Pap Smears in the Somali Immigrant Population

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Pap smears and the Somali immigrant community
Problem identification

- Lewiston, Maine in Androscoggin County has a large Somali immigrant population
- Cervical cancer is more common in the Somali immigrant population than in the general population [1, 2]
  - Incidence in Somali is 34.8 new cases per 100,000 women, compared to 6.6 per 100,000 in North America
  - Difficult to ascertain incidence of cases in Somali immigrant population in Maine, or the United States in general
- Rates of cervical cancer screening are low in Somali women
  - As low as 52% in urban clinics, compared to 82% of the local population [3]
- In a study of African immigrants in Minnesota, Somalis were least likely to undergo cervical cancer screening, and prevalence and adherence to screening were below national and Minnesota goals
- Comparison of immigrant groups in Western nations shows that Somali immigrants have lower rates of cervical cancer screening compared to non-immigrant population
  - In Finland, 94% of Finnish women underwent cervical cancer screening, compared to 41% of Somali immigrants in Finland [4]
- Previous studies have shown that there is a need for information on necessity of screening and how procedure is done, and embarrassment and modesty may not be barriers [5]
Public health cost

- Lack of data on cost of screening for cervical cancer in Maine
- Average cost of screening a woman in the US for cervical cancer is $60 [6]
- Average cost of treating a woman in the US for cervical cancer is $13,340
- Other considerations
  - Cost of HPV vaccination series in the US is $360 [7]
  - Screening and treating one million women aged 30-49 in a sub-Saharan African country would cost $9.2 M/year, but prevent 9500 deaths and avert 93,500 DALYs
  - Vaccinating all young adolescent girls in the 21 highest-burden countries in Africa would cost $167 M/year, but prevent 148,000 deaths and avert 798,000 DALYs

<table>
<thead>
<tr>
<th>HPV Vaccination</th>
<th>Cost (USD)</th>
<th>Deaths prevented</th>
<th>DALYs averted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service delivery costs for vaccinating one million young adolescent girls in a country receiving HPV vaccine from Gavi (two-dose regimen, service delivery costs only, no GAVI co-pay included)</td>
<td>$5m</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Purchase vaccine doses for one million young adolescent girls in a middle-income country (two-dose regimen, vaccine only)</td>
<td>$27m</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Vaccinate all young adolescent girls in the five highest-burden low- and lower-middle-income countries (Gavi countries, two-dose regimen, vaccine + service delivery)</td>
<td>$24m/year</td>
<td>66,000</td>
<td>355,000</td>
</tr>
<tr>
<td>Vaccinate all young adolescent girls in the 21 highest-burden countries in Africa (two-dose regimen, vaccine + service delivery, 19 Gavi countries, 2 non-Gavi countries)</td>
<td>$167m/year</td>
<td>148,000</td>
<td>798,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Screening and Preventive Treatment</th>
<th>Cost (USD)</th>
<th>Deaths prevented</th>
<th>DALYs averted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen and treat one million women aged 30-49 in a sub-Saharan African country using VIA and cryotherapy</td>
<td>$9.2m</td>
<td>6800</td>
<td>64,000</td>
</tr>
<tr>
<td>Screen and treat one million women aged 30-49 years in India using HPV DNA testing and cryotherapy</td>
<td>$11m</td>
<td>9500</td>
<td>93,500</td>
</tr>
<tr>
<td>Screen and treat one million women aged 30-49 years in a sub-Saharan African country using HPV DNA testing and cryotherapy</td>
<td>$16.8m</td>
<td>15,100</td>
<td>132,000</td>
</tr>
<tr>
<td>Screen and treat one million women aged 30-49 years in a Latin American country using HPV DNA testing and cryotherapy</td>
<td>$33m</td>
<td>7500</td>
<td>69,750</td>
</tr>
<tr>
<td>Screen and treat one million women aged 30-49 years in the 21 highest-burden African countries using HPV DNA testing and cryotherapy in one year</td>
<td>$16.8m</td>
<td>15,900</td>
<td>138,800</td>
</tr>
</tbody>
</table>
“Younger Somali women have no trouble with Pap smears, screening, and feel comfortable talking about sex. But older women—it’s not in their culture. They weren’t raised to think about prevention. They address [the female reproductive system] for two reasons: childbirth and things like infections. And, unfortunately, we are starting to see more cases of cervical cancer.”

— Najma Mahad, Community Health Worker and Cultural Broker
Community perspective

“What’s unique to the Somali community is that women often wait until marriage to have sex. So we’ll have discussions about deferring getting Pap smears until after the start of sexual activity. Women can also be shier about getting Pap smears because they’ve undergone female circumcision. This adds a layer of difficulty to talking about their bodies.”

— Sarah Jones, FNP
Intervention and methodology

● Identified areas for additional resources that can be provided to Somali immigrants in the Lewiston-Auburn area
  ○ Lack of centralized hub of information that is easily accessible: Somali patients need to find specific clinics with cultural brokers who can help translate between English and Somali and understand patients’ perspectives better
  ○ Additionally, the Family Medicine Residency (site of the Family Medicine Residency) did not have a dedicated Somali cultural broker; therefore, I reached out to the B Street Health Center to work with their culture broker, Najma Mahad
  ○ Lack of availability of Somali-language resources on Pap smears, their utility, and the implications of their results

● Created packet of informational pamphlets on Pap smears, cervical cancer screening, and HPV
  ○ Focused information containing rationale for getting a Pap smear, overview of the procedure in Somali, and ways to follow-up on results from Pap smears

● Created reference card with contact information of resources for Somali immigrants in Lewiston
  ○ Wallet-sized card that can be easily carried with links to existing services in the Lewiston-Auburn area
  ○ Discussed with B Street Health Center nurses and staff most accessible resources for Somali immigrants
Results

- Favorable response of practitioners to creating and increasing access to resources for new Somali immigrant women
  - Staff expressed desire to increase collaboration between medical students, nurse practitioners, and cultural brokers when working with Somali patients
  - Staff at B Street Health Center enthusiastic about raising awareness about the intersection between culture and women’s health issues

- Bridging of knowledge gaps in understanding HPV and cervical cancer
  - Patients expressed greater awareness and understanding of necessity of cervical cancer screening
  - Packet to be distributed to community centers, primary care offices, libraries, post offices
Evaluation of effectiveness and limitations

- **Evaluation of effectiveness**
  - Survey the number and availability of cultural brokers available to the Somali female population in Androscoggin county
  - Evaluate the percentage change in HPV screening prevalence in the Somali community in Androscoggin county
  - Evaluate patient comfort levels with discussing and obtaining HPV screening, and understanding screening results

- **Limitations**
  - Due to short project duration, unable to perform evaluations
  - Difficult to verify if translated materials are clear and provide equivalent communication in Somali as in English
  - Noncentralized nature of resources for new immigrants and refugees presents barrier to understanding ways to access resources, such as knowing which clinics have cultural brokers
Recommendations for future interventions

- Summarize and develop culturally-competent solutions to address concerns
  - Pork products (or lack thereof) in vaccines
  - Approaching the subject of women’s reproductive health and sex in younger Somali women
  - Couple and family meetings with cultural brokers to discuss sexual health and family planning with female patients, their partners, and their family, if so desired

- Centralization of dedicated new immigrant resources
  - Create dedicated liaison program with the Somali community to address women’s health concerns
  - Create website outlining how new Somali immigrants can access resources, such as B Street Health Center, and which services are available there, with an emphasis on Somali-language services

- Aid organizations like B Street Health Center, Maine Immigrant and Refugee Services, and Healthy Androscoggin to identify and understand needs more prevalent to Somali women
  - As strongly advocated by Najma Mahad, Lewiston-Auburn can better serve its Somali-American community by hiring additional cultural brokers and medical interpreters, especially at Central Maine Medical Center, where there is a shortage

- Additional population studies of new Somali immigrant women
  - Study on incidence and mortality of cervical cancer in Somali immigrants in Androscoggin County compared to all women in Androscoggin County
References


