



## Letter to the Editor

**Response to “It could have been much worse: The Minnesota measles outbreak of 2017”**


The article published online in *Vaccine* on February 26, 2018 entitled “It could have been much worse: The Minnesota measles outbreak of 2017” [1], used immunization data accessible on the Minnesota Department of Health (MDH) website. This data is available publicly to encourage partnerships and to drive innovative analysis; however, there were some incorrect interpretations of the data that we would like to address. Additionally, the conclusions made about the measles outbreak and autism in the MN Somali community are based on inaccurate assumptions.

First, the authors state, “Autism spectrum disorders are more common in the Somali community” (p. 1808), referring to a prevalence study done in Sweden that included only 17 children. However, a more appropriate reference would have been the autism prevalence study on Minneapolis residents done at the University of Minnesota (U of M) in 2016 [2]. The U of M study found that there were no significant differences in the rates of autism between white and MN Somali children in Minneapolis. The MDH Somali outreach team and external partners have worked since 2008 to allay misguided fears about the MMR vaccine and autism. The authors reference the U of M study in the paper, however, not in the context of autism prevalence in this community. Statements about the prevalence of autism in the MN Somali community that do not reflect the complexity of the situation undermine the work of public health and could increase the fear responsible for perpetuating MMR hesitancy in the community.

Second, several details presented on the outbreak were not accurate. When the outbreak was officially declared over on August 25, 2017, preliminary data were made available that indicated 79 cases were investigated; however after final data cleaning and additional laboratory testing, 4 cases were dropped that did not meet the case definition. MDH published the updated data on our measles statistics website [3], with 75 cases confirmed for the outbreak total. As is typically the case with public health departments, all data are preliminary until after the end of a reporting year. In addition, the authors state that “...the outbreak mostly occurred as schools were out of session—an outbreak that had schools as an additional transmission location might have resulted in many more cases” (p. 1810). Actually, 74 of 75 cases occurred during the school year; only one case occurred after school was out, which was an adult. Schools were a minor transmission location; however, because of prompt public health response, only four cases resulted from school exposures. According to MDH’s Minnesota Immunization Information Connection (MIIC) data, vaccination rates in the MN Somali community indicate that the most susceptible age groups include toddlers and

preschoolers. The median age of all cases was 2 years, with 78% of cases resulting from exposures in childcare centers and households.

Third, the authors’ interpretation and understanding of the school immunization data is incomplete. They seem to interchange “schools” and “school districts,” and incorrectly suggest MN has “private school districts”. In addition, the authors state incorrectly that “State law requires that children aged 2 years or older receive the MMR vaccine...” (p. 1810). A more accurate statement is that all children 2 years or older, if enrolled in a licensed childcare center, early education program or school, need to have received MMR or have a legal exemption. The authors’ statement that “Better enforcement of MMR vaccine compliance in child care and schools could have a significant impact on preventing disease going forward...” (p. 1810) is misleading. MN law allows exemptions; therefore, better enforcement would not have improved immunization coverage.

Ultimately, the authors made broad conclusions about an outbreak based on simplified summary data overlaid with school-aged immunization data that does not reflect the community most at risk for measles in Minnesota. MDH, along with other states, post immunization and surveillance data to make it easily accessible to the public. However, it is important that users of the data reach out to the institutions and content experts to ensure proper interpretation, gain background knowledge, and understand the caveats of the information they are analyzing. Working with public health agencies in this fashion will help foster synergistic and innovative partnerships between public health agencies and academia, which will simultaneously improve public health practice and support novel analyses.

### Competing interests

All authors attest they meet the ICMJE criteria for authorship.

### Declarations of interest

None.

### References

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