TOI TE ORA
PUBLIC HEALTH
Bay of Plenty + Lakes Districts

Medical Officer of Health Report
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Syphilis

A re-emerging infectious disease

Syphilis is a sexually transmitted bacterial infection that used to be common during the early half of the 20th century before the widespread availability of effective treatment with penicillin resulted in it becoming what could be considered a rare disease in New Zealand, as in other developed countries. However, many developed countries are now observing an increase in incidence and New Zealand is no exception. Since 2014 there has been a sharp increase in the reported number of cases of syphilis in New Zealand, and this is also evident in the Bay of Plenty and Lakes areas. See Figures 1 and 2.

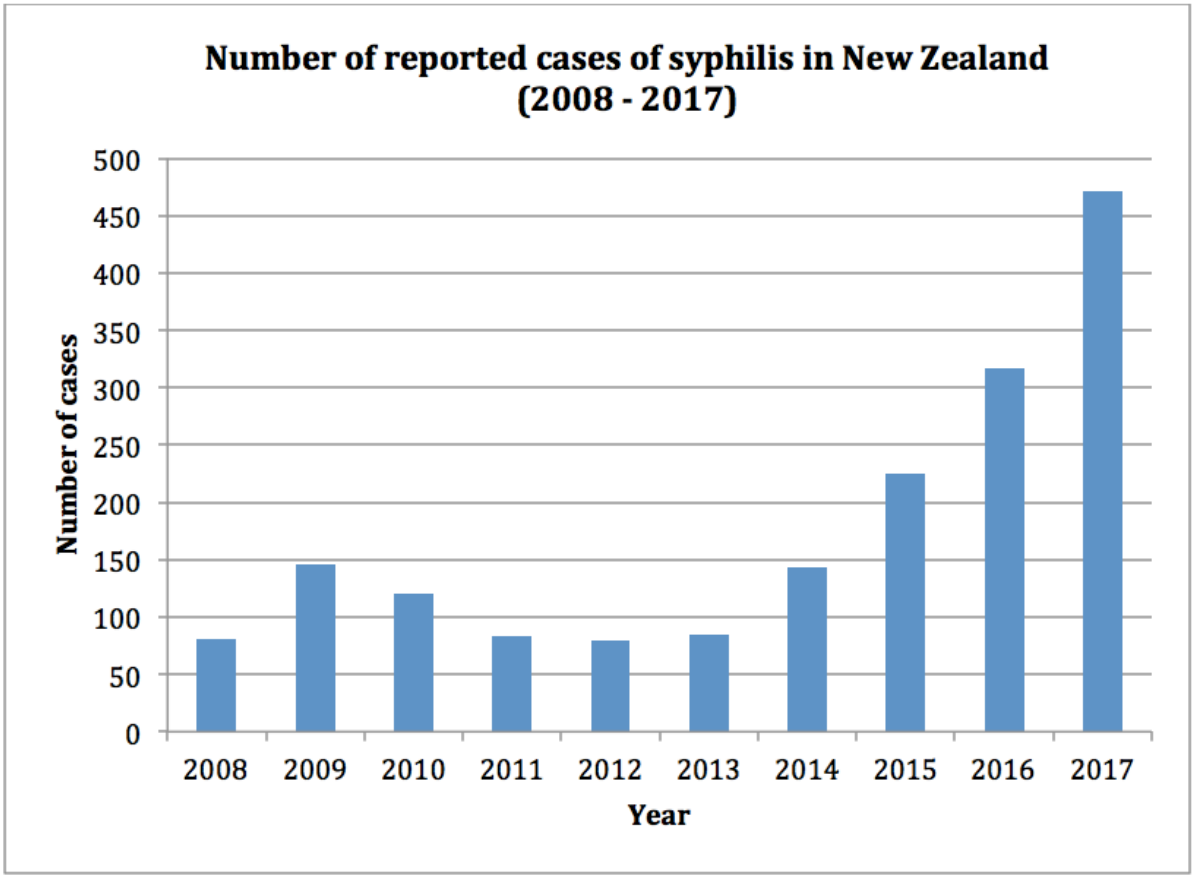

Figure 1. Number of reported cases of syphilis in New Zealand, by year (2008 – 2017). (Graph prepared by Dr Nico Thorburn. Date source: Institute of Environmental Science and Research*).*

Given the risk of serious long term sequelae in unrecognised, undiagnosed and untreated syphilis, the recent increase in the overall number of cases nationally and locally is concerning. Early symptoms after infection may include a genital ulcer typical of the disease and later a skin rash. If suspected, diagnosis is readily made with a blood test and treatment at this early stage, usually with penicillin, is indeed simple and effective. However, these early symptoms of infection are often variable or absent, often go unnoticed or unrecognised by both patient and doctor, and so the disease can remain undiagnosed and untreated. When not treated syphilis can progress over months and years, and even decades later, may cause serious and permanent damage to the brain, spinal cord, nerves, heart and blood vessels. Treatment of these more advanced stages of disease is somewhat more complicated and although effective in eliminating the infection and preventing further progression of disease, treatment does not reverse organ damage already caused by the advanced stages of disease.

Syphilis may also be transmitted across the placenta from an infected mother to the unborn child where it may cause miscarriage, stillbirth or conditions such as deafness, blindness, neurological conditions, developmental delays and bone deformities. The recent increase in cases among women is a concern in itself, but a particular concern is consequently also now the occurrence of transmission to the unborn child, or congenital syphilis. Indeed last year, three cases of congenital syphilis were reported in the Bay of Plenty and Lakes. The occurrence of a single case of congenital syphilis is considered a sentinel event indicating a health system failure, including possible failures in terms of access and effectiveness of services related to prevention, primary care and, in particular, antenatal care and screening.

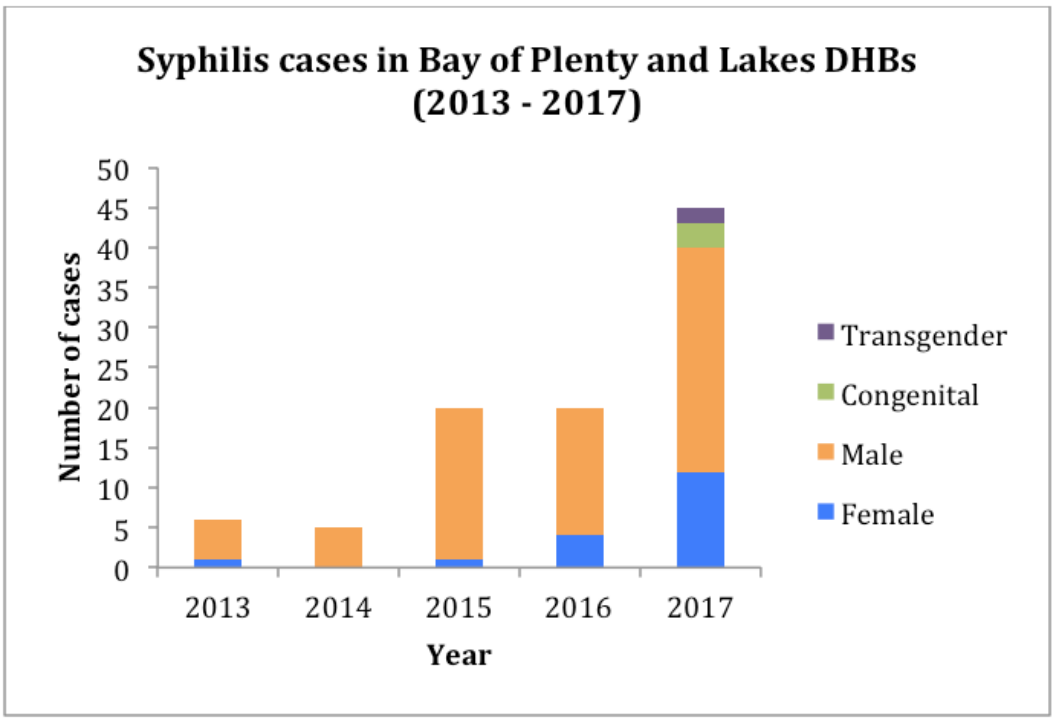

Figure 2. Number of reported cases of syphilis in Bay of Plenty and Lakes DHB areas, by year (2013 – 2017). (Graph prepared by Dr Nico Thorburn. Date source: Institute of Environmental Science and Research*).*

Therefore it is clear that urgent, concerted action is required in response to this re-emerging infectious disease. Local actions to date have included the formation of a working group with representation from public health, sexual health services, primary care, laboratory services and midwifery with interventions focussing on increasing doctors' and midwives' knowledge and awareness of syphilis, strengthening clinical guidelines, strengthening screening and testing advice and practices, case follow up and contact tracing, and improving the understanding of the

local epidemiology. These are now also being complemented and supported by planned actions at a national level including strengthening national surveillance, improving prevention including increasing awareness and promoting safer sexual health practices, and a range of initiatives across primary care, specialist services, and antenatal care.

Along with prevention, early diagnosis and treatment is effective and essential to prevent the harm caused by this disease. Likewise, at a population level early recognition of this emerging epidemic and effective intervention will be essential to change the trajectory of this epidemic and prevent a more embedded and intractable public health problem. There remains a window of opportunity to do this and the mobilisation of expertise across sexual health services, antenatal services, primary care, and public health and at a local and national level is reassuring.

However, the essential contribution now required of DHBs is to resource sexual health clinics and services to a level that is adequate to manage the increasing number of cases and the associated burgeoning demand for contact tracing by sexual health services that is necessary to prevent additional cases or allow early diagnosis and treatment, and so help control this epidemic.

We will know progress is being made and the health service response is being effective not only when the number of new cases decreases to pre-2014 levels or below, but most significantly when there are no further cases of congenital syphilis.

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25 September 2018