Real-world application of reach ratios:
A tool to monitor quitline reach among priority populations

What is a reach ratio?

A reach ratio compares the proportion of quitline participants from a subgroup to the proportion of the target population of tobacco users from the same subgroup.

- **ReRa = 1**
  - Proportionate representation of subgroup in QL population

- **ReRa < 1**
  - Subgroup is under-represented in QL population; opportunities may exist

- **ReRa > 1**
  - Subgroup is over-represented in QL population; don’t fret, but look at complementary subgroups

**Key Reference:**

*The Reach Ratio – A new indicator for comparing quitline reach into smoking subgroups.*

How to calculate a reach ratio?

Who is your **target population**?

What is the one year **time period**?

What is the **subgroup(s)** of interest?

**DATA SOURCES and CIs**

**Data sources**

Data sources are a key component of reach ratios. Use state specific adult tobacco survey data over BRFSS when available. These repositories can be found by searching online.

- Census Bureaus’ Annual Population Estimates [2015 or 2016] for 18+

- Adult Tobacco Study (MN)
  - [http://www.mnadulttobaccosurvey.org/](http://www.mnadulttobaccosurvey.org/)

- BRFSS
  - [https://www.cdc.gov/brfss/data_tools.htm](https://www.cdc.gov/brfss/data_tools.htm)

- Other state, local, or population-specific sources

**Confidence intervals (CIs)**

Campbell et al. and PDA use **Katz Log** method found in the following journal article:

Recommended confidence intervals for two independent binomial proportions.


**In sum...**

- A reach ratio measures how well a subgroup is represented in quitline services.

- Break the reach ratio into small pieces and use the best data source available for each piece. Calculate CI’s.

- Use reach ratios to inform program and marketing decisions and as a quick reference.