WHINURS HPV GENOTYPE PREVALENCE IN AUSTRALIAN WOMEN PRE-VACCINATION: what differences might there be for indigenous women?

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IPV Montreal 2010 Enhancing HPV Prevention among Indigenous Populations: International Perspectives on Health and Well-Being Symposium July 5th
Indigenous cervical cancer rates

- 21 million: Aboriginal/Torres Strait Islander (ATSI) 2.3%¹
- second largest population group in the Northern Territory (27.8% of the NT population)
- Death rates overall for Aboriginal people are 3X> the rest of the population
- In the NT incidence and mortality rates for Aboriginal women from ICC were reported as being ~ 5X²

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1. Anderson, 2006
Chlamydia by ATSI status, State/Territory and year

Source: State/Territory health authorities
Gonorrhoea by ATSI status, State/Territory and year

Source: State/Territory health authorities
Infectious syphilis by ATSI status, State/Territory & year

Source: State/Territory health authorities
Announcement on 29th November 2006

"The Commonwealth Government will fund the cervical cancer vaccine, GARDASIL®, for girls and women aged 12 to 26 from 2007."

School Based Program
- Girls 13 - 18 years (catch-up)
- Girls 12 - 13 years (ongoing)

GP Based
- Young women 18 - 26 years (catch-up)
- Girls 12 - 18 years who miss doses at school

April 2007 - end 2008 (catch-up)
July 2007 - end 2009

Reference: DoHA 2007
The Australian National HPV vaccination program

- Funded by federal government, delivered by States and Territories
- To date, quadrivalent HPV vaccine used.
- At end 2008, bivalent HPV vaccine also approved for use in program
- >5 million doses distributed
- National HPV Vaccination Program Register established
School program: coverage

• 75–80% received dose 1 nationally
  - higher in younger (years 7–9)
  - lower in years 10–12
• 96% returned for dose 2
• 87% completed the course
Vaccine coverage

- rural (70% dose 1 \(\equiv\) HBV)
Community program: coverage

• Uptake among 18-26 year old women:
  • 2-year uptake target (45%) exceeded in 6 months
  • ~65% to 70% by end 2008*
  • and ~80% by end June 2009*
  • extended to December 2009

*Personal Communication, Greg Whiteside CSL Biotherapies

Based on doses distributed
Australian HPV surveillance objectives

(biologic endpoints) monitor:

1. Assess age-specific HPV vaccination coverage in the ongoing 12-13 yr program and catch-up program
2. HPV vaccine safety
3. HPV genotype prevalence in general population; HSIL lesions; and cervical cancers
4. Continue to monitor the uptake of Pap screening and the prevalence of screen-detected cervical abnormalities
5. Continue to monitor cervical cancer incidence and mortality
6. the incidence of EGWs (♀ and ♂)
7. the incidence of RRP
8. knowledge, attitudes and beliefs about HPV, HPV vaccination and cervical cytology screening
Aims

• To estimate prevalence of type specific genital HPV infection prior to vaccination in the Australian female population
  - by age group
  - Indigenous status
  - cervical Pap smear status
  - region of residence (urban, rural, remote)
WHINURS Methods

- recruit 1000 Indigenous & 2000 non-Indigenous women from around the country

Study collection sites
Design and plan of the study

• consult with Indigenous communities, medical services, healthcare workers, public health practitioners, servicing cytology group

• women attending for routine Pap smear from April 2005: invited HPV DNA testing on their Paps
  (2500 18-40 year olds, 500 40+ year olds)

• those HR HPV (+) had further HPV genotyping

• prevalence of HPV DNA overall & prevalence by HPV genotypes identified & stratified by state, age group, region (metropolitan, rural, remote) and Pap prediction (+/-biopsy)
Laboratory methodology: HPV detection strategy

PreservCyt → DNA Sequencing using Beckman CEQ 8000

Extraction on MagNA Pure LC → In-house consensus HPV assay

HPV typing using Roche Linear Array

HPV DNA Amplification → Positive

HPV (-) → Negative

Roche Amplicor → Positive

HPV (+)
Summary

• HPV infection is very common in sexually active Australian women: the youngest having the highest prevalence.
• Women living in a remote area had a slightly higher chance of having HPV (higher rates of smoking and younger age).
• Women <30: no difference in the prevalence of HR HPV between non-Indigenous and Indigenous women.
• Indigenous women ≥ 30, (equally likely to have HPV 16/18) were more likely to other HPV types, other HR types.
• Both Indigenous and non-Indigenous women can benefit equally from HPV vaccination.
• Findings reinforce importance of Pap screening in all women, especially Indigenous women, whether or not they have received vaccination.
A WOMAN'S STORY

PAP SMERS
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