

# Guide to Variable Column Headers

This guide is intended to help decode the components that make up the name of a variable downloaded from the HHEAR Data Repository. The column headers serve as metadata for the data within each column. They describe who the data are about, what the data describe, when it was collected, etc. Below are some examples that illustrate how column headers may differ, depending upon the variable being described.

**Variables Without Study Visit:** Time-invariant variables are listed only using the entity and attribute.

Entity                      Attribute

Caregiver-Human-Biological-Sex

**Variables Including Study Visit:** Time-varying variables include a study visit tag so time period is clear.

Entity                      Attribute                      Study Visit

Child-Human-Height-Z-Score-Childhood-Baseline

Entity                      Attribute                      Study Visit

Caregiver-Human-Smoking-Status-Childhood-Followup

**Variables showing Continuous Measurements:** Continuous variables will almost always include a unit of measurement. Exceptions are unit-less measures, such as Z-scores and specific gravity.

Entity                      Attribute                      Study Visit

Child-Human-Z-Score-Body-Mass-Index-BMI-Adolescent-Period

Entity                      Attribute                      Unit                      Study Visit

Child-Human-Body-Weight-Kilogram-Birth

Entity                      Attribute                      Unit                      Study Visit

ChildAnatomy-Head-Circumference-Centimeter-Birth

**Lab Sample Variables:** Columns that contain direct biological measures of exposure or response or environmental exposures will include the sample matrix, in addition to the measurement, analyte, unit and time period. This format is the same for assays performed in HHEAR labs and for results from assays that were supplied by the parent studies.

Entity Matrix Measurement Study Visit  
ChildSample-Urine-Specific-Gravity-Childhood-Period

Entity Matrix Measurement Analyte Unit Study Visit  
ChildSample-Cord-Blood-Concentration-Arsenic-V-Acid-Micrograms-Per-Deciliter-Birth

Entity Matrix Measurement Analyte Unit Study Visit  
PregnancySample-Urine-Limit-Of-Detection-Arsenic-Nanogram-Per-Milliliter-Third-Trimester

Entity Matrix Measurement Analyte Unit Study Visit  
ChildSample-Urine-Concentration-Mono-isobutyl-Phthalate-DiBP-Microgram-Per-Liter-Childhood-Period

**Derived Lab Sample Variables:** Derived metrics will be clearly labeled using different measurement tags. Example would include Mean-Concentration, Annual-Concentration, Maximum-Value, etc.

Entity Matrix Measurement Analyte Study Visit  
ChildSample-Saliva-Mean-Concentration-Cotinine-Childhood-Followup

## Environmental Sample Variables

Entity Matrix Measurement Analyte Unit Study Visit  
MotherHouseholdSample-Drinking-Water-Concentration-Arsenic-V-Acid-Microliter-Pregnancy

## Key

Term	Color	Definition	Example
Entity	Red	A person, place, or object that exists; the person, place, or object that the variable describes	Caregiver-Human, ChildAnatomy, Pregnancy-Sample, MotherHouseholdSample
Attribute	Blue	A characteristic of an entity; the variable that is being described	Biological Sex, Height, Smoking Status
Study Visit	Purple	A time interval of an encounter between a study subject and a study administrator	Birth, First Trimester, Childhood Period, Adolescent Baseline
Unit	Green	A standardized quantity of a physical quality	Kilogram, Centimeter, Microgram Per Liter
Matrix	Grey	Components of a sample other than the analyte of interest	Blood, Urine, Plasma, Saliva, Water Sample,
Measurement	Orange	A type of measure of the amount of analyte in the matrix	Specific Gravity, Mean Concentration, Limit of Detection
Analyte	Gold	A chemical or biological entity; substance or sample being analyzed	Cotinine, Leptin, Lead