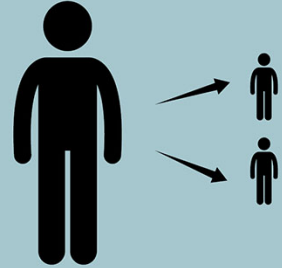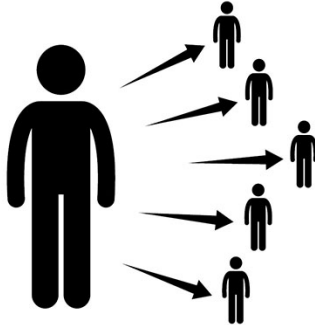# COVID-19 Testing

2021-2022 School Year

Background

- Delta variant is the predominant strain of COVID-19 in the United States
  - 2x more infectious than previous strains
- Data suggests the Delta variant can cause more severe illness than previous strains in <u>unvaccinated individuals*</u> (CDC D, 2021).
  - COVID-19 vaccinations are not yet FDA approved for children under 12 years old. (CDC B, 2021) Those who are unvaccinated are at the greatest risk for contracting and transmitting COVID-19 (CDC D, 2021).

*COVID-19 is still a risk if you are vaccinated. Vaccination prevents severe illness, hospitalization and death (CDC F, 2021).

The Delta variant is more contagious than previous strains—it may cause more than **2x** as many infections

ORIGINAL COVID-19 STRAIN   DELTA VARIANT

Vaccines protect you from hospitalization, severe infections, and death

cdc.gov/coronavirus

CS 322041-AA 08/02/2021

Center for Disease Control and Prevention. (2021). The Delta variant is more contagious than previous strains – it may cause more than 2x as many infectious [Photograph]. Retrieved from https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html
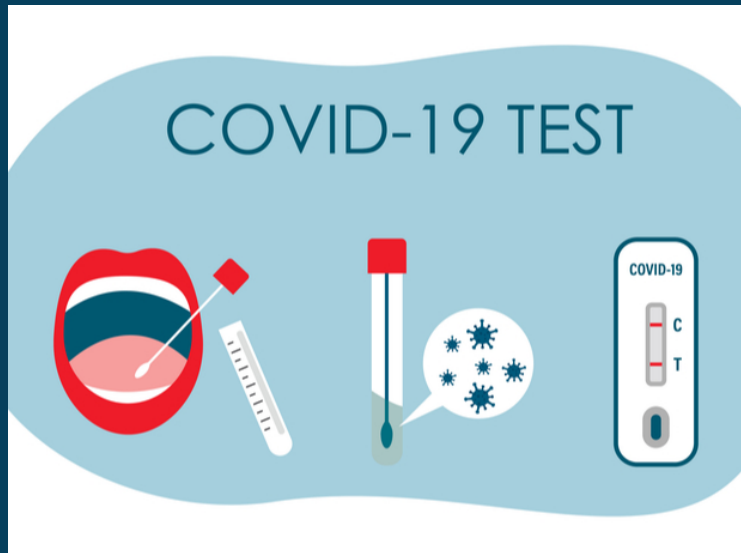
What is Erie County's Plan?

- Funded by Epidemiology and Laboratory Capacity (ELC) through Center for Disease Control & Prevention (CDC) to promote in person learning, 5 days a week through a COVID-19 testing initiative

- Erie County is implementing a Surveillance testing and a Proximal testing program (see next two slides for additional information)

- Districts and Schools coordinate with ECDOH to make this possible

- Quadrant Biosciences laboratory and ECDOH have partnership – tests will be run through them locally

- ECDOH will provide medical staff through Buffalo Homecare to districts and schools to oversee testing

- Parents complete one-time consent form through Quadrant Biosciences to opt-in to these programs

What is Surveillance Testing?

- Surveillance testing utilizes pooled samples of a certain population for the purpose of monitoring and containing the spread of COVID-19 in a classroom setting (CDC G, 2021).

- Anyone in the school population can be tested

- No cost, regardless of insurance

McKee, S. (2021). COVID-19 TEST [Photograph]. Retrieved from http://www.pharmatimes.com/news/twice-weekly_coronavirus_tests_for_all_1366382

What is Pool Testing?

- The CDC defines pool testing as combining the same type of specimen from several people and conducting one laboratory PCR test
  - For pools that test positive, samples are individually analyzed to determine which samples are positive (CDC E, 2021)
- For this program, pools are up to 12 specimens

What is proximal testing?

- Proximal pool testing is testing for individuals who do not meet close contact criteria (see next slide) and were exposed to COVID-19 in the same room.

- Purpose:

- Identify if transmission has occurred and remove risk to protect the overall building

  - Delta Variant's incubation period is 3-5 days

    - False positives are higher in specimens with low viral loads, low viral loads occur when folks are tested either too soon or too late after infection (Syal, 2020).

    - Incubation period is the time between exposure to a positive case and development of symptoms, if not asymptomatic (CDC A, 2021).

- The risk for transmission to a proximal contact is lower than those who meet close contact criteria, but there is still a risk

Difference between close contact in a school setting & proximal contact

Close Contact (school setting)

- Identified to have been within 3ft or less of a positive COVID-19 case for a cumulative total of 15 minutes or more over a 24 hour period, with or without a mask

- Subject to 10 day quarantine*

- Substantial exposure risk to COVID-19

- Testing recommended 3-5 days after exposure to a positive COVID-19 case
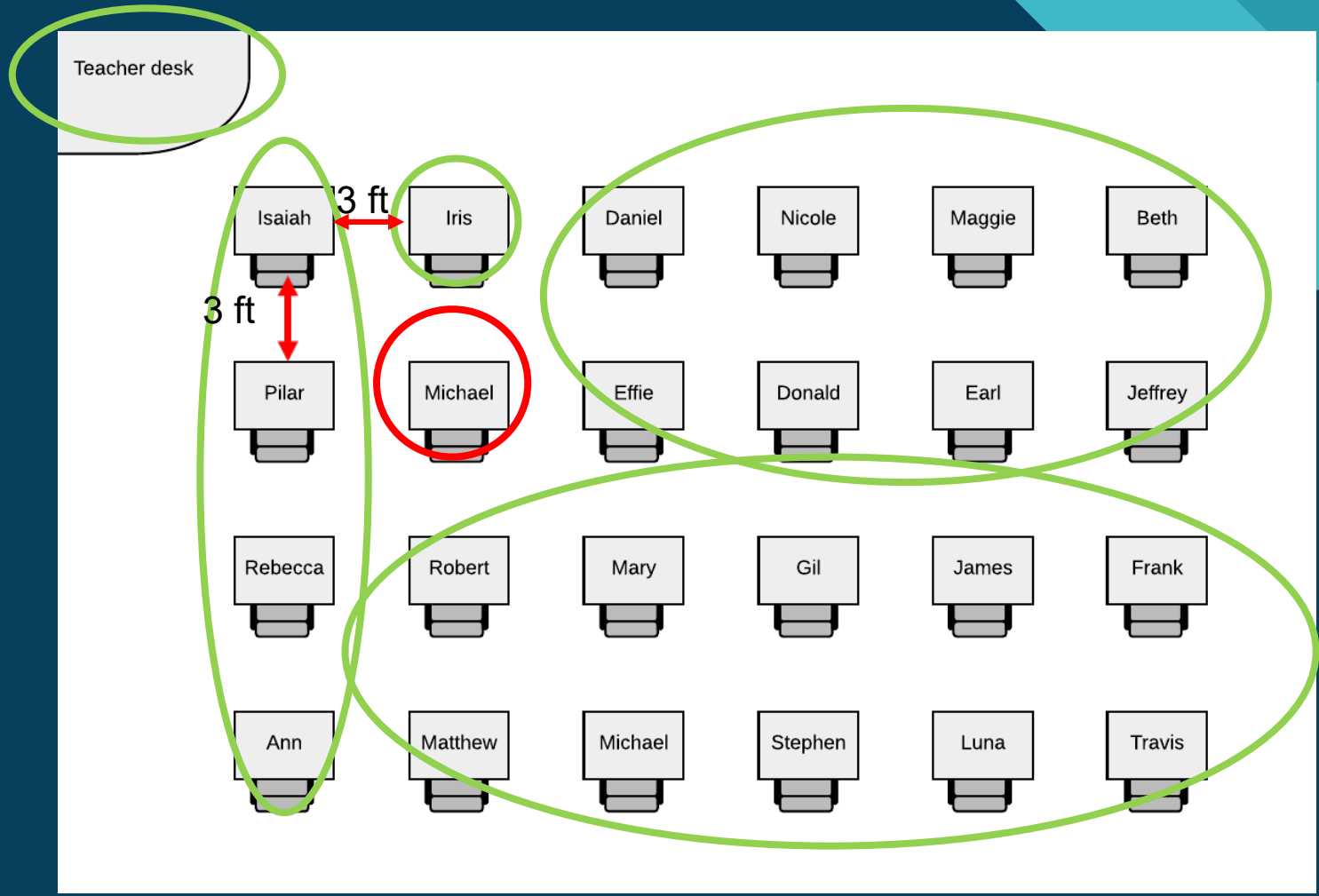
Proximal Contact

- Anyone who is outside of the 3ft range in the same airspace not considered to be a close contact is considered a proximal contact

- Not subject to quarantine**, fully vaccinated can still test

- Still a risk of exposure & transmission of COVID-19

- Testing recommended 3-5 days after exposure to a positive COVID-19 case

* Per CDC guidelines, fully vaccinated individuals who are identified as close contacts are not subject to quarantine. However, these individuals should continue to monitor for symptoms.

**If experiencing COVID-19 symptoms, individual must follow return to school protocol.

Who is eligible for proximal testing? - Example

= positive COVID-19 case

= individuals eligible for proximate testing

Teacher desk

Isaiah — 3 ft — Iris

3 ft

Pilar   Michael

Daniel   Nicole   Maggie   Beth

Effie   Donald   Earl   Jeffrey

Rebecca   Robert   Mary   Gil   James   Frank

Ann   Matthew   Michael   Stephen   Luna   Travis

Lucidchart (n.d.). High School Classroom Layout [Photograph]. Retrieved from
https://www.lucidchart.com/blog/perfecting-classroom-seating-arrangements

Who is eligible? – Example cont.

= positive COVID-19 case

= individuals eligible for proximate testing

3 ft

3 ft

Wilkinson, M (2020). Disney+: Ranking The Main Characters of Recess By Their Intelligence [Photograph]. Retrieved from
https://screenrant.com/disney-plus-recess-main-characters-ranked-intelligence/

How testing will be implemented

Surveillance Testing

- 10% of the consented population in a school will be tested weekly
- PCR pool testing, 12 tests per pool
- 12-18 HR turn around time
- ORAL swab

Proximal Testing

- First, contact tracing is completed to identify any true close contacts. After close contacts are identified, proximal contacts are determined
- Testing occurs 3-5 days after exposure
- PCR Pool testing, about 12 tests per pool
- 12-18 HR turn around time
- ORAL swab

➢ If a _positive_ is detected in either the surveillance testing pool and/or proximal testing pool, reflex testing performed. Reflex testing determines which sample in the pool is positive.

➢ School building coordinators will communicate with parents of those tested if pool is positive.

Benefits of testing

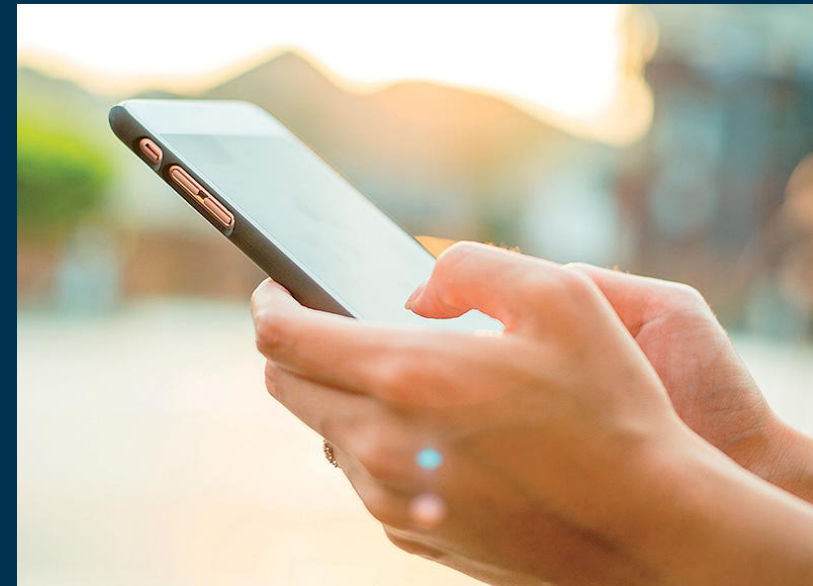| Surveillance	Both	Proximal
• Monitors current state of COVID-19 virus in the school population (CDC G, 2021).	• Can identify those who have contracted COVID-19 before classroom spread can occur • Positive individuals for COVID-19 are able to spread the virus 2 days before symptoms start (CDC C, 2021). By removing that individual from the school setting, it can stop the spread to other students and staff. • Promotes in person learning • PCR test is more accurate than rapid & at home tests • Non invasive test (oral swab)	• Higher community support than traditional surveillance testing, according to a needs assessment survey sent to all Erie County Schools in June/July 2021 • With current guidance, proximal contacts do not have to quarantine because they are greater than 3ft away from positive case. Since airspace is shared, there is risk for continual exposure.

Erie County Resources

- www.erie.gov/covid19
  - COVID-19 Info Line: (716) 858-2929
- www.erie.gov/vax
  - Full schedule of ECDOH clinics
- www.erie.gov/covidmap
  - Data visualization: case counts, ZIP code and municipality maps
- www.erie.gov/covidtestsites
  - Searchable map of diagnostic test locations

How to Stay Updated

- Social media
  - Twitter (@ECDOH)
  - Facebook (Erie County Department of Health)
  - Instagram (@eriecohealth)
  - Erie County, NY Youtube Channel www.youtube.com/eriecountyny
- Web site: www.erie.gov/covid19

Craig, D (2019). Do Cell Phones Reduce Violet Crime? [Photograph]. Retrieved from https://magazine.columbia.edu/article/do-cell-phones-reduce-violent-crime

Works Cited

Centers for Disease Control and Prevention A (2021). *Clinical Questions about COVID-19: Questions and Answers*. Retrieved from: https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html#Transmission

Centers for Disease Control and Prevention B (2021). *COVID-19 Vaccines for Children and Teens*. Retrieved from: https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/adolescents.html

Centers for Disease Control and Prevention C (2021). *Frequently Asked Questions*. Retrieved from: https://www.cdc.gov/coronavirus/2019-ncov/faq.html#Spread

Centers for Disease Control and Prevention D (2021). *Delta Variant: What We Know About the Science*. Retrieved from: https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html

Centers for Disease Control and Prevention E (2021). *Interim Guidance for Use of Pooling Procedures in SARS-CoV-2 Diagnostic and Screening Testing*. Retrieved from: https://www.cdc.gov/coronavirus/2019-ncov/lab/pooling-procedures.html

Centers for Disease Control and Prevention F (2021). *New CDC Study: Vaccination Offers Higher Protection than Previous COVID-19 Infection*. Retrieved from: https://www.cdc.gov/media/releases/2021/s0806-vaccination-protection.html

Centers for Disease Control and Prevention G (2021). *Testing Strategies for SARS-CoV-2*. Retrieved from: https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/sars-cov2-testing-strategies.html

Center for Disease Control and Prevention. (2021). The Delta variant is more contagious than previous strains – it may cause more than 2x as many infectious [Photograph]. Retrieved from https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html

Craig, D (2019). Do Cell Phones Reduce Violet Crime? [Photograph]. Retrieved from https://magazine.columbia.edu/article/do-cell-phones-reduce-violent-crime

Lucidchart (n.d.). High School Classroom Layout [Photograph]. Retrieved from https://www.lucidchart.com/blog/perfecting-classroom-seating-arrangements

McKee, S. (2021). COVID-19 TEST [Photograph]. Retrieved from http://www.pharmatimes.com/news/twice-weekly_coronavirus_tests_for_all_1366382

Syal, Kirtimaan. (Dec 17, 2020). *Guidelines on newly identified limitations of diagnostic tools for COVID-19 and consequences*. Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7753543/

Wilkinson, M (2020). Disney+: Ranking The Main Characters of Recess By Their Intelligence [Photograph]. Retrieved from https://screenrant.com/disney-plus-recess-main-characters-ranked-intelligence/