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Study Limitations

Study findings should be interpreted in the context of limitations. These limitations include time constraints, participant incentive structure, reliance on self-reported data, the retrospective nature of this study, and the large amount of public health workforce turnover. Importantly, these limitations were beyond the study team's control. Study design elements, including methodological approach and sampling and recruitment strategies, were used to counteract these limitations to the extent possible. These limitations are described in detail below.

Overarching Limitation

Time Constraint

The time constraint was the largest limitation of this report. The study team had 4.5 months to collect additional data for educational sector informants and analyze all of the data necessary to answer the research questions for Report 2. The accelerated timeline of this study impacted both primary and secondary data collection methods.

Primary Data Collection

The rapid study timeline for both Report 1 and 2 prohibited the study team to be exhaustive of all key informants involved in Oregon's Public Health System Response to the COVID-19 pandemic. As the study team could not collect data from each individual or entity involved in Oregon's PUblic Health System Response in schools, stratified sampling was utilized for ESDs and SDs.

Although Report 2 intended to include Protection Oregon Farmworker grantees as a key informant group, this informant group will be discussed and analyzed in Report 3. This additional time will allow Rede to receive grant reporting summaries and information from other informants who supported migrant and seasonal farmworker communities during the COVID-19 pandemic and ultimately, create a more complete picture.

Incentives

Despite the fact that the RFP stated a not to exceed the amount of $70,000 allocated for participant incentives, OHA would not allow specific study informant groups, including ESDs, SDs, Principals, School Nurses, Labor Unions, and Health Care Associations to be compensated for their time spent participating in data collection activities (e.g., focus groups and interviews). Additionally, the overall incentive amounts were relatively low for the time associated with participating in this study. Assuredly, response rates, for ESDs, SDs, Principals, and School Nurses, were impacted by the lack of incentivization for survey completion.

OHA provided incentives for this study to community-based organization representatives through reimbursement of $40/hour for the interview and focus group participation. Travel costs for CBO representatives, LPHAs, and Tribes/NARA representatives were available at current General Services Administration rates and in accordance with all OHA travel reimbursement policies however, no travel was required for participants in this study. In some instances, participants were frustrated that compensation would not be provided.

Self-report

Reliance on self-report is a limitation of this study. Although qualitative findings provide information-rich data, there is a chance that social desirability bias is present. In an effort to reduce the impact of social desirability bias on participants' responses, the study team reassured all participants of the confidential nature of this study. Self-report is also a potential limitation of survey responses.

Retrospective Recall

Although unavoidable, the retrospective nature of this study is a key limitation of this study. The use of the COVID-19 Stages Graphic was intended to help participants visualize response over time and aid in recall.

Public Health Workforce Turnover

Public health workforce turnover is another substantial limitation of this study. Many informants with historical knowledge of Oregon's public health response to the COVID-19 pandemic exited at some point during the response. In turn, this impacted the study team's ability to recruit key informants with extensive knowledge of their organization's public health response.

School Informant Group Survey Sample Sizes

Surveys were sent to school principals, school nurses, school district (SD) superintendents, and educational service district (ESD) superintendents. Response rates ranged depending on the informant group and the sampling methodology. Eight out of 19 ESDs responded, a sample size of 42%. Seventy-one out of 201 SDs responded, a sample size of 35%. There are approximately 1,160 school principals in Oregon and 171 principals completed the survey, which is a sample size of 15%. According to a 2020 report from ODE, there were 376 FTE of nurses reported statewide[1]. Seventy-four nurses submitted completed surveys, for an approximate response rate of 20%. All four surveys included representation from all five regions of Oregon.

Secondary Data Collection

Using COVID-19 Data to Determine the Efficacy of Statewide Public Health Mandate Enforcement

One of the study questions from SB 1554 (2020) was to "compare health and health system data, including COVID-19 positivity rates, rates of COVID-19 infection, hospital capacity, and other core metrics with the efficacy of statewide public health mandate enforcement." Limitations in the enforcement of public health mandates in Oregon are documented in Report 1. Challenges included a complaint driven system, multiple agencies being responsible for enforcement,

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[1] Oregon Department of Education (2020). *2020 Nursing Services in Oregon Public Schools.* https://www.oregon.gov/ode/students-and-family/healthsafety/SiteAssets/Pages/School-Nurses-Annual-Report/2020%20School%20Nursing%20Report.pdf

variations in enforcement in different regions of the state, and weak statutory or regulatory authority for public health mandate enforcement. These limitations, in combination with a lack of data on the enforcement of public health mandates in Oregon made it impossible to examine the association between COVID-19 public health mandate enforcement and COVID-19 outcomes (such as case counts, mortality, or hospital capacity).