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Updates to ESSENCE Shortness of Breath Subsyndrome and Coronavirus-related CC and DD categories

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Dear Colleagues,

We would like to notify the NSSP Community for Practice of two important groups of changes that affect surveillance of coronavirus-like illness (CLI).

1. We added “version 2” updates to three CC and DD categories related to CLI. These improve negations for “Fever and Cough-Sob-DiffBr v1”, “Fever and Cough-Sob-DiffBr neg Influenza v1”, and “CLI CC with CLI DD and Coronavirus DD v1”.

2) We refined the “Shortness of Breath” ESSENCE Subsyndrome.

CLI Revisions:

The first change incorporates new negations into three CC and DD categories: “Fever and Cough-Sob-DiffBr v1”, “Fever and Cough-Sob-DiffBr neg Influenza v1”, and “CLI CC with CLI DD and Coronavirus DD v1”. Sites have pointed out the need for adding negations to these queries. We reviewed the data and identified 98 beneficial negations, such as denials of fever in Chief Complaints. The following is a sample of these negations:

*^denies fever^,or,^afebrile^,or,^denies cough fever^,or,^denies any fever^,or,^denies shortness of breath cough fever^,or,^denies nausea vomiting diarrhea fever^,or,^denies cough or fever^,or,^denies shortness of breath fever^,or,^denies nausea vomiting fever^,or,^denies chest pain shortness of breath fever^*

A full list of the negations can be found in the ESSENCE CCDD Category table. These negations have been added to NSSP-ESSENCE and are ready to use.

Shortness of Breath Subsyndrome:

The second change in the coming weeks will be to the ESSENCE chief complaint processor to incorporate additional variations of text related to shortness of breath. These changes are based on work performed jointly by the FL-DOH ESSENCE team and JHU-APL, and will classify relevant records that would otherwise be missed.

The new terms and their weights in the shortness of breath syndrome are as follows (with “*” indicating a wildcard):

New Shortness of Breath Subsyndrome and Weights	Old Shortness of Breath Subsyndrome and Weights

BREATH*, 4	Breath, 4
SHORT, 2	Breathing, 4
SHORTNESS, 2	Short, 2
OFBREATH, 4	Shortness, 2
SHORTOF, 2	
SHORTNESSOF, 2	
SHORTNESSOFBREATH, 10	
SHORTNESS OF BREATH, 10	
SHORTOFBREATH, 10	
SHORT OF BREATH, 10	
SHORTNESS OF B, 10	
SHORTNESS OF BR, 10	
SHORT OF BRE*, 10	
SHORTNESS OF BRE*, 10	
SOBREATH, 10	

All original terms and logic will be retained in the Shortness of Breath Subsyndrome. Due to this, visits currently binned as “Shortness of Breath” will continue to be included, but the addition of these new terms will allow previously missed visits to also be binned. This will likely cause Shortness of Breath visit counts to increase slightly for your jurisdiction.

The changes are being made within NSSP ESSENCE to the Shortness of Breath subsyndrome and once complete will update existing queries using that subsyndrome. The “version 2” of the three CCDD Categories listed will incorporate the changes to the Shortness of Breath subsyndrome so that you can apply these in your surveillance activities as you see fit.

What this means for you:

The negations added to the CLI syndromes are sites may see a decrease in the proportion of encounters categorized into the CLI-related syndromes.

The “Shortness of Breath” subsyndrome is a key component of multiple CC and DD categories related to CLI surveillance, including both version 1 and version 2 of: “Fever and Cough-Sob-DiffBr “, “Fever and Cough-Sob-DiffBr

neg Influenza", and "CLI CC with CLI DD and Coronavirus DD". As a result, some sites will see an increase in the proportion of encounters categorized into the different CLI-related CC and DD categories.

We have not quantified the impact of these two sets of changes. Although they are likely to impact the classification of some encounters, we anticipate the trends to stay generally the same.

No action is needed on your part. The changes are being made within NSSP ESSENCE. Please contact nssp@cdc.gov with any questions.

Best regards,

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