

# High HPV Vaccine Uptake Among Alaska Native Teens

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# **ABSTRACT**

**Background:** Alaska Native women experience higher rates of cervical cancer than other US women. In 2006, Alaskan public health personnel and clinicians formed a task force to plan how best to promote the use of human papilloma virus (HPV) vaccine among Alaska Native adolescent females. In-depth interviews with Alaska Native adolescents revealed low levels of HPV knowledge; a preference to learn about health information from television, internet, brochures and posters; and identification of medical staff, mothers and friends as health information resources.

**Objectives:** To evaluate HPV vaccine coverage rates in Alaska Native adolescents.

**Methods:** As part of the HPV vaccination campaign, Alaska Native-specific brochure, poster, and story videos were developed and distributed to over 250 tribal clinics and hospitals. Additionally, HPV information was presented to health care personnel and tribal leaders at grand rounds, conferences and tribal board meetings. The vaccine was provided by the State Immunization Program in June 2007. All tribal facility clinics and public health nursing offered HPV vaccine. Vaccine coverage rates were evaluated through computerbased records system for 13-17 year old girls who had 2 visits within 3 years at a tribal

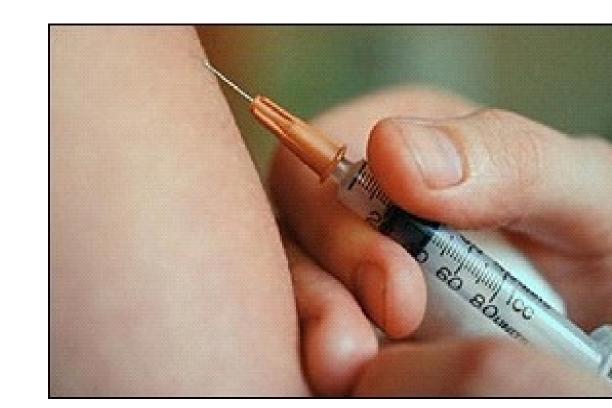
**Results:** Vaccination rates for >1 dose of HPV among Alaska Native teen girls aged 13-17 years increased from 26% on 3/31/08 to 61% on 12/31/08 to 71% on 9/30/09 while vaccination rates for 3 doses of HPV increased from 2% to 15% to 32% in the same time period.

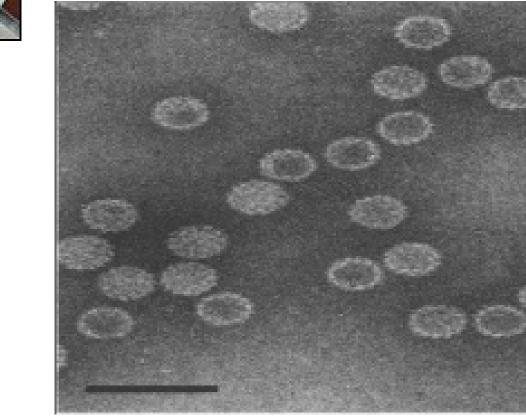
**Conclusion:** The 12/31/08 HPV vaccination rate for >1 HPV dose in Alaska Native 13-17 year old girls (61%) was significantly higher than the 2008 estimate for US 13-17 year old girls from the National Immunization Survey (37.2%; 95% CI 35.2-39.3). Focus groups with Alaska Native parents and indepth interviews with Alaska Native female teens revealed low levels of HPV knowledge; concern about vaccine side effects; and a desire to protect the child/teen from cancer.

# BACKGROUND

- > The cervical cancer rate in Alaska Native women was 3.4 times higher than US white women during 1974-78. The 2000-2006 cervical cancer rate is similar among Alaska Native women and US white women; however, the burden of pre-cancerous lesions is
- In June 2006, a quadrivalent HPV vaccine was licensed by the FDA for use in females 9-26 years of age and funded by Vaccines For Children (VFC) for females 9-18 years of
- > HPV vaccine was available through the State of Alaska Immunization Program in June

\* SEER Alaska Native Tumor Registry (NCI supported).

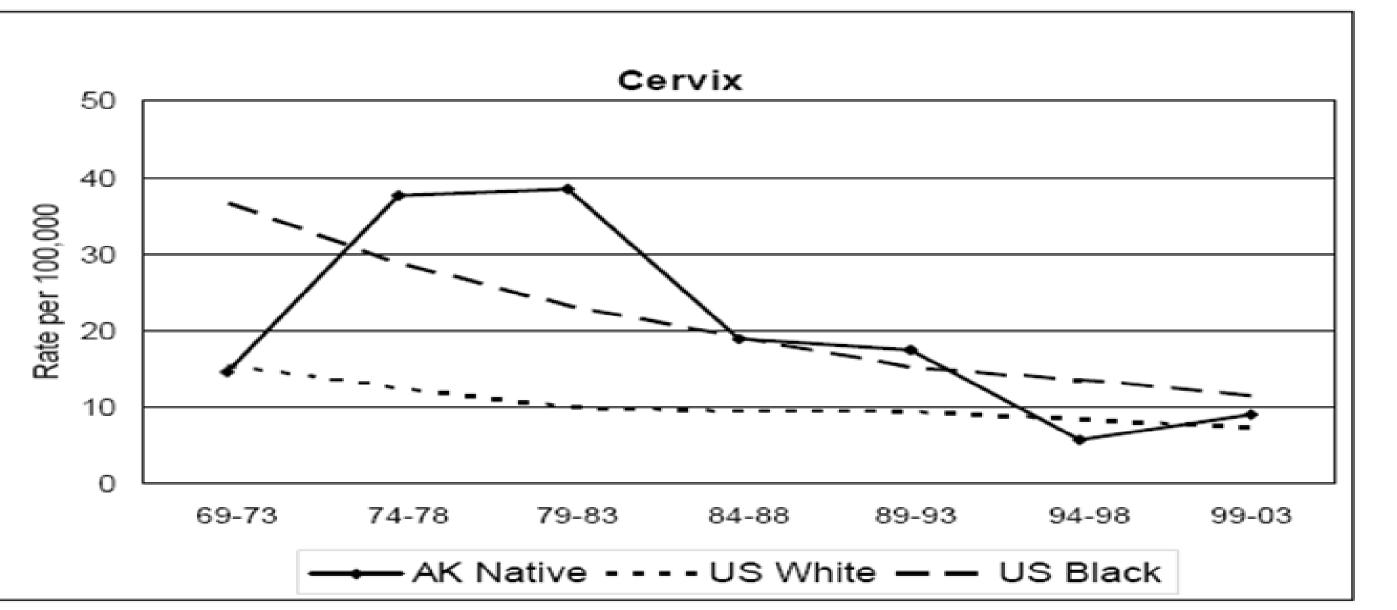




**Human Papillomavirus** 

## BACKGROUND (continued)

## Five-Year Average Annual Age-Adjusted Cancer Incidence Rates Alaska Natives 1969-2003, US Whites and Blacks 1973-2002



From: Lanier A. Cancer in Alaska Natives, 1969-2003, Alaska Native Tribal Health Consortium

## SHAPE Workgroup

Statewide HPV Vaccine Alaska Native Project Evaluations

- Formed in 2006 with the two goals:
- 1. Facilitate addition of HPV vaccine to routine schedule
- 2. Assess the vaccine's impact
- Multi-agency Workgroup:
  - Alaska Native Tribal Health Consortium (ANTHC)
  - Southcentral Foundation (SCF) Primary Care
  - CDC Arctic Investigations Program (AIP) Anchorage
  - CDC Division of STD Prevention -Atlanta
  - State of Alaska Division of Health, Immunization Program

## SHAPE vaccine Objectives

- Determine and Evaluate Education Needs
- Evaluate parent and teen knowledge, attitudes and beliefs of HPV and HPV vaccine
- Parent focus groups
- Teen in-depth interviews
- Promote and Measure Vaccine Uptake
- Promote vaccine : Educational efforts
- Measure vaccine uptake: Alaska Native Health facilities RPMS immunization
- forecast HPV vaccine for females 9-18 years of age
- capture coverage reports of HPV vaccine use

#### **Qualitative Research**

- Focus groups with Alaska Native parents and interviews with Alaska Native female teens to determine knowledge, attitudes, and beliefs surrounding cervical cancer, HPV and HPV vaccine to inform plans for education and distribution of HPV vaccine
- Parent Focus Groups: 2006-2007
- 11 focus groups, 80 individuals
- Groups: 3 urban and 8 rural
- Convenience sampling of AK Native parents
- Youth Interviews: 2006-2007
- 79 in-depth interviews (females aged 11-18, 4 Alaska communities)
- Parent focus groups:
- Low knowledge levels of cervical cancer and HPV
- Vaccine acceptance based on desire to protect child from cancer Refusal based on trust issues and fear of side effects
- Teen interviews:
- Low knowledge level about vaccines, cervical cancer and HPV
- Refusal based on fear of side effects (older teens) and fear of needles (younger
- Preference to learn about health information from medical staff, mothers, and friends

# METHODS

#### **Patient Education**

- HPV Poster and Tri-Fold Brochure
- Developed by ANTHC with input from SHAPE Informed by Qualitative Research results
- Intergenerational message
- Distributed to Alaska Native Facilities and to PHN Centers in July 2007

#### Story Videos

- Developed by Alaska Native teens through ANTHC Epi Center
- Posted on <a href="https://www.iknowmine.org">https://www.iknowmine.org</a> and EpiCenter website

#### **Provider Education**

- > HPV information presented to health care personnel and tribal leaders at multiple
- Grand Rounds at Tribal Health Facilities,
- Conferences,
- Tribal Board Meetings,
- Community Health Aide Meetings
- Clinic meetings
- Wide range of speakers from multiple agencies (State, CDC, ANTHC, private) and levels (MDs, RN, public health nurses etc.)



HPV poster featured intergenerational picture of grandmother, mother, daughter

### **Evaluate Vaccine Uptake**

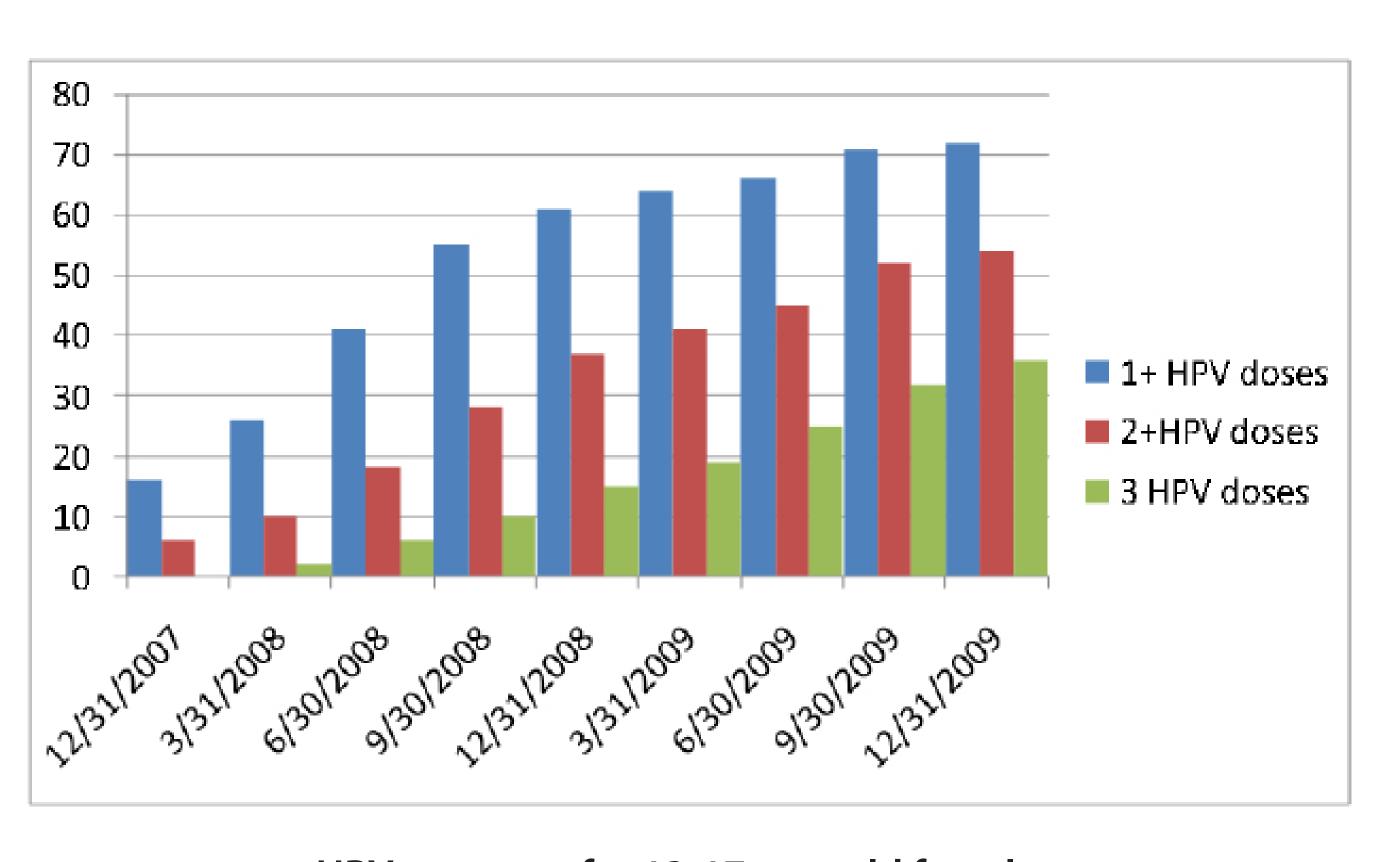
- Alaska Native Facilities reported HPV vaccination coverage rates using their computerized (RPMS) adolescent immunization reports
- > HPV vaccine coverage was evaluated for 13-17 year old teen girls active in the immunication registry with 2 or more visits to a tribal health facility in the past 3 years
- Individual facility reports compiled by ANTHC Immunization Program

# RESULTS

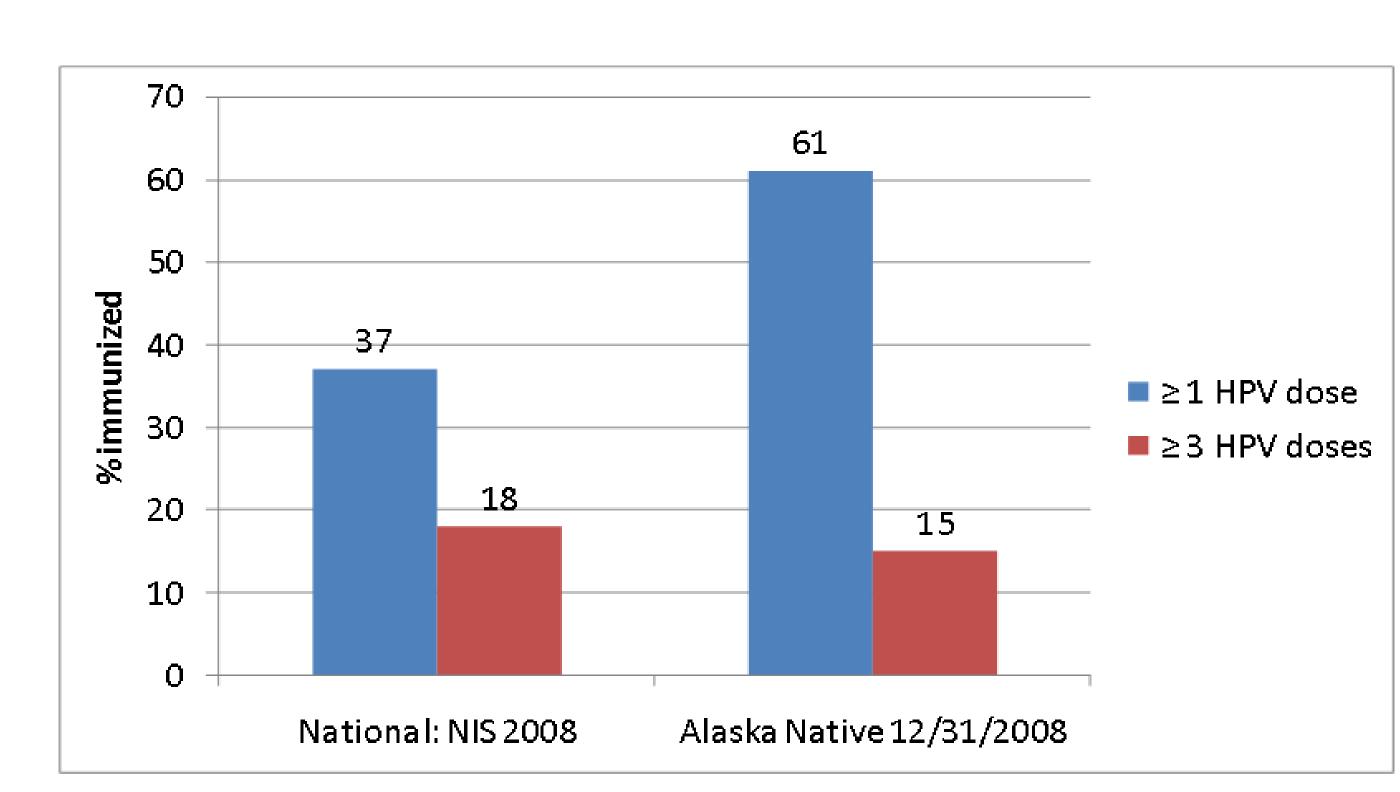
#### **HPV Vaccine Uptake**

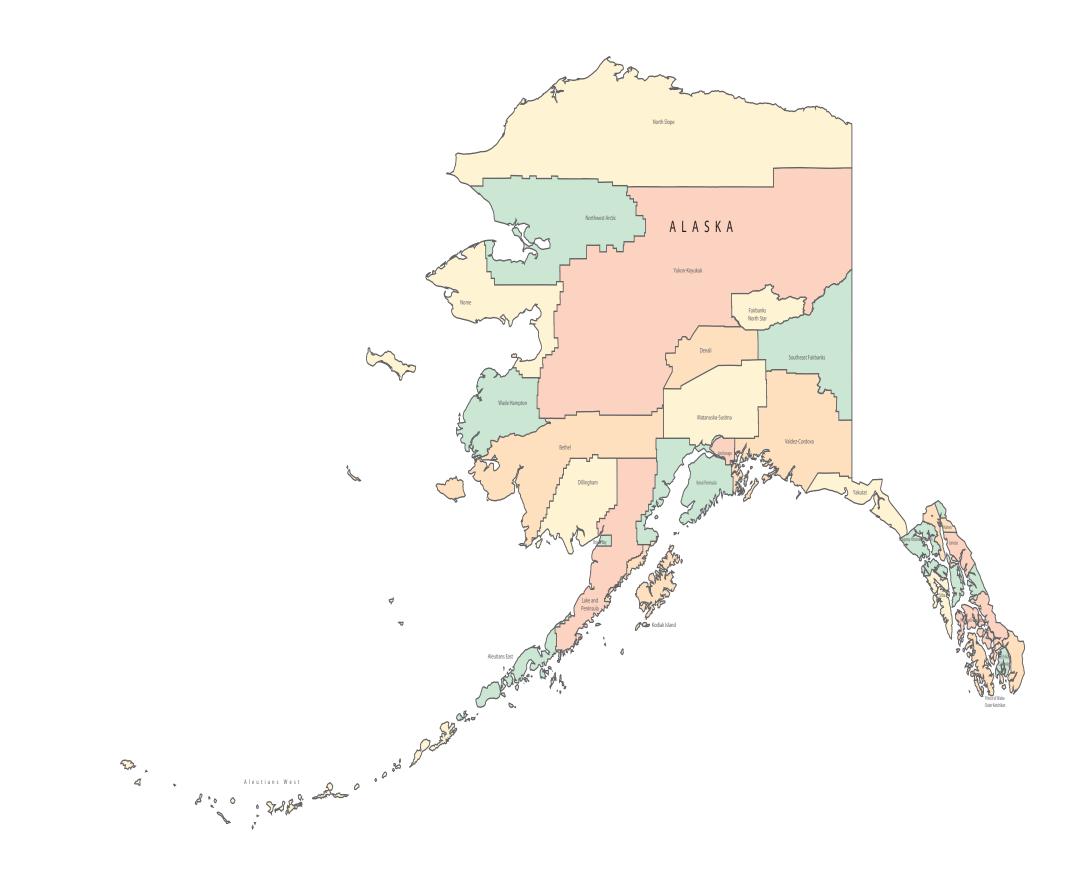
- > The 12/31/08 HPV vaccine coverage for ≥1 HPV doses in Alaska Native 13-17 year olds (61%) was higher than the 2008 estimates for US 13-17 year olds from the National Immunization Survey (37.2%; 95% CI 35.2-39.3).
- Coverage for ≥ 3 HPV doses in Alaska Native 13-17 year olds (15%) was similar to the US rate (18%) for the same time periods.

#### HPV coverage rates for Alaska Native 13-17 year olds, 2007-2009



HPV coverage for 13-17 year old females, U.S. (NIS 2008) vs. Alaska Native (12/31/2008)





# CONCLUSIONS

- ➤ The 2008 HPV coverage for ≥ 1 HPV dose was higher in Alaska Native teens than US teens 13-17 years old
- Feedback from qualitative research was critical in determining the focus of HPV
- Vaccine uptake increasing quarterly

# LIMITATIONS

## Focus Group Interviews

- Small, non-random sampling
- can not generalize results to all AK Native population

## Vaccine Coverage Rates

- Different sampling techniques:
- Vaccine coverage for Alaska Native teens was evaluated in a population of health care users (2 visits to health facility in past 3 years) while the National Immunization Survey is a population-based evaluation based on phone surveys



# ACKNOWLEDGMENTS

- Statewide HPV-Vaccine Alaska Native Project Evaluations (SHAPE) workgroup,
- Thomas Hennessy MD, CDC-Arctic Investigations Program Director Laurel Wood MPA, State of Alaska Immunization Program Manager
- Neil Murphy MD, Southcentral Foundation Women's Health Clinic
- Melissa Kemberling PhD, ANTHC Epi Center Senior Epidemiologist
- Jessica Leston, ANTHC STI Program Manager
- Debby Hurlburt, CDC-Arctic Investigations Program Research Nurse
- Sassa Kitka, CDC-Arctic Investigations Program Research Nurse Janet Kelly PhD, ANTHC EpiCenter Epidemiologist
- Eileen Dunne MD, Lauri Markowitz MD, CDC, Div. STD Prevention
- Alaska Native Tribal Corporation Immunization Coordinators
- State of Alaska Immunization Program

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

