

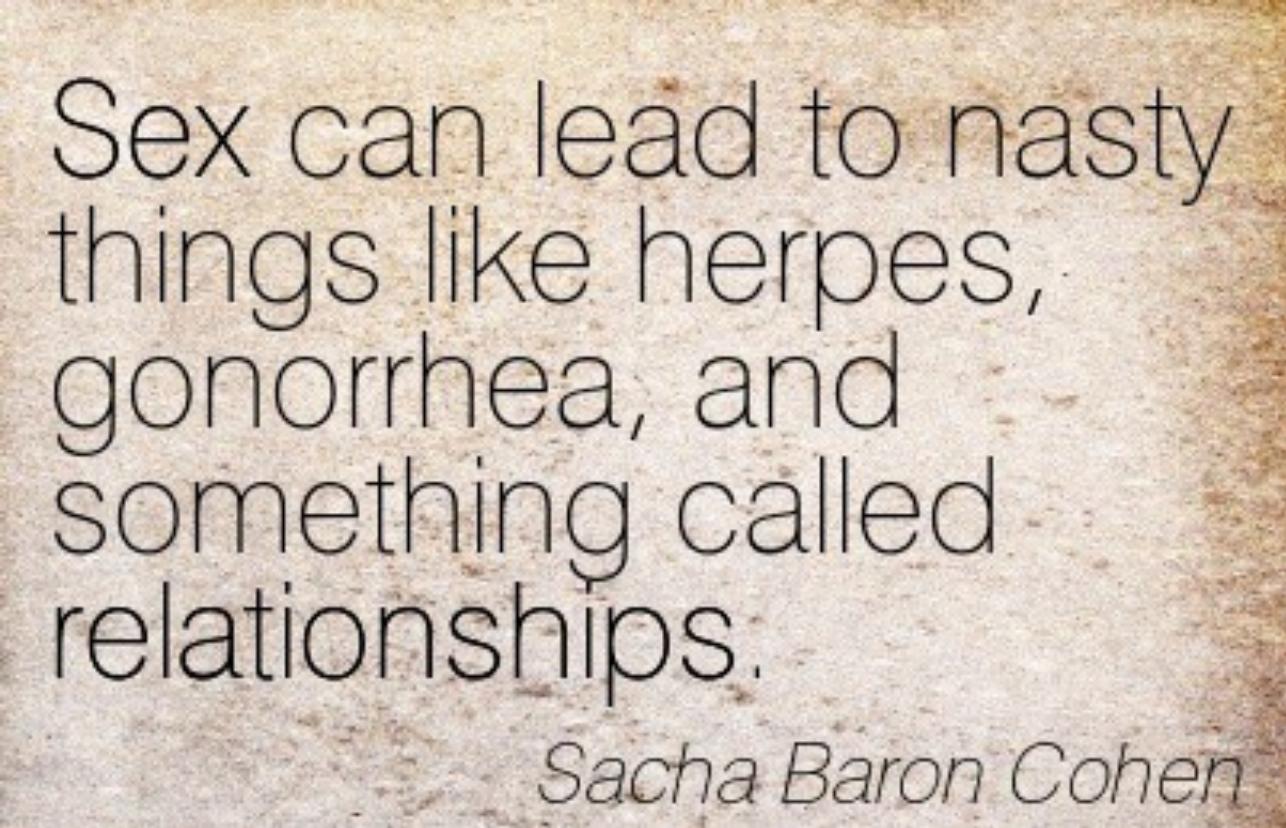


# STI: A Gynaecologist's perspective

Mr N Pidal  
The Portland Hospital



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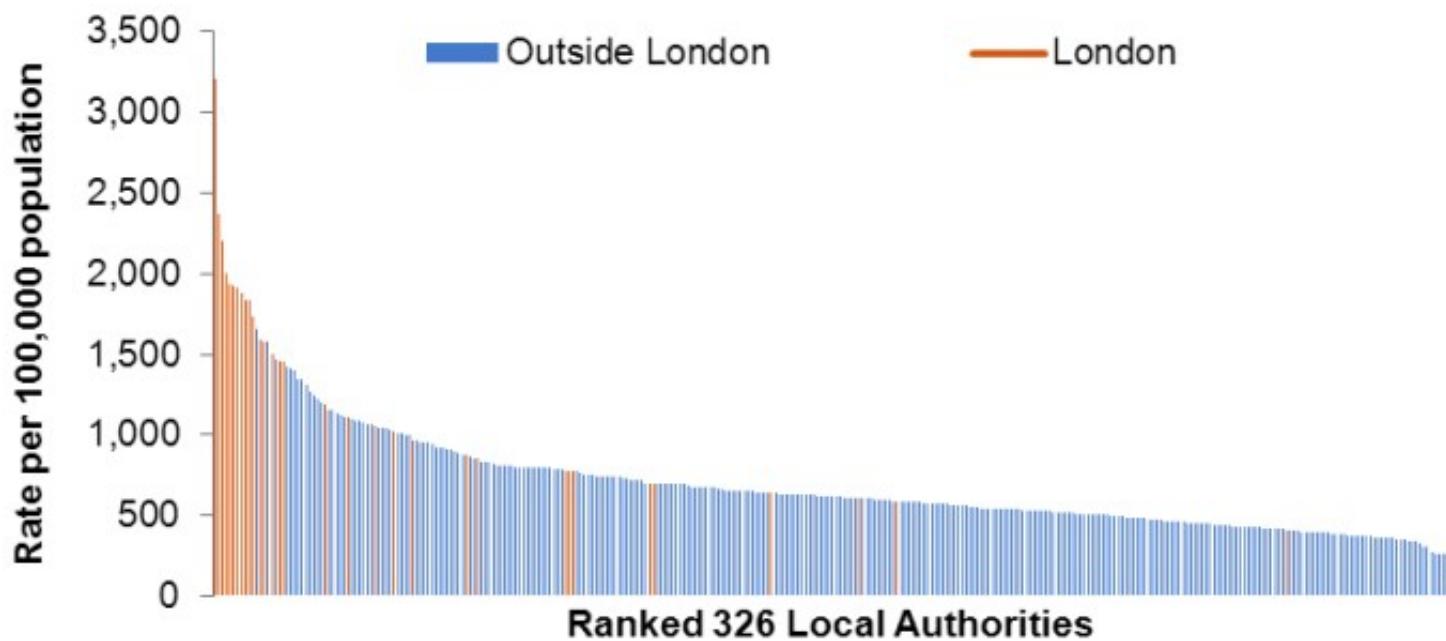


Sex can lead to nasty things like herpes, gonorrhea, and something called relationships.

*Sacha Baron Cohen*



## Rate of acute STI\* diagnoses by LA of residence: England, 2012



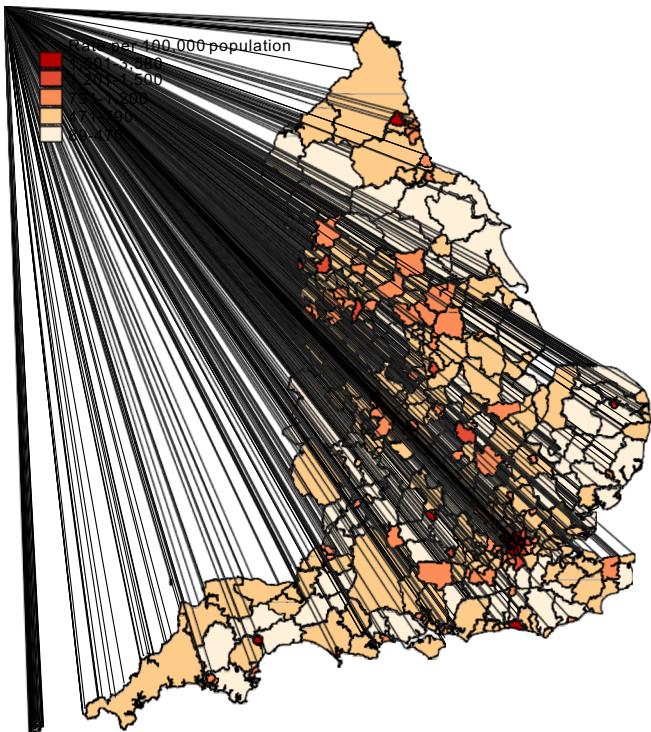
- Data from routine GUM clinic returns and community settings (for chlamydia only);
- \*See notes slide for definition of acute STI
- Data type: residence data



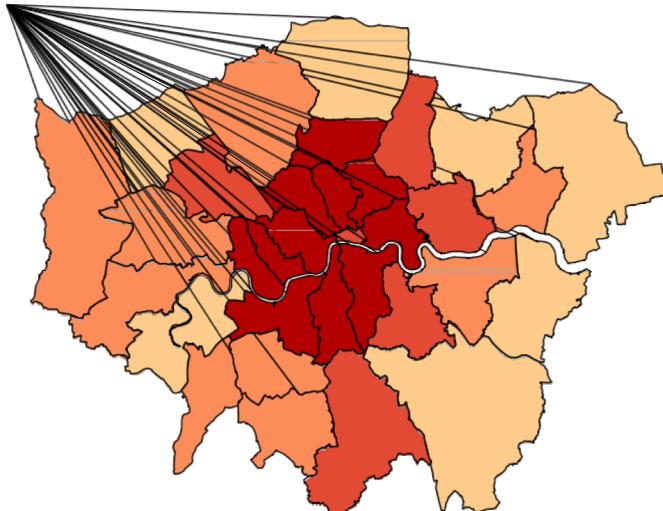
Public Health  
England

# Rate of acute STI\* diagnoses by LA of residence, England: 2012

England



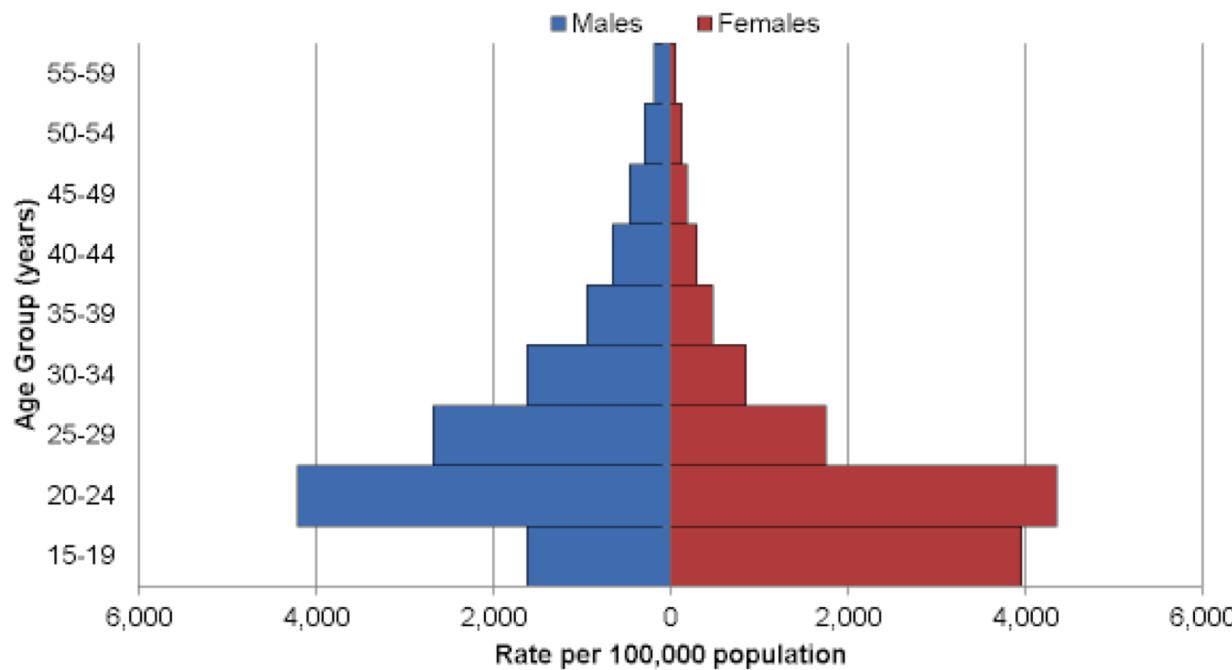
London



- Data from routine GUM clinic returns; chlamydia data source includes community settings
- \* See notes slide for definition of acute STI
- Data type: residence data



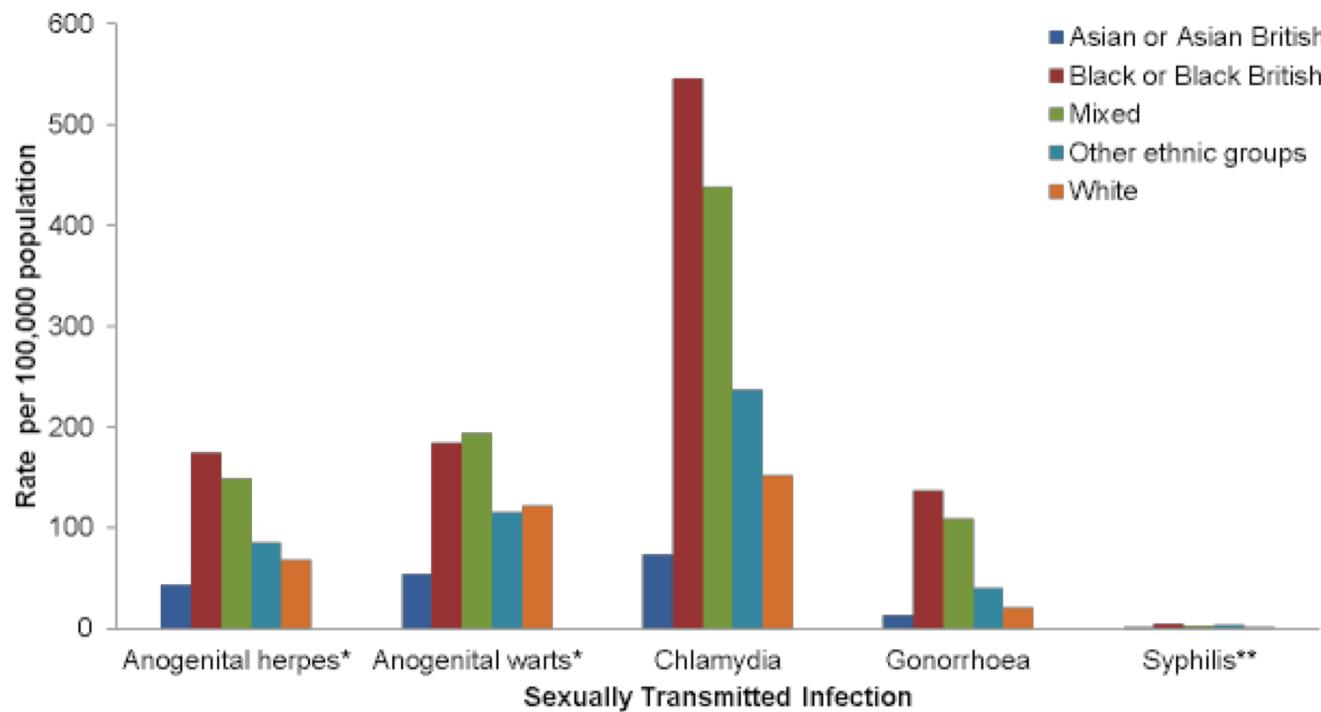
## Rate of acute STI\* diagnoses by gender & age group: England, 2012



- Data from routine GUM clinic returns and community settings (for chlamydia data only)
- \* See notes slide for definition of acute STI
- Excludes diagnoses where gender was reported as 'unknown'
- Data type: service data



# Rates of selected STI diagnoses among females, by ethnic group: England, 2012



- Data from routine GUM clinic returns
- \* First episode; \*\* Includes diagnoses of primary, secondary and early latent syphilis
- Data type: service data

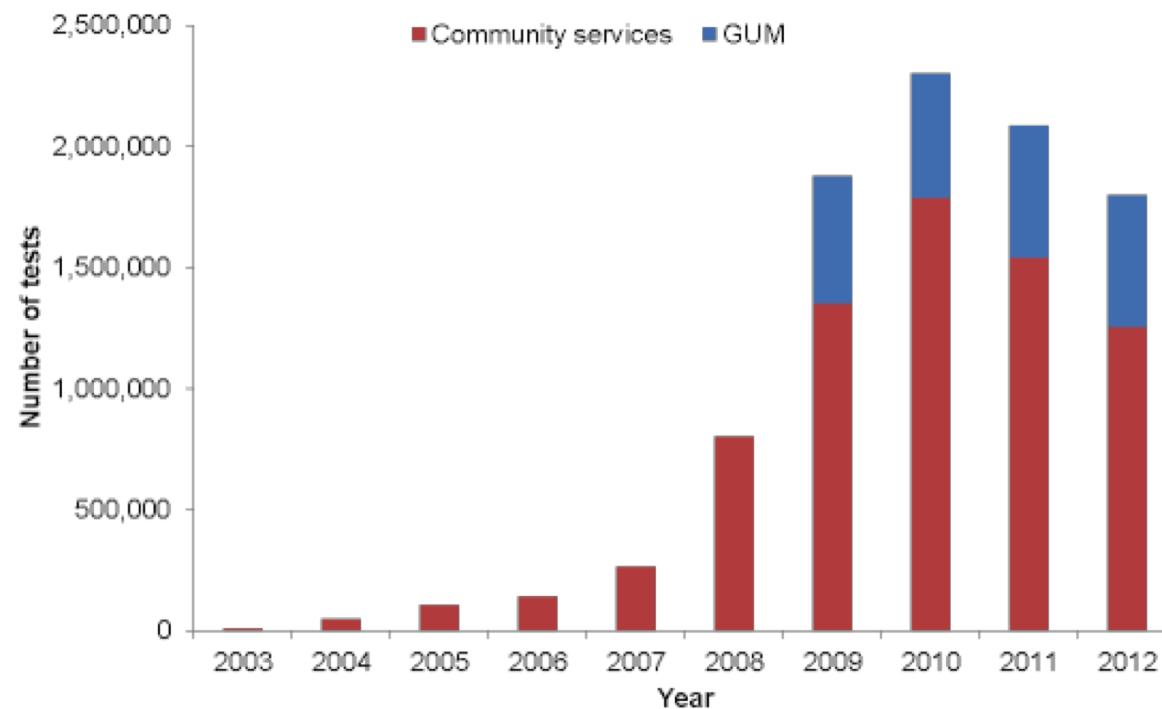
# Chlamydia

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- Symptoms
- Diagnostic tests
- Treatment options



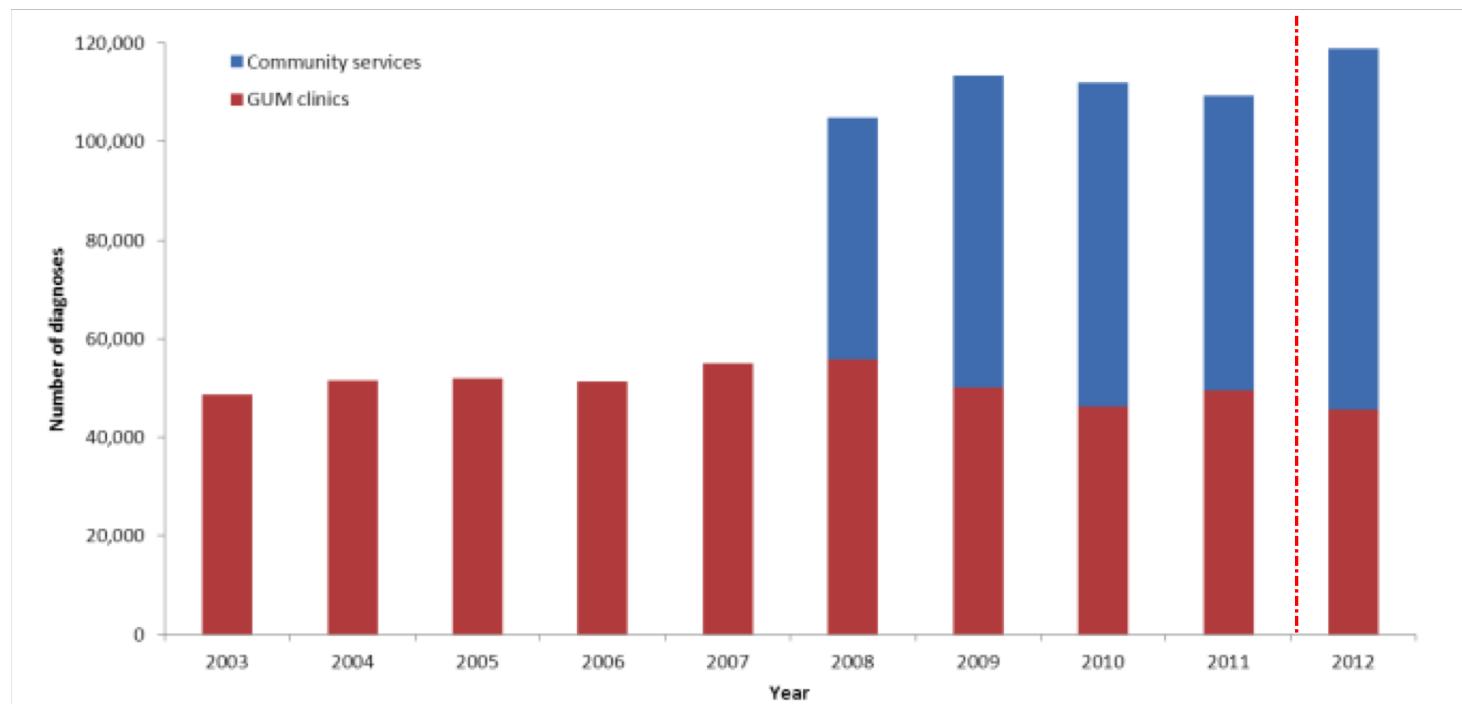
## Number of chlamydia tests in 15–24 year olds: England, 2003 - 2012



- Data from routine GUM clinic returns and from community settings
- Data type: service data



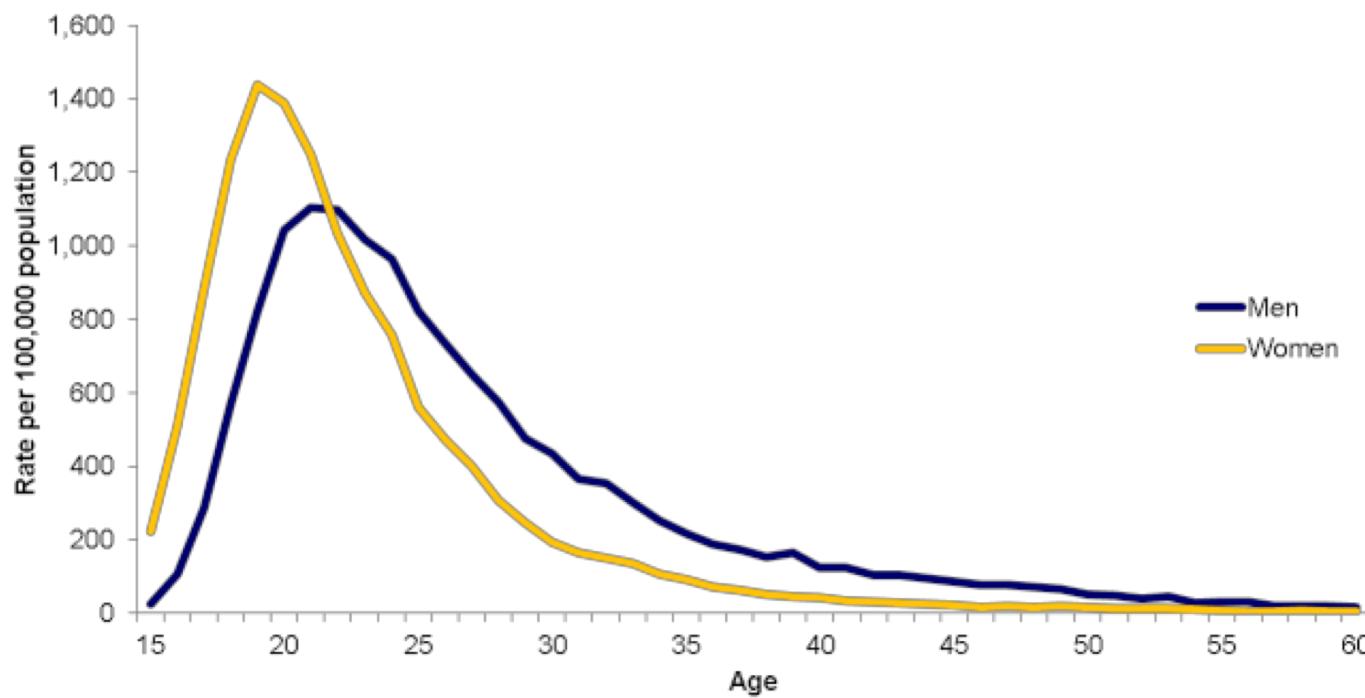
## Number of chlamydia diagnoses among females, by reporting source: England, 2003–2012



- Data from routine GUM clinic returns; data from community services included for chlamydia only
- Chlamydia data from 2012 are not comparable to data from previous years. See 'Notes' slide for more details
- Data type: service data



## Rate of chlamydia diagnoses by gender & age: England, 2012



- Data from routine GUM clinic returns
- Excludes diagnoses where gender was reported as 'unknown'
- Data type: service data

# Chlamydia

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- Caused by Chlamydia Trachomatis
- 5-10% of women under 24

Risk factors:

- Age under 25
- New sexual partner
- Number of sexual partners
- Lack of consistent use of condoms
- 66% of sexual partners of chlamydia +ve individuals are also chlamydia +ve

# Chlamydia: symptoms & complications

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- Asymptomatic in 70% of women
- Post-coital or Intermenstrual bleeding
- Contact bleeding on smear taking

## Complications

- PID
- Tubal infertility
- Ectopic Pregnancy
- Adhesions, Fitz-Hugh-Curtis syndrome
- Pelvic pain

# Chlamydia: diagnostic tests

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- No test is 100% sensitive or specific
- Nucleic Acid Amplification Technique v Enzyme Immunoassays
- NAAT more sensitive and specific than EIA
- NAAT: 90-95% sensitive
- Specimen of choice: Endo-cervical swab or vulvo-vaginal swab
- LBC liquid can also be used for testing
- If speculum examination not possible, urine specimen can be used

# Chlamydia management

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- Doxycycline 100mg BD for 7 days, or
- Azithromycin 1gm orally (single dose) (OK in pregnancy but some caution)
- Alternative treatments (If above contraindicated)
- Erythromycin 500mg BD for 10-14 days (Pregnancy)
- Ofloxacin 200mg BD for 7 days
- Partner notification and treatment
- Look back period of 4w if symptoms and 6m if asymptomatic
- Abstain till completion of treatment or 7 days after Azithromycin
- Test of cure: Not routinely recommended
- Not before six weeks

# Genital Warts

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- Caused by HPV
- 90% caused by HPV 6 & 11

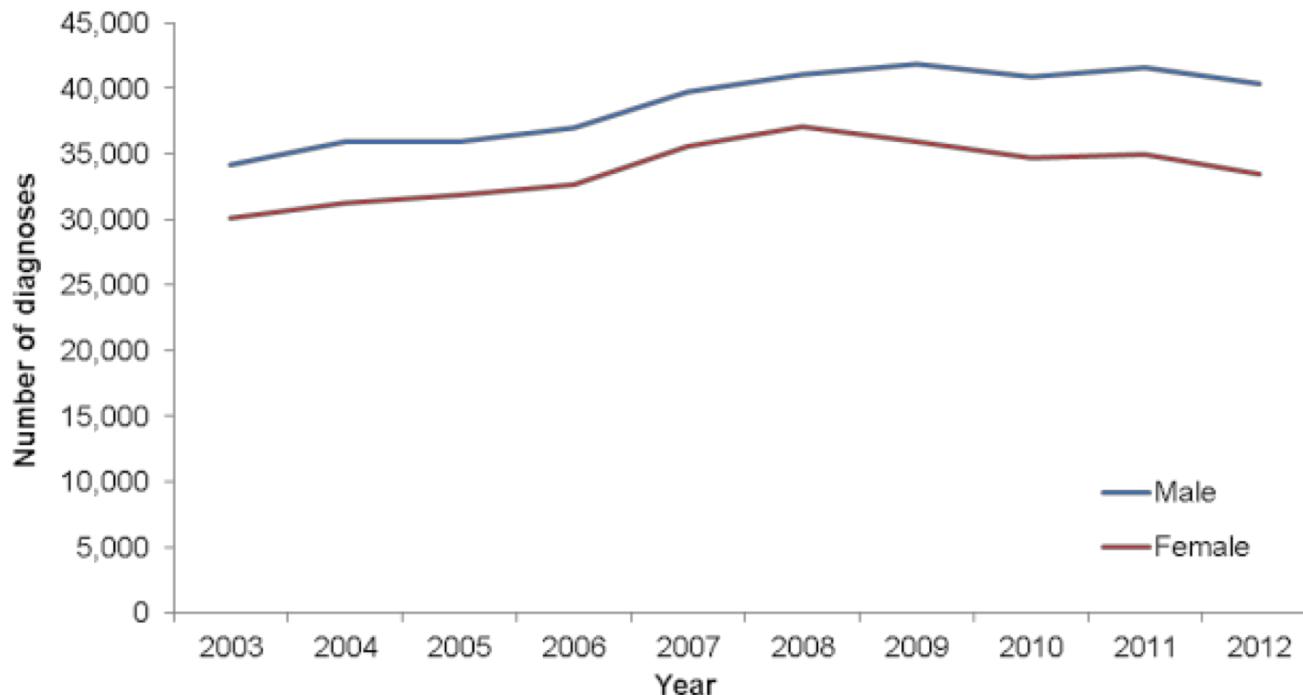
# HPV types

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- High risk types
  - **16,18,31,33,35,45,51, 52, 56,58,59,68,73,82**
- Low risk types
  - **6,11,42,43,44,54,61,70,72,81**

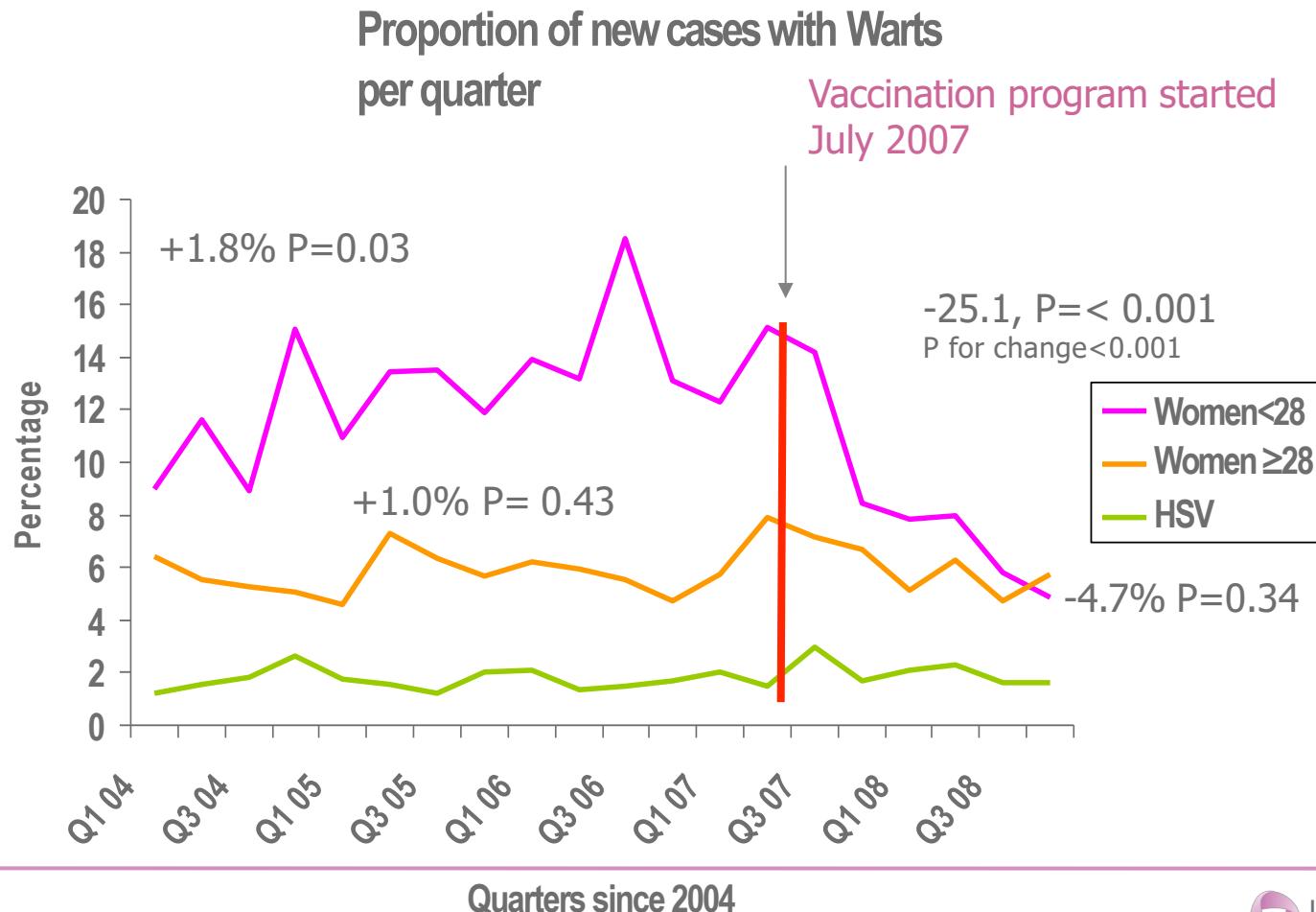


## Number of anogenital warts (first episode) diagnoses by gender: England, 2003–2012



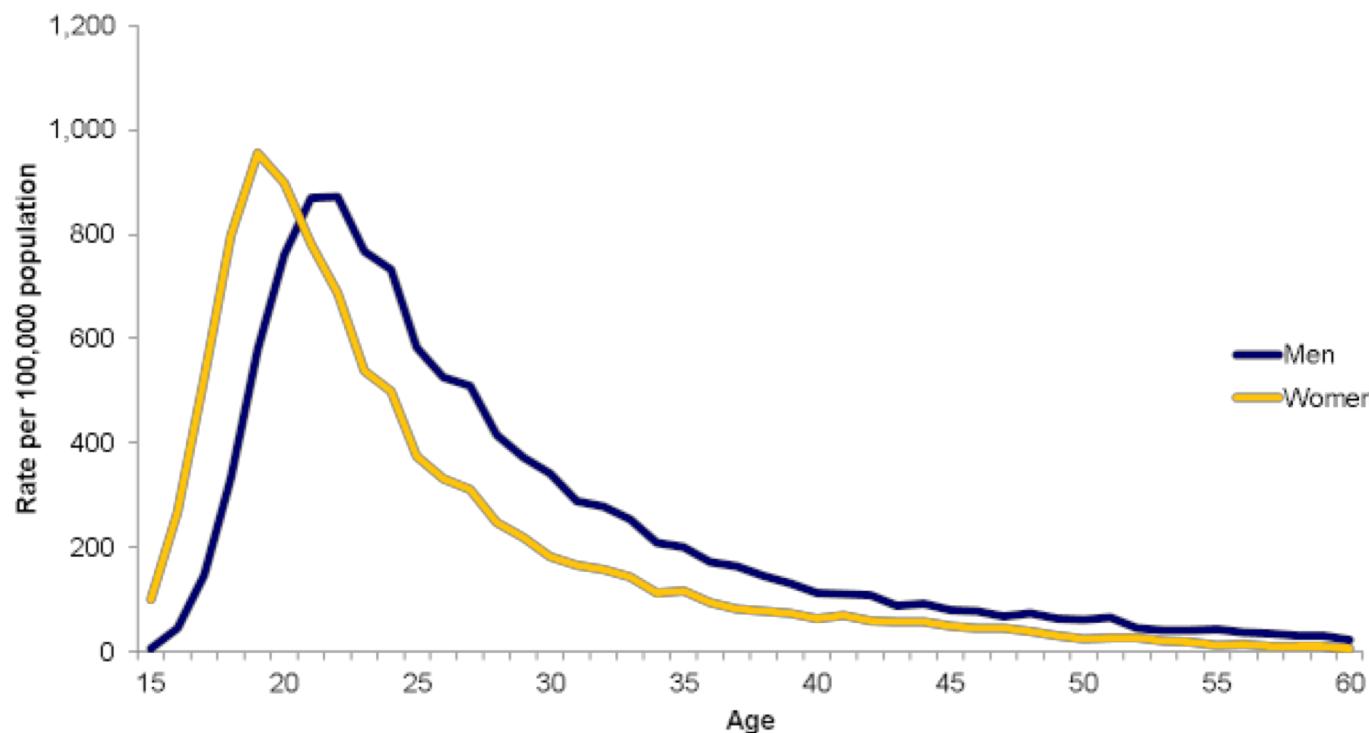
- Data from routine GUM clinic returns
- Data type: service data

# The Australian Experience: study results





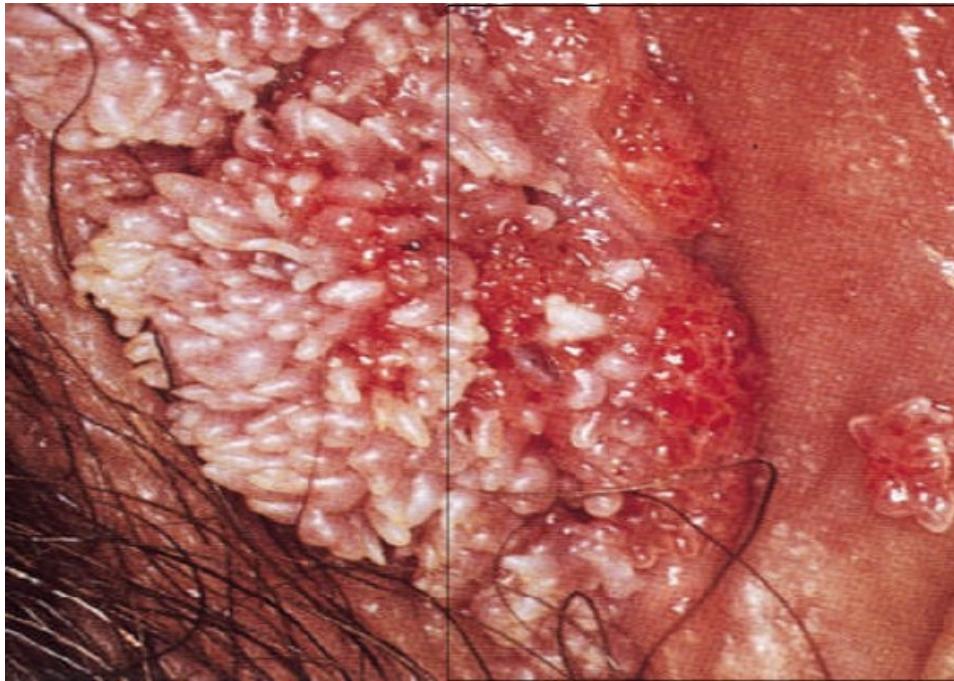
## Rate of anogenital warts (first episode) diagnoses by gender & age: England, 2012



- Data from routine GUM clinic returns.
- Excludes diagnoses where gender was reported as 'unknown'
- Data type: service data

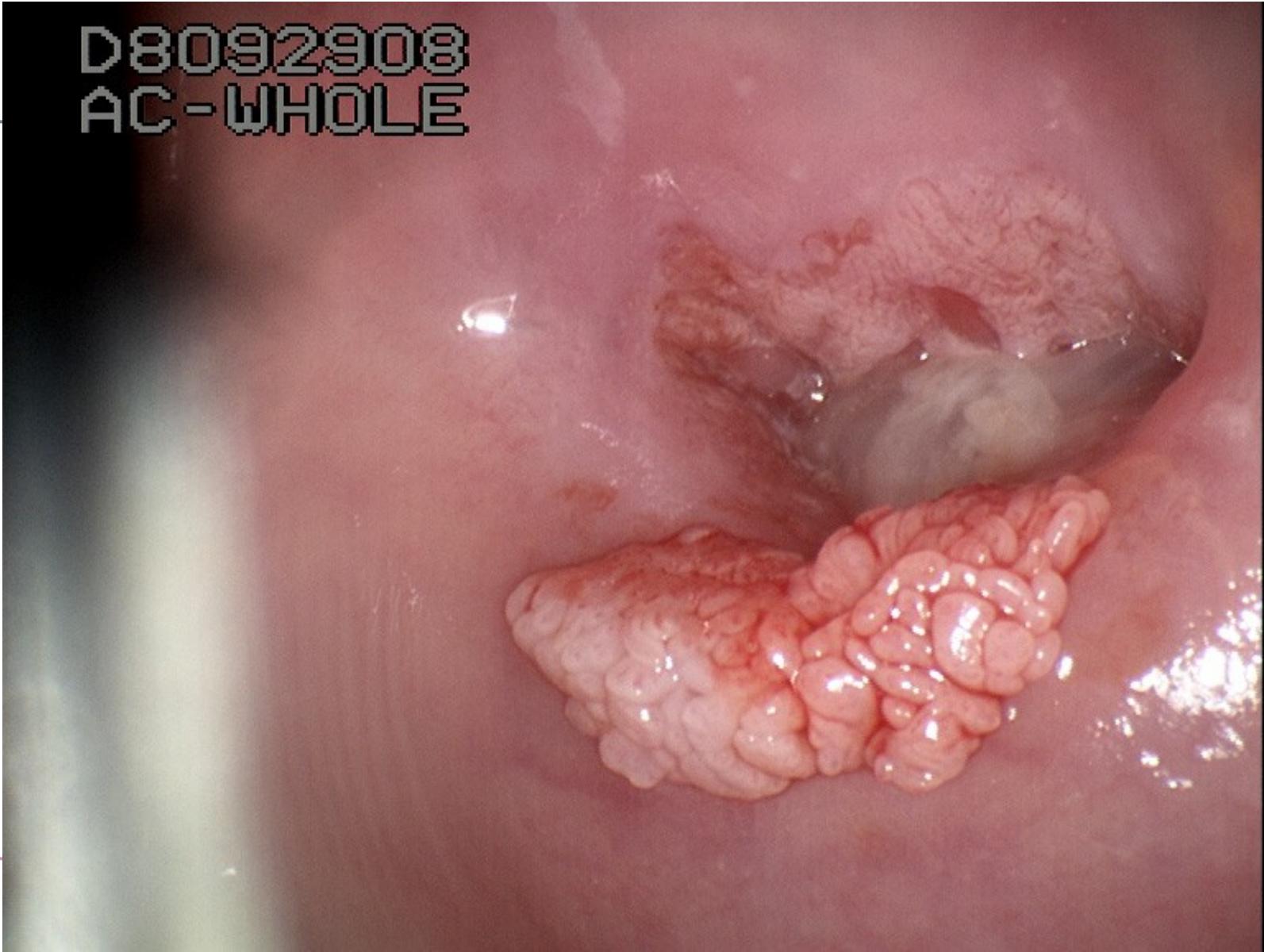
# Genital Warts

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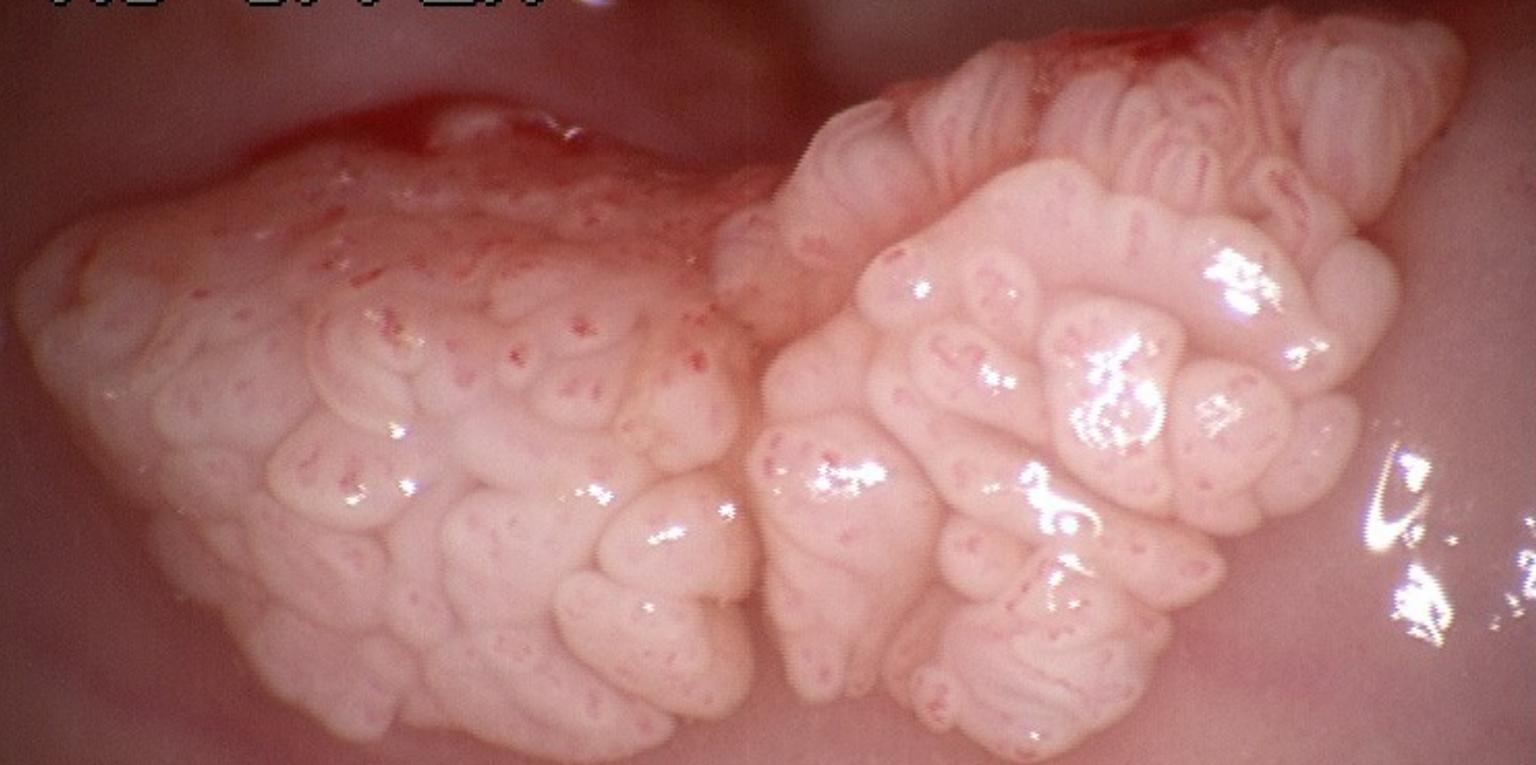


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AC-UPPER



## Warts: symptoms

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- Genital warts
  - Discomfort
  - Irritation and soreness
  - Psychological distress
- 
- Multifocal

# Management

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- Detailed explanation including written information
- Condoms beneficial but not 100% protective
- Latex condoms may be weakened by imiquimod
- For many patients, the psychological impact of warts is the worst aspect of the disease
- STI screen for other concurrent STIs
- Assessment of Cervix, Vagina and Perianal areas important
- Cervical smear: No change required to screening intervals in women with warts

## Treatment options

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Treatment	Clearance %at 3m	Recurrence rates %
Cryotherapy	63-92	0-39
Electrocautery	78-91	24
Laser vaporaisa(on	39-86	7-45
Podophyllin	34-77	10-91
Imiquimod	50-62	13-19
Surgical excision	36	0-29
TCAA	70	36

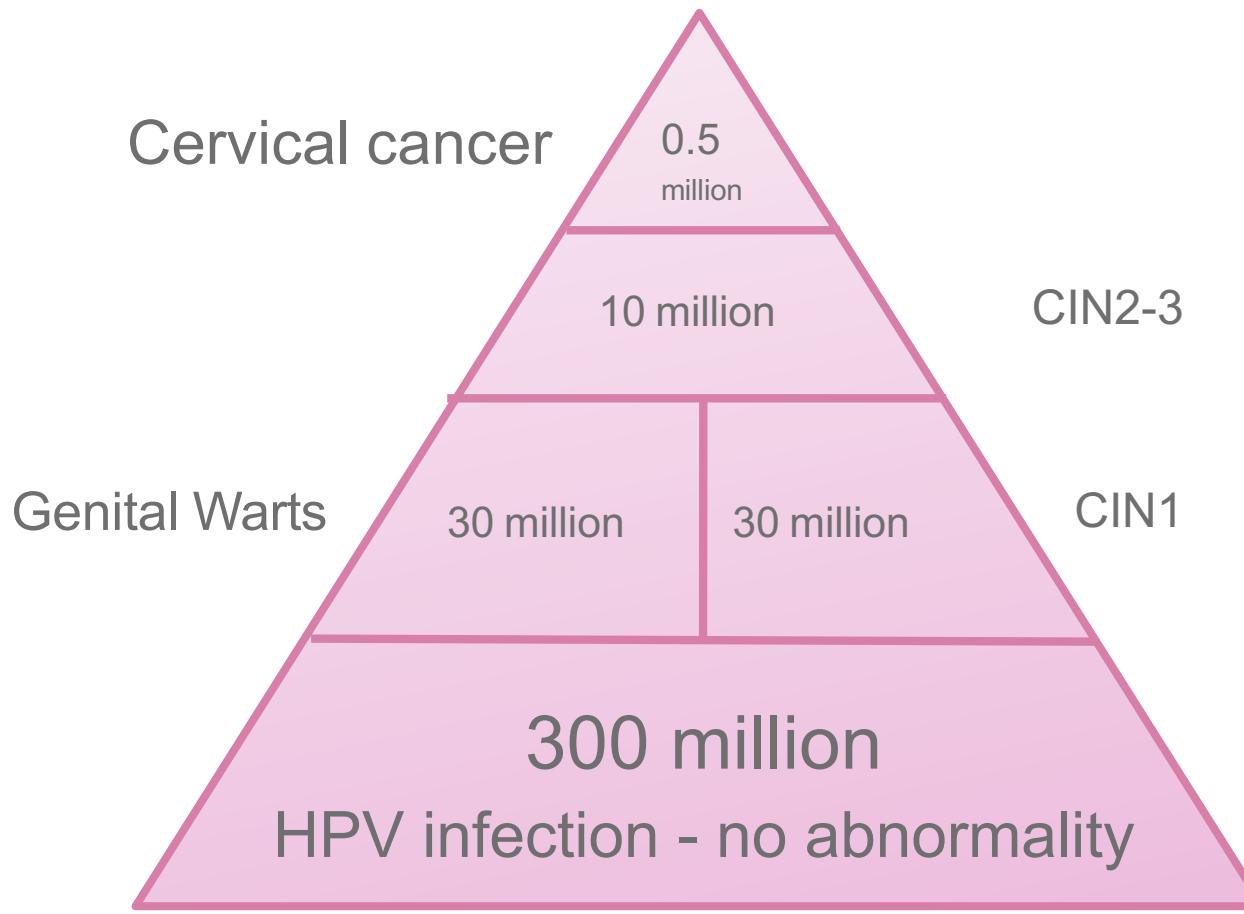
# Imiquimod

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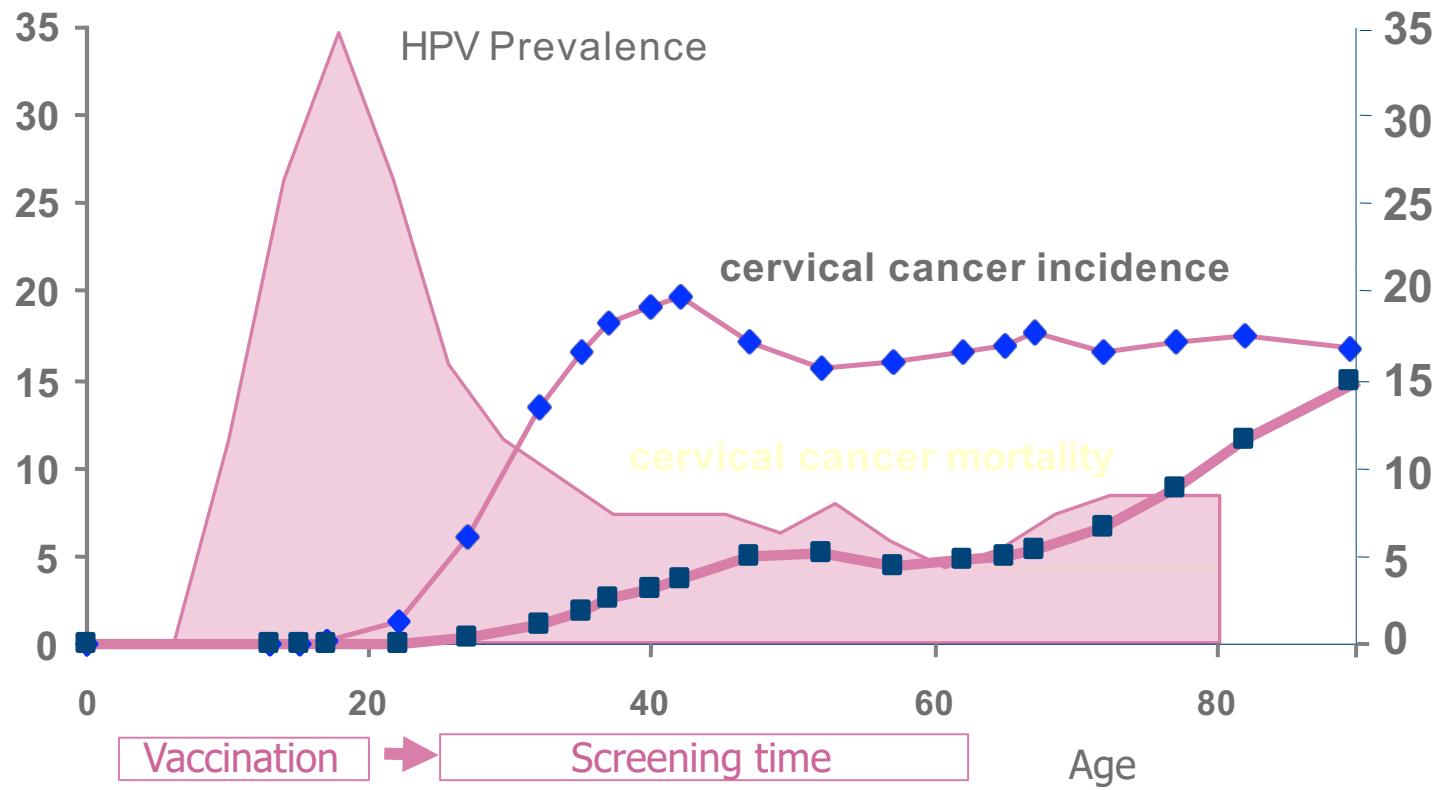
- Immune response modifier
- Available as 5% cream: Induces cytokine response
- Cream is applied three times a week for up to 16 weeks
- Can be used as adjuvant treatment to cryo, laser or surgery
- Cost of treatment: £52 for 4 weeks
- **Rub Rub Rub ...**

# Worldwide estimates on the burden of HPV & related genital diseases

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# Female HPV infection & disease profiles: data from France (2011)



# HPV test vs. cytology: for primary screening

## Summary of 16 controlled trials

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	SENSITIVITY CIN2+	SPECIFICITY CIN2+
HPV-DNA	96%	92%
CYTOTOLOGY	53%	97%

# What do HPV test results indicate?

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## HPV Negative

- Virtually NO RISK of cervical cancer for 7 years and very little risk for 10 years

## HPV Positive

- Transient or persistent HPV infection, or precancer or cancer

# Herpes

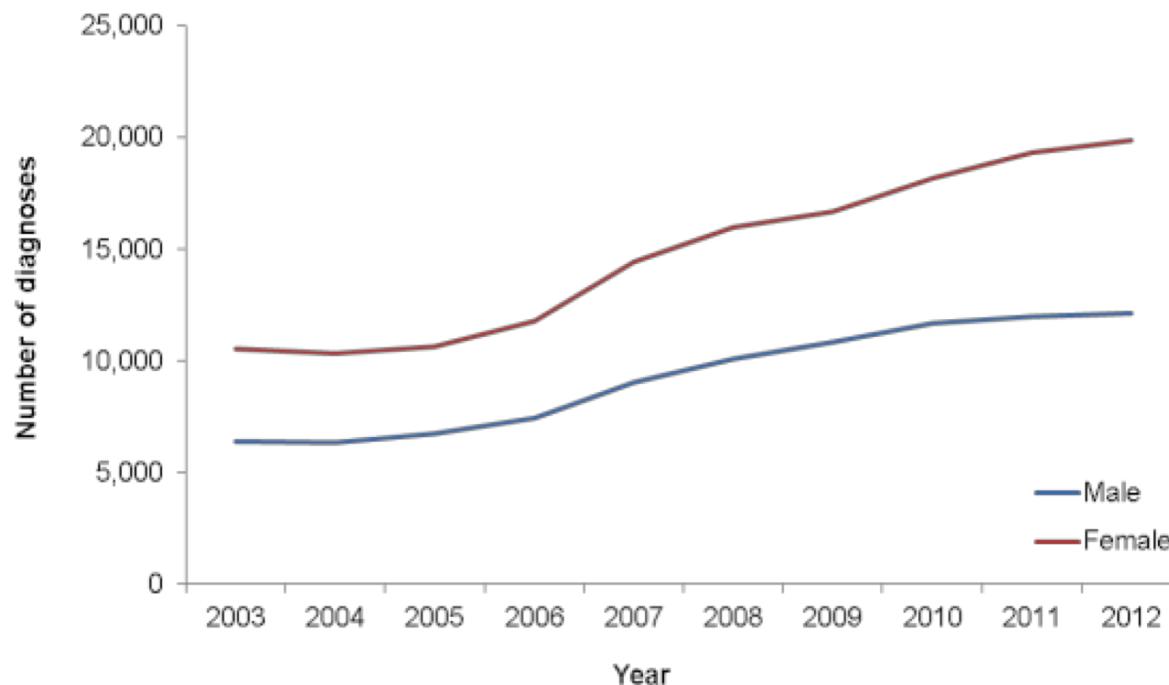
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- Caused by Herpes Simplex Virus type 1 and 2
- Infection may be primary or recurrent
- Following primary infection, the virus becomes latent in local sensory ganglia, periodically reactivating to cause symptomatic lesions or asymptomatic but infectious viral shedding





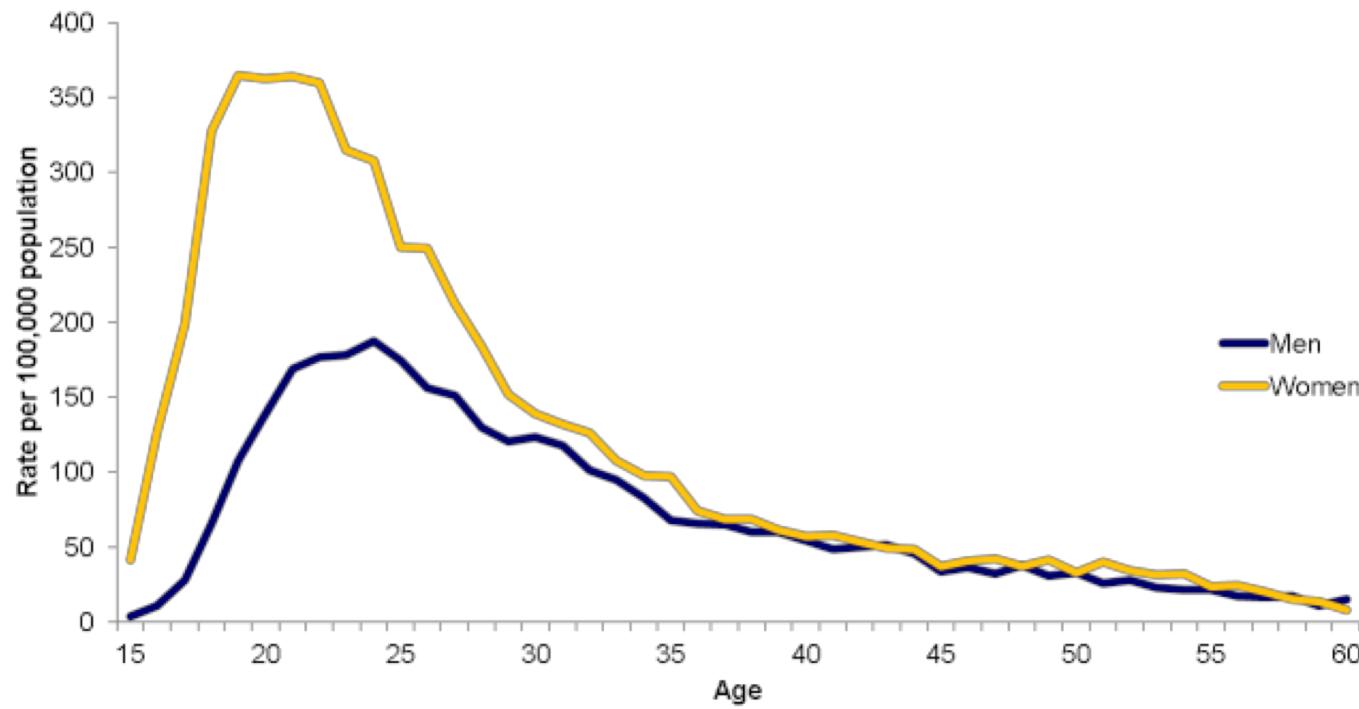
## Number of anogenital herpes (first episode) diagnoses by gender: England, 2003–2012



- Data from routine GUM clinic returns
- Data type: service data



## Rate of anogenital herpes (first episode) diagnoses by gender & age: England, 2012



- Data from routine GUM clinic returns
- Excludes diagnoses where gender was reported as 'unknown'
- Data type: service data

## Herpes: signs & symptoms

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- Asymptomatic
  - Painful ulceration, dysuria, vaginal or urethral discharge
  - Fever and myalgia
- 
- Blisters and ulceration
  - Tender inguinal lymph node enlargement usually bilateral

## Herpes: diagnosis

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- Lesions often typical
- Swabs taken from the base of the genital lesion
- HSV isolation in cell culture is the current routine diagnostic method
- Virus culture is slow, labour intensive and expensive but 100% specific
- HSV-DNA detection by PCR increases detection rates, probably better diagnostic method
- Serology: Detection of HSV1&2 antibodies (IgG and IgM) can be used
- Repeat sample needed to confirm diagnosis

# Management

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- Analgesia (5% lidocaine) ointment
- Recommended regimens (all for five days)
  - Aciclovir 200mg five times a day or 400mg TDS (not licensed but can be used in pregnancy)
  - Valaciclovir 500mg BD
  - Famciclovir 250mg TDS
- Zovirax cream for LA
- Partner notification and treatment
- LSCS for women with first episode of HSV during labour or within six weeks
- With recurrent Herpes, LSCS needed only if lesions present

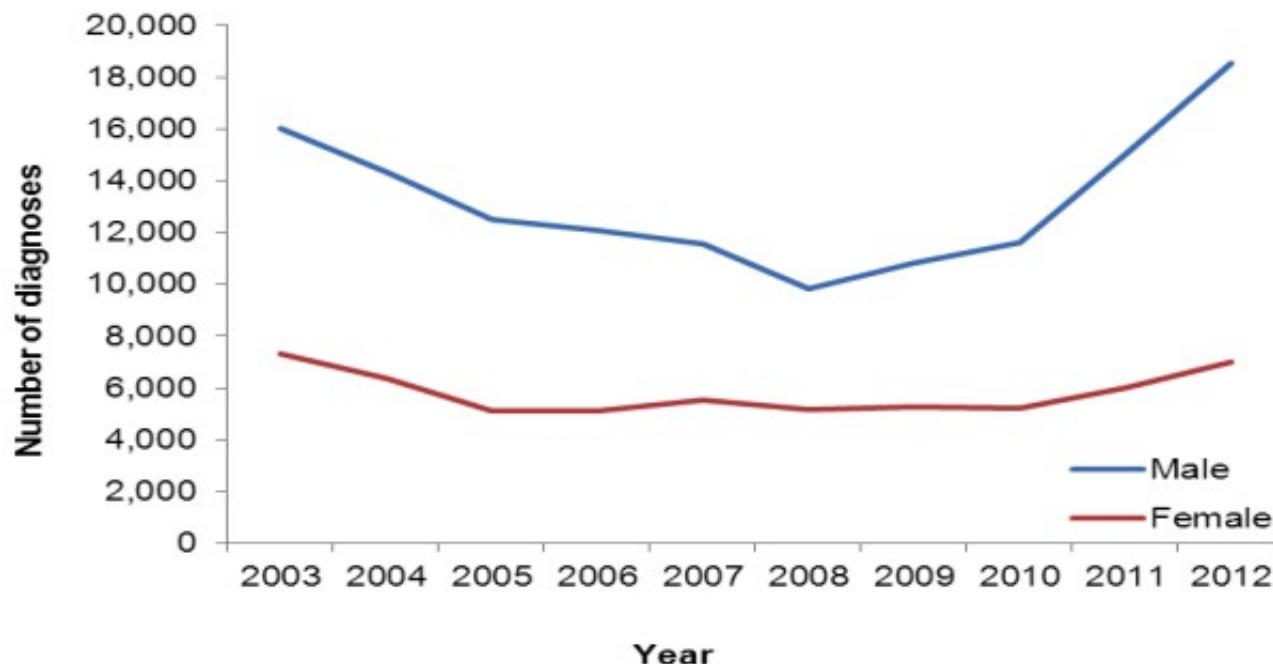
# Gonorrhoea

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- Gram-negative Diplococcus *Neisseria Gonorrhoeae*
- Primary sites of infection are the mucous membranes of the urethra, endocervix, rectum, pharynx and conjunctiva



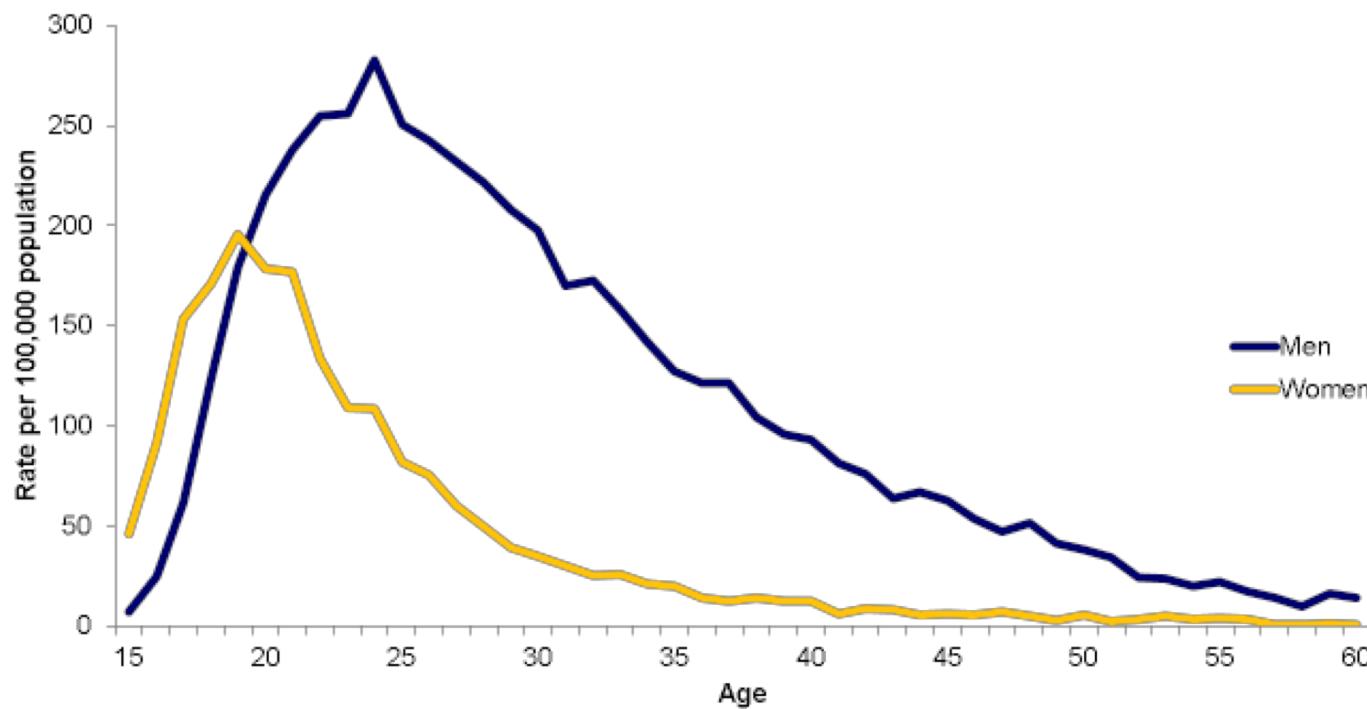
## Number of gonorrhoea diagnoses by gender: England, 2003–2012



- Data from routine GUM clinic returns.
- Data type: service data



## Rate of gonorrhoea diagnoses by gender & age: England, 2012



- Data from routine GUM clinic returns.
- Excludes diagnoses where gender was reported as 'unknown'
- Data type: service data

# Gonorrhoea: symptoms

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- Asymptomatic
  - Urethral discharge
  - Dysuria
  - Vaginal discharge: mucopurulent endocervical discharge
  - Lower abdominal pain
  - Contact bleeding
- 
- Diagnosis by microscopy, culture or NAAT (detection of nucleic acid) on endocervical or urethral swabs
  - NAATs are more sensitive (>96%) and can be carried out for wider range of specimens
  - Culture offers a specific, sensitive and cheap diagnostic test
  - It allows confirmation and sensitivity testing (important as resistance common)

## Gonorrhoea: recommended treatment

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- Ceftriaxone 500mg IM single dose + Azithromycin 1gm oral as stat dose
- Ceftriaxone comes as 250mg or 1gm powder
- Needs to be reconstituted with 3.5ml of 1% lidocaine (use half for deep IM injection)
- Ceftriaxone preferred due to multidrug resistance
- Azithromycin used as co-treatment irrespective of results of chlamydia testing
- Alternative regimens:
  - Cefixime 400mg oral as single dose (only if IM cannot be given, as treatment failures common) OR Spectinomycin 2g IM single dose OR Cefotaxime 500mg IM as single dose OR High dose Azithromycin 2gm single dose

## Gonorrohea: partner notification and test of cure

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- Partner notification should be pursued and action and outcomes should be documented
- Follow-up and test of cure is now recommended
- To identify emerging resistance

DA070405  
AC-WHOLE

# Trichomonas Vaginalis

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- Flagellated Protozoon
- 10-50% women asymptomatic
- Vaginal discharge, pruritus, dysuria, offensive odour
- Testing by microscopy / culture / Molecular detection NAAT
- Typical strawberry cervix or leopard skin appearance on iodine application
- Detrimental outcome on pregnancy: Preterm delivery and low birth weight
- Treatment: Both partners simultaneously
- Metronidazole 2g orally as a single dose

# PID

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- Ascending infection from the endocervix causing endometritis, salpingitis, peritonitis or tubo-ovarian or pelvic abscesses
- Caused by N Gonorrhoea / Chlamydia / Gardnerella / Mycoplasma

# Symptoms

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- Bilateral lower abdominal pain
- Deep dyspareunia
- Fever
- Abnormal vaginal or cervical discharge which is often purulent
- Signs:
  - Lower abdominal tenderness (usually bilateral)
  - Adnexal tenderness (Bilateral)
  - Cervical excitation
  - Raised temperature
  - Purulent discharge seen on speculum examination

## Risk factors

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- Age under 25
  - New Partner
  - IUCD
  - Previous PID
- 
- DD
  - Ectopic pregnancy
  - Acute appendicitis
  - Endometriosis
  - Ovarian cyst complications
  - UTI

# Treatment of PID

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- Ceftriaxone 500mg IM +
- Doxycycline 100mg BD + Metronidazole 400mg BD for 14 days
- Rest and appropriate analgesia
- Remove IUCD if present
- Admission required if
  - Pyrexia > 38
  - TO abscess
  - Signs of pelvic peritonitis
- CT guided drainage of any collections (preferred over laparoscopy)

# Persistent vaginal discharge

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- Causes:

## Physiological

- Bacterial Vaginosis
- Candidiasis
- STIs
- Non-infective causes (atrophic vaginitis, foreign bodies)
- Other causes (polyps, cancer, pyometra)

# Assessment

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## What has changed?

- Onset | Duration | Cyclical changes
- Odour | Colour | Consistency
- Exacerbating factors (e.g. after intercourse)

## Associated symptoms:

- Itching | Superficial dyspareunia
- Dysuria
- Abnormal bleeding (heavy, intermenstrual or postcoital)
- Deep dyspareunia | Pelvic or abdominal pain | Fever

# Treatment

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- Treatment of cause

## Empirical treatment

- Clindamycin PV cream x 7 days f/b Diflucan 150mg OD sorts out most 'undiagnosed' vaginal discharge
- Persistent candidiasis:
  - Check for fasting glucose, iron deficiency
  - Swab for candidial culture and sensitivity
- Usual treatment
  - Fluconazole 150mg OD x 3-7 days
  - Itraconazole 200mg BD x 1-3 days
  - Treat partner



## Sexual Health over 50

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# **Sexually transmitted infections double in older population in ten yrs**

2 February 2012

St BMJ editorial: Sexual health and the older adult

## Increased risk of STI

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- Less likely to use condoms
- Less likely to be screened
- More likely to start a new relationship
- Atrophic vaginitis: Risk of tears and transmission
- Immune senescence

# Thank You



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