

Public health campaign associated with major reduction in antibiotic use

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A national public health campaign in France was associated with a marked reduction of unnecessary antibiotic prescriptions, particularly in children, says new research published in this week's open-access journal *PLoS Medicine*. The campaign, "Antibiotiques c'est pas automatique" (Antibiotics are not automatic), ran from 2002 to 2007 during the winter months when viral respiratory infections mainly occur. The campaign included an educational campaign for healthcare workers, the promotion of rapid tests for diagnosis of streptococcal infections, and a public information campaign about viral respiratory infections and about antibiotic resistance.

The researchers, led by Didier Guillemot at INSERM and Institut Pasteur in Paris, France, report that compared to the preintervention period (2000), the total number of antibiotic prescriptions per 100 inhabitants, adjusted for frequency of flu-like symptoms during the winter season, declined by more than 25% over 5 years. The decline occurred in all 22 regions of France and affected all classes of antibiotic except quinolones, say the researchers. The greatest decrease was observed among young children aged 6-11 years.

The authors note that because this is an ecological analysis, they cannot conclude that the campaign actually caused the reduction in antibiotic use. Other factors that may have been responsible for the observed reduction could include other initiatives in France and Belgium at the same time, or the introduction of a vaccine against *Streptococcus pneumoniae* during the study period.

In a commentary on the article, Benedikt Huttner and Stephan Harbarth (uninvolved in the research) say that this study "provides the largest and most sophisticated analysis published thus far correlating a nationwide public campaign to decreased antibiotic use over an extended period of time." Because reducing antibiotic use to avoid antibiotic resistance is so important, they argue, more longitudinal and modeling research to evaluate the impact of public health strategies is needed.

More information: Sabuncu E, David J, Berne`de-Bauduin C, Pe´pin S, Leroy M, et al. (2009) Significant Reduction of Antibiotic Use in the Community after a Nationwide Campaign in France, 2002. *PLoS Med* 6(6): e1000084. doi:10.1371/journal.pmed.1000084, medicine.plosjournals.org/per1..._journal.pmed.1000084

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