

## external\_exposure

CDM Field	User Guide	Example #1 HIV and Climate Change WG Use Case	Example #2 HIV and Climate Change WG Use Case
external_exposure_id	primary key identifier		
external_exposure_era_id	foreign key to the era in which the external_exposure participates <sup>1</sup>		
person_id	foreign key to person table		
external_exposure_concept_id	concept from an OMOP GIS vocabulary representing the external exposure measured property like temperature	ENVO_09200001 <i>concept_id for “temperature of air” in the ECTO<sup>2</sup> ontology</i>	ENVO_01000830 <i>concept_id for “water-based rainfall” in the ECTO ontology</i>
statistic_concept_id	concept for a statistic like “mean”, “count”, “95 <sup>th</sup> percentile”, “exceedance probability”	STATO_0000573 <i>concept_id for an “arithmetic mean” in STATO</i>	SPEI-12 <sup>3,4</sup> <i>needs a concept_id in the GIS delta vocabulary</i>
interval_concept_id	concept for an interval over which a statistic spans like “24-hour period”, “month”, “year”	9580 <i>concept_id for “month” in ATHENA</i>	9448 <i>concept_id for “year” in ATHENA</i>

<sup>1</sup> Note that this is NOT the best practice in other era tables – for example, successive periods of drug\_exposures are combined under certain domain-specific rules to produce continuous drug\_eras. The latter dates are just inclusive of the former ones. There is no foreign key relationship between a drug exposure and its era

<sup>2</sup> [Here](#) is ECTO. The contact person for ECTO is Anne Thessen. Andrew early on expressed an interest in using ECTO. Polina has captured many of the statistics created on top of the ECTO classes in the OMOP Exposome and SDOH vocabularies

<sup>3</sup> [Here](#) is a general introduction to SPEI (Standardised Precipitation-Evapotranspiration Index)

<sup>4</sup> The “12” in SPEI-12 means the index considers the total precipitation and evapotranspiration over the preceding 12 months

CDM Field	User Guide	Example #1 HIV and Climate Change WG Use Case	Example #2 HIV and Climate Change WG Use Case
operator_concept_id	operators include <, <=, =, >=, > and $\Sigma$ (sum)	STATO_0000669 <i>concept_id</i> for a “sum” in STATO	4171754 <i>concept_id</i> for “<=” in ATHENA
qualifier_name	statistics are sometimes determined in relationship to a standard statistic	NOAA climate normal	PEI (Pyrenean Ecology Institute) severe hydrological drought
qualifier_verbatim_text		daily maximum temperature	-2
external_exposure_start_datetime	temporal coverage of the statistic	1/1/2023	1/1/2023
external_exposure_end_datetime		12/31/2023	12/31/2023
external_exposure_type_concept_id	concept from an OMOP GIS vocabulary representing a place-based instrument (aka sensor) type including “satellite”, “weather station”, “in-home device”, “social vulnerability index”, “UN SDG (sustainable development goal) indicator”, PhenX environmental health CDE, etc.		
external_exposure_source_value	this field contains the exact value from the source data that represents the measurement that occurred		

CDM Field	User Guide	Example #1 HIV and Climate Change WG Use Case	Example #2 HIV and Climate Change WG Use Case
external_exposure_source_concept_id	this is the concept representing the external_exposure source_value and may not be standard		
value_as_number	amount of exposure	28	
value_as_concept_id			4135944 <i>concept_id for “true” in ATHENA</i>
unit_concept_id	unit of measurement like “celsius” if value_as_number	586323 <i>concept_id for “degree celsius” in ATHENA</i>	
unit_text		degree Celsius	
visit_occurrence_id	not required		
external_exposure_event_id	foreign key to a record in an OMOP CDM table		
external_exp_event_field_concept_id			