EHR-based Surveillance Learning Community

July 2020 Call

Learning Community Website: www.chronicdisease.org/page/MENDSinfo

Today's Agenda

Using Modelling to generate surveillance information from EHR data

- Massachusetts Case Study: Tom Chen, Harvard School of Public Health

Poll Questions

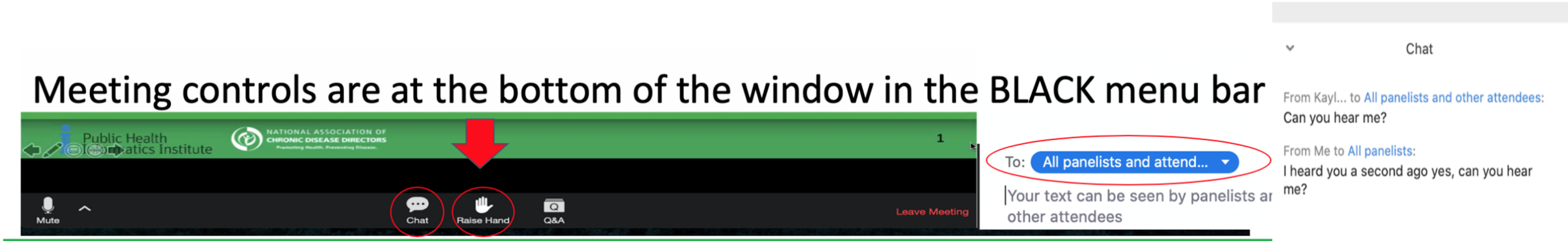
- Are you familiar with, or at least heard of, small area estimation?
- Weighting and modeling both are ways to adjust crude predictions. Do you understand how they are different?

Modelling Surveillance Information

refer to MDPHNet slides

Discussion Questions

- What was the most challenging part of modelling?
- How did you explain modelling in lay language to stakeholders? Do you feel like they got it?
- What do you make of the difference between adjusted and modelled estimates for the same?



Housekeeping

- This will be the last webinar for the EHR-based Surveillance Learning Community Call Series
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Revisiting Questions from June LC Call

Are there any restrictions on maps for census tract estimates because of HIPPA (privacy and confidentiality requirements)?

- A consideration would be to suppress census tract rates (or counts) that are calculated from less than 5 cases from showing as a rate in the map (or suppress census tract rates that are calculated for census tracts with less than 200 people living in them). The census tract would appear as a "No Events or Data Suppressed" in the map.
- Purpose is twofold 1) to protect "protected" human address locations from being disseminated but also to 2) produce adjusted rates or counts that are more reliable than rates or counts based on very small numerators/denominators.

Revisiting Questions from June LC Call

Did you share the census tract maps with the public, or were they only for internal project use?

- The maps are posted to the public: https://www.cohealthmaps.dphe.state.co.us/colorado_bmi_monitoring_system/
- Request for the raw data went through a more rigorous review process.
- Stay sensitive to misinterpretations/uses of the data

Revisiting Questions from June LC Call

Did you consider whether to estimate to the full geographic population or only to the "population in care"? This may be less of a concern when examining estimation for children than adults.

- Because of relatively low coverage, did not feel comfortable estimating for the full population. They felt it more cautious to estimate for the population in care, and to be clear about that.

Revisiting Questions from June LC Call

- **Some possible concerns with raking approaches include challenges if handling sparse data and inability to account for other measures associated with health status beyond sociodemographic characteristics. Any thoughts how to handle those critiques?**
  - "Yes, this is a concern and a limitation. Particularly so when an important characteristic (poverty, for example) is not available at the individual level."

Revisiting Questions from June LC Call

- **This is an interesting application of survey statistics to population level data. Did you compare the data to survey data to see how it compared? NHIS has data on BMI. Most individuals report seeing their doctor every two years.**
  - The KP team did compare their data to national data (NHANES).
  - Since BRFSS does not have data for children, did not make that comparison.
  - Survey data tends to under-estimate obesity prevalence.

Revisiting Questions from June LC Call

- **Besides posting the results on their website, did the health department use this information for intervention planning or evaluating outcomes?**
  - Key stakeholders at the state health department were aware of the data but unkwn if it directly informed their intervention planning.
  - Some of the high obesity prevalence neighborhoods had been previously identified and targeted for interventions, so these data confirmed earlier findings
    - Did not identify new neighborhoods of particular concern.

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