

Relative Standard Error Use in Health Statistics

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Our vision is to be the principal source of fisheries-dependent information on the Atlantic coast through the cooperation of all program partners.

Healthy People 2010

Criteria for Data Suppression



- U.S. National Center for Health Statistics
 - 432 population based measures
 - Some data suppressed due to statistical reasons
 - 22 major data contributors reviewed

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Healthy People 2010



- Data excluded from analysis & publication:
 - RSE >30% (n=9 sources)
 - RSE > 17.5% (n=1)
 - Sample size < 100 (n=1)
 - Sample size <50 (n=7)
 - Sample size 5-20 (n=8)
 - No formal criteria (n=3)

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Guidelines or Standards?



- Various rules on confidentiality
- Statistical stability varies for users to draw reasonable conclusions
- No national standard for deciding when the RSE is so large that one should not present the data
- Analysts must use judgment if data precise and stable enough

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Variable Criteria



Minimum Criteria For Reporting Survey Data and Population Event Data:

- $RSE < 50\%$
- If $30\% < RSE < 50\%$ *Use caution in interpreting

Applied in the following circumstances:

- Decisions for small numbers of people,
- Measure gross changes over time or across groups, or
- Allocation of a small amount of resources.

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Variable Criteria



Strict Criteria For Reporting Survey Data:

- ≥ 10 cases in the numerator AND a RSE $< 30\%$

Applied in the following circumstances:

- Policy decisions impacting many people,
- Measure small changes over time or across groups
- Allocation of a large amount of resources.
- When there is a legislative or agency rule, policy or standard that mandates suppression

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Considerations



- NCHS generally excludes data from analysis when $RSE > 30\%$
- Minimum vs. strict criteria for different situations

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