

# MCAH Vital Statistics in San Francisco Infant Deaths

Infant death rates in the US are higher than in other developed countries, and reflect race-ethnic disparities. In the US, in 2013, 6.0 per 1,000 infants died within the first year of life. In California, 4.7 per 1,000 infants died. Statewide, Black/African American infant deaths occurred 2.6 times more frequently than White infant deaths. The leading causes of infant death were congenital malformations, preterm birth, and low birth weight. Although national and statewide rates have decreased significantly over the past decade, race-ethnic disparities persist.

## Infant deaths within the first year of life in San Francisco, 2012-2014

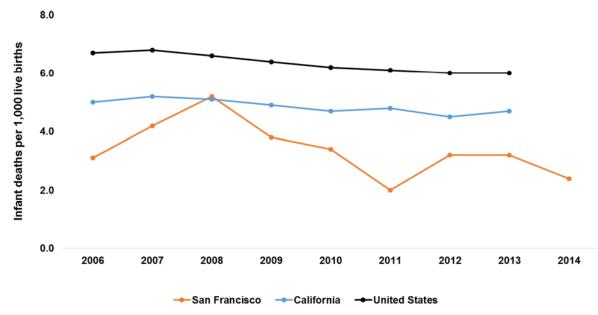
- The 3-year infant death rate was 2.9 per 1,000 live births.
  - o 79 infants, resident in San Francisco, died between Jan. 1, 2012 and Dec. 31, 2014.
    - 47 infants died within 7 days after birth.
    - 31 infants died between 7 and 28 days after birth.
    - 1 infant died between 28 and 364 days after birth.
- **Race-ethnic disparity.** The 3-year infant death rate was 4 times higher for Black/African American infants than for White or Asian infants (9.6 vs 2.1 and 2.0 deaths per 1,000 live births).

## Leading causes of infant death in San Francisco, 2012-2014

- Top 3 Causes of Death.
  - 35 deaths (44% of all infant deaths) were attributed to perinatal conditions, including maternal factors and complications of pregnancy, low birth weight, birth trauma, and perinatal infections.
  - o 16 deaths (20% of all infant deaths) were attributed to congenital malformations or birth defects.
  - 12 deaths (15% of all infant deaths) were attributed to sudden unexpected infant death (SUID), including sudden infant death syndrome (SIDS) or ill-defined or unknown causes.
- Age-Specific Causes.
  - 29 out of 47 early neonatal deaths (62% of deaths in the first 7 days of life) were attributed to perinatal conditions.
  - 10 out of 31 deaths between 7 and 28 days after birth were associated with congenital malformations.
  - o 1 death occurred 29 days after birth, due to chronic lung disease and renal failure.
- Race/Ethnic-Specific Causes.
  - Perinatal conditions and SIDS deaths disproportionately affected Black/African American infants.
    While 5% of births were Black/African American infants, 23% of deaths due to perinatal conditions and 25% of SIDS deaths happened to Black/African American infants.
- Child maltreatment & injuries.
  - o 1 infant death was associated with falling off of a bed.
  - o No deaths were attributed to assault.

## Local trends in infant death, 2006-2014

- **Citywide.** The infant death rate in San Francisco decreased from 4.2 deaths per 1,000 live births in 2006-2008 to 2.9 deaths per 1,000 live births in 2012-2014. The trend was not statistically significant.
- Age. Infant age-specific death rates did not change significantly in San Francisco from 2006 to 2014.
- **Race.** Over the past decade, an almost 5-fold disparity in infant mortality persisted between Black and White infants (16.7 vs 2.8 per 1,000 deaths in 2006-2008, 9.6 vs 2.1 per 1,000 deaths in 2012-2014).



#### Trends in infant death in San Francisco, California, US

Data Source: California Dept. of Public Health, Death Statistical Master Files; CDC, Mortality data on WONDER (Apr. 2015); CDC, "Deaths: Final Data for 2013." (Apr. 2015), kidsdata.org,

#### 3-Year infant death rate (per 1,000 live births) in San Francisco

	2006-2008		2009-2011		2012-2014	
	Death Rate	Rate CI	Death Rate	Rate CI	Death Rate	Rate CI
Total	4.2	(3.4-4.9)	3.1	(2.4-3.7)	2.9	(2.3-3.6)
Infant age at death						
0-6 days	2.6	(2.0-3.2)	2.1	(1.5-2.6)	1.7	(1.2-2.2)
7-27 days	1.5	(1.0-1.9)	0.8	(0.5-1.2)	1.2	(0.7-1.6)
28-365 days	0.1	(0-0.2)	0.2	(0-0.3)	0.04	(0-0.1)
Race-ethnicity						
White	2.8	(1.8-3.8)	2.2	(1.3-3.1)	2.1	(1.3-3.0)
Asian	2.2	(1.2-3.2)	1.9	(1.0-2.9)	2.0	(1.0-3.0)
Latino	4.4	(2.7-6.1)	3.4	(1.8-5.0)	3.9	(2.1-5.6)
Black/African American	16.7	(10.5-22.8)	7.2	(2.7-11.7)	9.6	(4.2-15.0)
Cause of death						
Perinatal conditions	2.1	(1.6-2.7)	1.8	(1.3-2.3)	1.3	(0.9-1.7)
Congenital malformations	0.8	(0.4-1.1)	0.6	(0.3-0.9)	0.6	(0.3-0.9)
SUID	0.2	(0-0.4)	0.2	(0-0.3)	0.4	(0.2-0.7)

Data source: California Dept. of Public Health, Death Statistical Master Files. Rates are based on the number of infants with a San Francisco address who died in the calendar years 2006-2014. Causes of death are recorded as ICD10 codes. Perinatal conditions include maternal factors and complications of pregnancy, low birth weight, birth trauma, and perinatal infections. Congenital malformations includes birth defects and Down Syndrome. SUID: Sudden unexpected infant death, including sudden infant death syndrome.

The San Francisco Department of Public Health regularly monitors health-related data to assess the health of women, infants, children and families to help guide program planning and policy development. San Francisco data tables are available at: <a href="http://www.sfdph.org/dph/comupg/oprograms/MCH/Epi.asp">http://www.sfdph.org/dph/comupg/oprograms/MCH/Epi.asp</a>.

Contact Information: Maternal, Child & Adolescent Health – SFDPH 30 Van Ness Avenue, Suite 260B San Francisco, CA 94102 Curtis Chan, MCAH Medical Director Aline Armstrong, MCAH Coordinator Jodi Stookey, MCAH Epidemiologist www.sfdph.org/mch (415) 575-5670 Email: firstname.lastname@sfdph.org