



IMMUNE HEALTH

Taking probiotics can help reduce costs of flu-like sickness

Taking probiotics can help reduce the number of sick days

54_m

54 million days can be avoided each year if the US population takes probiotics

1.7_{days}

When people get flu-like sickness, on average they miss 1.7 days¹ of work

61_%

Taking probiotics can help reduce lost work days by 61%



Flu-like sickness poses a heavy burden on the healthcare system - it is frequent and it can be severe. Each year, flu-like sickness results in a high number of visits to primary care physicians (PCPs), prescriptions of antibiotics and lost working days.

The cost of flu-like sickness to the US economy is estimated to be \$11.2 billion²

¹ Palmer et. al. 2010 | ²Putri WCWS et al. Vaccine. 2018 Jun 22

Fewer visits to primary care physicians and fewer prescriptions

Flu-like sickness often comes with direct costs to healthcare payers:

- Visits to primary care physicians (PCPs)
- Cost of medicine

Taking probiotics can help reduce the direct costs related to flu-like sickness by 17% for US health care payers.



Estimated costs of flu-like sickness: \$3.2 billion direct medical costs each year³



Expected savings from fewer visits to PCPs and fewer prescriptions: \$501 million

Taking probiotics can help reduce antibiotic prescriptions by 30%⁴



2.2 million antibiotic courses can be avoided each year in the US if the population takes probiotics.

Antibiotic resistance is one of the biggest threats to global health, food security and development today, according to the World Health Organization.

Overuse of antibiotics can cause bacteria to become resistant, meaning current treatments will no longer work. This study provides further evidence of how probiotics and 'good bacteria' can respond to some of the world's biggest challenges.

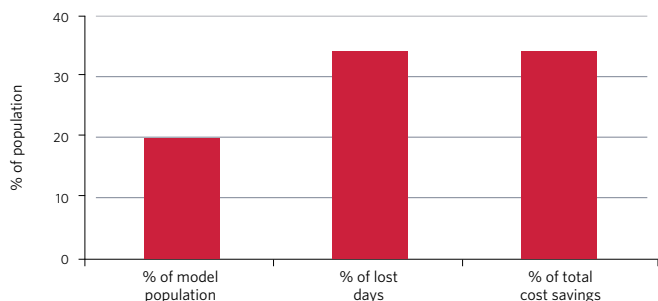
1/3 of antibiotics prescribed to treat flu-like sickness in the US are estimated to be redundant

CDC newsroom 2016

The impact of probiotics is higher in children

Children (aged 0-15) make up just below 20% of the population. However, taking probiotics can lead to proportionally higher savings in terms of lost days and total costs savings. Each of these make up 34% of the total reductions, respectively.

Children (aged 0-15)



Definition of flu-like sickness:

A fever (temperature of >100°F [37.8°C]) and a cough or a sore throat

Center for Disease Control and Prevention

About studies

The health economic study is sponsored by Chr. Hansen, conducted and reviewed by academic and industry experts. It is published in the Journal Frontiers in Pharmacology. The underlying data used in the study came from two independent reviews: York Health Economics Consortium (YHEC) and Cochrane.

³The Cochrane Collaboration, Hao, Dong and Wu, 2015 | ⁴Hao, Quikui 2015. "Probiotics for preventing acute upper respiratory tract infections." Cochrane database of systematic reviews. King, Sarah. 2014. "Effectiveness of probiotics on the duration of illness in healthy children and adults who develop common acute respiratory infectious conditions: A systematic review and meta-analysis." British journal of nutrition.