

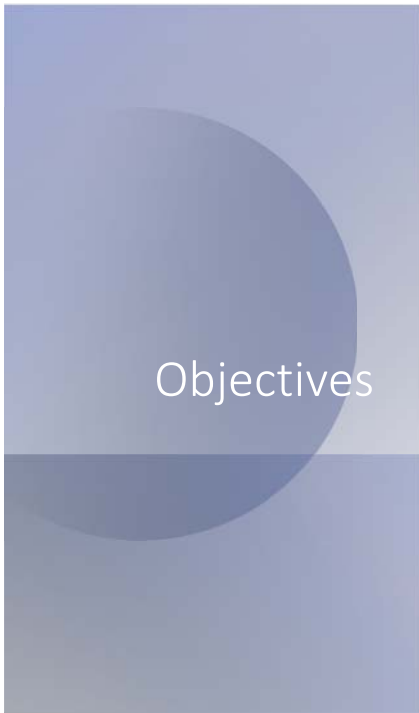
STI Epidemiology and Treatment

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Disclosure

I have no conflicts of interest to declare

No off-label use of medication will be discussed today

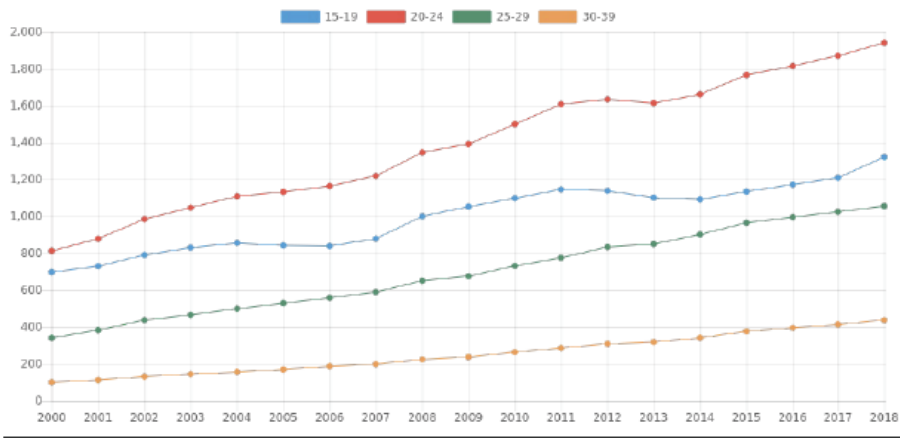


Following this presentation, participants will be able to:

- List the most prevalent STI's
- Prescribe the treatment regimes
- Implement effective treatment strategies

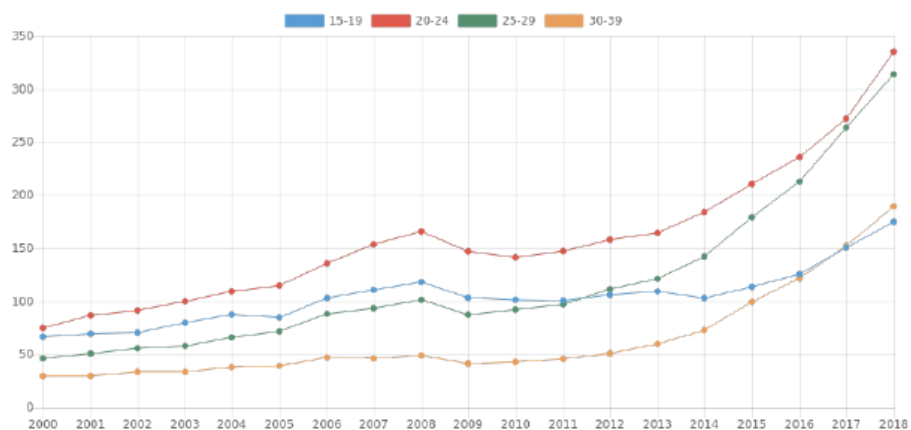
Rate per 100,000 of reported cases over time in Canada, grouped by age group

Chlamydia, all sexes (including unknown), 2000-2018



Rate per 100,000 of reported cases over time in Canada, grouped by age group

Gonorrhoea, all sexes (including unknown), 2000-2018



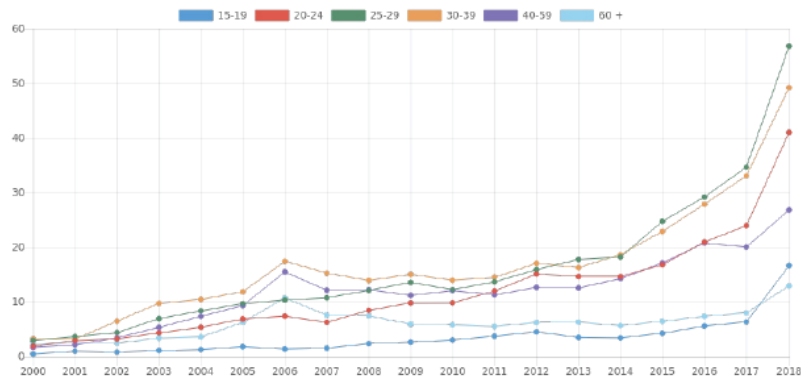
Data Source: Canadian Notifiable Diseases Surveillance System (CNDSS), Public Health Agency of Canada (PHAC)

Data printed on: 2021-04-25

Web page source (https://diseases.canada.ca/notifiable/charts?c=cc#c=cc&lang=en_US).

Rate per 100,000 of reported cases over time in Canada, grouped by age group

Syphilis, all sexes (including unknown), 2000-2018



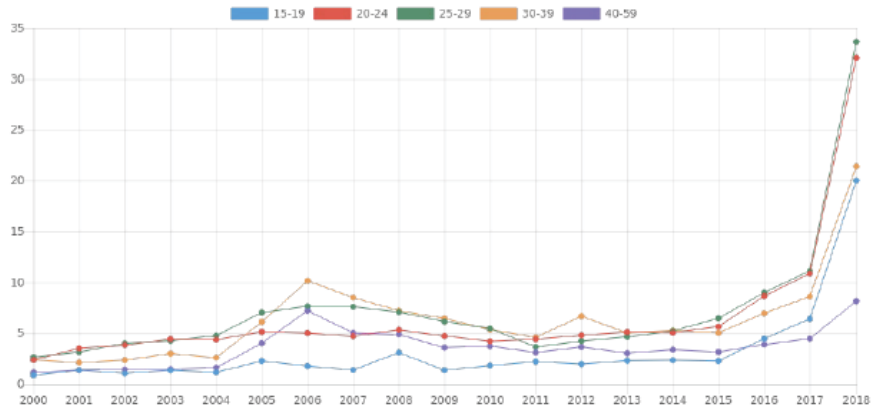
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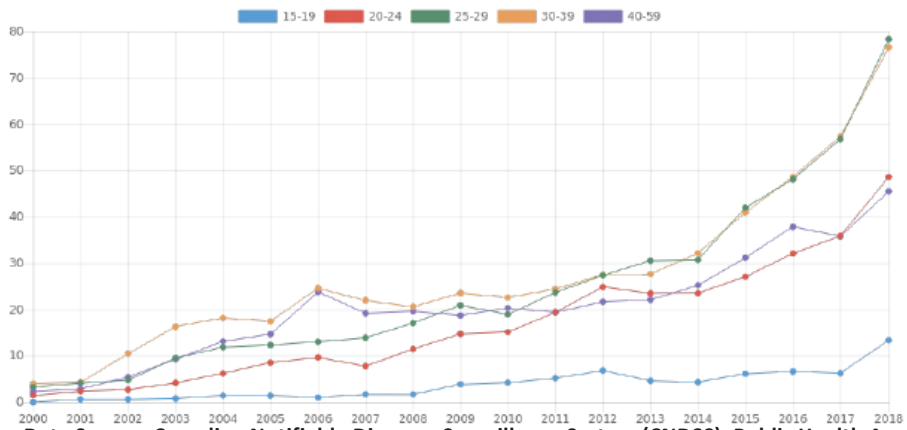
Syphilis, Female, 2000-2018



Data Source: Canadian Notifiable Diseases Surveillance System (CNDSS), Public Health Agency of Canada (PHAC)
 Data printed on: 2021-04-25
 Web page source (https://diseases.canada.ca/notifiable/charts?c=cc#c=cc&lang=en_US).

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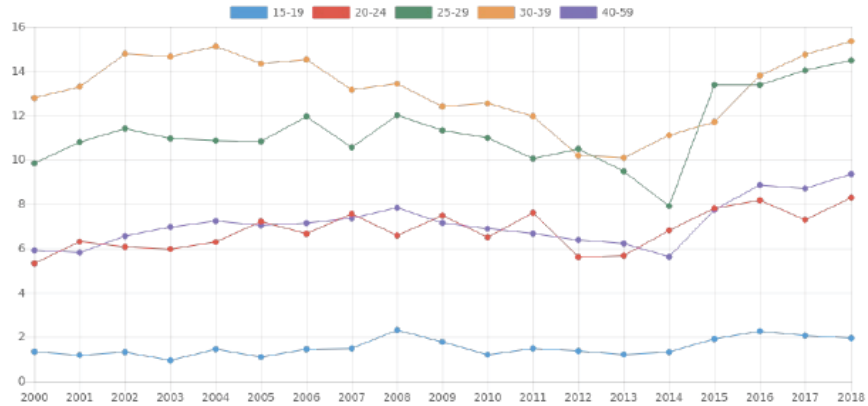
Syphilis, Male, 2000-2018



Data Source: Canadian Notifiable Diseases Surveillance System (CNDSS), Public Health Agency of Canada (PHAC)
 Data printed on: 2021-04-25
 Web page source (https://diseases.canada.ca/notifiable/charts?c=cc#c=cc&lang=en_US).

Rate per 100,000 of reported cases over time in Canada, grouped by age group

Human Immunodeficiency Virus Infection, all sexes (including unknown), 2000-2018



Data Source: Canadian Notifiable Diseases Surveillance System (CNDSS), Public Health Agency of Canada (PHAC)

Data printed on: 2021-04--25

Web page source (https://diseases.canada.ca/notifiable/charts?c=cc#c=cc&lang=en_US).

HIV Transmission in 2018

50 % Men who have sex with men

34 % Heterosexual contact

13% IDU

75% male, 25% female

Estimates of HIV incidence, prevalence and Canada's progress on meeting the 90-90-90 HIV targets

<https://www.canada.ca/en/public-health/services/publications/diseases-conditions/summary-estimates-hiv-incidence-prevalence-canadas-progress-90-90-90.html#s1> Accessed April 25, 2021

Take home points – STI Epidemiology

Rising incidence of all STIs that are notifiable diseases

- Chlamydia
- Gonorrhoea
- Syphilis
- HIV

Many STIs are not notifiable diseases and we have no idea of secular changes

- Genital Herpes Simplex
- Trichomonas

Take home points – STI Epidemiology

Syphilis

- Rise in heterosexual transmission

Impact of Covid?

- decreased contacts?
- decreased screening
- decreased access to treatment
- diversion of public health surveillance to Covid

Screening for Gonorrhoea and Chlamydia

Sexually active and under 30 *

At least once a year

With every partner change

For females – vaginal self swab is preferred over urine

For males – urine

If oral sex, throat swab for GC culture (can be self-swab)

If anal sex, anal self swab for GC and CT with NAAT

*Canadian Task Force on Preventive Health Care Recommendation –
CMAJ 2021 April 19;193:E549-59. doi: 10.1503/cmaj.201967

Screening for bloodborne STIs (HIV, syphilis, Hepatitis B)

Positive for gonorrhoea or chlamydia

More than 3 sexual partners in 1 year

MSM or partner of an MSM

Anonymous partner

Sex in exchange for money or drugs

Survival sex

Transgender

Injection drug user or partner of an IDU

Inhaled drug user (or partner of user)

Screening vs Testing

Symptomatic people are TESTED, not screened

Itchy discharge – think yeast and trichomonas

Examine in addition to testing

Treat syndromes: cervicitis, PID, urethritis epididymitis, proctitis

Do not screen for Herpes simplex, do NAAT (or culture) of active lesions.

Painless ulcers – think syphilis

Unusual ulcers – think syphilis

PID – pelvic inflammatory disease

Treatment of STIs - Chlamydia

- Chlamydia:
 - Recommendation to use doxycycline 100 mg BID x 7 days except
 - During pregnancy
 - concerns about adherence ---- i.e. adolescents
 - Azithromycin dose increased from 1 g to 2 g



Treatment of STIs - Gonorrhea

Resistance to cephalosporins increasing

CDC - Ceftriaxone 500 mg IM as monotherapy.

PHAC: Ceftriaxone 250mg IM **PLUS**
Azithromycin 1g orally

INESS: Cefixime 800 mg + Azithromycin 2 g
Or Ceftriaxone 250 mg without Azithromycin

Pharyngeal Gonorrhea

NAAT – false positives due to other
species

Requires parenteral treatment

Treatment of STIs

Recommendations
are in flux

Monitor
INESS and PHAC
guidelines

Expedited partner treatment

RAMQ covers cost

- K – index case
- L – contact case - evaluated
- M – contact case - not evaluated (expedited partner treatment)

Exclusions to Expedited Partner Treatment:

- Person in question symptomatic
- Person in question has allergies
- Needs injectable antibiotic
- Cannot take single dose treatment
- Possibly has pharyngeal GC
- Index case has an antibiotic resistant strain of GC

Test of Cure vs Screening for Reinfection

Do not repeat NAAT prior to 3 weeks after treatment

GC *culture* can be done 3 days after treatment

Test of cure recommended for all patients with GC

Test of cure not recommended for patients with Chlamydia except if:

- patient still symptomatic,
- risk of non-compliance,
- second line treatment
- pregnant

Retest 3 – 6 months later for reinfection

SCREEN, TREAT, REPORT!!!!

Legal obligation to report

Lab report ≠ Clinician report

Partner notification and testing

References

- INESS Guidelines:
- OPTIMAL USAGE GUIDES FOR PHARMACOLOGICAL TREATMENT OF SEXUALLY TRANSMITTED AND BLOOD-BORNE INFECTIONS (STBBI)
<https://www.iness.qc.ca/en/publications/publications/publication/guides-for-the-pharmacological-treatment-of-stbbis.html>
- PHAC Guidelines
 - <https://www.canada.ca/en/public-health/services/infectious-diseases/sexual-health-sexually-transmitted-infections/canadian-guidelines/sexually-transmitted-infections.html>