

Probiotic consumption makes economic sense

Many studies have shown that probiotic consumption can reduce the risk for respiratory tract infections (RTI) during the winter season. Two recent meta-analyses performed by the York Health Economics Consortium (YHEC) (King et al., 2014) and Cochrane (Hao et al., 2011) showed that probiotics can reduce the duration of RTI and their incidence. On the basis of these two meta-analyses, a recently published study calculated the economic impact of probiotic consumption (Lenoir-Wijnkoop et al., 2015). For the study, a model was created using data from France on the incidence of RTI as reported in a national database and the resources its treatment required for the 2011-2012 winter. This way, it was possible to calculate the economic cost-benefit of probiotic consumption for the French population with regard to RTI for the National Health Care System (NHCS), and also provide some insight in the consequences for society; even though not all costs were taken into account, and the family.

Using the more conservative YHEC data, for France, generalized probiotic use would save 2.4 million RTI-days, 291 000 antibiotic courses and 581 000 lost work days. Applying the Cochrane data, reductions were 6.6 million RTI days, 473 000 antibiotic courses and 1.5 million lost work days. From the NHCS perspective, probiotics' economic impact was calculated to be about €14.6 million saved using YHEC data and €37.7 million saved using Cochrane data. Proportionally higher savings were observed in children, active smokers and people with more frequent human contacts.

The study indicates that probiotic consumption not only has a beneficial effect on quality of life and general wellbeing, but can also contribute to substantial cost saving from a societal perspective. It is likely that the numbers presented here are conservative, not every RTI will be reported and registered as only a fraction of patients with RTI will consult a practitioner; *i.e.* incidence is higher and the potential for savings as well. Furthermore, the winter of 2011-2012 had a relatively mild RTI season. On the other hand, a portion of the French population already consumes probiotics and therefore already experiences the associated benefits. Different countries have different health care systems; by adapting the model used for France to apply it elsewhere, it can be calculated what the economic impact of probiotic consumption would be for other countries.

The study was sponsored by the Global Alliance for Probiotics (GAP). GAP recently joined forces with the Yogurt and Live fermented milks Association (YLFA) and the International Probiotic Organization (IPA) to form IPA Europe.

About the International Probiotics Association Europe:

The IPA Europe is the European branch of IPA founded by Dupont, Yakult, Chr-Hansen, Danone, Probi, Lallemand and IPA. Its objective is to improve the business environment and to advocate for the recognition of a clear status for probiotics according to FAO/WHO guidelines and recommendations in the EU.

Media Contact:

Bart Degeest

info@ipaeurope.org

- HAO, Q., LU, Z., DONG, B. R., HUANG, C. Q. & WU, T. 2011. Probiotics for preventing acute upper respiratory tract infections. *Cochrane Database Syst Rev*, CD006895.
- KING, S., GLANVILLE, J., SANDERS, M. E., FITZGERALD, A. & VARLEY, D. 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. *Br J Nutr*, 112, 41-54.
- LENOIR-WIJNKOOP, I., GERLIER, L., BRESSON, J. L., LE PEN, C. & BERDEAUX, G. 2015. Public health and budget impact of probiotics on common respiratory tract infections: a modelling study. *PLoS One*, 10, e0122765.