

Indicator:	High School Completion (B1)
Domain:	Social Determinants of Health
Sub-domain	Education
Demographic group:	Women aged 18-44 years.
Data resource:	Behavioral Risk Factors Surveillance System (BRFSS). http://www.cdc.gov/BRFSS/
Data availability:	Core item - available in all states annually.
Numerator:	Female respondents aged 18-44 years who completed the 12 th grade or received a GED including those who completed one or more years of college (excluding unknowns and refusals).
Denominator:	Female respondents aged 18-44 years who reported their highest completed level of education.
Measures of frequency:	Crude annual prevalence and 95% confidence interval, weighted using the BRFSS methodology (to compensate for unequal probabilities of selection, and adjust for non-response and telephone non-coverage).
Period of case definition:	Current.
Significance:	Education is the dimension of socioeconomic status (SES) that most strongly and consistently predicts health, especially for women and their children. ¹ Education is among the most widely used indicators of socioeconomic position in US public health research. Reasons for its popularity include: ease of measurement; applicability to person not in the active labor force, stability over adult lifespan, and association with numerous health outcomes. ² A low level of education limits a person's access to jobs and other social resources which in turn limits his/her capacity to integrate within society and thereby increases the risk of subsequent poverty. ³ Having less education can lead to unhealthy behaviors, exposure to stress, and psychological reactions to stress that increase the risk of intrauterine growth retardation or preterm delivery. ³ Maternal and paternal education were the strongest predictors of adverse reproductive outcomes in one study. ⁴
Limitations of indicator:	Measuring the diverse complexity of SES with one relatively unchanging measure has its limitations. Changing SES levels over a lifetime has been shown to affect health, but the level of

education generally remains stable even with the loss of resources.² The span of education levels is far less than the range of income and wealth so that education may be a less sensitive measure of the magnitude of social inequalities in health. Education is less predictive than class position of ownership of capital assets.² Lastly, educational level does not have a universal meaning across populations and generations.² Studies of the reliability of educational attainment in surveys showed the variance is small and the correlation is high.^{5,6} Some BRFSS studies have also identified high reliability⁷⁻⁹ and two studies found correlations between 0.70-0.80.^{10,11}

Related Healthy People

2010 Objective(s): None.

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Indicator:	Low Income (B2)
Domain:	Social Determinants of Health
Sub-domain:	Poverty
Demographic group:	Women aged 18-44 years
Data resource:	Annual Social and Economic Supplement (ASEC) of the Current Population Survey (CPS). http://www.census.gov/hhes/www/cpstc/cps_table_creator.html .
Data availability:	Available in all states annually.
Numerator:	Female respondents aged 18-44 years who reported family income at or below 200% of the Federal Poverty Threshold.
Denominator:	Female respondents aged 18-44 years who reported family income and family size (excluding those with missing data).
Measures of frequency:	Crude annual prevalence, and where possible, 95% confidence interval.
Period of case definition:	Preceding calendar year.
Significance:	Socioeconomic status (SES) is one of the major social determinants of health and is a complex construct generally used to define social inequality. One way of evaluating the impact of SES, especially income, on health is to consider the relationship of income and poverty. One approach to measuring poverty is to set the income threshold at a subsistence level related to biological survival—the approach underlying measurement of poverty level in the United States. ¹ If poverty were listed as a cause of death in the U.S., in 1991 it would have ranked as the fourth leading cause of death among black women and sixth among white women. ² Even when confounding and/or effect modification are taken into account, low SES is generally associated with increased risks of both preterm birth and intrauterine growth retardation. ^{3,4} For many federal and state health and social programs, 200% of the Federal Poverty Threshold is the basis for income eligibility criteria. As part of preconception health promotion, it is recommended that providers ask all women of childbearing age about their economic status and refer them to agencies that can help determine their eligibility for financial assistance if they appear to be in need. ⁵ In addition, women below this income threshold may need assistance

in gaining access to the necessary primary and preventive health services.

Limitations of indicator:

Measuring the diverse complexity of SES with one dichotomous measure has its limitations. The proportion in poverty varies whether it is in one month, one year or two years.⁶ Poverty can also be measured at the individual level and the neighborhood level.⁷ Not including other measures of SES, such as wealth, can be problematic.⁸ In addition, the current US poverty level is based on a threshold established in 1964 and was set at three times the cost of what was termed an “economy food plan”. It was further adjusted for family size, gender of family head, number of children under 18 years, and farm versus non-farm residence. The poverty line for subsequent years is adjusted based on the Consumer Price Index for inflation. According to the National Academy of Science, this approach is marred by several flaws, including erroneous assumptions about the proportions of income spent on food.⁹

Little research has been conducted on the validity and reliability of income data collection. For many different reasons there is a tendency in household surveys for respondents to underreport their income. Based on an analysis of independently derived income estimates, the Census Bureau determined that respondents report income earned from wages or salaries more accurately than other sources of income, and that the reported wage and salary income is nearly equal to independent estimates of aggregate income.⁹ Miller compared income figures as reported in the Census-CPS Match Study and the Office of Business Economics (OBE) estimates. Data from the OBE are considered the most comprehensive and accurate and are the standard for evaluating other information. Except for income from the “other than earnings” category, Miller found that census data were reasonably accurate compared with OBE data.^{10,11} However, non-response in income is a major problem in surveys and is likely to have the most significant impact on the quality of these data.¹² ASEC uses the most advanced methods to collect reliable family income data.

**Related Healthy People
2010 Objective(s):**

None.

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