of Vital Records and Health Statistics, NM Department of Health; Centers for Disease Control, Diagnosed Diabetes Percentage, 2009, New Mexico by County; U.S. Census Bureau, Health Insurance Coverage Status, American Community Survey, 3-Year Estimates, 2009-2011.
Will There Be Enough Nurses To Take Care Of New Mexicans?
Will There Be Enough Nurses To Take Care Of New Mexicans?

Summary of Health Demand Factors

Existing shortages of health care providers – including RNs – in New Mexico already leave many health demands inadequately addressed. In the several decades ahead, demand is expected to increase due to the growing mean age of the state’s population and expanded access to care through health reform measures set to take place in 2014.

Researchers forecast that RN shortages will grow across the country by 2030, with New Mexico projected to face the largest shortage ratio in the nation. Shortage estimates vary, as the state works to identify a reliable forecasting methodology:

- The just-released NM Legislative Finance Committee report, “Adequacy of New Mexico’s Health Care System Workforce”, estimates a current shortage of 3,000 RNs, based on the difference between New Mexico and national per capita registered nurse ratios.
- House Joint Memorial 40 in 2009 forecast a shortage of 5,000 RNs by 2020.

Clearly, New Mexico will need more nurses to meet increased demand.
