

## Housing and tuberculosis



Dr Paul Martiquet, Medical Health Officer

**Crowded housing makes for good** distribution of tuberculosis germs and the ef-

fective spread of this and other respiratory diseases. The more crowded the living conditions, especially where combined with poor air circulation, the higher the likelihood of finding tuberculosis, TB.

Control of tuberculosis in Canada is thought to be generally quite effective, but that depends on where you look. In 2003 there were 1628 cases of TB reported which works out to 5.1 cases per 100,000 population. The lowest rate was in Nova Scotia at 0.6 per 100,000; the highest, at 28.4 was in the Northwest Territories. People ages 25-34 made up the largest group of cases, accounting for a fifth of all cases.

Tuberculosis is an infectious disease caused by a germ called tubercle bacillus and anyone is at risk of catching it, some more than others. The TB germ enters the body as you breathe and usually settles in the lungs. From

there it can spread to other parts of the body, including the central nervous system, bones and joints.

When first infected with the TB germ, a person will not normally become sick right away— the germs stay inactive in the body. Inactive TB can become active at any time in the future, and when it does, tuberculosis develops. Symptoms will include cough, fever, weight loss and more.

The transmission of t. bacillus germs occurs when an infected coughs or sneezes, propelling aerosolized germs into the air. These minute particles can remain suspended in the air for many hours. Where there is poor air circulation this is especially bad as concentration of germs will rise. Add a crowded household and everyone's likelihood of becoming infected increases significantly. Overcrowded homes, poor ventilation and the presence of mold and smoke have been implicated in the spread of tuberculosis.

TB rates are an ongoing public health problem in Canadian First Nations, Métis and Inuit communities. First Nations people living on reserves have an eight to 10 times higher rate of TB than do non-Aboriginal Canadians. Not surprisingly, they also have a higher than average household occupancy density and a poorer quality of housing than other Canadians. Crowding has been identified as both a risk fac-

> tor for TB transmission and as a characteristic of First Nations housing both on and off reserve.

Certain populations also have a higher risk for catching tuberculosis. In addition to First Nations members, others also have increased

risk factors. People with HIV or AIDS, the elderly, homeless people and those living in unhygienic or crowded conditions all face the risk of TB.

Every one of these factors relates to one or more of the determinants of health we often discuss. Where more than one determinant is present, for example low income, poor housing and nutrition, health suffers.

**Dr Paul Martiquet** is the Medical Health Officer for the Coast Garibaldi Region including Powell River, the Sunshine Coast, Sea-to-Sky, Bella Bella and Bella Coola.

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