

Defining and Evaluating Mental Health Using Syndromic Surveillance

1:15PM EST | November 18th, 2021 | 2021 SyS Symposium

Facilitator:

Lakshmi Radhakrishnan, MPH – CDC/NSSP

Panelists:

Lareina La Flair, PhD, MPH – Washington State Department of Health

Dylan Pell, MSW, MPH – New Mexico Department of Health

Kayla Anderson, PhD – CDC/NCIPC

Rebecca Bitsko, PhD – CDC/NCBDDD



Council of State and Territorial Epidemiologists



Lakshmi Radhakrishnan, MPH - CDC

Lareina La Flair, PhD, MPH - Washington State Department of Health

Dylan Pell, MSW, MPH – New Mexico Department of Health

Rebecca Bitsko, PhD – CDC/NCBDDD





DEFINING AND EVALUATING MENTAL HEALTH USING SYNDROMIC SURVEILLANCE

Roundtable

Lakshmi Radhakrishnan, Center for Surveillance, Epidemiology, and Laboratory Services, CDC

Kayla N. Anderson, National Center for Injury Prevention and Control, CDC

Rebecca Bitsko, National Center on Birth Defects and Developmental Disabilities, CDC

Lareina La Flair, Washington State Department of Health

Dylan Pell, New Mexico Department of Health

Goal:

To use syndromic surveillance to better understand emergency department visit burden, and trends over time, for mental health concerns





Step 1:
*Individual syndrome
definitions for
specific conditions*

Step 2:

Broad overarching “any mental health” definition



Could you outline the collaborative nature of this project?

NSSP Community of Practice

- Lareina La Flair (WA)
- Sara Chronister (AZ)
- Dylan Pell (NM)
- Kyla Munoz (CO)
- Meredith Davis (VA)
- Rene Borroto & Emily Hosterman (GA)
- Diksha Ramnani (WI)
- Brittany Yarnell (IN)
- Rosa Ergas & Megha Parikh (MA)
- Rasneet Kumar (TX)
- Zach Stein (ICF)

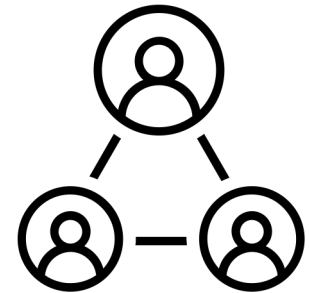
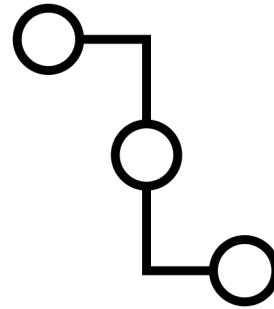
CDC Staff

- Kayla Anderson (NCIPC)
- Lakshmi Radhakrishnan (CSELS)
- Becky Bitsko (NCBDDD)
- Robyn Cree (NCBDDD)
- Achintya Dey (CSELS)
- Deborah Gould (CSELS)
- Nimi Idaikkadar (NCIPC)
- Barbara Lopes-Cardozo (CGH)
- Rashid Njai (OMHHE)
- Michael Sheppard (CSELS)

What were some
guiding
principles in
identifying and
defining mental
health concerns?



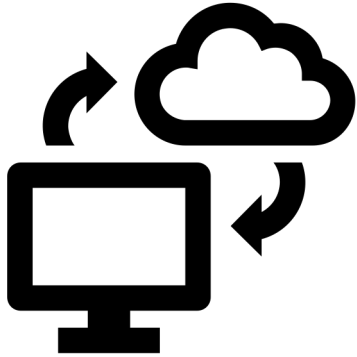
How did you distinguish between the use of diagnosis codes versus symptom-based free-text terms to identify mental health conditions?



What were some decision points when terms and codes overlapped?

How did you balance definition sensitivity and specificity?

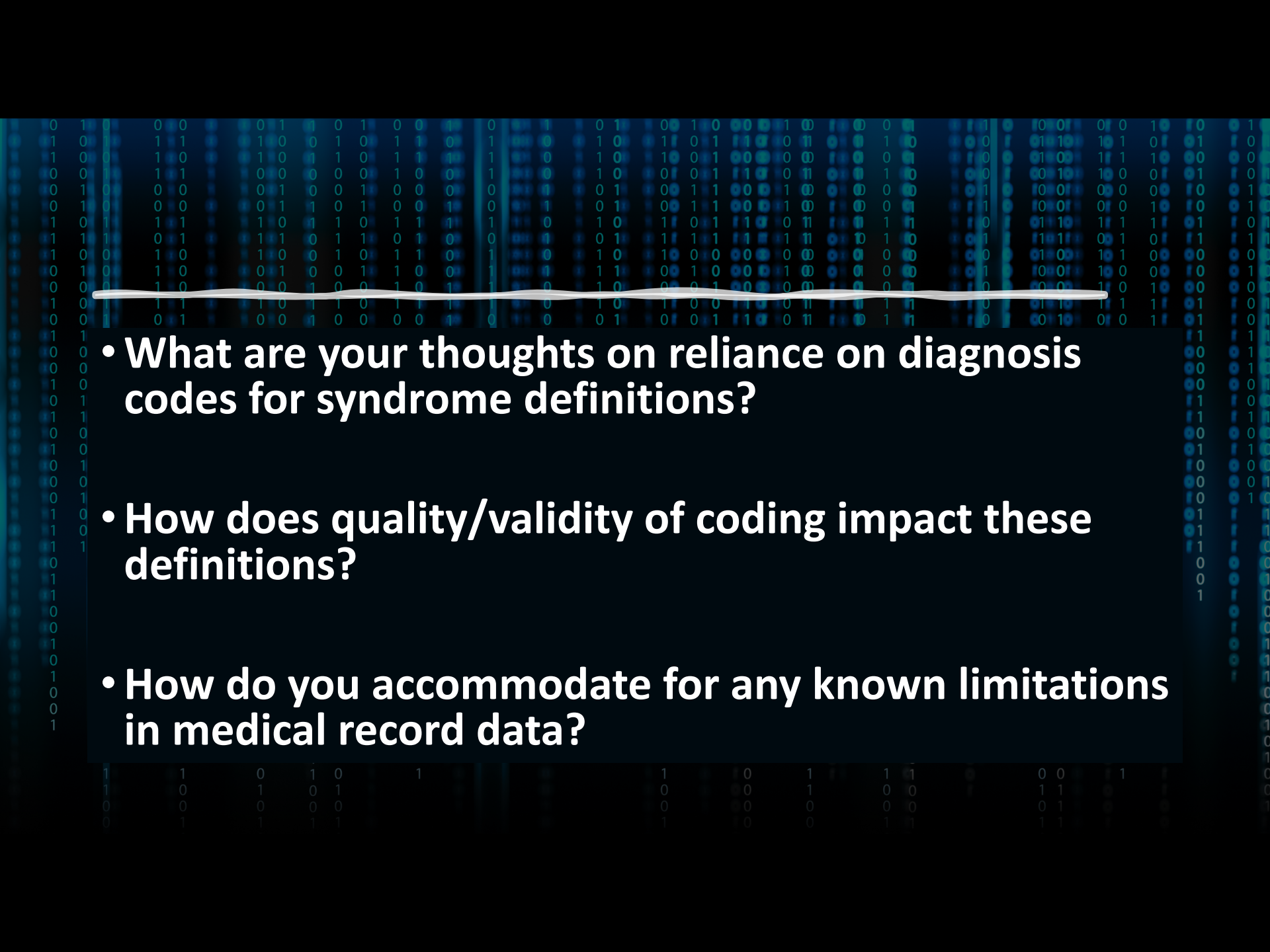




Could you speak to the use and misuse of codes and how that might impact results returned by syndrome definitions?

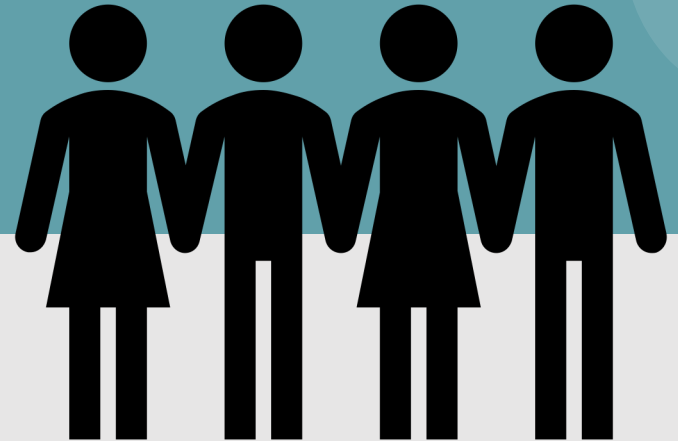


How might poor code performance impact syndrome definitions?

- 
- The background of the slide is a dark blue gradient with a pattern of vertical lines and binary code (0s and 1s) in a lighter blue color. A thick, white, slightly wavy horizontal line spans across the middle of the slide, positioned above the first bullet point.
- **What are your thoughts on reliance on diagnosis codes for syndrome definitions?**
 - **How does quality/validity of coding impact these definitions?**
 - **How do you accommodate for any known limitations in medical record data?**

Could you describe your experiences with collaborative syndrome testing?

- How did testing influence final syndrome definition syntax?
- Any lessons learned?



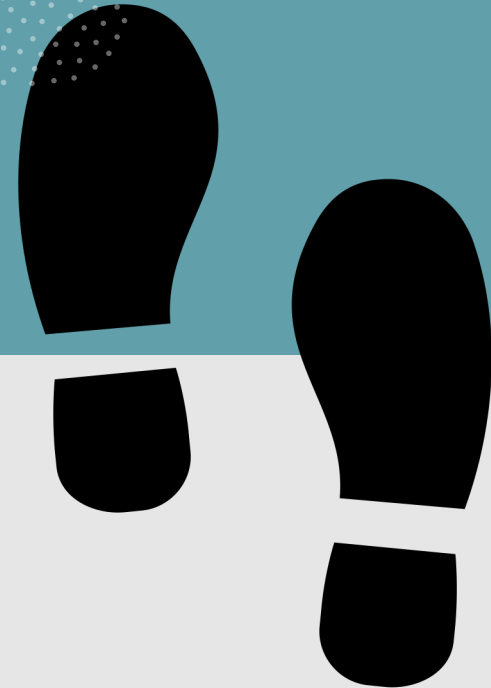
How are you using these syndrome definitions for public health surveillance and action?

```
        subject to mirror
        mirror_mod.mirror_object =
        operation == "MIRROR_X":
        mirror_mod.use_x = True
        mirror_mod.use_y = False
        mirror_mod.use_z = False
        operation == "MIRROR_Y":
        mirror_mod.use_x = False
        mirror_mod.use_y = True
        mirror_mod.use_z = False
        operation == "MIRROR_Z":
        mirror_mod.use_x = False
        mirror_mod.use_y = False
        mirror_mod.use_z = True

    @selection at the end -add
    ob.select= 1
    mirror_ob.select=1
    context.scene.objects.active
    ("Selected" + str(modifier
    mirror_ob.select = 0
    bpy.context.selected_obj
    data.objects[one.name].select
    print("please select exactly
    --- OPERATOR CLASSES ---

    (types.Operator):
    X mirror to the selected
    object.mirror_mirror_x"
    mirror X"
```

Next steps?





Questions?

**Contact: Kayla Anderson (lx7@cdc.gov) and
Lakshmi Radhakrishnan (kvg7@cdc.gov)**

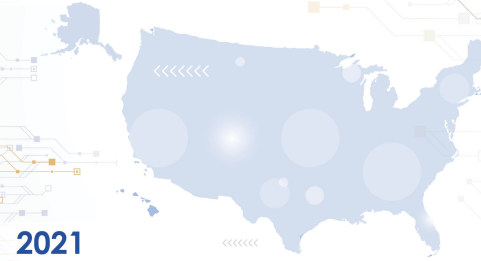
The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



National Syndromic Surveillance Program

Community of Practice

Resources that Advance the Science and
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2021

Syndromic Surveillance Symposium

Week of November 15, 2021



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