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CSTE-CDC COVID-19 Core Epi Workgroup Meeting

Date:	**Wednesday June 15, 2022**
Start/End Time:	1:00-2:30p

CSTE-CDC Core Epi COVID-19 WG Meeting Minutes

#	Topic	Items
1.	Introductions	Open and Welcome – **Ben Chan, NH**

2.	Potential Strategies for Long COVID/Post-COVID Condition Surveillance	Potential Strategies for Long COVID-19/Post-COVID-19 Condition Surveillance – **Sharon Saydah, CDC**
		• PCC Surveillance is the term CDC uses while PASC (Post-Acute Sequelae of COVID-19) is used by NIH (also known as 'Long-COVID')
		• Aims:
		  ○ How to best define PCC: Generally persisting symptoms or recurring condition at least 4 weeks after acute COVID-19
		  ○ What are associated RFs and which groups might be disproportionately affected
		  ○ Understand potential ways to reduce risk of PCC and ensure equitable care
		  ○ May be a different clinical definition than surveillance definition
		  ○ Also, in definition, whether it is impacting daily activities of living and new diagnoses that might have been associated with COVID-19
		  ○ WHO has a more targeted definition at 3 mos with at least 2 mos of persistent symptoms, with a clinical case report form, PR is using this one
		  ○ Will be challenging to develop a standardized definition as clinicians who are treating patients report that each patient is unique
		  ○ Questions raised about what is the NIH definition?
		• CDC surveillance and evaluation approaches for PCC:
		  ○ Internet-based surveys (partnered with an entity) to understand individuals with ongoing symptoms
		  ○ Partnered with 4 states: ME, NYS, NJ, and WI, to send out a survey of those who had tested positive (to be presented at CSTE conference next week)
		  ○ MI, WI, LA, and PR are also doing PCC surveys, among others
		  ○ National Health Survey BRFSS have added questions on this re: symptoms for 3 mos or longer following COVID-19 as a core question
		  ○ CDC has done work using EHR data to estimate the occurrence of PCC symptoms in the months after COVID-19, including control groups
		  ○ A number of prospective cohort studies, enrolling at or soon after infection and following for 12-18 mos
		  ○ Sentinel surveillance cooperative agreement/NOFO for four sentinel sites and a coordinating center expected to start soon for the incidence and prevalence of PCC including all age groups – children, adolescents, and adults, in geographically diverse areas
		• It is important to do surveillance for PCC because individuals have ongoing care needs, and this information can help inform healthcare needs that might occur as a result
		• Questions on whether the CDC can share these survey tools with other states

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- CDC reports that they have refined the tools and they can be shared
- Discussion about the importance of asking about ability to work in the activities of daily living (and understanding that impact on the patient)
  - CDC reports that it varies depending on the study, but some evaluations do ask about ability to continue to work
- Discussion on whether a consistent surveillance case definition for PCC is needed, as advancement in research and understanding may have been hindered by the lack of a consistent standardized definition
  - However, does PCC need a PH surveillance definition or a clinical definition?
  - CDC is considering 4 weeks as the timeframe for the definition because that is when patients are recommended to seek care, if not improving by then
  - Because it is a wide range of symptoms or conditions, it is challenging
  - Clinical guidance first came out last year at this time, and currently there are several professional organizations that have put out guidance, and CDC will update content as appropriate
  - Feedback: The prevalence of functional disability before and after covid infection can be another way of looking at longer term impact
- One large city HD reports PCC questions in their post-COVID-19 surveys and continuing to work on developing a consistent case definition and planning to conduct a long COVID-19 focused survey, currently in development.
- Discussion of the issue of the impact of vaccination on PCC:
  - IF there is a vaccine impact on PCC, is there a way to leverage that to improve vaccination acceptance and rates
  - There have been a few studies about the effectiveness of vaccine against PCC which indicate that vaccine does reduce the incidence of PCC
  - Very little research looking at boosters with this question
  - These questions for PCC are included in VE platforms
  - UK publication last week: Whether or not individuals who were infected and developed PCC, did their symptoms of PCC improve with vaccination, and noted a lack of a strong reduction of PCC symptoms from vaccine
- Taking a sample of confirmed cases from MI, working with U Michigan SPH, developed a sampling strategy to do outreach
  - Challenges with outreach re: trust in government but worked on scripting and response rate is good
  - A number of products out of this effort, PCC is one of them
  - Looking at the prevalence of functional disability factors before and after COVID-19 illness (4 weeks prior to COVID-19 versus at the time of completion of the survey which is weeks after COVID-19)
  - Look at difficulty walking up and down stairs, doing errands alone, hearing and vision difficulty, etc., before and after, and they had significantly higher levels of disability after compared to prior
  - This data may inform the case definition if it is decided to develop one
- Surveillance within EMR databases can distinguish post-COVID-19 from conditions caused by COVID-19 to some extent. Important limitations but comparison to control groups helps to some degree, especially for more severe and objective outcomes: https://www.bmj.com/content/376/bmj-2021-068414.long
- A more specific "definition" might be beneficial in terms of actually assessing differences across the population, e.g., the 3 month definition with symptoms for at least 2 months, seems more specific than the 4 weeks definition.

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		• Some STLTs report that they would like to have the tools to track people with PCC, due to growing group of people who want to know what is being done for PCC, etc.
		  ○ Recommendations on how states could track this would be useful.
		• Registries for PCC clinics nationally that could also track trends, and it would be useful if this data were available.
		• Need control groups to understand as three years have passed, people have aged
		  ○ Is anyone using antibody testing to try to identify/ascertain a truly non-infected comparison group (or at least less likely to have been infected?)
		• Surveillance and a case definition would be tough, but there should be an acknowledgement of the issue. Short of a Case Definition, it might be helpful to have a statement from CSTE re: Long-COVID-19.
		  ○ Case ascertainment is challenging with symptom-based diagnosis and no laboratory test for it.
		• Some issues can be best addressed through research or clinical approaches, not necessarily public health. PCC is a PH problem, however, in terms of identifying and defining it, it might be best suited to clinical settings.
		• PH should acknowledge the problem and engage in the response and collaborate even if not primary lead (for instance, U of MI collaborates with MI DOH to ascertain cases from PH case surveillance for potential follow-up surveys)
		• CSTE could consider a policy statement/document addressing PCC:
		  ○ CSTE could endorse the ongoing work, and support further work, etc. (for instance, these three areas that need to be developed are… and STLTs would like to have these types of things addressed)
		  ○ Recognition that it is important, and it is a problem
		  ○ Define what is the question that we are trying to solve and best approaches to answering the question

3.	Center for Forecasting and Outbreak Analytics	Center for Forecasting and Outbreak Analytics – **Marc Lipsitch, CDC**
		• Presented on the ASE call earlier this week
		• Today want to discuss questions posted from CSTE
		• Presentation on reflections on surveillance needs and approaches
		  ○ Surveillance should be designed to inform decisions
		  ○ COVID-19 case surveillance measures no 'natural' quantity
		  ▪ Prevalent cases→want a test→tested→reported (what we observe)
		  ▪ Barriers to each of these and variable over space and time
		  ○ Lessons from the UK
		  ▪ They did use case counts, but mathematical modelers and forecasters used these data less, instead primarily using the output of two very large random samples of the population
		  ▪ Repeated cross-sectional designs (UK React) and another run by Imperial college, a longitudinal household monthly basis design
		  ▪ Representative samples asked to respond – bias in those who agreed
		  • Addressed with incentives and survey weights
		  ▪ Studies evaluated:
		  • Calculated prevalence of infection (estimates of incidence)
		  • Cumulative incidence of infection
		  • Detection and growth rate of new variants
		  • VE dependent on vaccine, number of doses, time since last dose and variant

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- Symptom profile and its evolution over time
- Evidence of reinfection and degree of protection
- Equity measures – comparisons across groups
- Infection-fatality rate

▪ They did also do universal CI/CT and counted all cases for some time
▪ In the US, admission testing was an alternative approach, with routine hospital-based SARS-CoV-2 testing outperforming state-based data in predicting clinical burden in one study (using survey weights for an estimated prevalence)
▪ Modelers in the UK used the random-sample estimates in preference to case counts for fitting and forecasting
- Were able to forecast on a longer time horizon than the US

▪ Supplemented these findings with focused studies to evaluate:
- HCW cohorts for immunity estimates
- Test-negative studies for VE
- NHS-wide studies for severity estimates
- Household studies for kinetics, etc.

▪ Linkage of sequence data to individual participants (random samples) or patient studies crucial to get variant-specific estimates

○ Academic work with Israel:
▪ MOH and Pfizer (national data)
▪ Largest HMO (Clalit)
▪ Sheba Medical Center (several thousand HCWs)
▪ Longitudinal data and depth of information per patient is more important than size of data set and allowed for:
- VE: control confounding by detailed matching
- HCW cohorts: frequent Ab measurements for correlates of protection
- CI/CT: help evaluate VE against infection

○ Surveillance targets: Need high quality and quantity of data; sentinel approach
▪ Viral sequence
▪ Severity
▪ VL kinetics
▪ Transmissivity
▪ VE
▪ Natural history
▪ Sequalae

○ Need national coverage and representativeness:
▪ Case rates, etc.

○ These approaches were trialed by looking at severity with Kaiser Permanente (KP) in Southern CA to assess Omicron severity with a single payer and worked well

○ The CFA will not do major data acquisition, but can work with partners, like KP, other payer providers, vaccine safety network, and other pathways to acquire these kinds of critical data and supplementing that with ongoing ability to attempt a random sampling

○ Feedback and discussion:

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		▪ These are lessons that have been known for years in the influenza field, where every case does not need to be counted ○ The UK and Israel have a centralized PH authority which we do not have here in the US. How does this affect our ability to implement some of these strategies? ▪ In the UK they had it down to the region level (about 12 in the UK) ▪ It was critical to have the NHS to obtain as much data as they did out of their studies, but neither was run by the NHS, one study was the census bureau, and one study was a university with logistics company ▪ In principle, you can have centralized surveillance system without centralized healthcare ▪ For VE, severity for variants, etc., you don't need local data ▪ In Israel, the studies done by HMO had better data than the larger MOH studies ○ Need to ensure we cover surveillance for marginalized populations ○ Need to consider details of when sentinel is best versus need for universal approach. For instance, need all cases to: ▪ Connect patients to services requires each case to be reported (I&Q, etc.) ▪ How to identify clusters and outbreaks requires cases to be reported ▪ However, many other questions can be answered with sentinel surveillance ○ We need to improve surveillance at LHDs/SDOHs as well as improve sentinel surveillance
4.	Future Call Topics and Tentative Agendas	Future calls – biweekly cadence and shifting to 60 minutes calls starting with the next call on June 29th, 2022 Date TBD: • Vaccine Planning for Fall, including future booster recommendations (CDC VTF) • COVID-19 Community Levels evaluation • Reinfection risk by vaccination status • CSTE Death Classification Guidance Update

Action Items

#	Activities/ Deliverables	Action Item/Responsible	Due Date	Status
1.	Potential Strategies for Long COVID/Post-COVID Condition Surveillance	☐ **Send survey tools that can be shared - from jurisdictions and CDC – to Andrew Adams (aadams@cste.org) and CSTE will compile and them make available** ☐ **CSTE could consider a policy statement document addressing PCC**	6/22/22	Pending
Note: Call cadence is biweekly, and meetings will be 60 minutes moving forward Next meeting: Wednesday 6/29/22 1-2pm Eastern				

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