Syphilis Trends for Wellington-Dufferin-Guelph

TO:	Chair and members of the Board of Health
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Recommendations

It is recommended that the Board of Health:

1. **Receive this report for information.**

Key Points

- Rates of syphilis in Ontario have been increasing over the past decade. Locally rates remain well below the provincial average although the number of cases is a concern and generates significant follow up of contacts.
- Syphilis has predominantly been diagnosed in the MSM population, and it is generally believed that the increase in rates are related to a reduction in the spread of HIV as a results of better treatment/preventative drug regimens leading to reduced condom use; and internet dating sites that facilitate access to anonymous sex partners.
- Locally, Public Health partners with HIV/AIDS Resource & Community Health (ARCH) to provide weekly testing for all sexually transmitted diseases including syphilis, and testing at special events such as Gay Pride. ARCH is active on internet dating sites frequented by the MSM community providing education on prevention of sexually transmitted diseases and advertising local testing options.

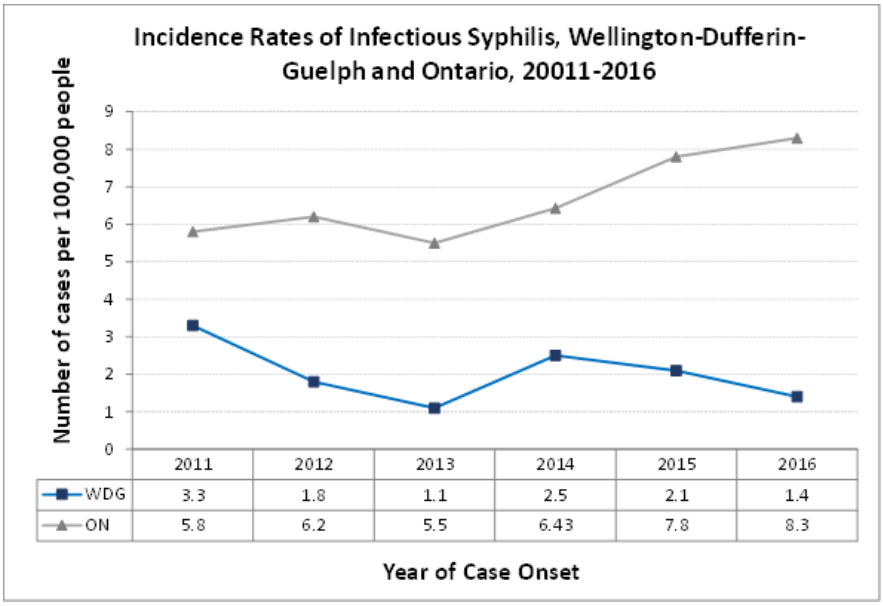
Discussion

Syphilis first started to be become a concern in Canada during the First World War when over 18,000 cases of syphilis were identified in Canadian troops. Hospitalization for treatment resulted in a reduction of $0.50/day from their pay. By 1920, all provinces except for Prince Edward Island had established mandatory treatment for these diseases through free public clinics. Diagnosis was difficult with limited staff expertise, and treatment was both long and painful resulting in patients abandoning treatment prior to completion. Following the war, efforts turned to prevention methods by promoting early marriage, heterosexuality, monogamy and conformity while illicit sex and immorality were seen as national threats, and public funding declined. However, national interest increased again with the start of World War II. Military personal were provided education, condoms and prophylactic packages prior to leaves. The introduction of penicillin for the treatment of sexually transmitted infections (known then as Venereal Diseases) started in 1943 which lead to the decline in disease and public education.[1, 2]

Syphilis is a bacterial infection caused by organism Treponema pallidum, and all stages of the infection are reportable to public health. Syphilis is generally transmitted through vaginal, anal or oral contact however it can also be transmitted to a baby in utero or during delivery if in contact with a genital lesion. Diagnosis and staging of syphilis can be complex and physicians with expertise in staging are often involved. The treatment regime varies depending upon staging of the disease (primary, secondary, early latent or late latent). Initially symptoms usually include a painless chancre or sore and swollen lymph nodes in the groin (primary syphilis). If left untreated, symptoms can advance to include a rash, low grade fever, sore throat, lack of appetite and lack of energy (secondary syphilis). The brain and spinal cord can become infected in up to 40% of those with secondary syphilis. If symptoms occur at this stage, they may include ringing in the ears, decreased ability to see or hear clearly and/or headaches. Latent (or tertiary) syphilis can develop 2 – 30 years after an untreated infection. During this stage, any organ in the body can become infected, including the liver, kidneys, heart and blood vessels. The nervous system can also be affected resulting in neurosyphilis.[3, 4]

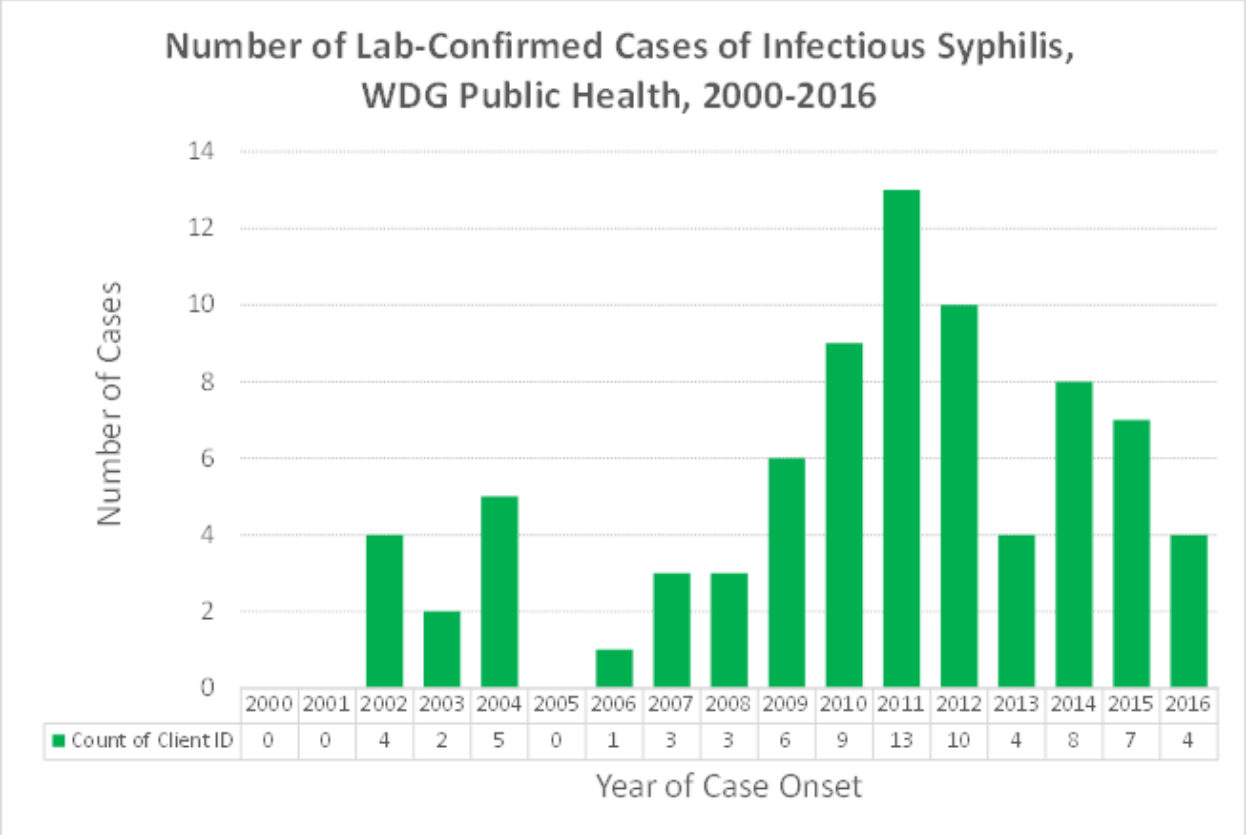
Syphilis rates have been rising nationally since 2000. Trending has been primarily in Quebec and Ontario amongst the Men who have Sex with Men (MSM) community, and to a smaller extent in New Brunswick and Nova Scotia. Alberta has also seen an increase in the heterosexual population [5]

The majority of cases of syphilis in Ontario reside in Toronto and Ottawa area.[5] The incidence of syphilis in Wellington-Dufferin-Guelph is significantly below the provincial rate.



	2011	2012	2013	2014	2015	2016
WDG	3.3	1.8	1.1	2.5	2.1	1.4
ON	5.8	6.2	5.5	6.43	7.8	8.3

Source: Integrated Public Health Information System (iPHIS) – from PHO ID Query, Data extracted Jan 10, 2017.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Count of Client ID	0	0	4	2	5	0	1	3	3	6	9	13	10	4	8	7	4

Source: Integrated Public Health Information System (iPHIS) – from PHO ID Query, Data extracted Jan 23, 2017.

From 2012 to late 2016, all cases in Wellington-Dufferin-Guelph were male. There is no obvious trend for age distribution, but a larger percentage of the cases have been reported in older age groups with relatively few cases in young adults.

Most common risk factors reported are no condom use, sex with same sex, greater than one sex partner over the past 6 months, new sex contact in past 2 months, and anonymous sex. Only one case reported meeting a partner through the internet.[6]

While there is no conclusive data to support the provincial increase in cases of syphilis, there is a strong belief that the use of pre-exposure HIV prophylaxis drug regimens and better treatment options for HIV infections have led to reduced spread of HIV and leading to reduced condom use amongst MSM. Additionally, internet dating sites now make anonymous “hook ups” easier to find interested partners.

Locally, the Wellington-Dufferin-Guelph Public Health (WDGPH) partners with the HIV/AIDs Resources & Community Health (ARCH) office to provide testing for sexually transmitted infections (STI) including syphilis. A weekly drop in clinic is offered along with Special Events testing such as during Gay Pride events. ARCH advertises regular testing clinics and special events on internet dating sites frequented by the MSM community, and also provides live-chats on-line for those who have questions. Clients who test positive for syphilis and/or HIV are reminded of precautions to reduce the spread of these infections.

While internet dating sites can be a means to find partners for anonymous sex, they can also be used to connect with partners who have been exposed to a STI and should be tested. There are also internet tools, such as Inspot, where a person can send an anonymous e-notice to another person informing them that they should be tested as a result of an exposure.

Syphilis still remains a disease that an individual family physician may not or seldom see in their career. It is also a disease that is complex to diagnose and stage. For these reasons syphilis is a disease where external consultation and support is often sought by the primary care provider. Locally, Infectious Disease Specialists have limited availability or specialize in other diseases, limiting client access to their service. As a result Public Health physicians have taken on a larger role in the care of these clients and/or providing consultations with community physicians.

In the fall of 2016, WDGPH was alerted by a neighbouring health unit of a potential increase in testing requests for syphilis as a follow up to an individual who exposed many others to syphilis locally.

Local physicians have been advised of the potential for increased requests for testing as a result of this individual. Local Emergency Room physicians have received an update on syphilis by a physician contracted by WDGPH, with plans for further education to local community physicians.

Conclusion

National concern for syphilis increased during the times of the First and Second World Wars. Rates were as high as 4.5/100,000 during the First World War. In 1943 the introduction of penicillin was effective in reducing rates, and as a result interest again dwindled post Second World War. However, despite a period of reduced reporting, a resurgence of syphilis started in the early 2000s across Canada. In Ontario, rates were low prior to 2002 with notable increases occurring between 2002-2004 and 2008-2009. Syphilis has predominantly been diagnosed in the MSM population, and it is generally believed that the increase in rates are related to a

reduction in the spread of HIV as a results of better treatment/preventative drug regimens leading to reduced condom use; and internet dating sites that facilitate access to anonymous sex partners.

WDGPH has significantly lower rates of syphilis than provincially. Locally, the health unit partners with the local AIDs organization (ARCH) to offer testing for all STIs including syphilis on a weekly basis, and at special events such as Gay Pride. ARCH also has an on-line presence on internet dating sites where education and testing information is shared.

Ontario Public Health Standard

Sexual Health, Sexually Transmitted Infections, and Blood-borne Infections (including HIV)

- To prevent or reduce the burden of sexually transmitted infections and blood-borne infections.

WDGPH Strategic Direction(s)

Check all that apply:

☐ Building Healthy Communities
We will work with communities to support the health and well-being of everyone.

☒ Service Centred Approach
We are committed to providing excellent service to anyone interacting with Public Health.

☐ Health Equity
We will provide programs and services that integrate health equity principles to reduce or eliminate health differences between population groups.

☐ Organizational Capacity
We will improve our capacity to effectively deliver public health programs and services.

Health Equity

Syphilis remains an infrequent infection in Wellington-Dufferin-Guelph and it is complex to both diagnose and treat accordingly. By providing timely education to the medical community, clients who may have been exposed to syphilis will be able to receive appropriate testing and treatment by their health care provider with support and guidance from the health unit, as opposed to requiring referral or consultation with an infectious disease specialist.

Appendices

As applicable.

References

1. Canadian Public Health Association. Fighting the Good Fight! From VD to HIV/AIDS. http://www.cpha.ca/en/programs/history/achievements/02-id/02-vd_to_hiv.aspx
2. The Regimental Rogue. Researching Canadian Soldiers of the First World War. Part 14: The Wounded and Sick: http://regimentalrogue.com/misc/researching_first_world_war_soldiers_part14.htm
3. Public Health Agency of Canada. Canadian Guidelines on Sexually transmitted diseases. Syphilis: Section 5. Management and Treatment of Specific Infections (2014): http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-5-10-eng.php
4. CATIE: Syphilis Fact Sheet (2016): http://www.catie.ca/en/fact-sheets/infections/syphilis
5. Ontario Agency for Health Protection and Promotion. Epidemiology of syphilis in Ontario, Guelph Sexuality Conference power point, June 6, 2013.
6. Integrated Public Health Information System (iPHIS) – from PHO ID Query, Data extracted Jan 10, 2017.