

Probiotics for respiratory illness could save millions

February 2 2018, by Robert Delaet

A recent study suggests the use of probiotics to prevent respiratory tract infections in Canada could result in annual savings of nearly \$100 million.

There is growing evidence [probiotics](#) can reduce the risk and duration of respiratory tract infections, as well as reducing antibiotic use and absences from work. Replicating a research model used in France, researchers examined the potential clinical and economic impacts in Canada.

Sponsored by The Alliance for Education on Probiotics, the study included researchers from Western, Lawson Health Research Institute, Laval University and Utrecht University. It incorporated two separate scenarios from two meta-analyses. A meta-analysis combines data from multiple studies using a statistical approach.

Results from the study showed regular probiotic use could eliminate as many as 2.3 million days per year of respiratory tract infections – resulting in 330,000 to 500,000 fewer sick days for Canadians and 52,000 to 84,000 fewer antibiotic prescriptions.

This would translate to \$1.3 to \$8.9 million in health-system savings. When accounting for productivity losses due to illness, it could save \$61.2 to \$99.7 million.

Respiratory tract infections are highly contagious infections of the sinus,

throat or airways, including influenza. About 5 to 20 per cent of the Canadian population experience at least one [respiratory tract infection](#) per year, and 3 per cent of all health-care costs stem from these illnesses.

"If we could reduce the burden of respiratory tract infections, it would benefit both patients and Canadian taxpayers," said Gregor Reid, Director for the Canadian Centre for Human Microbiome and Probiotic Research at Lawson and professor at Western's Schulich School of Medicine & Dentistry.

Those who stand to benefit most include children under the age of 10, people living in a community setting (including office work in open spaces) and those not vaccinated against influenza.

Although respiratory tract infections are typically viral, about one-quarter of patients are also prescribed antibiotics (which offer benefit only against bacterial infections). "Antibiotics can have serious side effects like destroying many beneficial bacteria in the human body," said Reid.

This is why the use of probiotics is an important defense against respiratory tract infections.

Probiotics are "live microorganisms that, when administered in adequate amounts, confer a health benefit on the host" and can be consumed in products such as yogurt.

"People are increasingly making probiotics a part of their daily diet or dietary supplements for their proven health benefits," explained Reid. "The fact probiotics can also be used to prevent respiratory tract infections makes them even more important."

The study, "The Clinical and Economic Impact of Probiotics

Consumption on Respiratory Tract Infections: Projections for Canada," is published on *PLoS One*.

More information: Irene Lenoir-Wijnkoop et al. The Clinical and Economic Impact of Probiotics Consumption on Respiratory Tract Infections: Projections for Canada, *PLOS ONE* (2016). [DOI: 10.1371/journal.pone.0166232](https://doi.org/10.1371/journal.pone.0166232)

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