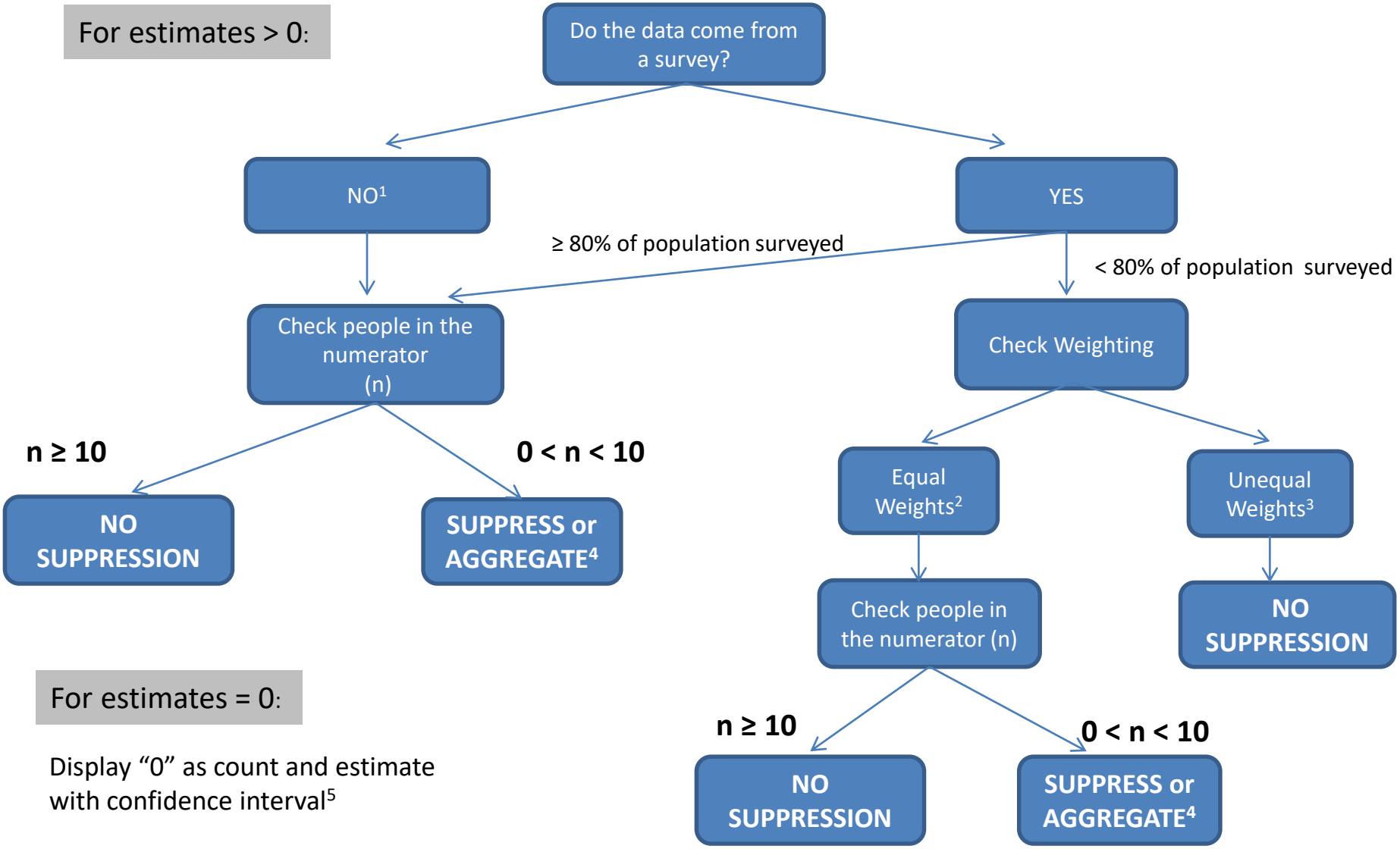
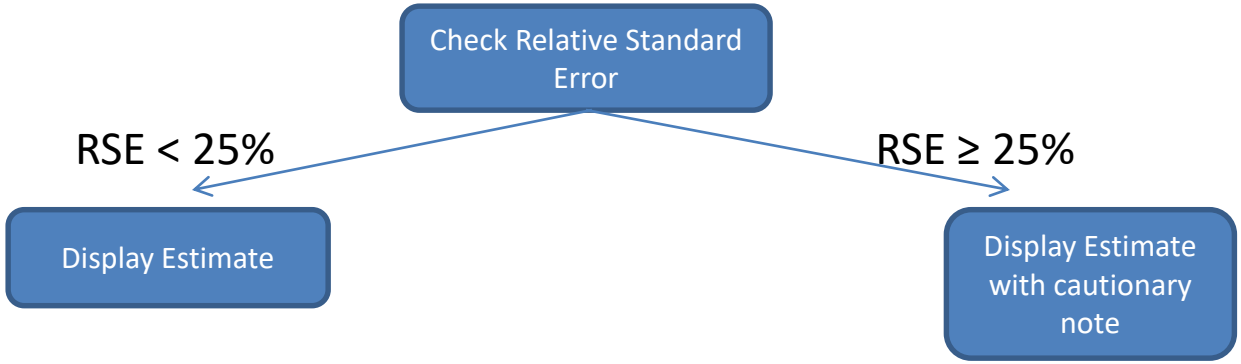
DOH Data Presentation for the Public – Small Numbers Standard



[1] Examples include birth data, CHARS data, linked death data, notifiable conditions reports
[2] Examples include Healthy Youth Survey
[3] Examples include Behavioral Risk Factor Surveillance System, Pregnancy Risk Assessment System
[4] Exceptions include annual state- or county-specific counts or rates with no stratification.
[5] 95% Poisson confidence interval for 0 is 0 to 3/n.

DOH Data Presentation for the Public – Reliability Recommendation



Calculation of the RSE

Depending on whether the data follow a Poisson or Binomial statistical distribution, methods for calculation of the RSE differ.

When data follow a Poisson distribution, the RSE is calculated as follows:

- A = count of events
- B = population
- Rate = A/B
- SE = Standard Error = SE of the rate = $\sqrt{(\text{rate}(1-\text{rate}))/\text{population}}$ = $\sqrt{\text{A}/\text{B}}$
- Percent RSE = 100(SE/rate) which simplifies to 100($\sqrt{\text{A}}$/A.
- Note that counts of 16 or less will have RSE > 25%

When data follow a Binomial distribution, the RSE is calculated as follows:

- A = numerator
- B = denominator
- Proportion = A/B
- SE = Standard Error = $\sqrt{(\text{proportion}(1-\text{proportion}))/\text{B}}$
- Percent RSE = (SE/Proportion)100