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# **Human papillomavirus A gender lens on Sexually Transmitted Infections**

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Theme Public Health Genomics

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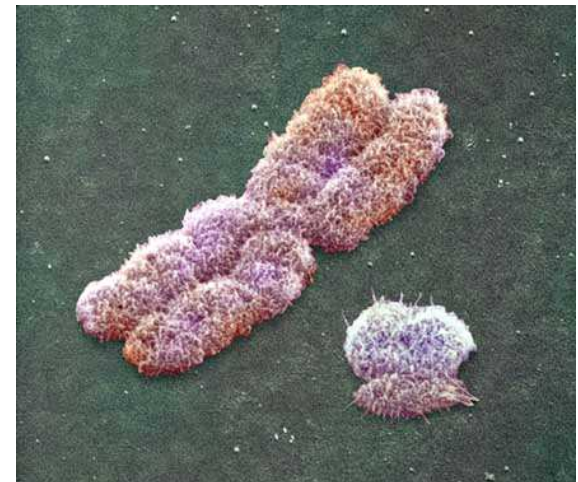
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# Introduction

- Methods
- Human papillomavirus
- Gender and public health
- HPV vaccine...  
.... and it's debate....



## Methods

- Literature from three journals
  - Gender Medicine
  - Journal of Women's Health
  - Women & Health
- January 2005 – March 2010
- Key terms – STIs/STDs, sexual risk taking etc.
- Inclusion STIs, in particular HPV/CT
- Exclusion papers on HIV only
- Hand search

# Human Papillomavirus HPV

## Overview epidemiology

- 200 viruses; 15 types associated with cancer (16/18 high risk)
- Genital warts (low risk, 6/11)
- Most HPV infections cleared spontaneously
- Cervical cancer (virally induced)
- Most common cancer in women in developing countries (300,000 deaths per yr) (in EU: breast cancer)

## HPV Overview prevalence

- Over 50% of girls infected within 48 months of sexual activity
- **In EU: decline in incidence of cervical cancer**
- Increase in Eastern Europe (Baltics and Romania/Bulgaria)
- In US: incidence of cervical cancer 10,370, mortality 3710 (AA/white almost 2:1)
- In Canada: 13<sup>th</sup> most common cause of cancer related deaths

# HPV overview Risk factors

## For infection with HPV

- Smoking
- Oral contraceptive use
- Higher number of sex partners
- Male partners with higher number of sex partners
- Short relationships

## For progression of cancer

- Immunosuppression
- Smoking
- Co-infection with herpes simplex or Chlamydia

## Human papillomavirus (HPV)

- HPV=viral STI
- Spontaneous clearance. If not:
  - > cervical cancer risk
  - > cancer of neck and head
  - > anal/penile cancer
- Prevention finally available: HPV vaccine!
- More studies on men required
- From a SEX LENS to a GENDER LENS

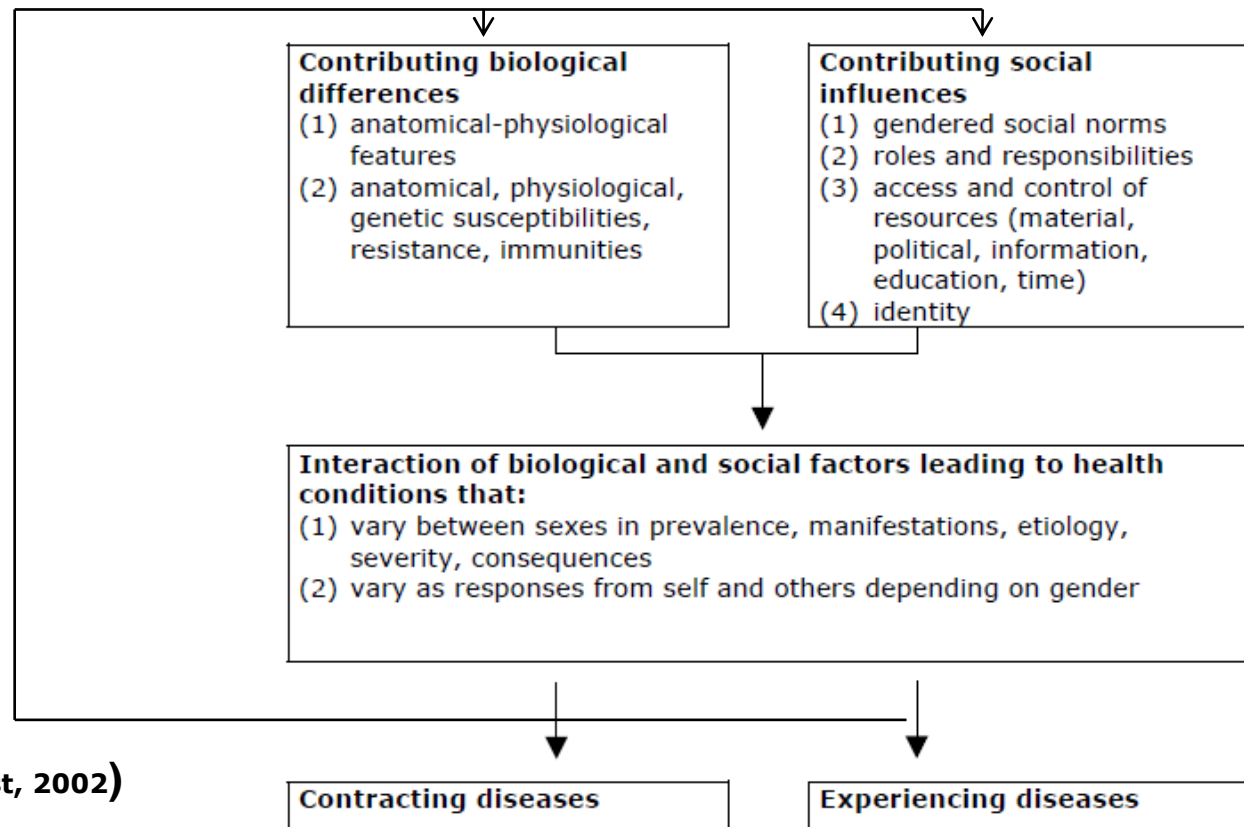








# Gender and public health



(Hartigan, Price & Tolhurst, 2002)

## HPV Vaccine

- In 2006, first of two vaccines available (Gardasil – 4 strains, later Cervarix – 2 strains)
- Targets HPV 16/18, causing 73% of cervical cancer and 6/11 (genital warts)
- Feb 2009, national schemes in 11 EU countries
- Not comparable to other vaccination schemes
- Ethical arguments e.g.
  - Utilitarianism -> right or wrong
  - Principle of Double Effect -> dilemmas



# Debate about acceptability (1)

- Effectiveness & safety
  - Validity in the 'real world'? Long-term protection?
- (Perceived) severity of infection
  - Is there a cervical cancer epidemic or *Paradigm of disease promotion*?
- Independent research
- Might alter the natural history of HPV infections (vacated niche)
- Costs for individuals

## Debate about acceptability (2)

- Cervical cancer: PAP smears and treatment (risk for decreased adherence)
- **REMEMBER: there was already a decline in cervical cancer deaths!**
- Risk for decreased safer sex practices (disinhibition effect)
- Some women/girls already infected with HPV 16/18
- Vaccinating children for a disease linked to sexual activity

NICK ANDERSON 2-7-07  
FOR THE CHARLIE  
SHELDON COMIC BOOK





## **Gender lens on resource control: HPV and men**

- Gendered health synergies: men infect women (men as protectors of women)
- But men face consequences of HPV as well!
- Prevalence of HPV in homosexual, bisexual, and HIV positive men
- Men get anal, penile and throat cancer caused by HPV
- HPV associated with reduced sperm motility and infertility
- HPV related to testicular cancer

# Gender lens on vaccination policy

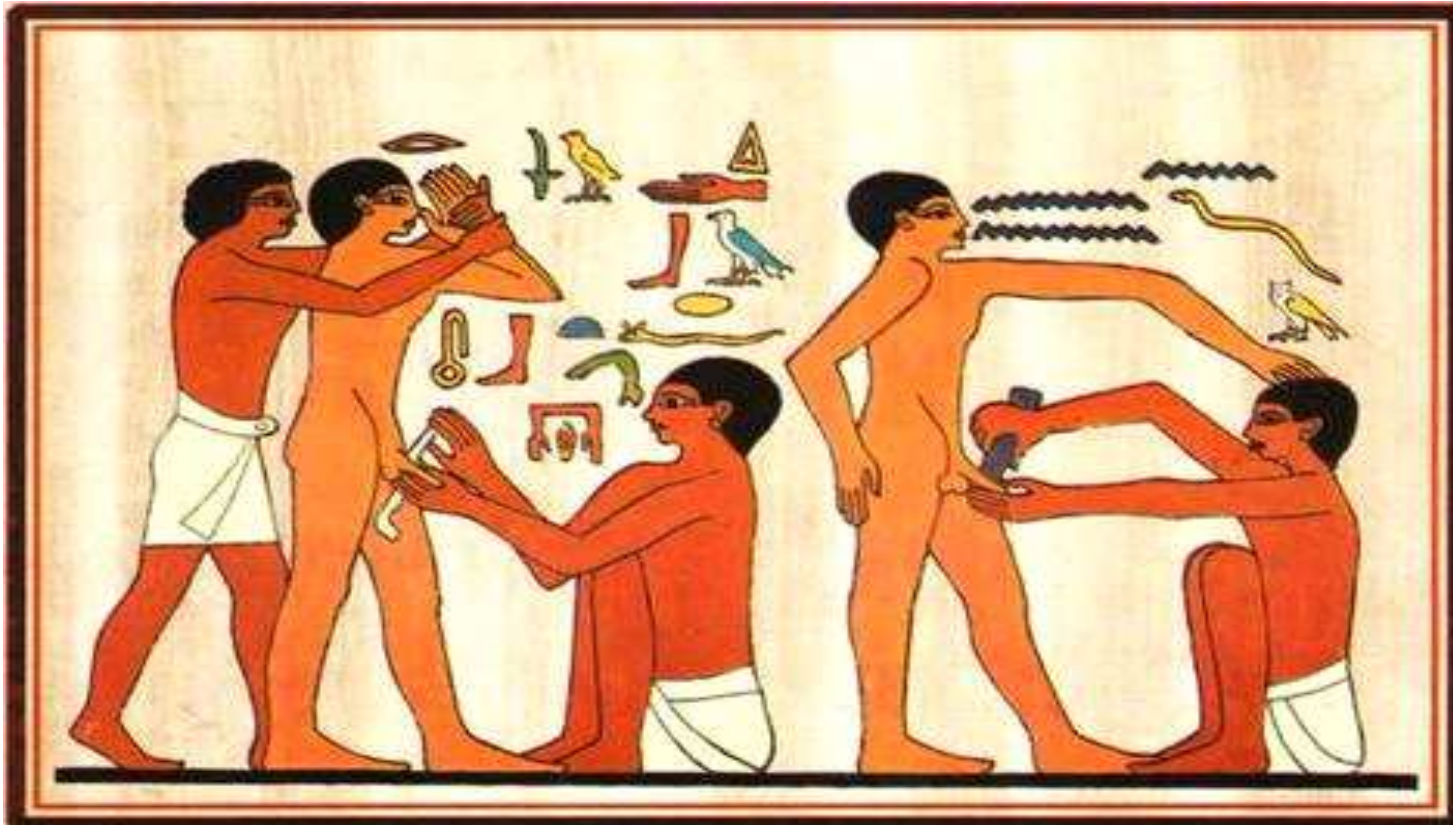
The feminization of a vaccine (Carpenter & Casper, 2009)

- Social pressure: Women protecting their daughters ([www.beschermjedochter.nl](http://www.beschermjedochter.nl) MSD pharmaceutical industry)
- Implicit message of vaccinating girls: gendered stigma
- From *The cervical cancer vaccine* to *The promiscuity vaccine*

Other – equitable – public health options?

- Female condoms or microbicides
- PAP smear self-test
- HPV DNA testing
- Genomic technologies

## Male circumcision an 'anatomic vaccine'??



## What should be done?

- Educate women **AND** men about HPV, cervical cancer, sexual practices, smoking, nutrition, PAP smears and screening for STIs
- Research on men.....!
- Clarify goals vaccination policy: Herd immunity or decrease deaths?
- Independent research: gender and public health, genomics
- Avoid reproducing gender and class inequities!
- Awareness of double sexual standards
- Look into other possibilities

## Take home message

- Gender lens provides
  - New insights
  - Raises new questions
- GENDERED INNOVATION.....
- *Publication in preparation*