FLUTRACKING.NET SYNDROMIC SURVEILLANCE FOR INFLUENZA
A REALITY CHECK. NOT AN EARLY WARNING

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INTRODUCTION

Syndromic surveillance is promoted as providing early warning of disease outbreaks. However, its greatest value may be situational awareness and insight into biases of traditional methods. Flutracking is an Australia-New Zealand syndromic surveillance system that monitors influenza-like illness (ILI) in the community. Flutracking is the largest participatory-based surveillance system in the world. The weekly survey response is over 40,000 participants in Australia and 4,000 in New Zealand. Over 45,000 Australian participants completed at least one survey in 2018 (Figure 1).

Figure 1. Number of participants who completed at least one Flutracking survey.

CONTEXT AND AIM

Flutracking Australia demonstrated that increased laboratory testing during the 2009 pandemic gave an exaggerated perception of community attack rates. We aim to further demonstrate Flutracking’s value in situational awareness using 2017 data.

METHOD

We compared peak Australian Flutracking influenza-like illness activity and influenza laboratory notifications in 2009 and 2017.

FINDINGS

Approximately 12% of Flutracking participants experienced fever and cough for both 2009 and 2017. This compared to a threefold increase in laboratory notifications from 27,503 to 92,432 in the same time period (Figure 2).

Figure 2. Percentage of participants with ILI symptoms who completed at least one survey in the national peak flu weeks of 2009 compared to peak 4 weekly counts of notifications, 2017 to 2018, Australia.

Over the seven years that Flutracking has collected self-reported test results there has been a large increase in the percent of Flutracking participants with ILI having a self-reported test for influenza. In particular, there has been a 1.7 fold increase in 2017 compared to 2016, suggesting the increase in laboratory notifications was partly explained by increased testing (Figure 3). Based on increased testing among Flutrackers, we estimated a 75% increase in laboratory notifications from 2016 to 2017 (compared to an unadjusted 203% increase).

Figure 3. Average weekly percentage of Flutracking participants with fever and cough that were tested for influenza by State/territory, 2016 to 2017.

INNOVATIVE CONTRIBUTION TO POLICY, PRACTICE AND/OR RESEARCH

Flutracking assisted in interpreting laboratory notifications during 2009 and 2017 when there were significant laboratory testing changes. Both traditional and syndromic surveillance should be used to interpret influenza activity levels.

ACKNOWLEDGEMENTS

Our loyal Flutrackers!!!
The University of Newcastle
The Australian Government Department of Health
Hunter Medical Research Institute
Stephen Clarke
John Feja

REFERENCES

2×general FT reference
3. 2009 FT reference