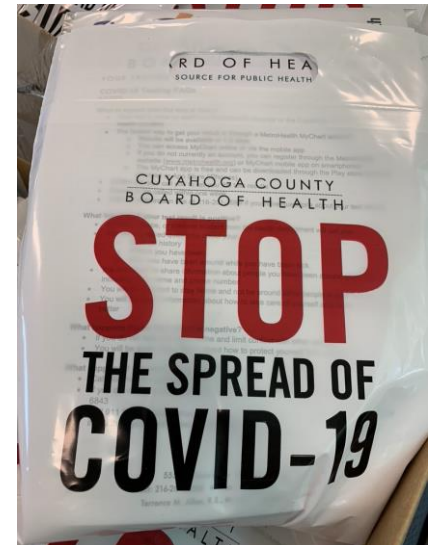


Lessons Learned from the COVID-19 Pandemic: The Public Health Perspective

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Disclosures

Allan/Gullett: None



CCBH

Agenda

- *What is public health?*
- *Guiding principles of our COVID-19 response*
- *Where we started...*
- *Where are we now?*
- *Evolving phases of the pandemic*
- *Strategic approach to our local collaborative pandemic response*
- *Critical lessons learned*
- *Questions?*
- *A little audience participation fun along the way!*



What is Public Health?

*Preventing disease and promoting health for populations

- How can we make our environments healthier?
- How can we reduce transmission of infectious disease?
- How can we identify and address factors that cause disease?

Courtesy of Johnie Rose, MD, PhD



Essential Public Health Services

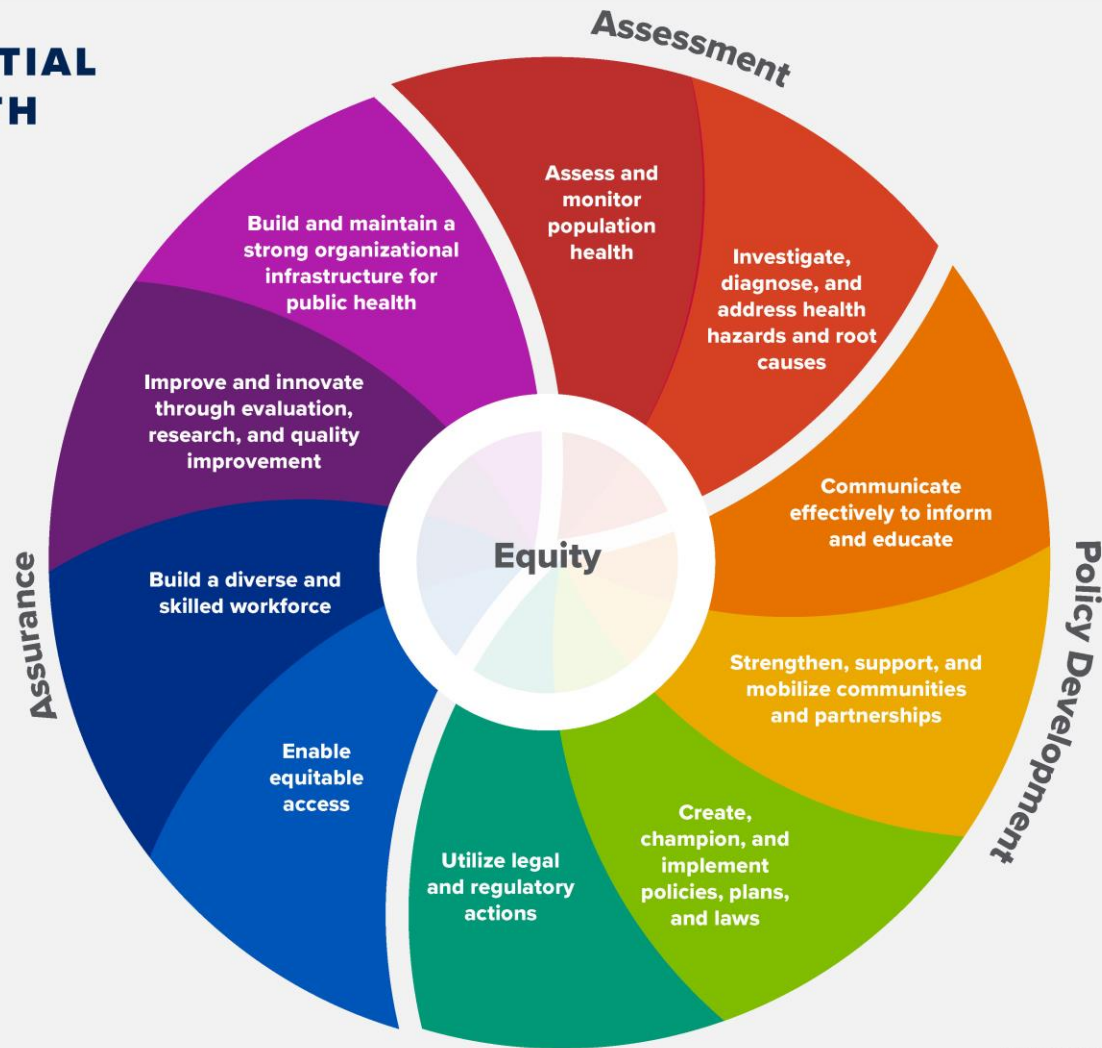
1. **Monitor** health status to identify and solve community health problems.
2. **Diagnose and investigate** health problems and health hazards in the community.
3. **Inform, educate**, and empower people about health issues.
4. **Mobilize** community partnerships and action to identify and solve health problems.
5. **Develop policies and plans** that support individual and community health efforts.
6. **Enforce** laws and regulations that protect health and ensure safety.
7. **Link** people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. **Assure** competent public and personal health care workforce.
9. **Evaluate** effectiveness, accessibility, and quality of personal and population-based health services.
10. **Research** for new insights and innovative solutions to health problems.



THE 10 ESSENTIAL PUBLIC HEALTH SERVICES

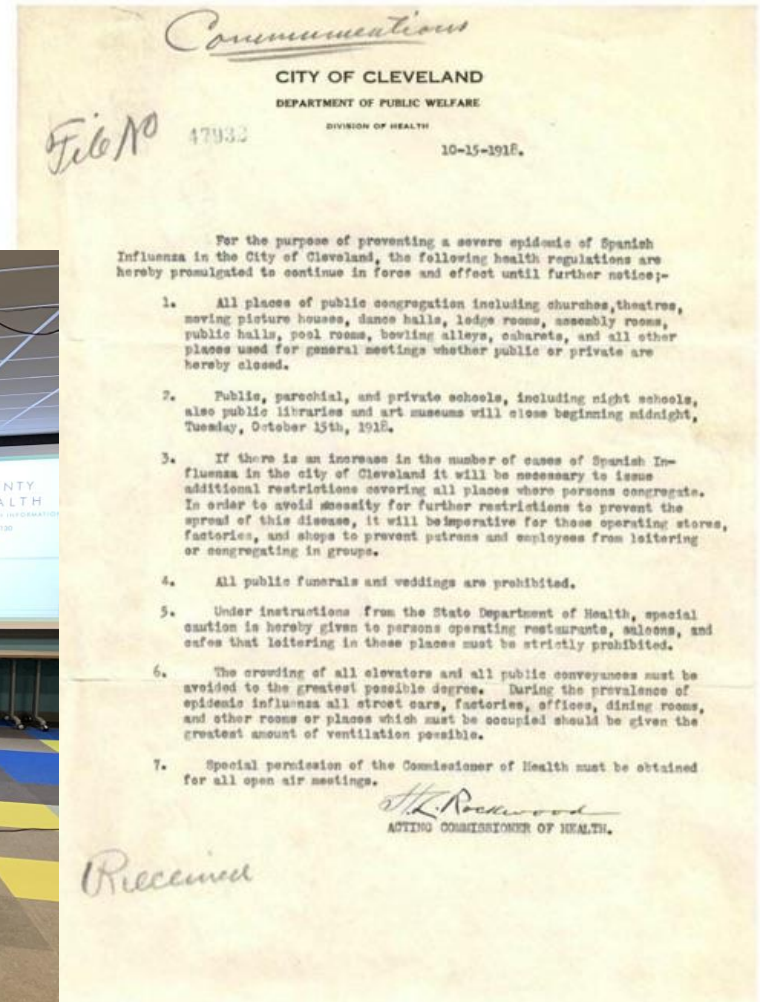
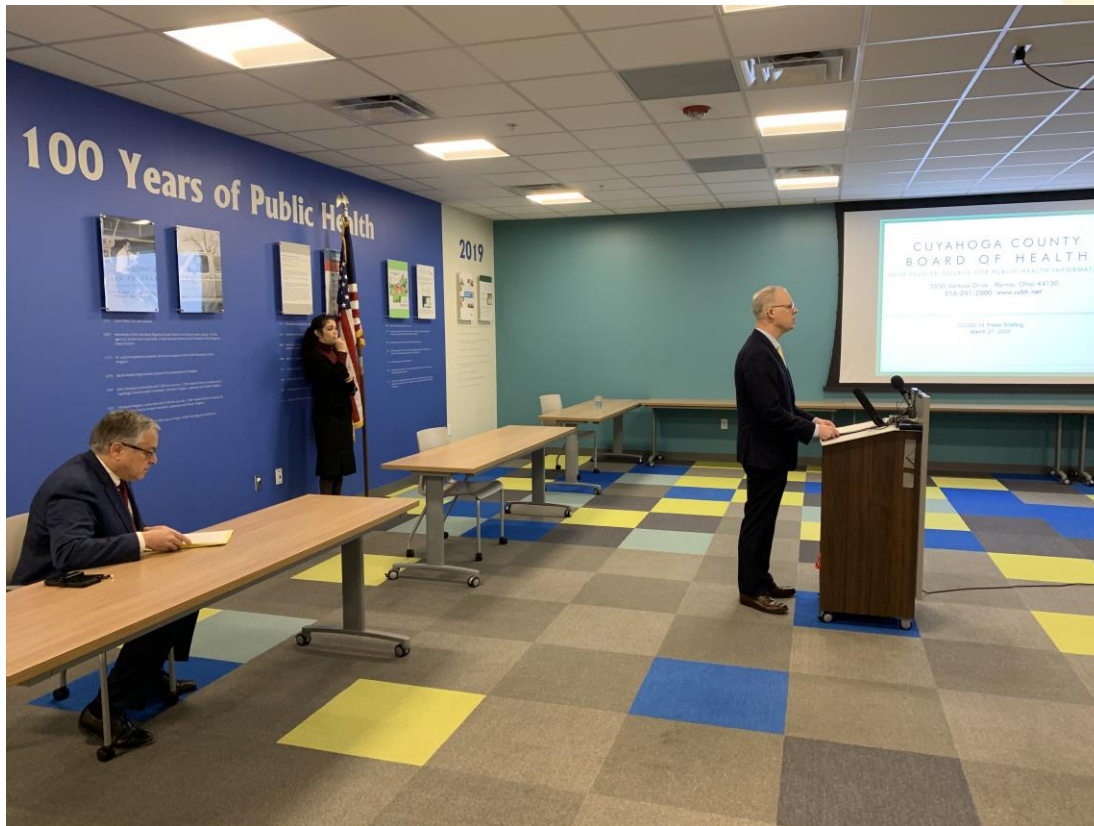
To protect and promote the health of all people in all communities

The 10 Essential Public Health Services provide a framework for public health to protect and promote the health of all people in all communities. To achieve optimal health for all, the Essential Public Health Services actively promote policies, systems, and services that enable good health and seek to remove obstacles and systemic and structural barriers, such as poverty, racism, gender discrimination, and other forms of oppression, that have resulted in health inequities. Everyone should have a fair and just opportunity to achieve good health and well-being.



Created 2020

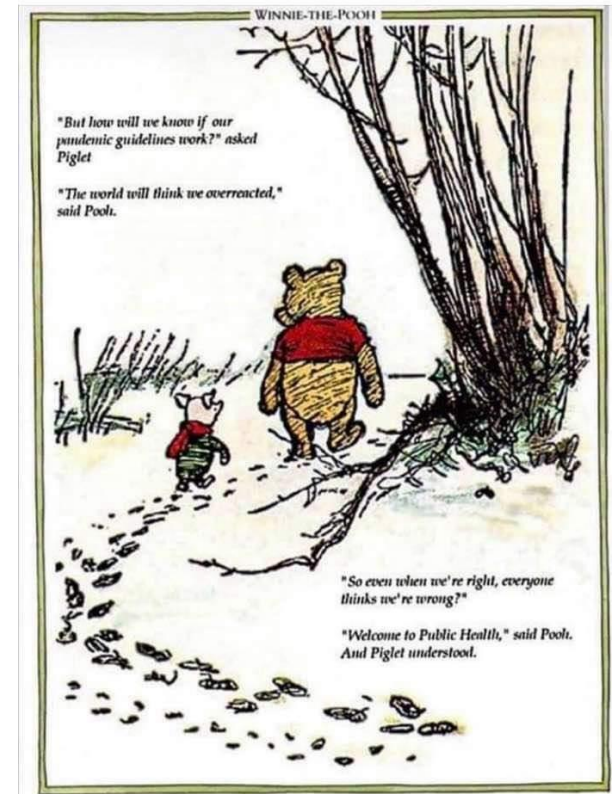
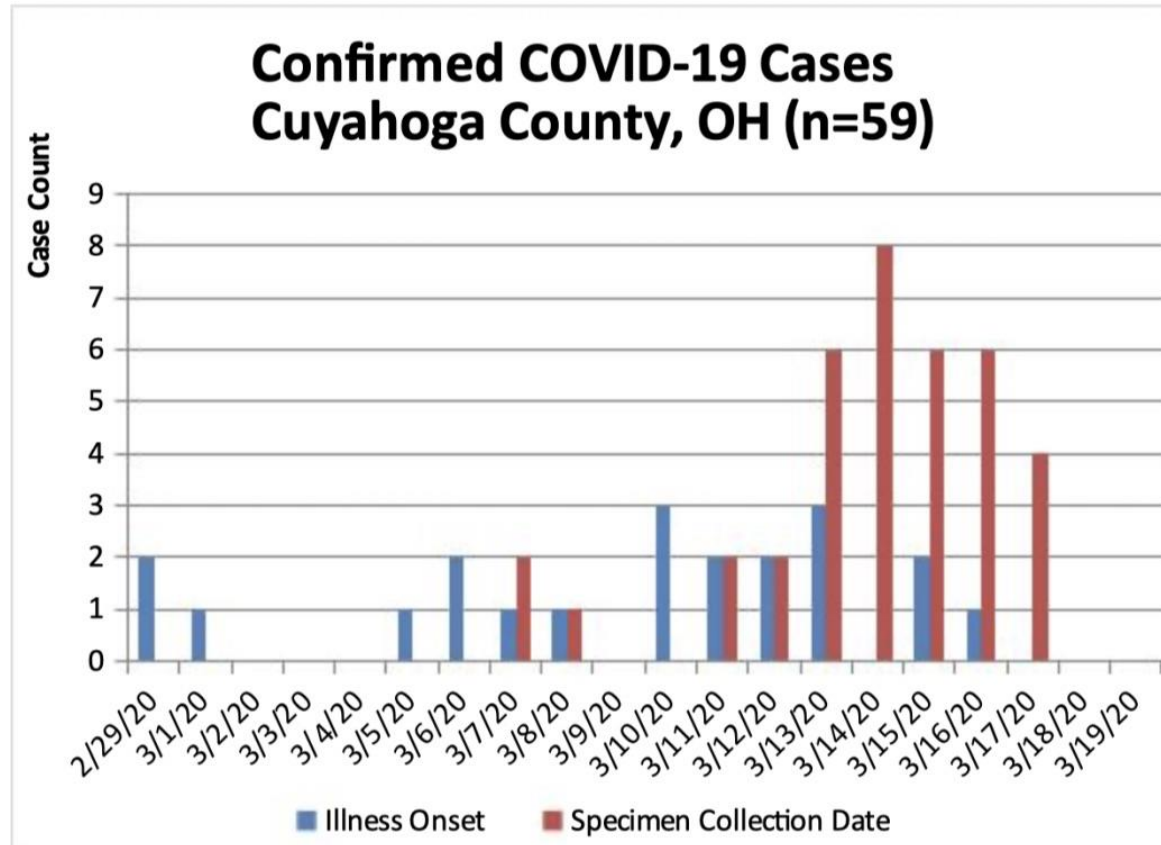
Celebrating 100 Years of Local Public Health

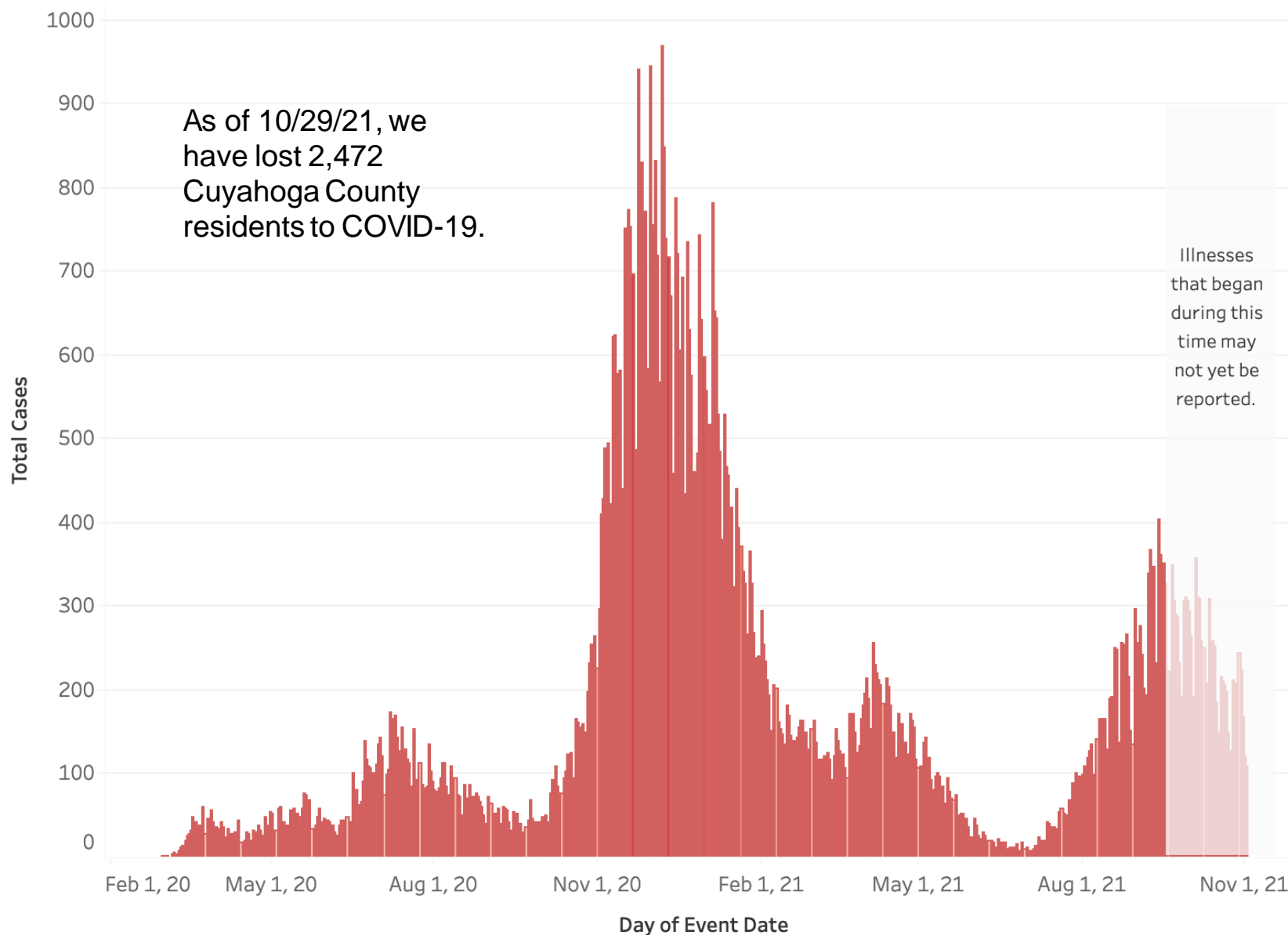


Guiding Principles in COVID-19

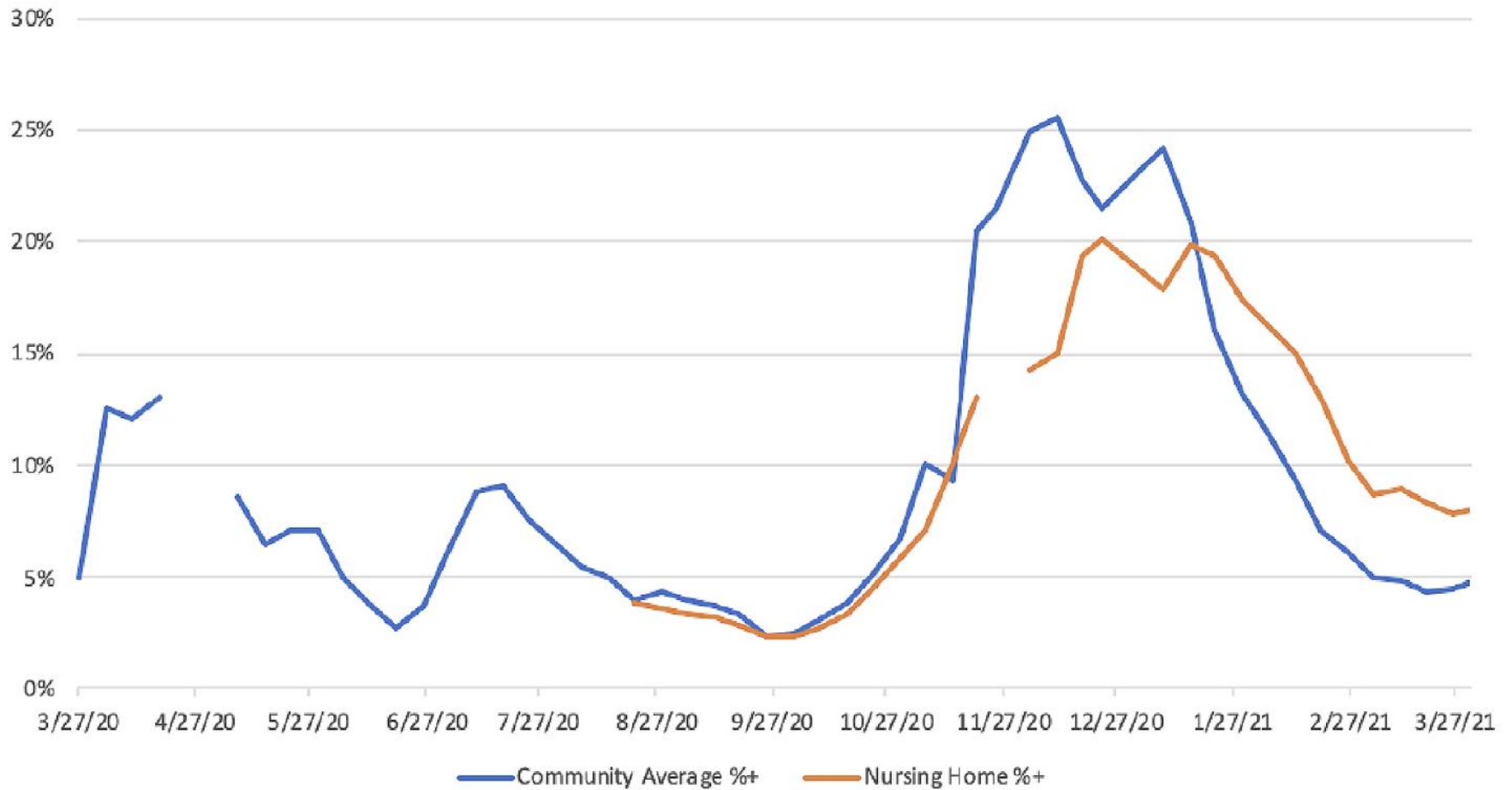
- Applying an equity lens in all work
- Employing systems thinking while balancing on-the-ground focus
- Moving beyond the tyranny of the moment toward the long-term time horizon
 - Addressing immediate needs balanced with strategic direction to transform systems and structures creating poor downstream health outcomes
- Tension between individual autonomy and population/collective health
- Highlighting interdependence on multiple levels
- Decision-making with limited resources
- Creative clinical problem-solving in context
- Cultural humility

Our first Epi curve... from 3 cases to...





Cuyahoga County COVID-19 Percent Positive Rate (Positivity Rate)



Cuyahoga County Board of Health COVID-19 Vaccine Data Dashboard

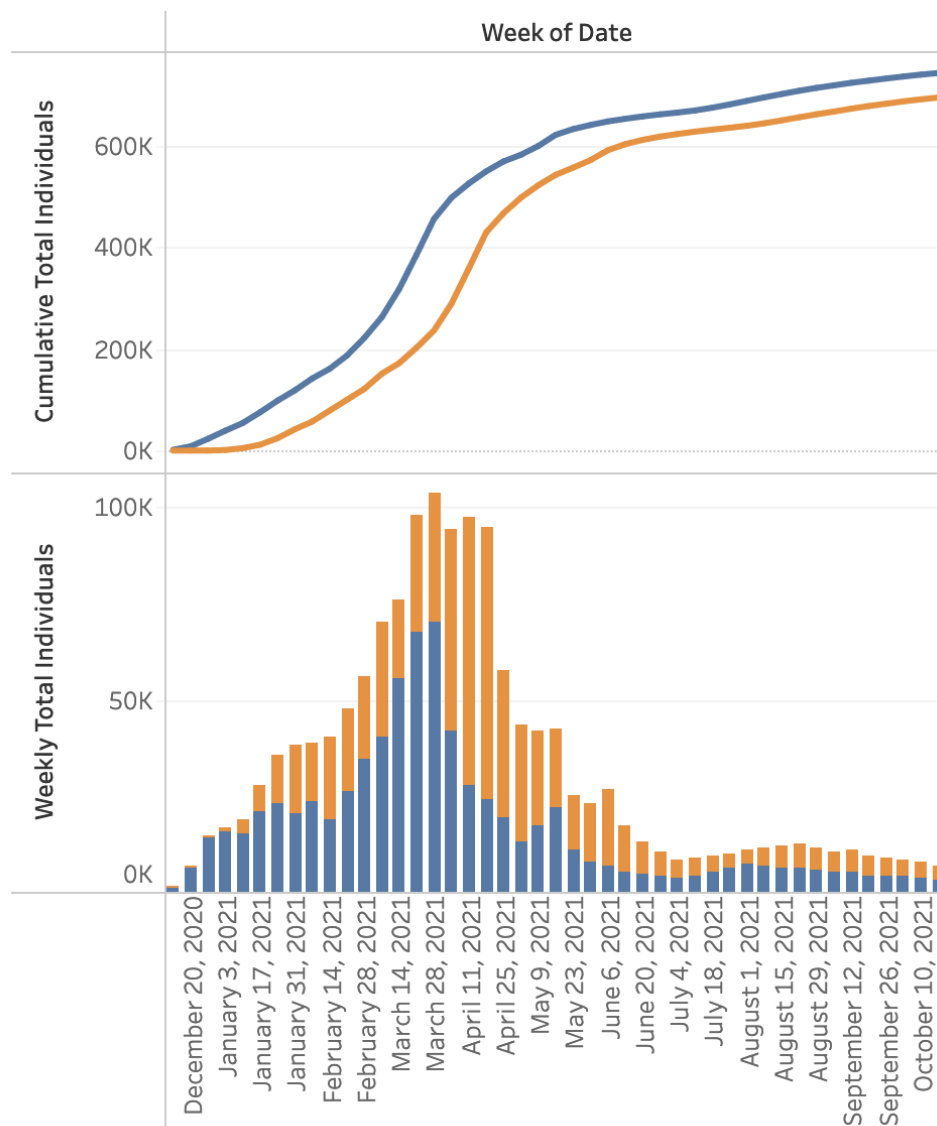
Cuyahoga County COVID-19 Vaccination Status

A person is counted in the "Vaccine Started" category on the day they receive their first valid dose of COVID-19 vaccine. A person is counted in the "Vaccine Completed" category on the day that they get their final recommended dose of COVID-19 vaccine. For single-dose vaccines, individuals are counted in both "Vaccine Started" and "Vaccine Completed" categories.

Vaccine Started	742,293
% Population Vaccine Started	59.24
Vaccine Completed	694,065
% Population Vaccine Completed	55.39

■ Vaccine Started ■ Vaccine Completed

[Click here to see CCBH vaccine administration](#)



Phases of the local COVID-19 Response

Each phase is nested within local, state, and national contexts, influencing the key foci of that phase.

1. Initial cases and contact tracing

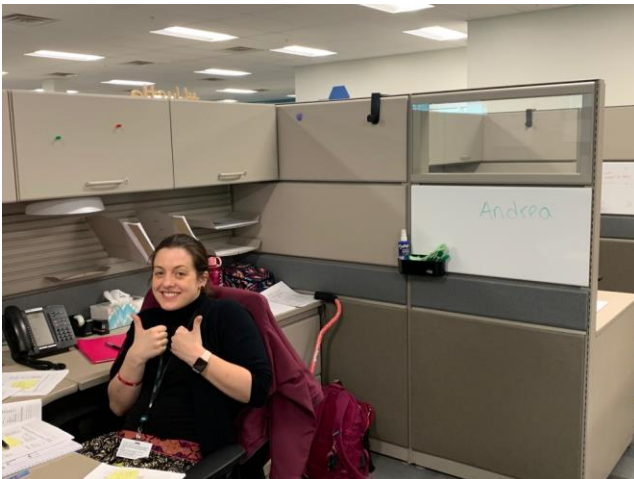
- Identify basic information about virus and transmission
- Refinement of processes/workflows for case interviews and contact tracing
- Focus on developing case definitions and managing high-volume of information as well as refine flow of data --> local to state to CDC
- Building local capacity for public health response
- Ensuring health of healthcare and public safety staff/essential workers
- Sharing basic information with public on the virus, public health approaches, and evolving data
 - Flatten the curve, isolation, quarantine...



Phases of the local COVID-19 Response

2. *Cluster Investigations during Stay-at-Home Order*

- Case interviews and contact tracing (simpler b/c of stay at home order)
- Cluster investigations and outbreak management mainly in congregate living (SNF/LTC, group homes, homeless shelters, correctional facilities)
- Community testing via physician strike team deployments and in parking lot
 - Cluster investigation testing, including essential workers
- Resource acquisitions for all parts of supply chain (PPE, test kit elements, labs)
- Environmental assessments – healthcare and essential businesses
- Coordinate efforts with hospital systems and other LHDs
- Surveillance on disease patterns with 24/7 availability to community/cases
- Public reporting for nursing and group homes



Phases of the local COVID-19 Response

3. *Phased reopening of Ohio with explosion of community clusters*
 - Evolution of testing priorities and expansion of sites into community
 - Guidance/clarifications on safe reopening in multiple sectors
 - Change to cluster investigation function as organizational consultants rather than driving structured approach
 - Clearing cases to return to life



Phases of the local COVID-19 Response

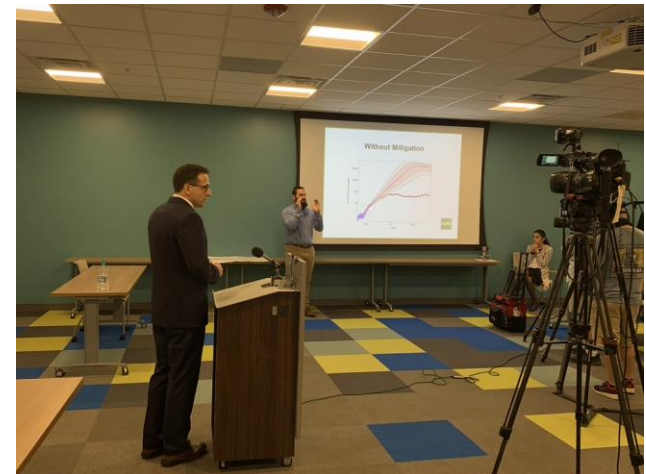
4. *Summer post-4th of July case spike*

- Scramble to manage high volume of case interviews and contact tracing (more complicated due to reopening)
- Enforcement of non-pharmaceutical interventions/mitigation efforts
- Employer reporting
- Re-designing workflows for case management, including discontinuation of isolation
- State color-coded system



Phases of the local COVID-19 Response

5. *School and sports/extracurricular reopening*
 - Evidence analysis to guide reopening recommendations
 - Public reporting for schools
 - Constant analysis of data on basic and clinical science of COVID, newly available testing options, and changing policies
6. *Fall proactive planning*
 - All-weather testing options
 - Expanded testing capacity
 - Mass vaccinations – influenza and COVID-19
 - Surge capacity discussions



Phases of the local COVID-19 Response

7. *Fall/winter surge*

- Continuous communication
- Hospital collaboration across region, zone and state
- Collaboration with ambulatory testing sites
- Coordination with county departments (HHS, homeless services, aging, etc)
- Testing capacity
- Therapeutics
- Vaccination prioritization and distribution
 - Homebound, congregate sites, community locations
- Ongoing weekly collaboration with FQHCs, hospitals, EMS

8. *Delta surge*

- Continued regular collaboration as above
- Focus on public health guidance with changing authority

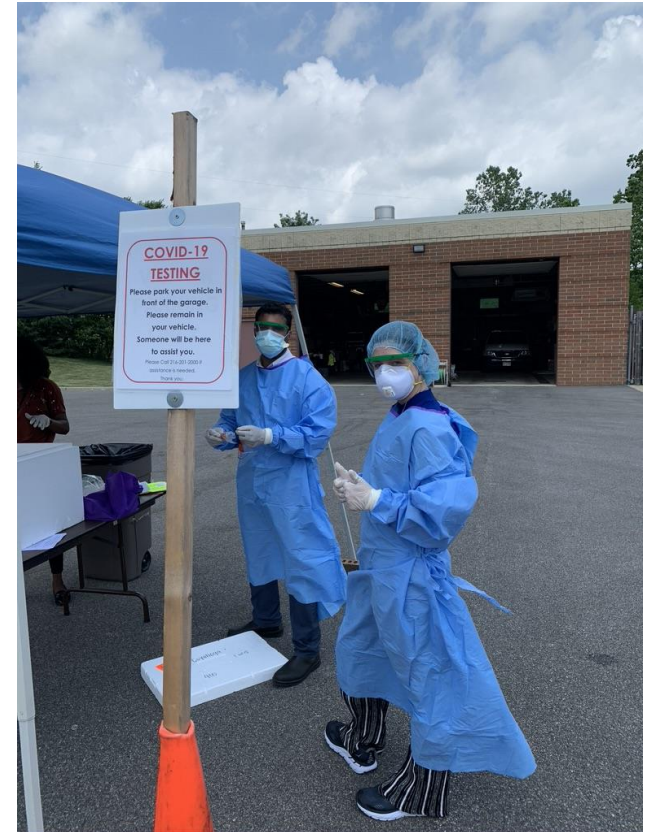
9. *Boosters and pediatric vaccines*

- Changing vaccine distribution sites
- Encouraging continued mitigation strategies
- Continued management of clusters



Strategic COVID-19 Response Approach

1. Isolation and contact tracing **lab-confirmed cases**
 - Developed training locally for students and then expanded to train state contact tracing team
2. Isolation and contact tracing **probable cases**
3. Long-term care/skilled nursing facility sentinel surveillance



Strategic COVID-19 Approach

4. Cluster Investigations:

- Long-term care/skilled nursing
- Healthcare facilities
- Correctional facilities
- Community clusters
 - Businesses
 - Houses of worship
 - Social groups
 - Congregate living
 - Group home network
 - Shelters
 - Vulnerable populations
- Schools
- Physician lead for each cluster transitioned to a cluster strike team



Strategic COVID-19 Approach

5. High-risk cases/families – registries; frequent physician contact

- High density; isolation/resource challenges
- Home isolation high-risk w/multiple co-morbidities
- Language needs
- Obstetrics
 - Proactive delivery room planning
 - Surveillance – NP/OP swab of newborn at birth
 - Research – samples at delivery for IgG testing
- Possible cases in Jan/Feb before testing available



Strategic COVID-19 Approach

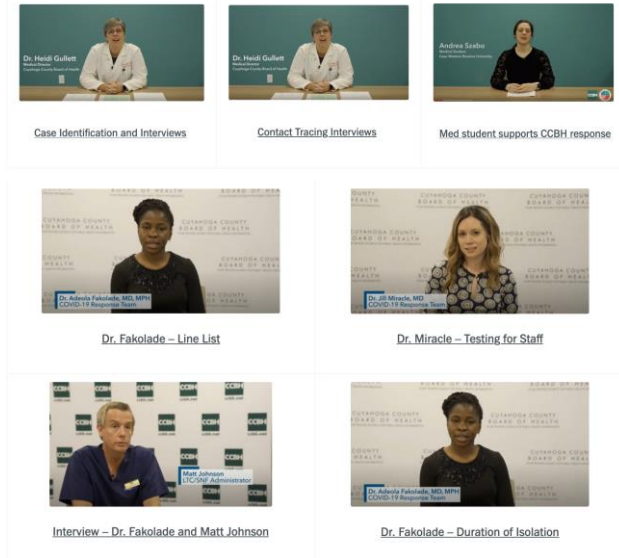
6. COVID-19 surveillance strategies

- Disease surveillance with special emphasis on demographics to inform equity-grounded approach
 - Maximize testing and drive testing priorities as resources allow
 - Creative attainment of resources
- Lab surveillance (PCR and Serology)
- Syndromic surveillance (ambulatory and ED)
- Patterns of illness and re-infection at local level
- Hospital utilization, including LOS data
- Link to modeling for predictions guided by real-time public health data
- Partnership with researchers working on serologies



Strategic COVID-19 Approach

7. Build capacity in other organizations to lead elements of the response
- Case investigation and contact tracing toolkit
 - Training expertise for state contact tracing teams
 - Food service and environmental trainings by sanitarians
 - School trainings by public health nurses
 - Communications collaborations with CCBH team and community organizations
 - Evidence-based school reopening guidance
 - Collaborative equity-focused testing and vaccination plans



Community Testing Strategy

- Testing in clinically stable possible cases within cluster investigations
- Guided by testing priorities and availability as set forth by CDC and ODH, as well as lab availability
- Unexplained deaths (coordination w ME) where high index of suspicion for COVID-19
- Expansion to equity-grounded approach to widespread community testing in neighborhoods
 - Partnership with MetroHealth, now FQHCs, ONG, CCF, UH, houses of worship, and others



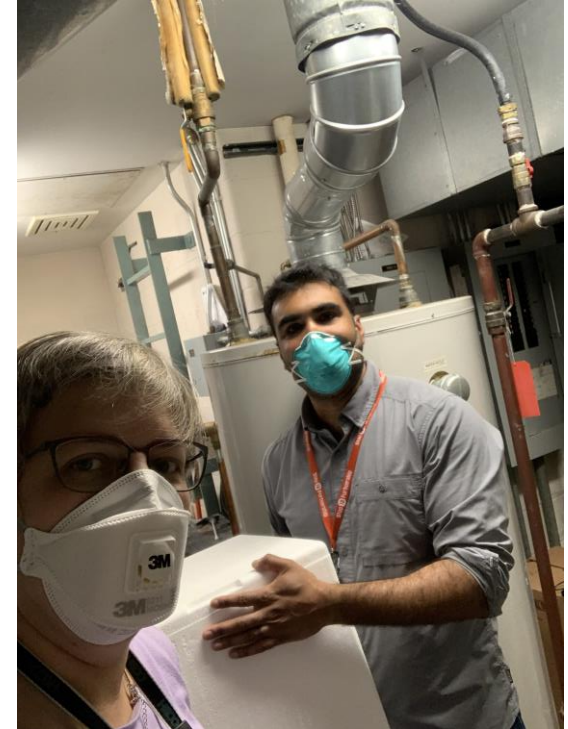
Community Vaccination Strategy

- Large Points of Dispensing (PODS)
- Community Clinics
- Community Health Workers
- Social media, radio, canvassing
- Vulnerable populations
- 211 First Call For Help
- Transportation assistance
- Covid-19 Rapid Responses Fund



Environmental Assessments in LTC/SNFs

- Sanitarian and physician on-site environmental assessment for high-priority LTC/SNFs
- Review all practices related to COVID-19 response
 - Hand hygiene/PPE hygiene
 - Disinfection
 - Protocols for entrance and leaving facility, admissions, laundry services, employee health
- Developed training for other sanitarians



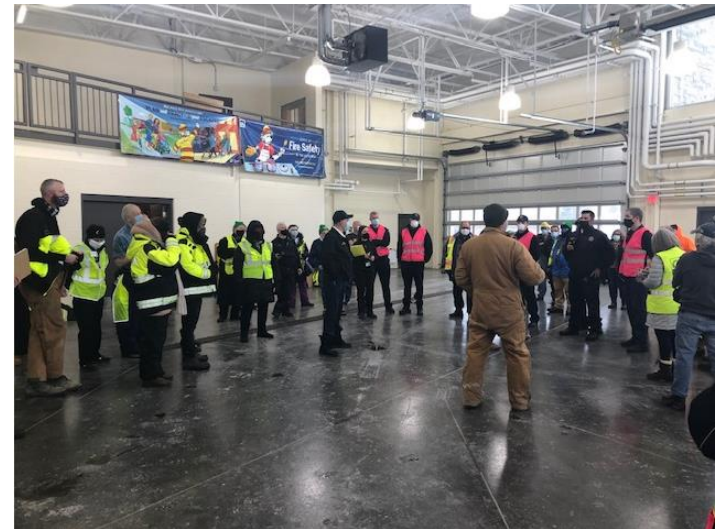
Legislative Challenges

- Public Health Powers
 - Countermeasures
 - Masking
 - Social Distancing
 - Quarantine/Isolation
 - Temporary closure
- Vaccination

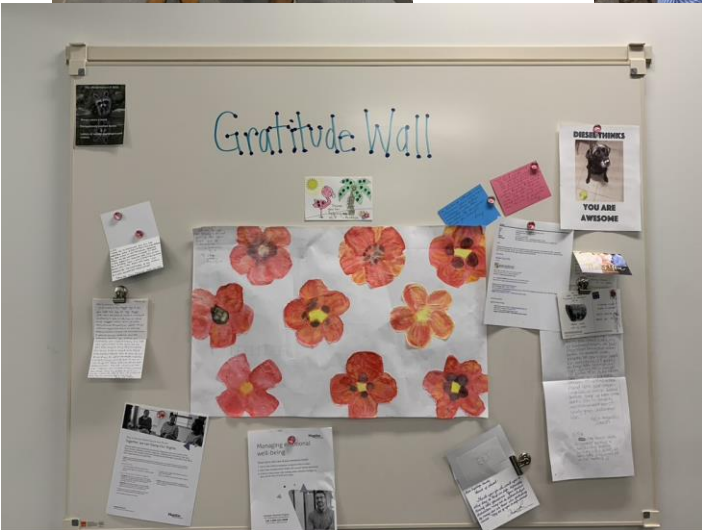


Infrastructure Challenges

- Informatics
- Case calls
- Contact Tracing
- Public inquiries
- Fiscal capacity
- Epi, emergency planning
- Nurses
- Volunteer recruitment and management
- Routine program work



Gratitude, Self-care and Supporting One Another...



Lessons Learned

- *There is immense value in investing in trust-worthy cross-sector relationships and value-added roles for learners.*
- *Working together for the common good is essential.*
- *In times of crisis, the vulnerable often become more vulnerable and need extra attention, thus an equity approach is essential.*
- *An equity lens and cultural humility foster new opportunities for community health and systems thinking.*
- *In order to advance community health and equity, it is vital to meet both immediate needs and to also focus on strategic efforts to transform systems and structures.*
- *Developing new knowledge creates opportunities for broader sharing.*
- *Interprofessional teams enable collective action in complex problems or crises.*
- *Transparency and continuous communication are important always, but vital in a crisis.*
- *Proactive investment in public health infrastructure could mitigate a future crisis.*

The logo for the Center for Community-Based Health (CCBH) is a dark green square with the white text "CCBH" inside.

Thank you!

CCBH COVID-19 Response Team Publications:

1. Terebuh P, et al. Characterization of Community-wide Transmission of SARS-CoV-2 in Congregate Living Settings and Local Public Health-Coordinated Response During the Initial Phase of the COVID-19 Pandemic. *Influenza and Respiratory Viruses*. 10/2020.
2. Gullett, H. Equity for Older Adults and Those in Congregate Sites: Lessons from the First Year of a Local Public Health COVID-19 Response. *J Elder Policy*. 1(3): 29-64. 2021.
3. Pope R, et al. Structural racism and risk of SARS-CoV2 in Pregnancy. *EClinicalMedicine*. 2021 June 10; 37:100950.
4. Miracle J, et al. COVID-19 in Pregnancy: Occupations with Higher Density of Population Exposure Associated with More Severe Disease. *J Occup Environ Med*. 2021 Sept 2.
5. Fakolade AO, et al. Gastrointestinal Bleeding in SARS-CoV-2 Infection. *Med Sci Case Rep*. 2021;8:e928822.
6. Terebuh P, et al. Association of School Instructional Mode with Community COVID-19 Incidence During August– December 2020 in Cuyahoga County, Ohio. Under review.
7. Ganesh P, et al. Back to the Basics: A COVID-19 Surveillance Program within a Local School District. Under review.

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