[Logic Liaison Template][N3C Covid Enclave] Combined Variables README

README FOR TWO TEMPLATES:

[Logic Liaison Template][N3C Covid Enclave] Combined Variables for All Patient Facts

[Logic Liaison Template][N3C Covid Enclave] Combined Variables for Covid Positive Patient Facts

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README SECTIONS:

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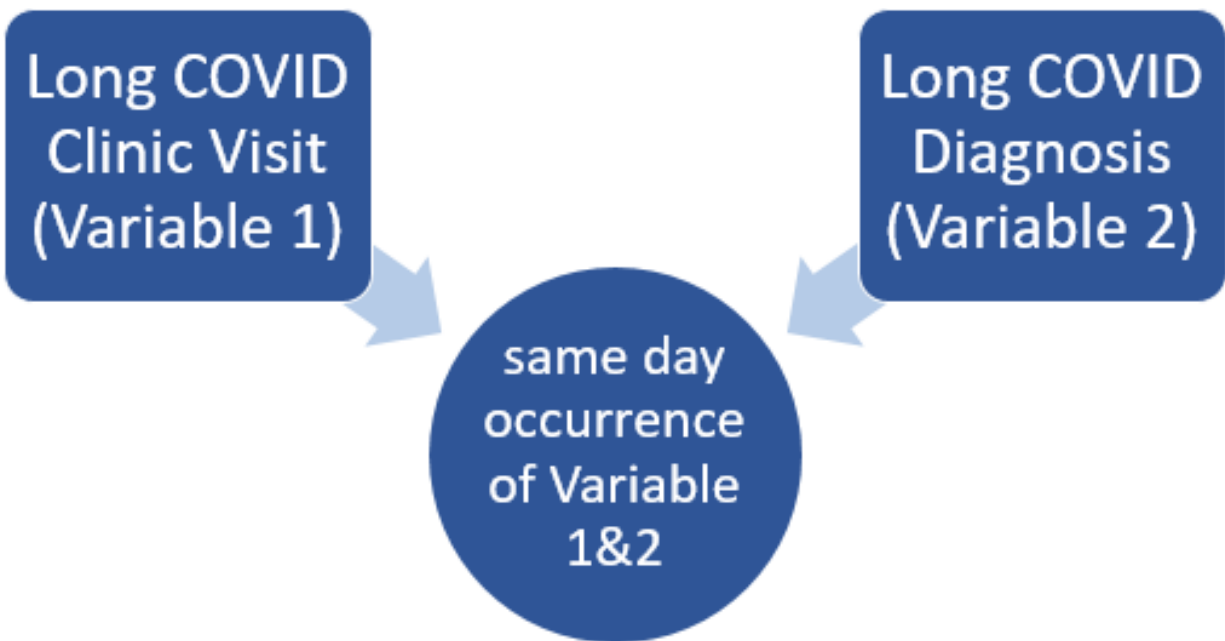
TEMPLATE STATUS:

As of August 2, 2022: Initial version of the All Patients and Confirmed COVID+ Combined Variables templates. This README provides documentation for both templates.

PURPOSE & USE:

The templates allow the user to combine two variables (variable 1 and variable 2) in a visit-level table by creating a new "same-day occurrence variable" indicating that both variables appear that day for that patient. You can also choose to make an "either/or" variable in the visit-level table that combines two variables (variable 3 and variable 4) into a new variable that flags days where at least one of the input variables is recorded for that patient.
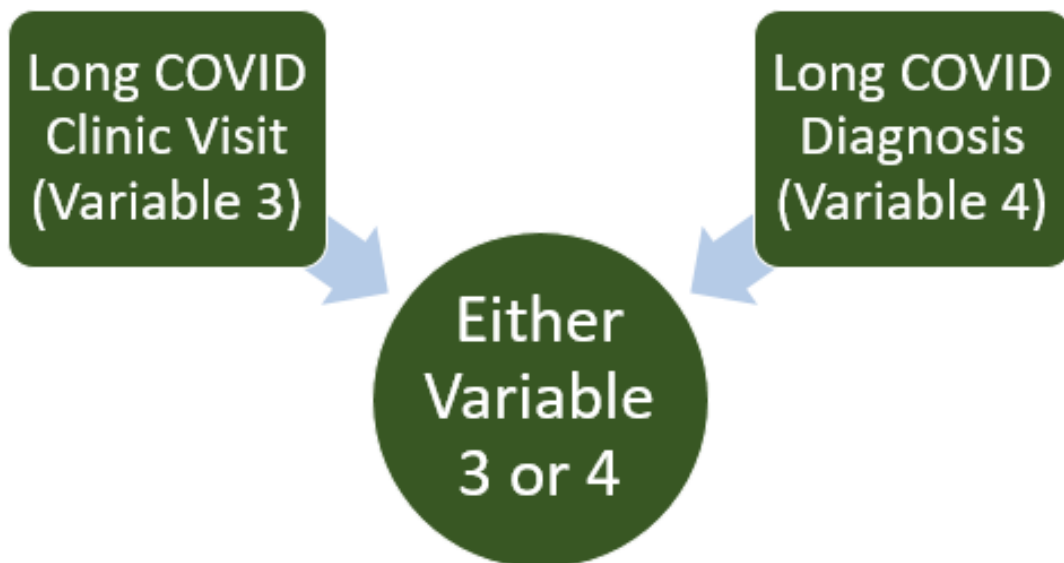
Use case 1: IDENTIFYING LONG COVID DIAGNOSES APPEARING SAME DAY AS LONG COVID SPECIALTY CLINIC VISIT

This example is a default in the template and will generate a visit-day flag for any same-day occurrence of these long COVID indicators. Use the template to assign different column names to Variable 1 and Variable 2 based on your specific project needs.

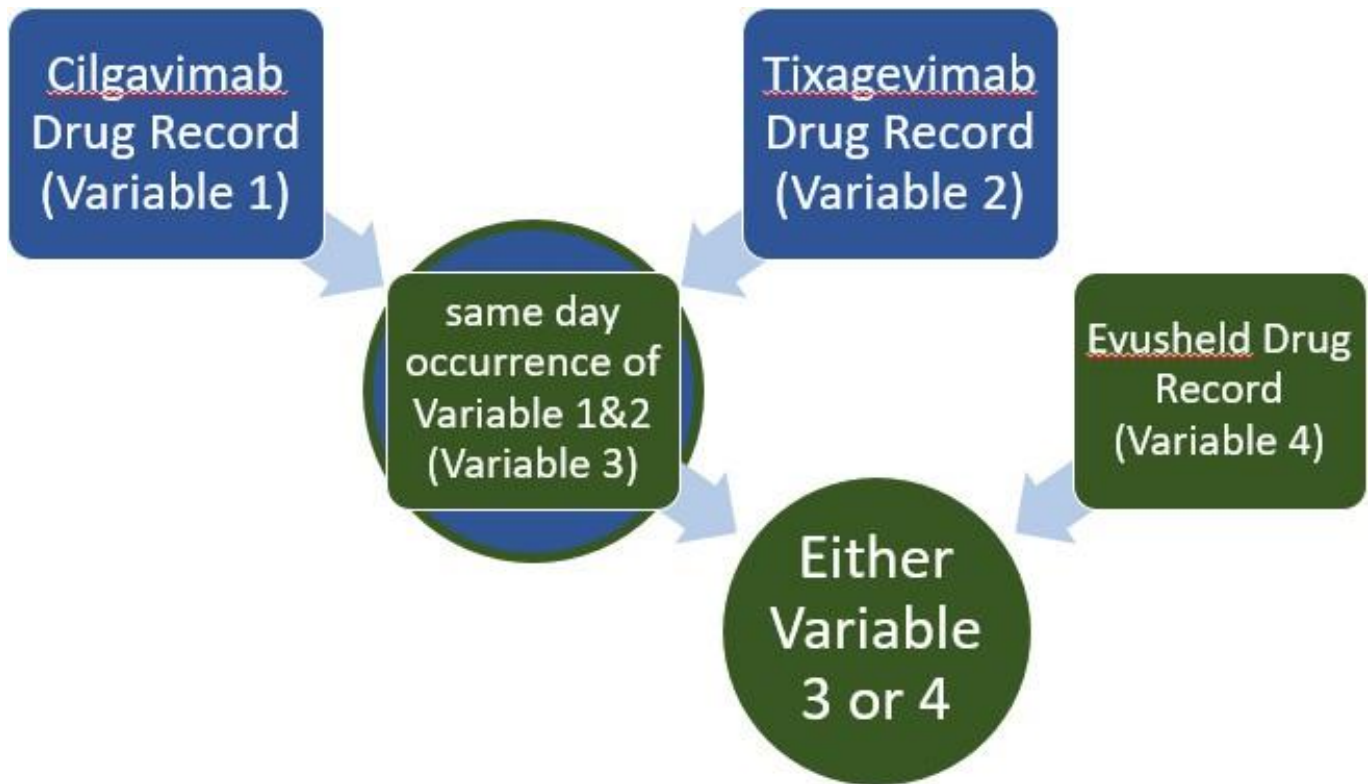**Use case 2: IDENTIFYING DAYS WITH EITHER A LONG COVID DIAGNOSES OR A LONG COVID SPECIALTY CLINIC VISIT**

This example is also a default in the template and will generate a visit-day flag when at least one of these long COVID indicators appears. Use the template to assign different column names to Variable 3 and Variable 4 based on your specific project needs.

Use case 3: LEVERAGING SAME DAY OCCURRENCE and EITHER/OR LOGIC TO PRODUCE COMPLEX DERIVED VARIABLE

Sometimes you need to use the template to combine both of the above types of logic. This is the case when searching for drug records that might name a combined product OR individually list its ingredients. Use concept sets for two drug components to search for a same-day record of those ingredients (this implies the use of the combined drug product). Next, apply the either/or logic to the resulting same-day occurrence variable and records that directly identify the combined product. For example, you might want to find Any Evusheld Indicator by looking for either Evusheld drug records OR same-day occurrence

of Evusheld ingredients (cilgavimab and tixagevimab) since this is another way we see Evusheld being captured in the drug records. In this case, the new same-day occurrence variable becomes one of the input variables to the either/or logic.

INPUTS & OUTPUTS (DATA DICTIONARY):

These templates are intended to be used a supplement to the main Logic Liaison fact table templates (Confirmed COVID+ template and the All Patients template). Refer to the README for each of those templates for more specifics about how to customize those pipelines for your study-specific variables. If you have created custom datasets, import those or go to a workbook with those datasets and use the template interface to replace the defaults with your custom datasets.

AUGMENTED VISIT DAY NODE

INPUT: Patient_Visit_Facts, table: defaults to a logic liaison table all facts visit day table. One requirement of this table is that it has ONE ROW PER PATIENT VISIT DAY. If you are working with COVID+ version of this template, then this table must have the following columns: pre_COVID, during_first_COVID_hospitalization, post_COVID. You can change the default to any table that meets these requirements.

INPUT: Variable 1, string: column name from your Person_Visit_Facts input table that you will use for the same-day occurrence test

INPUT: Variable 2, string: column name from your Person_Visit_Facts input table that you will use for the same-day occurrence test

OUTPUT: same_day_occurrence_v1_v2, string: name of a new column that stores the result of the same-day occurrence test (for each visit day for each patient)

INPUT: Variable 3*, string: column name from your Person_Visit_Facts input table that you will use for either/or test

INPUT: Variable 4*, string: column name from your Person_Visit_Facts input table that you will use for either/or test

*As described in Use Case 3 above, **"same_day_occurrence_v1_v2"** can be used as variable three or four.

OUTPUT: either_v3_or_v4, string: name of the column that stores the result of the either/or test (for each visit day for each patient)

AUGMENTED PATIENT SUMMARY NODE

INPUT: Summary_Fact_Table, table: defaults to a logic liaison table patient summary table. The only requirement of this table is that it has ONE ROW PER PATIENT. You can change the default to any table that meets this requirement.

OUTPUT: same_day_occurrence_v1_v2_indicator**, string: name of a new column that stores the result of the same-day occurrence test at a summary level (flags patient who had same-day occurrence variable at one or more visits).

OUTPUT: either_v3_or_v4_indicator**, string: name of a new column that stores the result of the either/or test at a summary level (flags patient who had either/or variable at one or more visits).

**Note: If using the COVID+ version of this template, you will get three indicators for each of the above. One "_pre_COVID_indicator" for at least one instance prior to or on the day of COVID index, one "_during_first_COVID_hospitalization_indicator" for at least one instance during the first COVID-associated hospitalization, and one "_post_COVID_indicator" for at least one instance after the COVID index.

RELEASE NOTES:

TEMPLATE RELEASE NOTES (VERSION CHANGES):

Aug 3, 2022:

Initial template publication