Conclusion

We submit our results with Twitter data as a proof of concept of the feasibility and merit of using social networks for immunization surveillance. Advantages of using Twitter for immunization surveillance include that it provides real-time information. However, this information is self-reported, so some tweets may be unreliable or dishonest.

The correlation between total flu shot tweet volume and the final flu vaccination coverage percentage was strongly statistically significant. This suggests that Twitter data is able to predict the final flu season coverage percentage, in addition to flu vaccination rates.

Potential applications of this work involve analyzing public response to a late-season influenza spikes and whether vaccine rates spike correspondingly. Furthermore, understanding peak demand of vaccines is important for facilitating proper distribution of vaccines and minimizing the waste of unused and expired vaccines.