Analysis of Student Roles in COVID-19 Contact Tracing and Case Investigation Efforts

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Background

In December of 2019, Coronavirus disease 2019 (COVID-19) was first identified in Wuhan, China and would be marked as the beginning of the COVID-19 pandemic. COVID-19 is caused by the SARS-CoV-2 virus and is most transmitted via person to person through exposure to respiratory droplets. The Center for Disease Control and Prevention issued an agency-wide response that involved several guidelines for local Health Departments to implement disease tracking strategies to mitigate the spread of the virus. The practice of contact tracing has been continuously supported as a procedure for the control of low-prevalence infectious diseases by identifying individuals who may have been exposed to a person with suspected or confirmed infection of a pathogen. In the COVID-19 response, the 'contacts' of confirmed COVID-19 cases were referred by public health authorities to isolate or quarantine themselves during their possible infectious period. In April of 2020, Mercer University's Department of Public Health informed their Master of Public Health student body of the opportunities for contact tracing roles. Since then, 18 students have participated in contact tracing across Georgia. Some students have used these opportunities for practicum completion, and some as part-time positions. This has contributed to workforce capacity building for contact tracing efforts in multiple locations in the US.

Purpose

The purpose of this research was to gain better understanding of the extent of the students' contributions to COVID-19 contact tracing and case investigation efforts.

Research Design

1) In preparation for the survey development, a meta-analysis was first conducted where we gathered information on contact tracing. In this analysis, we looked at both federal guidance and information provided by the Center for Disease Control and Prevention (CDC), as well as, published research on various Contact Tracing initiatives across the country. For this meta-analysis, we examined the CDC's response to the COVID-19 pandemic, and their recommendations for the contact tracing process. We also examined the CDC's contact tracing process. We also examined multiple published research articles on various Contact Tracing initiatives across the country. For this, we examined the location and efficacy of each program, as well as the impact of each program on pandemic response for the states.
2) After the meta-analysis, we developed a survey to gather information on the perspective of the student contact tracers in the Master of Public Health program. Surveys were distributed to the students that were identified as contact tracers to identify their role and level of preparation.

Research Design

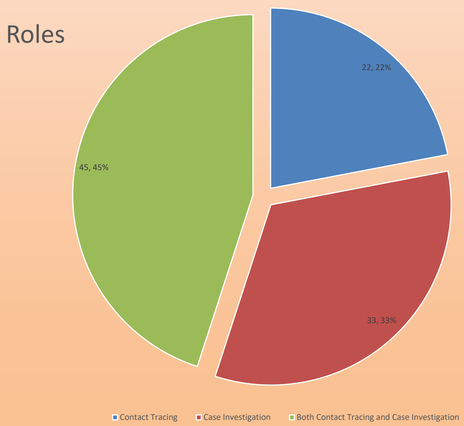
Survey Criteria

1) The survey focused on the student's program experience as contact tracers, as well as, gained demographic information.
2) Prior to filling out the survey, the students completed a consent agreement.
3) Demographic questions asked the students to indicate the organization each student was employed with, their position, contact tracer or case investigator, and what district they covered. Demographic questions also asked the students to specify if they participated in the COVID-19 contact tracing initiative for practicum requirements, service requirements, or as a full-time/part-time employment position.
4) Program experience questions asked the students to explain their specific job duties, notable lessons, and any pertinent information related to their experience in the program. Questions in this section also required students to explain their perception of their contribution to their position, the organization they were employed with, and the national COVID-19 pandemic response. Other questions included those focusing on potential improvements to the initiative, personal effects of the program, and Mercer's role in preparing students for this position.
5) The information gathered from the meta-analysis and surveys allowed us to gather both student experience, as well as information on the potential effectiveness of the initiative, and the student's contribution to pandemic response.
6) Once this information was gathered, we conducted a qualitative analysis to draw inferences and conclusions on the student experience and contribution to the COVID-19 pandemic response.

Results

Reported Roles:

Contact Tracing – 22%
Case Investigation – 33%
Case Investigation and Contact Tracing: 45%



Results

18 students were included in the survey.
The survey had a 50% response rate.
Duties Listed:

1. Contacting people that may have been exposed to COVID-19
2. Phone interview with COVID Positive individual to assess history of disease
3. Provide Educational information on community resources that will provide economic assistance or food assistance, if needed
4. List CDC recommendations on self-isolation, social distancing and locations on where to get COVID tested.

Discussion

There is an opportunity to add infectious disease track to the MPH and BSPH curriculum.

Communication difficulty was identified in 75% of the survey responses.

Sources of miscommunication included rapidly changing recommendations about COVID-19, changes to policy, location, enforcement of policy, and personal attitudes, beliefs, and behaviors of citizens being contacted.

The MPH program has an opportunity to prepare students for pandemic response through partnerships with public health organizations.

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