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LETTER

Letter to the editor

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It was with great interest that we noticed that other researchers are also interested in participant-collected nasal swabs to detect pathogens in acute respiratory infections, and we welcome the findings presented in the study by Vargas et al.[1]

Of importance is that already in the beginning of 2015, we showed in our research work that nasal self-sampling is feasible in large-scale surveillance of respiratory infections.[2] We developed a scheme for self-sampling with nasal swabs as part of the study of work environment and disease epidemiology-infections (SWEDE-I). This population-based, prospective study of work-related risk factors for transmission of viral infections was based on a study cohort of a random selection from the gainfully employed population of a medium-sized town in central Sweden. The cohort consisted of 2,237 men and women aged 25–63 years old, who reported all instances of respiratory tract infection or gastroenteritis from September 2011 to May 2012, and sent their self-sampled nasal swabs for analysis, by regular mail. A total of 1,843 samples were received and analyzed for 14 viruses. Of the samples received, 876 (47.5%; 95% confidence interval: 45.3% to 49.8%) were shown to contain at least one virus. The average weekly delay between disease onset and the arrival of the specimens at the laboratory varied between 4 and 6 days. The corresponding median delay was between 3.5 and 6 days. Picorna- and coronaviruses dominated in specimens obtained from the self-sampling scheme, which is in line with results from previous community-based studies. The self-sampling results were contrasted to those of the contemporaneous routine clinical sampling from the same age group, in the adjacent Stockholm county. Although higher proportions of positive samples for respiratory syncytial and influenza viruses were observed in the clinical sampling scheme, estimations of seasonality for influenza A and picornaviruses derived from both schemes were similar. Our findings show that nasal self-sampling is feasible in large-scale surveillance of respiratory infections, and opens up new prospects for population-based, virologically verified research on virus spread, burden of disease, and effects of environmental factors or interventions.

Disclosure

The authors report no conflicts of interest in this communication.

References

1. Vargas CY, Wang L, Castellanos de Belliard Y, et al. Pilot study of participant-collected nasal swabs for acute respiratory infections in a low-income, urban population. *Clin Epidemiol.* 2016;8:1–5.
2. Plymoth A, Rotzén-Östlund M, Zweygberg-Wirgart B, Sundin CG, Ploner A, Nyrén O, Linde A. Self-sampling for analysis of respiratory viruses in a large-scale epidemiological study in Sweden. *Euro Surveill.* 2015;20(11):pii 21063.

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