

1204. Assessing Perceptions and Efficacy of COVID-19 Case and Contact Investigations – Dallas County, Texas, 2020

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Background. During 2020, a total of 193,318 cases of COVID-19 were reported in Dallas, with daily average case rates exceeding 50 per 100,000 for over 7 weeks. An adaptable survey functionality within a newly implemented COVID-19 surveillance system provided an opportunity to assess case knowledge and attitudes about isolation and contact tracing efforts.

Methods. COVID-19 illnesses were classified using the 2020 CSTE case definitions. Cases were interviewed and records reviewed for exposures and illness characteristics. Supplemental questionnaires assessing knowledge of public health recommendations were given to a convenience sample of 987 cases during the month of December 2020. Fishers exact and chi-square analyses were performed using SAS 9.4.

Results. Of the 987 respondents, 99% reported beginning isolation on or before receipt of test results, and 1% were not in isolation at the time of public health interview. Of cases reporting contacts, 92% had advised household members to quarantine prior to interview, and 91% did not want public health to call their household. Of cases reporting non-household close contacts, 75% had advised these contacts to quarantine prior to interview, and 91.3% did not want the health department to call these persons. Cases ≥ 65 years were less likely to have notified their own close contacts (OR: 0.2; 95% CI=0.1-0.8) of their test results, and more likely to prefer the health department to notify their household contacts of their positive result (OR: 4.1; 95% CI=1.3-12.5). Compared with White cases, Hispanic cases were less likely to be aware that their test was positive at the time of interview (OR: 0.3; 95% CI=0.1-0.7). Non-White cases were less likely to be aware of resources for food, rent and utility assistance prior to interview (OR: 0.25; 95% CI=0.1-0.7). All respondents perceived the public health interview to have been of some value to them, most often to answer their questions about retesting (51%) and duration of isolation (48%).

Conclusion. The aversion of a majority of COVID-19 cases for health department notification of their contacts is a significant deterrent to name-based contact tracing approaches. Acknowledgement of this limitation could better focus existing resources on the delivery of expedited notifications and information to contacts by proxy.

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1205. Vaccine Hesitancy in Paediatric Practice and Predictors of Physician-Reported Vaccine Compliance

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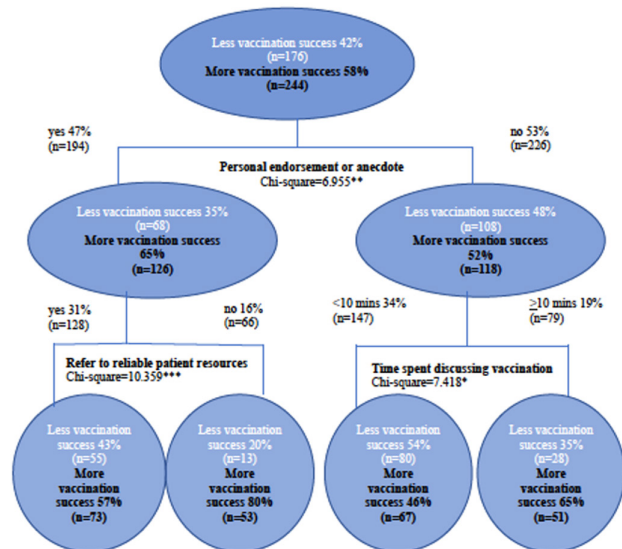
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Background. This study explores the frequency with which Canadian paediatricians encounter vaccine hesitancy in their clinical practice, the most common approaches to parent resistance, impact of hesitancy practice and predictors of physician-reported vaccine compliance.

Methods. This analysis used data collected from Canadian paediatricians and paediatric subspecialists via a one-time survey distributed by the Canadian Paediatric Surveillance Program in the fall of 2015. Descriptive analyses were conducted to determine the frequency of hesitancy, approaches to parent resistance and impact on clinical practice. A classification tree was generated to determine the most important predictors of physician-reported vaccine compliance.

Results. A total of 669 paediatricians completed the survey. Eighty-nine percent (n=588) of respondents indicated they had encountered hesitancy in their practice, with the top concerns including: Autism, too many vaccines, risk of a weakened immune system, and vaccine additives. The most common responses to parent resistance included discussing risks of non-vaccination, restating the vaccine recommendation and referring to reliable patient resources. Forty-five percent (n=301) of physicians indicated that hesitancy impacted their practice. Overall, the best predictor of physician-reported vaccine compliance was the use of a personal endorsement or anecdote ($\chi^2=6.955, df=1, adj.p<0.01$). Among physicians who did not use a personal endorsement, the next best predictor of vaccine compliance was spending 10 minutes or more discussing vaccination ($\chi^2=7.418, df=1, adj.p<0.05$).

Figure 1 Physician-reported vaccination success among parents who expressed concerns about vaccination (n=420)



Conclusion. This study contributes to a nascent body of literature related to paediatricians' experience with vaccine hesitancy in a Canadian context, particularly as it relates to the impact of hesitancy on practice. This study demonstrates the ubiquity of hesitancy in clinical practice, the profound impact of hesitancy on paediatricians and highlights promising responses to parental hesitancy that may improve vaccine compliance. Future research should explore potential hesitancy interventions including using a personal endorsement and prolonged engagement using more rigorous methods of evaluation.

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1206. Effects of Climatic Variability on Lyme Disease Outbreaks in California

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Background. Climate change has increased the risk of tick borne infections. The life cycle and prevalence of deer ticks are strongly influenced by temperature. Warmer temperatures associated with climate change are projected to increase the range of suitable tick habitats driving the spread of Lyme disease (LD). Short winters could also increase tick activity increasing the risk of exposure. This study examines the relationship between LD incidence and temperature-precipitation and their anomalies in CA counties.

Methods. Trends and relationships of Lyme Disease (LD) cases and climatic factors were analyzed among the California counties from 2000 to 2019. Lyme disease tabulate data and climatic data were obtained from Centers for Disease Control, and NOAA, and Climate Data Guide respectively. Canonical correspondence analysis (CCA) was performed using variables: (i) LD cases, (ii) precipitation & anomaly, and temperature & anomaly. The CCA ordination explained the variability between LD cases and climatic variables. Biplots were used to visualize the associations between LD cases and climatic anomalies.

Results. We compared the countywide LD cases in relation to climatic factors in California from 2000 to 2019. A total of 96 cases in 2000, 117 cases in 2009, and 144 cases in 2019 were reported in the 55 counties of California. Santa Clara reported the highest LD cases in 2003 (23 cases; 16%), followed by Los Angeles in 2013 (20 cases; 18%) and Santa Cruz in 2017 (19 cases; 13%). CCA ordination showed distinguishable clustering patterns between southern California counties (Santa Clara, Santa Cruz, Alameda, and San Diego) and northern coast and Klamath mountains range (Humboldt, Trinity, Shasta, and Siskiyou) regions (Fig. 1). Moderate mean annual