Mapping from generic IDSR COVID-19 data to OMOP 6.0

Section: 04 Notification of Lab Result

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Source Data Mapping Approach to CDMV6.0

Table name: observation

The OBSERVATION table captures clinical facts about a Person obtained in the context of examination, questioning or a procedure. Any data that cannot be represented by any other domains, such as social and lifestyle facts, medical history, family history, etc. are recorded here. New to CDM v6.0 An Observation can now be linked to other records in the CDM instance using the fields OBSERVATION_EVENT_ID and OBS_EVENT_FIELD_CONCEPT_ID. To link another record to an Observation, the primary key goes in OBSERVATION_EVENT_ID (CONDITION_OCCURRENCE_ID, DRUG_EXPOSURE_ID, etc.) and the Concept representing the field where the OBSERVATION_EVENT_ID was taken from go in the OBS_EVENT_FIELD_CONCEPT_ID.

Reading from who_idsr_synthetic_v1

Destination Field	Source Field	Logic	Comment
observation_id			A unique key given to an Observation record for a Person. Each instance of an observation present in the source data should be assigned this unique key. This is to be an auto generated number (integer) for every recorded inserted. Data type: bigint Required: yes Primary key: yes Foreign key: no Foreign key table: n/a Foreign key domain: n/a
person_id			The PERSON_ID of the Person for whom the Observation is recorded. Data type: bigint

			Required: yes Primary key: no Foreign key: yes Foreign key table: PERSON Foreign key domain: n/a Important note for ETL: This is a foreign key referencing to the person_id in the PERSON table.
observation_concept_id			The CONCEPT_ID that the OBSERVATION_SOURCE_CONCEPT_ID maps to. There is no specified domain that the Concepts in this table must adhere to. The only rule is that records with Concepts in the Condition, Procedure, Drug, Measurement, or Device domains MUST go to the corresponding table. Notification of disease = 4017056 Data type: integer Required: yes Primary key: no Foreign key: yes Foreign key table: CONCEPT Foreign key domain: Observation Important note for ETL: If no code is found, set it to 0.
observation_date	date_facility_notified_district	Populate this with the value from date on	Store it in YYYY-MM-DD format.

		which the facility reported / notified to the district (date_facility_notified_district) about the disease.	The date of the Observation i.e the date the notification of the lab result was sent to the district. Data type: date Required: no Primary key: no Foreign key: no Foreign key table: n/a Foreign key domain: n/a
observation_datetime	date_facility_notified_district	Populate this with the value from date on which the facility reported / notified to the district (date_facility_notified_district) about the disease.	Store it in YYYY-MM-DD HH:MM:ss format. Since no time is specified in the source data so set it to midnight (00:00:00). The date of the Observation i.e the date the notification of the lab result was sent to the district. Data type: datetime (without time zone) Required: yes Primary key: no Foreign key: no Foreign key table: n/a Foreign key domain: n/a
observation_type_concept_id			Observation type concept id: 32809 for case report form Data type: integer Required: yes Primary key: no

		Foreign key: yes Foreign key table: CONCEPT Foreign key domain: Type concept Important note for ETL: If no code is found, set it to 0.
value_as_number		This is the numerical value of the Result of the Observation. It is not expected that all Observations will have numeric results, rather, this field is here to house values should they exist. Set it to NULL. Data type: float Required: no Primary key: no Foreign key: no Foreign key table: n/a Foreign key domain: n/a
value_as_string		This is the categorical value of the Result of the Observation, if applicable and available. Set it to NULL. Data type: varchar(60) Required: no Primary key: no Foreign key: no

value_as_concept_id		Foreign key table: n/a Foreign key domain: n/a The value of VALUE_AS_CONCEPT_ID may be provided through mapping from a source Concept which contains the content of the Observation. Set it to NULL. Data type: integer Required: no Primary key: no Foreign key: yes Foreign key table: CONCEPT Foreign key domain: n/a
qualifier_concept_id		This field contains all attributes specifying the clinical fact further, such as as degrees, severities, drug-drug interaction alerts etc. Here we are using it to specify the adequacy of the specimen collected. Set it to NULL. Data type: integer Required: no Primary key: no Foreign key: yes Foreign key table: CONCEPT Foreign key domain: n/a
unit_concept_id		There is no standardization requirement for units

		associated with OBSERVATION_CONCEPT_IDs. Set it to NULL. Data type: integer Required: no Primary key: no Foreign key: yes Foreign key table: CONCEPT Foreign key domain: n/a
provider_id		This is a foreign key referencing to the provider_id in the PROVIDER table. Data type: bigint Required: no Primary key: no Foreign key: yes Foreign key table: Provider Foreign key domain: n/a
visit_occurrence_id		The visit during which the condition occurred or has been reported. This is a foreign key referencing to the visit_occurrence_id in the VISIT_OCCURRENCE table. Data type: bigint Required: no Primary key: no

		Foreign key: Yes Foreign key table: VISIT_OCCURRENCE Foreign key domain: n/a
visit_detail_id		The VISIT_DETAIL record during which the condition occurred or has been reported. This is a foreign key referencing to the visit_detail_id in the VISIT_DETAIL table. Data type: bigint Required: no Primary key: no Foreign key: Yes Foreign key table: VISIT_DETAIL Foreign key domain: n/a
observation_source_value		This field houses the verbatim value from the source data representing the Observation that occurred. Data type: varchar(50) Required: no Primary key: no Foreign key: no Foreign key table: n/a Foreign key domain: n/a
observation_source_concept_id		If the OBSERVATION_SOURCE_VALUE is coded in the source data using an OMOP supported vocabulary put the concept id representing

		the source value here. If not available, set to 0. Set it to 0 (zero). Data type: integer Required: yes Primary key: no Foreign key: yes Foreign key table: CONCEPT Foreign key domain: n/a
unit_source_value		This field houses the verbatim value from the source data representing the unit of the Observation that occurred. This code is mapped to a Standard Condition Concept in the Standardized Vocabularies and the original code is stored here for reference. Set it to NULL. Data type: varchar(50) Required: no Primary key: no Foreign key: no Foreign key table: n/a Foreign key domain: n/a
qualifier_source_value		This field houses the verbatim value from the source data representing the qualifier of the Observation that occurred. This code is mapped to a Standard Condition Concept in the

		Standardized Vocabularies and the original code is stored here for reference. Set it to NULL. Data type: varchar(50) Required: no Primary key: no Foreign key: no Foreign key table: n/a Foreign key domain: n/a
observation_event_id		If the Observation record is related to another record in the database, this field is the primary key of the linked record. Set it to NULL. Data type: bigint Required: no Primary key: no Foreign key: no Foreign key table: n/a Foreign key domain: n/a
obs_event_field_concept_id		If the Observation record is related to another record in the database, this field is the CONCEPT_ID that identifies which table the primary key of the linked record came from. Set it to 0 (zero).

		Data type: bigint Required: no Primary key: no Foreign key: Yes Foreign key table: CONCEPT Foreign key domain: n/a
value_as_datetime		It is possible that some Observation records might store a result as a date value. Set it to NULL. Data type: datetime (datetime without timezone) Required: no Primary key: no Foreign key: no Foreign key table: n/a Foreign key domain: n/a

Appendix: source tables

Table: who_idsr_synthetic_v1

Field	Type	Most freq. value	Comment
recnr	bigint		
rec_identifier	text		
report_country	character varying	Wakanda	
report_province	character varying	Northern	
report_district	character varying	Mena Ngai	
report_site	character varying	Public Healthcare Services Center	
diagnosis	character varying		
patient_type	character varying	Out-Patient	
date_health_facility	date	2022-03-25	
patient_name	character varying	Baba P	
patient_dob	date	2003-12-29	
age_years	integer	21	
age_months	integer	0	
age_days	integer	15	
patient_sex	character varying	Male	
patient_residence	character varying	Lion cult	
patient_town_city	character varying		
patient_district	character varying	Mena Ngai	
patient_area_type	character varying	Urban	
patient_address	character varying		
patient_occupation	character varying		
date_onset_symptoms	date	2021-01-08	
travel_history	character varying	No	
travel_destination	character varying		
vaccine_doses_received	integer	99	
date_last_vaccine	date		
vaccine_name	character varying		

date_specimen_collected	date	2020-08-15	
date_specimen_sent_lab	date	2021-07-03	
lab_result	character varying	Negative	
outcome	character varying	Transferred out	
final_classification	character varying		
date_form_sent_district	date	2022-05-18	
date_facility_notified_district	date	2022-08-19	
person_form_complete	character varying	Everett Ross	