Definition: Maternal Mortality Rate

Maternal Mortality Rate
Death from obstetric causes ≤42 days postpartum, per 100,000 live births

Numerator: The number of deaths with the underlying cause of death on the death certificate from the following ICD codes:
ICD-10 codes A34, O00-O95, O98-O99 for 1999-present

Denominator: The number of live births in California, per year

• Same definition and method as U.S. rates calculated by National Center for Health Statistics and the World Health Organization

• Same definition and method used by Healthy People 2020 to create benchmark objective of 11.4 maternal deaths per 100,000 live births

• Used for reporting vital statistics and comparison of indicators and objectives

• Sometimes referred to as “Maternal Mortality Ratio”
Maternal Mortality Rate, California Residents; 1970-2013

Maternal Deaths per 100,000 Live Births

HP Objectives – Maternal Deaths (≤42 days postpartum) per 100,000 Live Births

Moving Average of Maternal Mortality Rates, California Residents; 1999-2013

Three-Year Moving Average

Maternal Deaths per 100,000 Live Births

SOURCE: State of California, Department of Public Health, California Birth and Death Statistical Master Files, 1999-2013. Maternal mortality for California (deaths ≤ 42 days postpartum) was calculated using ICD-10 cause of death classification (codes A34, O00-O95, O98-O99). On average, the mortality rate increased by 8.0% each year between 1999 and 2006 [(95% CI: 4.25%, 11.96%), \(p<.0001\)]. There was a 12.4% decrease each year from 2006 to 2013 [(95% CI: 9.06%, 17.45%), \(p<.0001\)]. Poisson regression showed a statistically significant increasing trend from 1999 to 2006 and decreasing trend from 2006 to 2013 (\(p=0.001\) one-sided Cochran-Armitage, based on individual year data). Produced by California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Division, May, 2015.
Maternal Mortality Rate, California and United States; 1999-2013

Maternal Mortality Rates by Race/Ethnicity, California Residents; 1999-2013

Maternal Mortality Rates per 100,000 Live Births

White, Non-Hispanic
African-American, Non-Hispanic
Hispanic
Asian, Non-Hispanic

SOURCE: State of California, Department of Public Health, California Birth and Death Statistical Master Files, 1999-2013. Maternal mortality rates for California (deaths ≤ 42 days postpartum) were calculated using ICD-10 cause of death classification (codes A34, O00-O95,O98-O99). Produced by California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Division, May, 2015.
Disparities in Maternal Mortality by Race/Ethnicity, California Residents; 1999-2013

SOURCE: State of California, Department of Public Health, California Birth and Death Statistical Master Files, 1999-2013. Maternal mortality rates for California (deaths ≤ 42 days postpartum) were calculated using ICD-10 cause of death classification (codes A34, O00-O95, O98-O99). Produced by California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Division, May, 2015.
Maternal Mortality Rates by Age Group, California Residents; 1999-2013

Maternal Deaths per 100,000 Live Births

Maternal Mortality Rate (early and late deaths), California Residents; 1999-2013

SOURCE: State of California, Department of Public Health, California Birth and Death Statistical Master Files, 1999-2013. Maternal mortality for California (Early maternal deaths ≤ 42 days postpartum) was calculated using ICD-10 cause of death classification (codes A34, O00-O95,O98-O99) and code O96 is also included when calculating Early and Late Maternal Deaths up to one year postpartum. Produced by California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Division, May, 2015.

HP 2020 Objective – 11.4 Deaths per 100,000 Live Births
Number of Early and Late Maternal Deaths, California Residents; 1999-2013

Late Maternal Deaths; Deaths 43 days - 1 year postpartum
Early Maternal Deaths (i.e., Maternal Mortality); Deaths <= 42 days postpartum

SOURCE: State of California, Department of Public Health, California Birth and Death Statistical Master Files, 1999-2013. Beginning in 1999, maternal mortality for California (deaths from obstetric causes up to 42 days postpartum) was calculated using the ICD-10 cause of death classification (codes A34, O00-O95, O98-O99). Late maternal deaths include maternal obstetric deaths from 43 days to one year postpartum (code O96). Produced by California Department of Public Health, Maternal, Child and Adolescent Health Division, May, 2015.