Cancers Caused by HPV, U.S.

<table>
<thead>
<tr>
<th>Cancer site</th>
<th>Average number of cancers per year probably caused by HPV</th>
<th>Percentage per year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Anus</td>
<td>1,600</td>
<td>3,000</td>
</tr>
<tr>
<td>Cervix</td>
<td>0</td>
<td>10,700</td>
</tr>
<tr>
<td>Oropharynx</td>
<td>9,100</td>
<td>2,000</td>
</tr>
<tr>
<td>Penis</td>
<td>700</td>
<td>0</td>
</tr>
<tr>
<td>Rectum</td>
<td>200</td>
<td>500</td>
</tr>
<tr>
<td>Vagina</td>
<td>0</td>
<td>600</td>
</tr>
<tr>
<td>Vulva</td>
<td>0</td>
<td>2,400</td>
</tr>
<tr>
<td>TOTAL</td>
<td><strong>11,600</strong></td>
<td><strong>19,200</strong></td>
</tr>
</tbody>
</table>

CDC, United States Cancer Statistics (USCS), 2006-2010
New Cancers Caused by HPV per Year
United States 2008-2012

Women (n = 19,200)
- Cervix: 10,700 (56%)
- Oropharynx: 2,000 (10%)
- Vagina: 600 (3%)
- Vulva: 500 (3%)
- Anus: 3,000 (16%)

Men (n = 11,600)
- Oropharynx: 9,100 (78%)
- Penis: 700 (6%)
- Rectum: 200 (2%)
- Anus: 1,600 (14%)

CDC, United States Cancer Statistics (USCS), 2008-2012
Cervical cancer is the most common HPV-associated cancer among women

- 500,000+ new cases and 275,000 attributable deaths world-wide in 2008
- ~11,000 new cases and 4,000 attributable deaths in 2012 in the U.S.

25% cervical cancers occur in women who are between the ages of 20 and 39
Cervical pre-cancer in U.S. females

- 1.4 million new cases of low grade cervical dysplasia
- 330,000 new cases of high grade cervical dysplasia

American Cancer Society. 2008; Schiffman *Arch Pathol Lab Med.* 2003; Koshiol *Sex Transm Dis.* 2004; Insinga, Pharmacoeconomics, 2005
HPV vaccine is cancer prevention.

Talk to the doctor about vaccinating your 11–12 year old sons and daughters against HPV.

#UCanStopHPV

Evidence-Based HPV Disease Prevention

HPV VACCINE
We have a vaccine

This vaccine prevents (multiple) cancers

We need to vaccinate more kids

Cancer and immunization need to work together

Success is achievable

HPV vaccination + ACS = focus on cancer prevention, adolescents and their families, and new public health partners
HPV vaccination prevents most cervical, vaginal, vulvar, & anal cancers and are expected to prevent most penile & oropharyngeal cancers.

Rates of several of these cancers are increasing.

HPV vaccination is underutilized despite the overwhelming evidence for its safety and effectiveness.

While vaccination rates continue to improve for other adolescent vaccines, HPV vaccination rates have not.

Vaccination rates are lowest where cervical cancer rates are highest.
If I could reduce their cancer risk?
Minnesota Data
Cervical Cancer Screening among Females Ages 18 and Older by Education, Minnesota, 2012

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Percent had a Pap test within 3 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>81</td>
</tr>
<tr>
<td>Not a HS Graduate</td>
<td>64</td>
</tr>
<tr>
<td>HS Graduate/GED</td>
<td>71</td>
</tr>
<tr>
<td>Post-HS Education</td>
<td>82</td>
</tr>
<tr>
<td>College Grad</td>
<td>90</td>
</tr>
</tbody>
</table>

HS is high school; GED is General Education Development test (high school equivalency exam). Women who had a hysterectomy were excluded.

Cervical Cancer by Race/Ethnicity, Minnesota, 2008-2012

Rate per 100,000 Females

- African American: 6.7
- AI/AN Statewide: 12.0
- AI/AN CHSDA*: 22.5
- Asian/Pacific Islander: 11.3
- Hispanic (all races): 9.2
- Non-Hispanic White: 5.5

* AI/AN—American Indian/Alaska Native; CHSDA—Contract Health Service Delivery Area. ~ Rates based on fewer than ten cases or deaths are not presented. Rates are age-adjusted to the 2000 US population.

Source: MCSS (Feb 2015) and Minnesota Center for Health Statistics.
Minnesota Cervical Incidence

- American Indian women are **four times** more likely to be diagnosed with cervical cancer than non-Hispanic white women.