Increasing HPV Vaccination Rates in Rural North Dakota Using School-Located Clinics

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The 2018 U.S. Census Bureau reports North Dakota’s population as 760,077.

According to North Dakota State University, 55.9% of North Dakotans live in an urban setting and 44.1% in a rural setting.

9.7 persons per square mile (2010 U.S. Census)

About 5.5% of the population is American Indian, 3.4% black, while the remaining is mostly White.

The poverty level in the state is 12.3%, which is close to the national average.
North Dakota Health Professional Shortage Areas

Designated Facility HPSAs
- Indian Health Service Facility automatically designated
- CHC automatically designated
- CHC satellite automatically designated
- RHC requested automatic designation

Geographic HPSAs

Low-Income HPSAs
Adolescent (13-17) Immunization Rates By Year (NIS)
Starting in 2013, the NDDoH Immunization and Cancer Programs partnered to offer mini-grants to local organizations to increase HPV vaccination rates.

- Increasing HPV vaccination rates included in the North Dakota statewide cancer plan
- $5,000 - $10,000 competitive grants
- One year time period

From 2013 to 2017, public health units in four North Dakota rural counties launched school clinics in 20 middle and high schools to provide HPV vaccinations to students during school hours.

Each of the four public health units met or exceeded their first year goal of increasing the completion rate of the HPV vaccination series by 10%.

Mini-grants continue today. Currently, one large multi-county health district in western North Dakota is implementing school-located HPV vaccination clinics.
Walsh County Example

- Walsh County Health District serves Walsh County, which has a population of 10,667 people (2018 U.S. Census Bureau estimate).

- Walsh County is a large rural county of 1,282 square miles with 13 incorporated small cities, the largest being Grafton at a population of 4,243 people (the 15th largest city in North Dakota).

- Entire county is a low income HPSA.

- Walsh County Health District received mini-grants in 2013-2016.

- Mini-grants used for school-located vaccination clinics, meeting with superintendents, radio and print ads, etc.
  - 7th grade focus

- School-located vaccination clinics self-sustaining starting in 2017 through the use of billing insurance.

- Attribute increases in rates mostly to school-located clinics.
Walsh County HPV Completion Rates By Gender According to NDIIS

Start of school clinics

- Walsh HPV UTD F
- Walsh HPV UTD M

<table>
<thead>
<tr>
<th>Year</th>
<th>Walsh HPV UTD F</th>
<th>Walsh HPV UTD M</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>1.6%</td>
<td>10.3%</td>
</tr>
<tr>
<td>2012</td>
<td>24.6%</td>
<td>33.4%</td>
</tr>
<tr>
<td>2013</td>
<td>38.2%</td>
<td>47.6%</td>
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<tr>
<td>2014</td>
<td>53.7%</td>
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<tr>
<td>2015</td>
<td>57.7%</td>
<td>57.9%</td>
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<tr>
<td>2016</td>
<td>57.9%</td>
<td>56.1%</td>
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<tr>
<td>2017</td>
<td></td>
<td>63.2%</td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td>64.7%</td>
</tr>
</tbody>
</table>
Other Activities to Increase HPV Vaccination Rates in ND

- Postcard HPV vaccine reminders when children turn age 11
- Quarterly recall letters for subsequent HPV doses
- Social media campaign
- Lunch and Learn webinars for healthcare providers
- ND Immunization Conference
- ND HPV Task Force
- Immunization Quality Improvement Program (IQIP)
- Local public health units: varying activities (school-located clinics)
- Vaccination at sports physicals
- Ensuring provider recommendation for HPV (AFIX/IQIP)
- Educational materials
- Provider quarterly rate report cards based on NDIIS
- Discussing cervical cancer micro-elimination in ND
HPV Vaccine Initiation by Population Density (NDIIS)

Slide from NDSU Center for Immunization Research and Education
Adolescent (13-17) Immunization Rates By Year (NIS)

North Dakota Adolescent (13-17) Immunization Rates (NIS)

- Tdap
- MCV4
- HPV1-F
- HPV UTD-F
- HPV1-M
- HPV UTD-M
- 2 VAR
### HPV Vaccination Rates in North Dakota

North Dakota and U.S. Adolescent (13-17 year olds) Immunization Rates: 2018 NIS

<table>
<thead>
<tr>
<th>Category</th>
<th>2018 US</th>
<th>2018 ND</th>
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<tbody>
<tr>
<td>HPV1 - FEMALE</td>
<td>69.9</td>
<td>82.9</td>
</tr>
<tr>
<td>HPV UTD - FEMALE</td>
<td>53.7</td>
<td></td>
</tr>
<tr>
<td>HPV1 - MALE</td>
<td>66.3</td>
<td>70.7</td>
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<tr>
<td>HPV UTD - MALE</td>
<td>48.7</td>
<td>55.5</td>
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</tbody>
</table>

[HPV Vaccination Rates Chart](#)

[Map of U.S. showing HPV Vaccination Rates](#)

CDC TeenVaxView 2018 HPV Completion Rates
Conclusions

- School-based clinics for HPV vaccine work.
- Improve access to HPV vaccination in rural areas.
- Collaboration between Immunization and Cancer Programs is key.
- Collaboration between local public health and schools is important.
- Start-up funds may be needed to get clinics going, but they can be self-sustaining if insurance is billed.
Thanks.

For more information, email mahowell@nd.gov