

A) Problem and Program Overview

In Spring 2020, all New York State (NYS) K-12 schools were closed and moved to remote education due to the ongoing COVID-19 pandemic.¹ The Ithaca City School District (ICSD) created a reopening plan to be implemented for safe return to in-person education (hybrid method) for the Fall 2020-2021 academic year.² The school district's reopening plan is based on four pillars: culture, social-emotional and academic learning, physical and environmental health and safety, and communication.³ Within these pillars, the reopening plan highlights several activities needed to create a healthy and safe environment for students and staff.³ According to guidance from the Centers for Disease Control and Prevention organization (CDC) and NYS Department of Health (DOH), schools can reopen for in-person classes, only if effective daily screening and reporting (including testing) procedures and protocols are put in place.^{3,4,5} ICSD has implemented these required reopening activities;³ however, a monitoring and evaluation plan is needed to track and assess the results or outcomes of these screening and reporting activities throughout the current academic year.

Ithaca City School District has almost a population of 67,000, including all the residents, K-12 and college students, teachers, and other staff working in the school district, with 24,400 households.⁶ For the 2020 to 2021 school year, there are 12 public schools in ICSD. More specifically, 1,711 are attending high school students, 1,285 students are attending middle schools, 3,921 students are in elementary School, and 1,947 are preschool students.⁷ Minority- student enrollment is 35%, with the majority of this group being Asian and Black.⁷ Approximately 450 teachers work for the district alongside 200 paraprofessionals and 100 leadership and administration staff.^{6,7} For this project, we will be using the term *school members* as a collective term that includes all ICSD teachers, students, administrators, aides, bus drivers, food service, and clerical staff. The reopening plan's ultimate goal is to maintain a low number of COVID-19 cases within the ICSD to establish a safe-return to an in-person schooling environment where COVID-19 transmission and exposure are minimal for the 2020-2021 academic year.³

B) Program Description

The reopening plan's ultimate objective is to maintain a low number of COVID-19 cases within the ICSD to establish a safe-return to an in-person schooling environment where COVID-19 transmission and exposure are minimal for the 2020-

2021 academic year (a daily infection rate of 5% or lower over a 14-day average).^{1,3} An integral part of this plan will be implementing effective screening and reporting efforts to ensure early detection and quick reporting of COVID-19 cases within the school community.³ Cooperation and collaboration between the ICSD Wellness team and partners, such as with Cayuga Medical Centre (CMC) and Tompkins County Health Department (TCHD),^{2,3} are essential to ensure schools reopen based on the most appropriate and safe, yet effective measures for students and staff members. The focus of our group project is to propose an evaluation plan to support the COVID-19 screening and reporting activities related to the in-person/hybrid learning Fall 2020 reopening plan of ICSD in Tompkins County, NY (Figure 1). Screening and reporting measures are outlined and implemented as indicated or advised by the NYSDOH or CDC mandates and guidelines.^{1,4,5}

"At-risk" individuals for COVID-19 symptoms or exposure will be detected using a robust screening system to prevent them from spreading the virus.^{2,3} As required by Governor Andrew Cuomo and NYSDOH mandates, methods for daily screenings for K-12 school members are needed for schools to reopen in-person instruction.^{1,2} Staff and parents or guardians of students will need to respond to daily screenings either remotely (electronic survey, digital application, or telephone) or at School (nurse's office) before reporting to any school activities – assuming asymptomatic persons are not infectious.² To identify a daily list of "at-risk" or "flagged" school members (symptomatic or those exposed/potentially exposed), both the remote daily screening system and school nurses will create a daily report.^{2,3} For those "at-risk" individuals identified by the digital screening platform, referrals, and access to Telehealth operators will be provided. School nurses will follow up with those "flagged" individuals and provide guidance and next action steps.² This list will be conducted assuming staff, parents, or guardians have filled out the daily screening correctly and truthfully e.g., temperatures are measured with a thermometer. Another underlying assumption is that Telehealth operators are trained and provide correct next steps and advise those seeking it. Furthermore, bus drivers will be assigned a handheld infrared thermometer to screen the students' temperature (below 100.0°F) before getting onto the bus to improve the screening process³ – assuming the thermometer is used correctly.

At the reporting stage, ICSD – in coordination with CMC and TCHD – wants to maintain a daily infection rate of 5% or less over a 14-day period to prevent schools from closing, as directed by the CDC and NYSDOH.^{1,2,5} To reduce transmission of the virus, a highly effective and sustainable reporting system is needed. This will be achieved through two levels - reporting within ICSD and reporting to TCHD and CMC. Within ICSD, a safe, inclusive, and comfortable

environment for all community members will be created, where individuals can express concerns, ask questions, and provide feedback through various channels such as the online *Let's Talk* communication platform (connected to administrative and leadership staff), as well as attending regular town hall meetings.^{3,5,8} Furthermore, ICSD nurses or Telehealth operators will advise the "flagged" members on quarantine and isolation protocols as mandated by NYS DOH.^{1,2,3} A list of school members who are safe to return to School – need a doctor confirmation letter – such as after quarantine or a negative test result, will be created.² Some assumptions include assuming that all test results are 100% accurate, infected people are not infectious after quarantine, and people are abiding by the quarantine expectations and regulations, such as outside human interactions. At the outside level, ICSD will advise and strongly encourage individuals to get tested for COVID-19 before in-person instruction starts, as well as for those "at-risk" individuals. Tests will be conducted by CMC.³ Additionally, tested members will be encouraged or expected to comply with contact-tracing procedures led by CMC and TCHD.^{2,3}

Both the screening and reporting stages of the Logic Model (Figure 1) are based on two main community-level behavioral change theories: Community Organization Model and Social Norms Theory. The Community Organization Model is used throughout the Logic Model, with emphasis on community involvement and empowerment. The weekly town hall meetings and the *Let's Talk* online communication platform are two of the key components where the community has the opportunity to not only voice their questions and concerns surrounding COVID-19, but also gain valuable knowledge about related issues. It's vital that the school members complete the daily screening check-ins, to understand how COVID-19 is impacting the schools. The school members' participation in these check-ins provides the schools with insight on who is eligible to return to the school, as well as those who should remain home, thus contributing to the overall goal of maintaining low cases of COVID-19. However, due to the community organization model is voluntary by nature, the leaders and organizers might face the challenges of lacking empowerment and enforcement in collaboration and cooperation among the school members. The Social Norm Theory is also quite evident throughout the Logic Model, especially in terms of establishing a "new normal" with regards to COVID-19. Once again, the town hall meetings and the *Let's Talk* platform will help diminish incorrect preconceived notions about the virus, leading to the increase in behavior and thought processes that will ultimately keep COVID-19 cases low. A potential limitation of the Social Norm Theory is the possibility that the school members might already have some misperceptions about the COVID-19 outbreak and health and safety during a pandemic

before any town hall meetings or the *Let's Talk* platform are held. Through these theories, the importance of community engagement and their perspectives heavily contribute to the impact of COVID-19 on their communities.

Some external factors that could impact the School's reopening involve the CMC systems becoming overwhelmed or crashing, thus impacting screening procedures and the availability of testing results. The upcoming flu and winter season may increase COVID-19 cases and possibly lead to co-infections.⁹ Also, the speed and effectiveness of testing (to identify an infected person) and reporting back relies on TCHD and CMC. Lastly, the case count in NYS will affect the possibility of school closures - help control for another outbreak - thus affecting our COVID-19 screening and reporting procedures.^{1,10}

Based on the Logic Model and the main goal of the reopening plan, our evaluation of the plan will focus on the implementation of activities and processes used to reach specific outcomes. We will evaluate the following activities: 1) filling out of the daily screening questionnaire, 2) evaluation of "at-risk" individuals by school nurses, 3) access to telehealth, 4) dissemination of protocols, and 5) *Let's Talk* and town halls as communication platforms. The pathways from these activities, including the proper outputs to achieve the short- and medium-term outcomes, will be evaluated, which include: 1) compliance from school members to fill out the daily screening, 2) 99% of school members flagged as "at-risk" from COVID-19, 3) return to a low COVID-19 transmission schooling environment, 4) maintaining a low COVID-19 infection rate, 5) creation of inclusive, open and comfortable communication platforms, 6) early detection of possible COVID-19 cases and quick response by different systems, and 7) effective communication within the school district and its members and healthcare providers. Key findings during the evaluation process will help improve the plan along the Fall 2020 semester since the plan has only recently been put into effect and has not yet met any intermediate objectives.

The Logic Model, seen below, depicts the different modes of actions, events, and tools (activities) that will take place to maintain low COVID-19 cases for the 2020-2021 school year within ICSD. The two major inputs of the Logic Model are screening and reporting. Depending upon how successful screening and reporting activities are conducted, we will be provided with an understanding of how COVID-19 impacts the ICSD community directly, as well as indirectly. The byproducts of these activities are the outputs, which include specific services that will be carried out by the program, which will help ensure the school community's health and safety during the current pandemic. Lastly, the outcomes, short-term, medium-term, and long-term, account for the expected changes that may arise with ICSD school members, and parents based upon the program's activities.

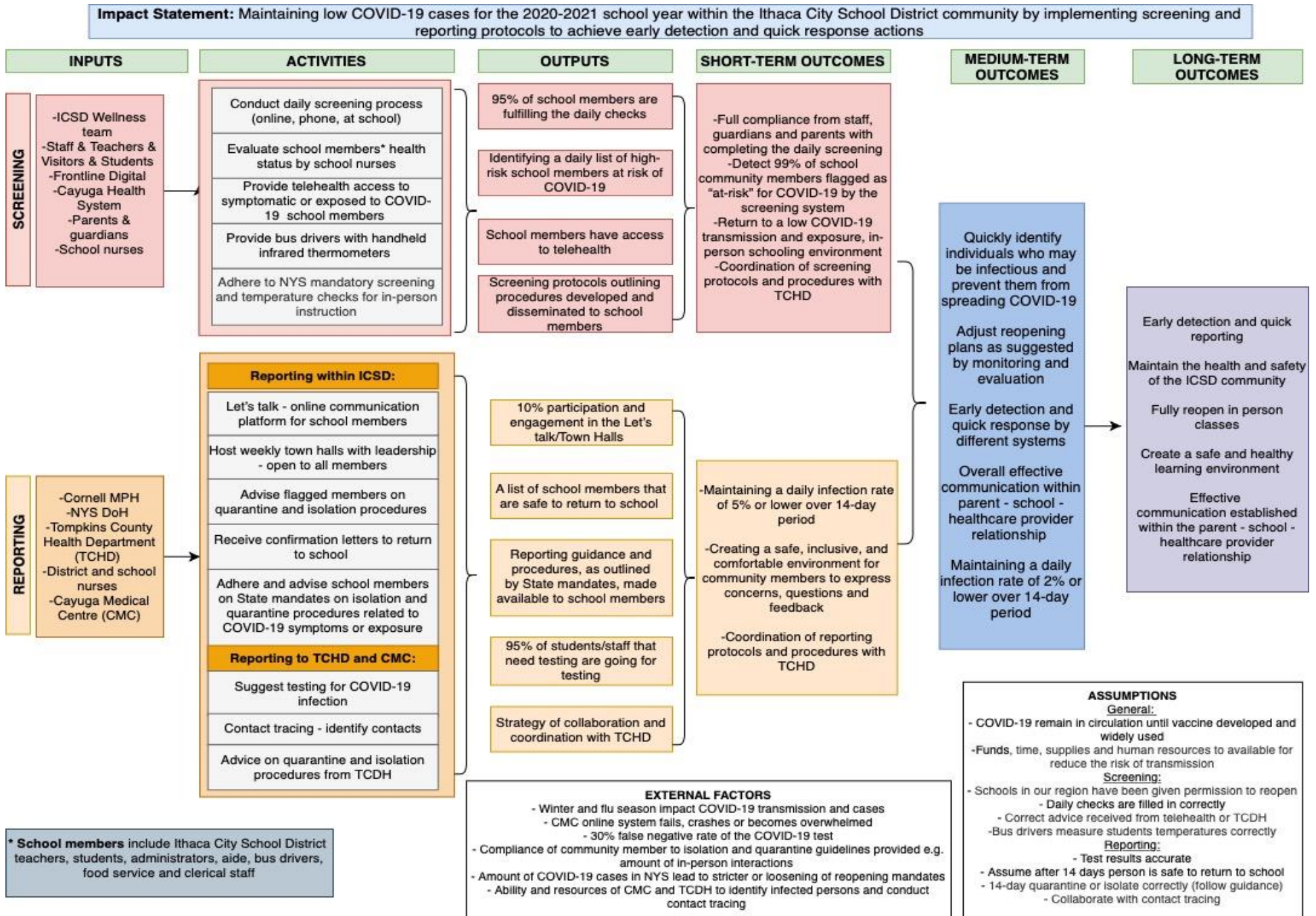


Figure 1. A Logic Model including the inputs, activities, outputs, and outcomes of the ICSD reopening plan with the impact statement, assumptions, and external factors that might affect the implementation and outcomes of the program.

C) Evaluation Purpose

As stated above, the evaluation plan aims to help the school district to achieve their main goal of the reopening plan, thus specific implementation and process activities and outputs will need to be evaluated to improve the plan throughout the coming semester.^{1,2} Therefore, the type of evaluation plan we will utilize is process evaluation, which will ensure that the Logic Model's (Figure 1) ongoing programs and activities are operating as intended.^{11,12,13} In addition, this type of evaluation will prioritize improving or strengthening the ICSD reopening plan and its activities.^{2,11} As previously stated, information gained from this program will help establish a more concise and productive plan.^{11,12} The reopening plan for ICSD will be evaluated monthly for the Fall 2020 semester.

In this school-based evaluation program, process evaluation can identify the change of behavior, demonstrate the program implementation's effectiveness, provide feedback of the program (or the reopening plan in this case) from participants, which will facilitate better achievement of outcome goals (Figure 1).¹⁴ Another evaluation program regarding implementing a new plan and policy to ensure the health and safety of a community during the COVID-19 pandemic, has shown that process evaluation can include a mixed-methods approach - meaning that both quantitative data and qualitative data can be used when conducting process evaluations.¹⁵ This is also the theoretical basis of the data types we plan to use in our evaluation program of the ICSD reopening plan.

In order to better focus and structure our evaluation plan, formative evaluation questions will be proposed to articulate the main issues that we want to explore and assess.^{12,16} These questions will guide the planning process and inform how the results will be incorporated back into planning and implementation to improve the plan.^{12,13} The questions are divided into two categories: the screening stage and the reporting stage. The screening section's questions include: 1) *Did 95% or more community members fill out the daily screening questionnaire?* 2) *Has a daily "at-risk" members list been compiled and were further steps communicated and granted access to them such as telehealth?* and, 3) *Has the screening protocols been disseminated to all school members?* Questions for the reporting section include: 1) *Has a 5% or lower COVID infection rate been maintained over 14 days?* and, 2) *Are community members actively communicating and engaging with district leadership about their questions and concerns?*

Therefore, in summary, the evaluation helps identify the interventions that need improvement to achieve the goal of the ICSD reopening plan. Through early detection and quick response actions to possible "at-risk" of COVID-19

individuals, a low number of COVID-19 cases within the ICSD can be ensured, as well as decrease the risk or transmission of COVID-19 to other school members. Furthermore, this evaluation plan can help determine the effectiveness of the current interventions or activities the schools have implemented, and possibly identify some disadvantages or limitations of the screening and reporting domains that need to be accounted for. Since the ultimate goal of the reopening plan is to maintain a COVID-19 incidence rate of less than 5% over a 14-day period (on average), the key evaluation findings will aid in improving these activities to help limit the exposure of this infectious disease in order to create a safe and healthy return-to-school environment. The adoption of this evaluation plan will lead to a long term goal of eventually reopening in-person schooling in the Spring 2021 semester. School members will also learn more about how to control an infectious disease outbreak which they can apply in future to combat any outbreak that might impact the district again. Lastly, our evaluation plan can serve as a model plan for other school districts in Tompkins County and surrounding counties to evaluate their own reopening plan during the ongoing COVID-19 pandemic, which could lead to maintaining a safe and healthy population within the Southern Tier, NY.

D) Evaluation Methods

A non-experimental member survey design will be used seeing as it is most suitable for measuring and evaluating processes while implementing the interventions or plan. Furthermore, this type of study is usually observational and descriptive, aligning with the school reopening plan's implementation.¹¹ As a retrospective study, the design aims to evaluate the carried-out activities and their respective outputs; measure the implementation of the activities at different stages of the plan, and make improvements and adjustments as the plan is carried out. Through a member survey design, we directly collect answers and gather information by querying the targeted members. For instance, a questionnaire will be distributed either in paper form or online every month, to collect information on the activities implemented, possible concerns about the School reopening and the strategies taken during the past month. Questionnaires are designed separately, catering to the population's different identities to obtain more accurate and precise information. A mixed-methods approach will be taken (as mentioned in the above Evaluation Purpose section), composed of both qualitative and quantitative. We will include the ranking variables for quantitative methods to measure the plan's satisfaction, numbers of infection cases, "at-risk"

individuals, and community engagement. For qualitative methods, nominal variables will be used to evaluate the implementations, behaviors, attitudes, and concerns.

The observed population in the evaluation are the school members of ICSD - teachers, students, administrators, aides, bus drivers, food service, and clerical staff (those required to fill out the daily screening questionnaire). A comparison between students, staff and parents regarding screening and reporting data will be made to understand if there are possible issues under a specific school member group that needs to be addressed. Furthermore, the data collected every month will be compared to the previous months to see if the recommended evaluation adjustments helped achieve the short-term and medium-term outcomes (Figure 1). An important comparison is that of the COVID-19 infection rate between the monthly data collections seeing an upwards trend of positive cases might be observed that needs drastic intervention implementations.

Indicators and developing data collection methods

Below are five evaluation questions that will help focus and guide the evaluation process as well as the reopening plan itself. These questions help to define the change we are trying to make, what data to collect (and how to collect it), how to analyze and how to report it. The five questions will be helpful to answer the following overarching questions: 1) Are all ICSD school members adequately reached by and involved in activities as outlined in the Logic Model? 2) Are there factors outside of the plan that have contributed to/prevented the change in health behavior? and 3) Does the reopening plan reflect the needs of the community while simultaneously adhering to state mandates and guidelines from the CDC?

Questions are divided by either Screening or Reporting. Under each question, different title points are listed and discussed: indicators, time period, existing data, and new data.

SCREENING

Question 1: Did 95% or more community members fill out the daily screening questionnaire?

Indicators: Quantitative indicator - 95% rate of daily screening questionnaire completed by each group under the school member population (students and staff)

Time: The data will be collected daily as it is required for each school member attending school in-person or remotely to complete the screening questionnaire. If the daily screening is not completed, these individuals will be required to stay home to limit the risk they may possibly pose to others.

Existing data: The members who have or have not filled out the questionnaires are already gathered and by the Frontline Technologies Group - setup and run the online daily screening questionnaire. This organisation distributes a daily report to ICSD thus data can be collected from them directly or from ICSD. Furthermore, individuals who complete the questionnaire at the School, are collected by the nurse who adds the information directly on the system.

New data and instrument: No new data is needed. The number of questionnaire completion divided by the total number of members who should fill out the questionnaire will be calculated and reported to the school and school district leadership. A survey will be disseminated to all school members every month at either the School, sent online via email or posted on the district's school website (Appendix 1). Members will have one week to complete it. The data will be directly calculated for the daily questionnaire completion rate as presented by Frontline Technologies Group as well as for the survey in order to evaluate whether 95% or higher/lower completion of completing the daily questionnaire is reached. The data can also help identify the members who cannot or are not permitted to return to School which can be added to the "at-risk" member list (below Question 3). Additionally, the data can help identify possible gaps with completing the screening which will guide the changes in the reopening plan as well as the efficacy of the different modes of screening (electronically, at School, telephone). This can also act as an early warning system, where patterns can quickly be observed and acted upon. The evaluation aims to identify the cases early, minimize the cases, and keep members safe from COVID-19. All will undergo statistical analysis which will be reported visually in a document format to all school leaderships.

We expect a difference will occur in filling out the daily screening questionnaire between the different school members for example, parents and guardians are responsible for students to complete the screening everyday where some might not check if students did and some school members might not have access to the internet or transportation to School (hardcopy screening at School). Thus, to effectively ensure that the differences in screening data among school members is low to none, it is important that screening data is also closely examined under each school member group. Analysis of data will therefore be presented as total school members as well as divide it under the different school member groups to better identify if an issue would arise.

Question 2: Has a daily "at-risk" members list been compiled and were further steps communicated and granted access to them such as telehealth?

Indicators: Qualitative and quantitative indicators - Number of members who are "at-risk", Questions, concerns and feedback that school members will answer through survey, Town Halls, and *Let's Talk* forum.

Time and existing data: Completing the daily screening questionnaire before that day's instruction starts, is required for all school members as mandated by ICSD. The "at-risk" members list is created daily by Frontline (as "flagged" by their system based on school members' answers to the daily screening questionnaire) and the school nurses who update the list as in-person or telephone screenings are being conducted throughout the day. This list is also reported to the school and district leadership, daily. We will collect this data from ICSD (spreadsheet) and Frontline on a monthly basis to ensure that the screening for "at-risk" and return of individuals are done correctly and promptly by ICSD through their screening systems. The second indicator will also be collected monthly through the survey (explained below) and communication platforms (Appendix 1 and 2). This is an important indicator that helps to identify whether isolation and quarantine protocols were properly communicated and to avoid miscommunication or any misunderstandings which could lead to an unsafe and unhealthy in-person schooling environment.

New data and instrument:

1. The "at risk" member list: The "at risk" member list helps early identification of people who might be at risk of becoming/is infected with COVID-19 and ensures the safety of members at School (reduce transmission). The "at risk" member list will be created based on the daily screening of members who indicated possible COVID-19 infection symptoms or possible close-contact as gathered by the Frontline digital system, or through the additional screening measures conducted at School as observed by teachers, bus drivers, school members themselves and nurses (will be added to ICSD system). Also, we will collect this list from both ICSD and Frontline on a monthly basis to ensure that a daily list was created properly.

2. A survey will be developed and disseminated to identified individuals every month to determine whether further steps were communicated to them after they were "flagged" as "at-risk". The answers to the survey questions will be analyzed within a week of obtaining the completed surveys (Appendix 1).

These answers can evaluate whether "at-risk" members were granted access to health services, instructions and suggestions on isolation, quarantine, how to protect and treat themselves to ensure a good health outcome (Appendix 1). Collecting these data will help ICSD leadership to recognize possible issues with the screening process and under which school member group, which will help guide them to adjust the reopening plan to meet the community needs. The data collection method is based on the *Community Organisation Model*, where collective action of the community is informing and driving the adjustments to the reopening plan.

Question 3: Has the screening protocols been disseminated to all school members?

Indicators: Qualitative and quantitative indicators - Questions that school members will answer through surveys, which addresses how responsive they are to screening protocols, Responses to questions answered by school members regarding screening protocols within Town Halls and *Let's Talk* forum, School and school district leadership response actions to "at-risk" students based upon screening data collected by Frontline Technologies Group.

Time: A survey will be disseminated every month to all school members to determine whether every school member can access the screening protocols throughout the semester, which will facilitate the successful implementation of the screening stage (Appendix 1). ICSD collects data weekly from *Let's Talk* and during/after every Town hall meeting. We will collect data regarding screening protocols monthly from ICSD (Appendix 2).

Existing data: The screening protocols posted through multiple communication channels, such as the school district website, via email, text notifications and paper hand-outs. Also, school members post on *Let's Talk* as well as pose questions, concerns and feedback during Town Halls about the screening protocols which are collected by ICSD leadership.

New data and instrument: A survey will be disseminated monthly to ICSD school members that will answer questions regarding access to screening protocols (Appendix 1). Further, we will extract data from the *Let's Talk* communication forum every month and group them based on themes such as screening protocols (Appendix 2). Also, we will collect the data that ICSD themselves collected through the Town Halls based on questions, concerns and feedback about the screening protocols (Appendix 2). These answers are obtained to evaluate the dissemination of the protocols.

This is based on the communication theory - principles of carrying information over and the methods by which it is delivered. In this case technology is used to transmit information between people. The survey aims to make sure members' access to the protocols disseminated, so that the awareness and participation might be increased in all events. It also helps

to promote the screening strategies and improve the examination protocols based on the feedback from members. The results of the survey questionnaires will be gathered for statistical analysis which will be reported to the ICSD leadership.

REPORTING

Question 1: Has a 5% or lower COVID infection rate been maintained over 14 days?

Indicators: Quantitative indicator - Total number of COVID-19 cases (also by age) in Ithaca City as reported by Tompkins County.

Time and Existing data: Positive COVID-19 cases get reported and communicated daily by the TCHD, which has been reported to the community and NYS on a daily basis since March 2020. COVID-19 cases are already posted on the TCHD webpage (updated daily). We will collect this data from the webpage every month to conduct our own analysis.

New data and instrument: From the county health department website, we will create our own statistical data analysis (grouped by individual schools) and present them visually on our COVID-19 Update webpage. We will deliver our findings to ICSD leadership a week after we extracted the data and conducted the analysis. In our monthly report we will explain the trends in cases as well as the incidence and prevalence rate over time and more specifically for 14 consecutive days. This will help to monitor the 5% infection rate threshold. These graphs will also be used as an early warning system which can guide the school leaders and decision-maker to take appropriate actions to lower the infection rate among school members.

Question 2: Are community members actively communicating and engaging with district leadership about their questions and concerns?

Indicators: Quantitative indicators - Amount of school members that show up to Town Hall meetings or information sessions over time, number of posts on *Let's Talk* communication tool over time, Number of questions per category (defined below) for each.

Time: The data will be collected and analyzed monthly throughout the Fall 2020 semester. This data collection time period will be less burdensome than an analysis after each Town Hall (which is volatile regarding scheduling) and daily posts made on *Let's Talk*.

Existing data: First, the *Let's Talk* communication tool is an up and running engagement space where school members can share their thoughts, questions, concerns and suggestions (anonymously) during the COVID-19 pandemic. These messages are reviewed and taken into consideration during the continuous decision-making process by ICSD. Secondly, before Town Halls are hosted, school members have the opportunity to send questions to the leadership, which are addressed during the forums. Furthermore, during the Town Halls questions, concerns, suggestions and general feedback are given by those who attend. These meetings are recorded and made available to all school members via the school district webpage.

New data and instrument: ICSD collects and responds to the posts made on *Let's Talk*, from which they create a document/spreadsheet obtaining it all. They will send it to us electronically every month. We will code the posts according to the following categories: COVID-19/Reopening, Board of Education, Individual Schools, District Office, Communications (Appendix 2). For the Town Halls, the number of participants and their relation to the school district are counted/noted at each meeting or information session - recorded by ICSD leadership as well as posted on the school district website. We will note down all Q&As and separated per category (coding, as stated above). Lastly, the data collected for both engagement opportunities/platforms will be analyzed and presented visually (e.g. bar graphs, pie charts etc.) to ICSD leadership a week after our data extraction. By creating these graphs, issues and engagement with specific topics as well as recurring questions/concerns will easily be recognized, thus helping the leadership team to focus on those "problem" areas.

To ensure that the school leadership are actively aware of the needs of the community, it is important to base this question and data collection method on the *Community Organization Model* - where active participation or involvement from the community helps to identify key issues and the strategies to address them. When individual community members congregate, it increases the ability to affect change. Further, empowerment of community members, increased ownership among community members, and improved social support for achieving changes aid in adjusting the plan according to community needs. This will help guide best practices and improvements of the reopening plan to be based on preferences and comfortability of the school community resulting in the plan being implemented successfully.

There are strengths and limitations to this study design. The surveys are easy to conduct, cost-effective, and performed in the determined cohort.¹⁷ Since most of the results are descriptive or simply ranking variables, the survey design doesn't require advanced statistical analysis methods, which is more friendly to the project runners.⁶ Some inherent

limitations: the design lacks a control group, and it is hard to restrict the external factors, thus the validity and reliability of the results are affected.^{17,18} Response bias is common in the survey design setting as well, relying on the sample size and response rate.¹⁸ Seeing as the results of this design is always qualitative and descriptive without any statistical analysis,¹⁷ thus if we find some associations between the variables, we will not be able to predict the causality or conduct further analysis.

Since our population consists of multiple groups, we will conduct one-way ANOVA and Kurskall-Wallis test on the survey answers, COVID-19 incidence rate amongst the different School, and school member groups and the completion of the daily screening questionnaire. Furthermore, the number of COVID-19 cases will be plotted on a linear regression and logarithmic graph to determine any trends and case rates. Lastly, summary statistics for Table 1 -3 (Appendix 2) will be calculated and reported appropriately. The statistical analysis will be conducted on both Microsoft Excel and SPSS software, within one week after data collection and extraction from ICSD, Frontline Technologies Group and TCHD webpage.

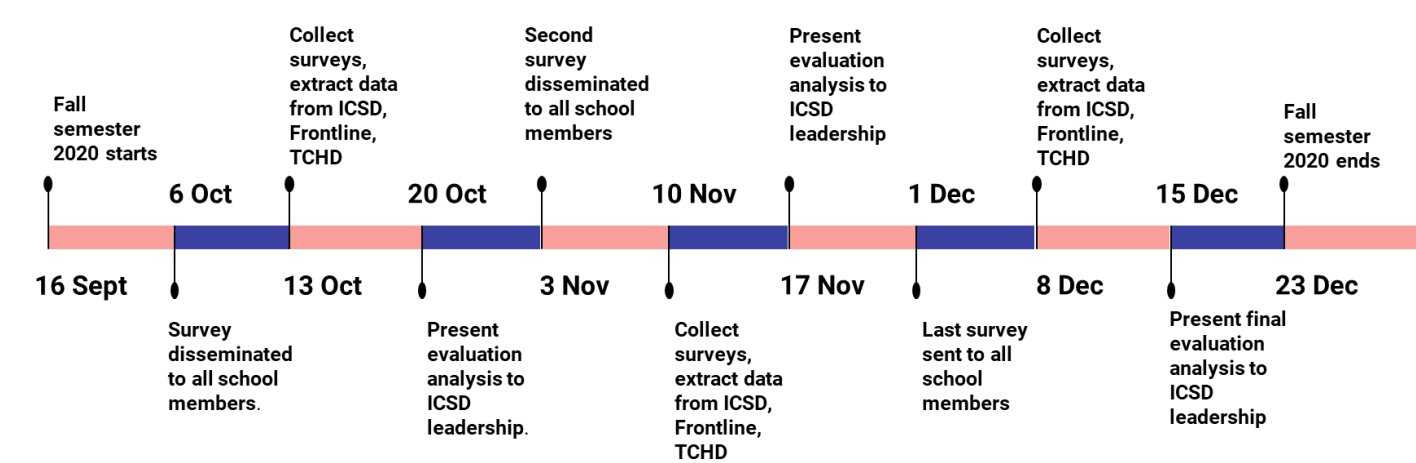


Figure 2. Timeline of the evaluation process throughout Fall 2020.

E) Dissemination and Impact Optimization

The evaluation information and data analysis as mentioned above will be disseminated and shared with ICSD during our monthly meetings - 1 week after data was collected or extracted (Figure 2). Our analyses and key findings include a summary of answers to evaluation questions (general and specific questions), such as trends in cases by each School, infection rate by each School, and differences in data between schools. Recommendations on achieving the planned outcomes, as stated in the Logic Model (Figure 1), will also be included. The data such as a summary table, the statistical

graphs and maps will be presented and shared to ICSD in two ways: 1) present the findings remotely (if preferred) with the school district leadership, superintendents, and school nurses using a slideshow as well as send them a hardcopy report and 2) present the results through infographics and hand them out to all school members. Refer to Appendix 3.

As a result of sharing the evaluation data, a more profound understanding of the pros and cons associated with the program will become more apparent, which provides opportunities to ensure the program accomplishes its intended purpose through the continuous process of improvement. This leads to the development of a Continuous Quality Improvement (CQI) Plan that will allow for the program to be continuously improved, therefore ensuring the program works in the most efficient and effective manner. After implementing the CQI, Plan-Do-Study-Act cycles should be conducted to test any changes that have been implemented. In Appendix 4, a detailed description of the CQI plan is shown.

Data Collection costs, in terms of human and financial costs, is an important consideration. One needs to ask: "Do you have the time and resources available to cover all the M&E activities?" A monitoring and evaluation plan should be developed keeping these factors in mind. The budget needs to be considered in terms of the value of the data collection in relation to the actual cost of data collection. Looking at our evaluation plan, most of the data is already collected by ICSD, Frontline Technologies Group and TCHD. Also, the analysis of the data will be done through mechanisms and software that are already implemented. Thus, our plan is neither time nor resource intensive. However, our only cost will be the dissemination and collection of the survey data, while analyzing the data and creating a presentation, hardcopy and infographic will be our only time-intensive constraint. We can collaborate with ICSD to disseminate and collect the data since they already have the system and network in place for proper connections to all school members. Therefore, in conclusion our process evaluation can be implemented as is.

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Appendix 1
Feedback Form¹

Screening

1. What is your relation to the Ithaca City School District?

- ☐ Student
- ☐ Parent
- ☐ Administration staff
- ☐ Teaching staff
- ☐ Other employee (Nurse/Aide/ Bus driver/ Food service/ Clerical staff)
- ☐ Other, please specify: _____

2. Did you fill out the daily screening form everyday as required by the school district?

- ☐ Always
- ☐ Most of the time
- ☐ Sometimes
- ☐ Never

3. Did a school nurse contact you relating to the COVID-19 symptoms you are/were experiencing that you indicated on the daily screening questionnaire?

- ☐ Yes
- ☐ No
- ☐ I didn't/don't have symptoms

If "Yes", when did the school nurse contact you after you started to show symptoms?

- ☐ The same day
- ☐ The second day
- ☐ The third day
- ☐ Can not recall the specific day

4. Were you able to access telehealth services?

- ☐ Yes
- ☐ No

If "Yes", were further steps communicated to you?

¹ The data is collected per month.

- ☐ Yes
- ☐ No

5. Are you able to get access to the school district's COVID-19 screening protocols?

- ☐ Yes
- ☐ No

If "yes", through which of the following pathways (you can choose one or more choices):

- ☐ School district website
- ☐ School newsletter
- ☐ Email
- ☐ Text notifications
- ☐ Paper hand-outs
- ☐ Town Halls & Let's Talk
- ☐ Other, please specify: _____

6. Are you notified when there is an update in screening protocols?

- ☐ Yes
- ☐ No

If "yes", through which of the following pathways (you can choose one or more choices):

- ☐ School district website
- ☐ School newsletter
- ☐ Email
- ☐ Text notifications
- ☐ Paper hand-outs
- ☐ Town Halls & Let's Talk
- ☐ Other, please specify: _____

Appendix 2
Data Extraction Forms²

Table 1. Data extraction summary of screening and reporting information of student and staff populations within the ICSD - 2020-2021 academic year.³

Individual Schools in District	Total number of students and staff that have been screened	Number of school members who are at risk of COVID-19	Percentage of school members that have been identified as at risk and got tested
High School (Grade 9-12)			
Ithaca High School	x	x	x
Lehman Alternative Community High School	x	x	x
Middle School (Grade 6-8)			
DeWitt Middle	x	x	x
Boynton Middle	x	x	x
Lehman Alternative Community Middle School	x	x	x
Elementary schools (Prekindergarten-5)			
Belle Sherman Elementary School	x	x	x

² The data is collected per month.

³ The data is collected per month.

Beverly J. Martin Elementary School	x	x	x
Caroline Elementary School	x	x	x
Cayuga Heights Elementary School	x	x	x
Enfield Elementary School	x	x	x
Fall Creek Elementary School	x	x	x
Northeast Elementary School	x	x	x
South Hill Elementary School	x	x	x

Table 2. Data extraction summary of number of COVID-19 cases in Ithaca City School District as reported by the Tompkins County Health Department - 2020-2021 academic year.

Individual Schools in District	Total number of cases	Infection rate	Total number of deaths	Population
High School (Grade 9-12)				
Ithaca High School	x	x	x	x
Lehman Alternative Community High School	x	x	x	x

Middle School (Grade 6-8)				
DeWitt Middle	x	x	x	x
Boynton Middle	x	x	x	x
Lehman Alternative Community Middle School	x	x	x	x
Elementary schools (Prekindergarten-5)				
Belle Sherman Elementary School	x	x	x	x
Beverly J. Martin Elementary School	x	x	x	x
Caroline Elementary School	x	x	x	x
Cayuga Heights Elementary School	x	x	x	x
Enfield Elementary School	x	x	x	x
Fall Creek Elementary School	x	x	x	x
Northeast Elementary School	x	x	x	x
South Hill Elementary School	x	x	x	x

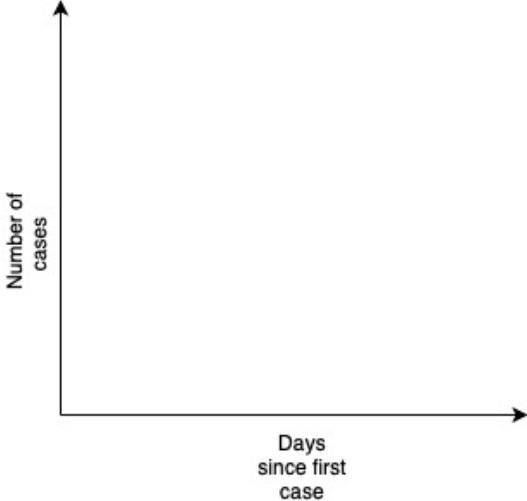
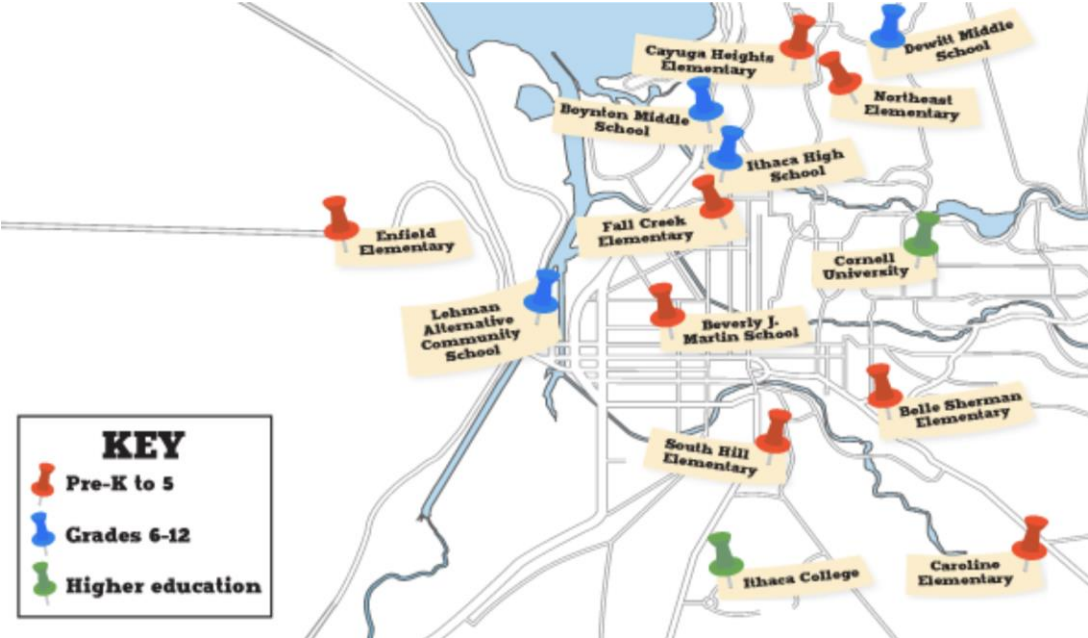
Table 3. Data extraction of community members' engagement with district leadership about their questions and concerns during the reopening of School - 2020-2021 academic year⁴

Category	Let's talk		1 st Town Hall		2 nd Town Hall		...
	Total number of posts	Total number of new posts	Number of Questions/Concerns	Total Number of attendance	Number of Questions/Concerns	Total Number of attendance	
COVID-19	x	x	x	x	x		
School reopening	x	x	x		x		
Screening and reporting protocols within and outside of ICSD	x	x	x		x		
Board of Education	x	x	x		x		
Individual schools	x	x	x		x		
District Office	x	x	x		x		
Communications	x	x	x		x		
ICSD Benefits	x	x	x		x		
Other questions and concerns from community members	x	x	x		x		
TOTAL	xxx	xxx	xxx		xxx		

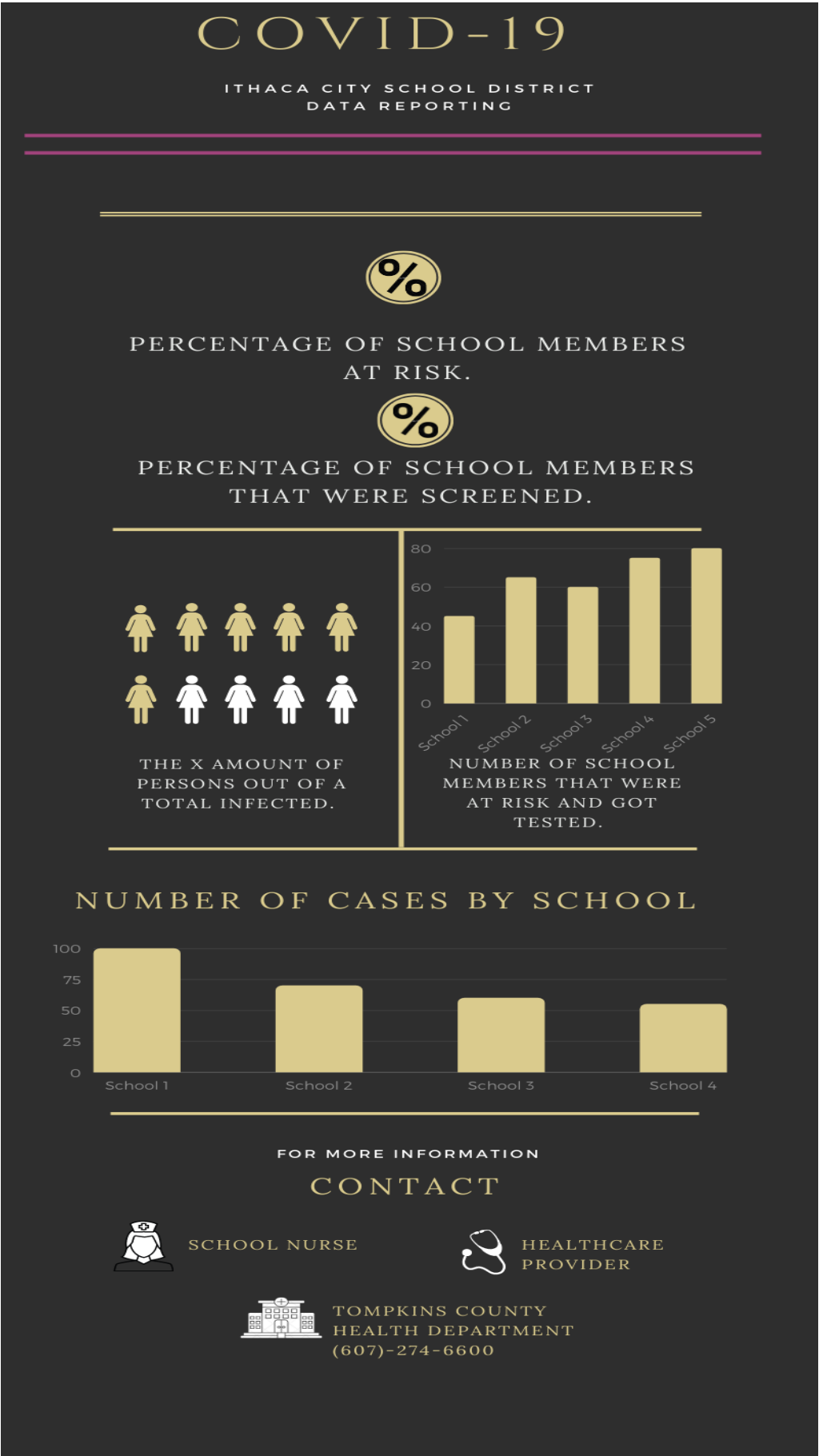
⁴ The data is collected per month. Let's Talk is held bi-weekly and Town Hall is held based on needs.

Appendix 3
Visual presentations of analysis, graphs and infographics

Table 1. Data presentation types of collected data pertaining to COVID-19 that will be shared throughout the ICSD.

Data presentation type	Physical representation
Monthly presentation	<div>Ithaca City School District COVID-19 Cases</div> <div></div> <p>*This graph will provide information at the individual school level, as well as the school district as a whole. This will provide information on the infection rate for each School and district.</p> <div></div> <p>*This diagram will be a heat map showcasing the trends in cases by each school. Higher education will be excluded from the data.</p>

Infographic



Appendix 4
CQI Plan

Goal #1:

XX

Timeline:

XX

Roles and responsibilities:

A. XXX

B. XXX

Quality standard:

XX

Indication of need:

XX

Action steps:

XX

Resources/support needed:

XX

Goal #2:

XX

Timeline:

XX

Roles and responsibilities:

A. XXX

B. XXX

Quality standard:

XX

Indication of need:

XX

Action steps:

XX

Resources/support needed:

XX