



## Data Collection Worksheet

**Please Note:** The Data Collection Worksheet (DCW) is a tool to aid integration of a PhenX protocol into a study. The PhenX DCW is not designed to be a data collection instrument. Investigators will need to decide the best way to collect data for the PhenX protocol in their study. Variables captured in the DCW, along with variable names and unique PhenX variable identifiers, are included in the PhenX Data Dictionary (DD) files.

Liquid chromatography - tandem mass spectrometry (LC-MS/MS) is the preferred method to accurately measure NNAL in urine (see source references 1 and 2 for details). The limit of quantitation is 0.25 pg/mL. The optimal cutpoint for distinguishing people who smoke from those who do not is 10-40 ng/ml (see source reference 3). Note that the range related to background population exposure to secondhand smoke and to some degree metabolic differences. When background secondhand smoke exposure is low, the cutpoint is low.

Protocol source: <https://www.phenxtoolkit.org/protocols/view/720403>