# Social Ecological Approach to Mapping Factors That Increase Adolescent HPV Vaccination

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## Background

- Human papillomavirus (HPV) vaccination can prevent HPV-associated cancers
- Vaccination rates remain below the Healthy People 2020 goal of 80% coverage
- To better understand which factors should be prioritized to increase uptake, we engaged stakeholders in an online concept mapping process

## Methods

- Research team identified state level stakeholders in IA, MN, OR, SD, and WA (n = 134)
- Research team emailed invitations to online brainstorming session
- Participants responded to prompt about what influences HPV vaccination in their state, while considering rural and urban regions and positive and negative influences
  - 64 participants (response rate=47.6%) generated a total of 372 statements
- Research team removed duplicate statements and categorized remaining statements (n = 172) using the social ecological model

Participating State	n	%
lowa	19	29.7
Oregon	16	25.0
Minnesota	14	21.9
South Dakota	10	15.6
Washington	5	7.8
Expertise of Respondents*	n	%
Public health	33	51.6
Adolescent Health	24	37.5
Immunizations	23	35.9
Cancer	19	29.7
Other	11	17.2
Medicine	9	14.1

\*Participants were told to select all that apply

"What factors do you believe ha
Policy (14.5%)
<ul> <li>"Lack of legal ability for most teenager to self-consent to HPV vaccination"</li> <li>"HPV vaccine is not available at school</li> <li>"Lack of insurance"</li> </ul>
Community (12.2%)
<ul> <li>"Use of social media to target young adults and older adolescents"</li> <li>"Transportation"</li> </ul>
<ul> <li>"Collaboration/trust and relationships between non-profits, state-based organizations"</li> </ul>
Individual (30.8%)
<ul> <li>"Distrust of government"</li> <li>"Fear of 'chemicals'; ingredients in value</li> <li>"People choosing to not see a doctor</li> <li>"Myth that HPV vaccine is only needed adolescents"</li> </ul>
Implications f
Our findings suggest 1) Interventions at the individual and o 2) More attention needs to be paid to h community, and policy levels can impac 3) Some of the factors are modifiable, v

# Results

## ave the greatest influence on HPV vaccination rates in your state?"



## for Future Work

organizational level should be prioritized how interventions at the organizational, ct individual level factors while others are not

#### **Organizational (29.7%)**

"Primary clinics have many competing

- priorities for improving patient outcomes"
- "Lack of conduct of practice-based
  - methods (e.g., reminder-recalls) when vaccinations due"
  - "Smaller rural clinics or independent practices do not have storage space for the vaccine"

#### Interpersonal (12.8%)

- "Social influence, i.e., peers sharing HPV information"
- "Consistent messaging to parents"
- "Talking to adolescents about the vaccine and what HPV could mean for their future" "Lack of parent education explaining how the virus is transmitted"

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