



## 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.

Read to participant:

**CPT - State assessment:** Imagine that you could smoke RIGHT NOW. The following questions ask how many cigarettes you would consume if they cost various amounts of money. Assume the available cigarettes are your favorite brand. Assume that you have the same income/savings that you have now and **NO ACCESS** to any cigarettes or other nicotine products. In addition, assume that you cannot save or stockpile cigarettes for a later date.

Be sure to consider each price increment carefully.

1. How many cigarettes would you smoke RIGHT NOW if they were	<b>FREE?</b>	[\$0/pack]
2. How many cigarettes would you smoke RIGHT NOW if they were	<b>1¢ each?</b>	[20¢/pack]
3. How many cigarettes would you smoke RIGHT NOW if they were	<b>5¢ each?</b>	[\$1/pack]
4. How many cigarettes would you smoke RIGHT NOW if they were	<b>13¢ each?</b>	[\$2.60/pack]
5. How many cigarettes would you smoke RIGHT NOW if they were	<b>25¢ each?</b>	[\$5.00/pack]
6. How many cigarettes would you smoke RIGHT NOW if they were	<b>50¢ each?</b>	[\$10/pack]

7. How many cigarettes would you smoke RIGHT NOW if they were	\$1 each?	[\$20/pack]
8. How many cigarettes would you smoke RIGHT NOW if they were	\$2 each?	[\$40/pack]
9. How many cigarettes would you smoke RIGHT NOW if they were	\$3 each?	[\$60/pack]
10. How many cigarettes would you smoke RIGHT NOW if they were	\$4 each?	[\$80/pack]
11. How many cigarettes would you smoke RIGHT NOW if they were	\$5 each?	[\$100/pack]
12. How many cigarettes would you smoke RIGHT NOW if they were	\$6 each?	[\$120/pack]
13. How many cigarettes would you smoke RIGHT NOW if they were	\$11 each?	[\$220/pack]
14. How many cigarettes would you smoke RIGHT NOW if they were	\$35 each?	[\$700/pack]
15. How many cigarettes would you smoke RIGHT NOW if they were	\$70 each?	[\$1,400/pack]
16. How many cigarettes would you smoke RIGHT NOW if they were	\$140 each?	[\$2,800/pack]
17. How many cigarettes would you smoke RIGHT NOW if they were	\$280 each?	[\$5,600/pack]
18. How many cigarettes would you smoke RIGHT NOW if they were	\$560 each?	[\$11,200/pack]

NOW if they were		
19. How many cigarettes would you smoke RIGHT NOW if they were	\$1,120?	[\$22,400/pack]

**CPT - Trait assessment:** Think about a TYPICAL DAY. The following questions ask how many cigarettes you would consume if they cost various amounts of money. Assume the available cigarettes are your favorite brand. Assume that you have the same income/savings that you have now and **NO ACCESS** to any cigarettes or nicotine products other than those offered at these prices. In addition, assume that you would consume cigarettes that you request at this time. You cannot save or stockpile cigarettes for a later date. Be sure to consider each price increment carefully.

1. How many cigarettes would you smoke on a typical day if they were	FREE?	[\$0/pack]
2. How many cigarettes would you smoke on a typical day if they were	1¢ each?	[20¢/pack]
3. How many cigarettes would you smoke on a typical day if they were	5¢ each?	[\$1/pack]
4. How many cigarettes would you smoke on a typical day if they were	13¢ each?	[\$2.60/pack]
5. How many cigarettes would you smoke on a typical day if they were	25¢ each?	[\$5/pack]
6. How many cigarettes would you smoke on a typical day if they were	50¢ each?	[\$10/pack]
7. How many cigarettes would you smoke on a typical day if they were	\$1 each?	[\$20/pack]
8. How many cigarettes would you smoke on a	\$2 each?	[\$40/pack]

typical day if they were		
9. How many cigarettes would you smoke on a typical day if they were	\$3 each?	[\$60/pack]
10. How many cigarettes would you smoke on a typical day if they were	\$4 each?	[\$80/pack]
11. How many cigarettes would you smoke on a typical day if they were	\$5 each?	[\$100/pack]
12. How many cigarettes would you smoke on a typical day if they were	\$6 each?	[\$120/pack]
13. How many cigarettes would you smoke on a typical day if they were	\$11 each?	[\$220/pack]
14. How many cigarettes would you smoke on a typical day if they were	\$35 each?	[\$700/pack]
15. How many cigarettes would you smoke on a typical day if they were	\$70 each?	[\$1,400/pack]
16. How many cigarettes would you smoke on a typical day if they were	\$140each?	[\$2,800/pack]
17. How many cigarettes would you smoke on a typical day if they were	\$280each?	[\$5,600/pack]
18. How many cigarettes would you smoke on a typical day if they were	\$560each?	[\$11,200/pack]
19. How many cigarettes would you smoke on a typical day if they were	\$1,120each	[\$22,400/pack]

For adolescents, alternate prices can be considered: Estimated cigarette consumption was assessed at \$0.00, \$0.01, \$0.05, \$0.13, \$0.25, \$0.50, \$1.00, \$1.50, \$2.00, \$2.50, \$3.00, \$4.00, \$5.00, \$6.00, \$7.00, \$8.00, \$9.00, \$11.00, \$35.00, \$70.00, \$140.00, \$280.00, \$560.00, and \$1,120.00 per cigarette.

"The CPT data can generate five demand indices:

1. breakpoint (first price at which cigarette consumption is zero);
  2. demand intensity (cigarette consumption at the lowest price);
  3. Omax (output maximum, or maximum financial expenditure on cigarettes);
  4. Pmax (price maximum, or price at which expenditure is maximized); and
  5. elasticity of demand (sensitivity of cigarette consumption to increases in cost).
- To generate an estimate of elasticity, demand curves were estimated by fitting each participant's reported consumption across the range of prices to Hursh and Silberberg's (2008) exponential demand curve equation:  $\ln Q = \ln Q_0 + k(e^{-\alpha P} - 1)$ , in which Q is the quantity consumed, k specifies the range of the dependent variable (cigarette consumption) in logarithmic units, and  $\alpha$  specifies the rate of change in consumption with changes in price (elasticity). The value of k (3.5 in natural log units in the present study, based on the best fit with the sample mean consumption values) is constant across all curve fits. Individual differences in elasticity are thereby scaled with a single parameter ( $\alpha$ ) which is standardized and independent of reinforcer magnitude. Larger  $\alpha$  values reflect greater price sensitivity (elasticity). Demand curves were fit according to the Hursh and Silberberg (2008) guidelines using the calculator provided on the Institute for Behavioral Resources website. This nonlinear regression was used to generate an R<sup>2</sup> value, reflecting percentage of variance accounted for by the equation. Consistent with Jacobs and Bickel (1999), when fitting the demand curve data, the first zero consumption value (i.e., breakpoint) was replaced by an arbitrarily low but nonzero value of .001, which is necessary for the logarithmic transformations. We did not include subsequent 0 consumption values in our curve estimates." Taken from Murphy et al. (2011).

Protocol source: <https://www.phenxtoolkit.org/protocols/view/710401>