March 18, 2015

Six year TB outbreak comes to an end

Many people believe tuberculosis (TB) has been eradicated but this is far from true. Every year nine million people world-wide get sick with TB and some of those people live right here. In 2008, the illness took hold in the Kelowna area, resulting in a six-year outbreak that was finally declared over earlier this year.

“The end of the outbreak was made possible by dedicated staff, team work, and collaboration,” said Dr. Robert Parker, acknowledging Interior Health’s TB Outbreak Management Team, which worked in partnership with several community organizations and the BC Centre for Disease Control to identify and treat new cases and minimize the public health risk.

“Prior to 2008 we did see a few TB cases each year but we didn’t really see active, ongoing TB transmission,” recalls Dr. Parker. “However, in late May 2008 when we identified TB in an individual staying at a local shelter, we knew we had a high risk situation. Additional case finding confirmed we had active TB transmission occurring and we knew that we were probably facing a multi-year outbreak.”

The outbreak occurred primarily among homeless populations in the Kelowna area with a small number of linked cases identified in neighbouring communities. During the course of the outbreak 52 active TB cases were identified and approximately 2,400 contacts were exposed to infectious TB.

Dr. Sue Pollock who led the Outbreak Management Team for the last three years emphasizes that many factors contribute to these kinds of outbreaks.

“Outbreaks among the homeless are strongly related to social determinants of health and disparities in employment, income, safe housing, and access to health care. They typically last several years and require a tremendous amount of resources and community coordination to bring under control.”

The outbreak was challenging to manage. Those most at risk were often transient and had little interaction with health-care providers. To overcome this Interior Health’s Medical Health Officers and Communicable Disease Unit worked closely with community outreach services including street nurses, shelters and community agencies. Through these partnerships, street savvy outreach workers utilized their connections to reach hard to locate clients and regular screening and symptom checks were offered in locations where the clients felt safe and comfortable.
Sharon Cook, Kelowna General Hospital (KGH) Health Service Administrator, notes the outbreak also had a significant impact on acute services.

“A TB outbreak in the community meant we would see more TB patients in our hospital so we needed to take additional measures to reduce the risk to patients and staff. Upgrades were made to our isolation rooms at KGH, we implemented new clinical support tools and provided additional training for our staff.”

Managing the TB outbreak also involved a CSI-like science called ‘genomics’. Dr. Jennifer Gardy, Senior Scientist, BC Centre for Disease Control (BCCDC) used DNA from the TB bacteria and other data collected by nurses during the outbreak to identify cases that were connected to the outbreak and to better understand how the outbreak spread from person-to-person. Her most recent analysis in January 2015 confirmed there was no evidence of ongoing transmission – the outbreak was indeed over.

March 24 is World TB Day; a day to raise public awareness that tuberculosis remains an epidemic in much of the world. Here in British Columbia, there are more than 300 new cases of TB disease per year. TB is curable and there are excellent anti-TB medications available. Early detection of TB is critical to preventing outbreaks. Interior Health will continue to offer TB screening to those at risk.

For more information on TB visit www.bccdc.ca.

– 30 –