Diseases Tracked by Using Google Trends, Spain

To the Editor: We read the article by Pelat et al. (1) with great interest and decided to explore whether this tool could be applicable for non-English and non-French speaking countries and, more specifically, for Spain. We compared the Google queries related to influenza-like illness (ILI) and chickenpox described by Pelat et al. (1), and constructed additional queries with symptoms and conditions frequently associated with ILI.

The weekly queries from January 2004 through February 2009 were downloaded from Google Insights for Search (2). We studied the correlation (Spearman ρ) of these queries with the data from the national reporting of notifiable diseases, available from the Spanish National Epidemiology Center website (3), assuming a maximum difference of 4 weeks.

The queries for gripe (Spanish for influenza) showed a maximum correlation (ρ = 0.70) 2 weeks before the declared ILI (DILI). When excluding the terms for aviar (avian) and vacuna (vaccine), the correlation peak (ρ = 0.81) was likewise observable 2 weeks before the DILI. The maximum correlation observed for symptom queries was for tos (Spanish for cough) 2 weeks before the DILI (ρ = 0.74); for conditions associated with influenza the correlation was for neumonia (Spanish for pneumonia, accentuated or unaccented) 2 weeks after the DILI (ρ = 0.84). The queries for varicela (Spanish for chickenpox) showed a maximum correlation (ρ = 0.96) 1 week after the declared illness, as observed by Pelat et al (1).

In conclusion, our study points out the utility of Internet queries for the surveillance of ILI and chickenpox in Spain. In the case of ILI, this information can be used as an early warning tool used complementarily to standard surveillance systems. More detailed studies are necessary regarding the usefulness and limitations of this tool in Spain, as well as in other contexts.

Antonio Valdivia1 and Susana Monge-Corella1

Author affiliations: Hospital Universitario de La Princesa, Madrid, Spain (A. Valdivia); and Instituto de Salud Carlos III, Madrid (S. Monge-Corella).

DOI: 10.3201/eid1601.091308

References


Address for correspondence: Antonio Valdivia, c/Quevedo, nº 8, piso 1º C, Alcalá de Henares 28807 Spain; email: tonyvald@hotmail.com

1These authors contributed equally to this article.

Letters

Letters commenting on recent articles as well as letters reporting cases, outbreaks, or original research are welcome. Letters commenting on articles should contain no more than 300 words and 5 references; they are more likely to be published if submitted within 4 weeks of the original article’s publication. Letters reporting cases, outbreaks, or original research should contain no more than 800 words and 10 references. They may have 1 Figure or Table and should not be divided into sections. All letters should contain material not previously published and include a word count.