Preterm Births in San Francisco

Preterm birth, defined as live birth before 37 weeks, is the #1 cause of infant mortality and health issues worldwide¹. National policy in the United States aims to decrease preterm births to no more than 9.4% of all births². This data brief summarizes the status of preterm birth in San Francisco, reported in more detail online³.

Absolute number of preterm births

- In 2022, San Francisco residents delivered 622 preterm births. Of those, 90 were delivered before 32 weeks and are defined as very preterm.
- People delivering their first baby and people over age 35 had the most preterm births, in absolute terms: over 800 preterm births in 2020-2022.
- Over the past 10 years, in California, very preterm babies needed about 100 times more services. The average cost of hospital care for a very preterm baby was \$223,931, compared to \$2,433 for babies born at term.
- Over the past ten years, the absolute number of preterm births in San Francisco decreased, along with an overall decrease in the total number of births.
- For detailed data regarding preterm births in San Francisco, see: https://sf.gov/data/number-preterm-births

Preterm births as percentage of all births

- In 2022, 8.8 percent of babies born to San Francisco residents were delivered preterm and 1.3% were delivered very preterm.
- Over the past 10 years, the Citywide percent preterm did not change significantly.
- San Francisco, as a whole city and county, met the national goal of fewer than 9.4 percent preterm.
- Not all population groups in San Francisco met the national goal, however. In 2020-2022, the percent preterm was above 9.4 percent for: Black or African Americans, people living in public or subsidized housing (data for homeless unavailable), residents of the SoMa (94103) and Bayview (94124) zip codes, people eligible for the WIC nutrition program, and people with health issues, including infertility, diabetes and high blood pressure.
- For details, see next page about disparities and: https://sf.gov/data/percentage-preterm-births

Days of pregnancy lost because of preterm birth

- The total number of days of pregnancy lost because of preterm birth, per 1000 births, is a sensitive measure of preterm birth risk. Even though the *percentage* of all births that were born preterm did not change significantly from year to year, over the past decade, the total number of days of pregnancy lost increased significantly. More days of pregnancy lost in 2022 compared to 2021 signal an increase in preterm birth risk in San Francisco.
- For details, see: https://sf.gov/data/days-pregnancy-lost-because-preterm-birth

Timing and reason for preterm birth

- 76% of preterm births in 2020-2022 happened between 34-36 weeks of pregnancy. The majority of preterm infants only needed 1 to 3 weeks longer pregnancy.
- 53% of preterm births in San Francisco happened because of early spontaneous labor that was not stopped. Another 39% of preterm deliveries happened because of dangerous medical conditions, including high blood pressure and infection. More than one type of intervention is needed to prevent preterm birth in San Francisco, because preterm birth is caused by different reasons.
- 58% of preterm birth infants had low birthweight. One out of 10 were born small-for-gestational age. Fetal growth restriction increases risks of infant health problems and death.
- For details, see: https://sf.gov/data/preterm-birth-types

References

- 1. World Health Organization. Preterm birth. February 19, 2018. https://www.who.int/news-room/fact-sheets/detail/preterm-birth
- 2. Healthy People 2030, Reduce preterm births MICH-07. https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth/reduce-preterm-births-mich-07
- 3. For further information about preterm birth in San Francisco, see: https://sf.gov/resource/2023/preterm-birth-data
- 4. Phibbs et al. Birth Hospitalization Costs and Days of Care for Mothers and Neonates in California 2009-2011J Pediatr. 2019; 204:118-125.

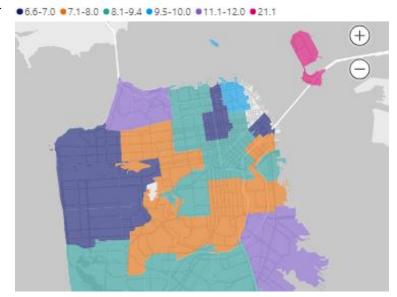
Preterm birth disparities

- By race-ethnicity: In 2020-2022, in San Francisco, risk of preterm birth was about 30% higher for Asian and Latino populations and 100% higher for Black populations compared to White.
- By income: In 2020-2022, low-income groups with public health insurance had about two times higher risk of preterm birth.
- By social determinants: In 2020-2022, preterm birth risk varied significantly by community-level factors. The percent preterm was about two times greater for people living in public housing or single resident occupancy (SRO) rooms and people with inadequate prenatal care. People eligible for WIC but not receiving WIC had about two times greater risk of very preterm birth.
- By zip code: In 2018-2022, the Treasure Island (94130), Excelsior (94112), and Bayview (94124) zip codes had a significantly higher percent preterm than the Pacific Heights (94109) zip

code. One out of every 5 births on Treasure Island was born preterm in 2018-2022.

For details, see: https://sf.gov/data/preterm-birth-disparities

Percent of all births to San Francisco residents in each zip code born preterm in 2018-2022



Summary of perinatal disparities by race-ethnicity in San Francisco 2018-2022

	Asian	Black or African American	Latino/a	Native American	Hawaiian or Pacific Islander	White
	% (95%CI)	% (95%CI)	% (95%CI)	% (95%CI)	% (95%CI)	% (95%CI)
Socio-economic factors						
Maternal age <25 years	2.0 (1.8-2.3)	20.0 (18.0-22.0)	18.6 (17.6-19.5)	*	23.1 (16.7-29.4)	1.2 (1.0-1.4)
No college education	23.9 (23.1-24.7)	74.0 (71.8-76.2)	68.8 (67.7-69.9)	81.8 (70.4-93.2)	90.4 (85.9-94.9)	7.4 (7.0-7.9)
Public insurance	18.9 (18.2-19.6)	56.8 (54.4-59.3)	57.7 (56.5- 58.9)	67.3 (54.2-80.5)	68.6 (61.6-75.6)	4.7 (4.4-5.1)
Limited access to care						
No 1 st trimester prenatal care	7.6 (7.1-8.1)	22.4 (20.3-24.5)	20.5 (19.5-21.5)	40.4 (26.4-54.5)	42.0 (34.6-49.5)	6.0 (5.6-6.4)
Inadequate prenatal care	3.5 (3.2-3.9)	14.8 (13.1-16.6)	12.0 (11.2-12.8)	30.6 (17.7-43.5)	33.1 (26.0-40.2)	3.0 (2.8-3.3)
Extra prenatal care	25.0 (24.2-25.8)	26.8 (24.6- 29.0)	26.3 (25.2-27.3)	*	*	24.8 (24.1-25.5)
Pregnancy complications						
Excess weight gain	28.8 (28.0-29.6)	47.8 (45.3-50.3)	41.9 (40.7-43.1)	48.9 (34.3-63.5)	70.8 (63.8-77.8)	36.7 (35.9-37.5)
Gestational diabetes	15.8 (15.1-16.5)	9.1 (7.6-10.5)	10.4 (9.7-11.2)	*	13.0 (7.9-18.1)	5.6 (5.2-6.0)
Gestational hypertension	10.2 (9.6-10.7)	21.4 (19.3-23.4)	15.3 (14.4-16.1)	*	21.3 (15.1-27.5)	11.7 (11.2-12.2)
Adverse birth outcomes						
Induced delivery	24.0 (23.3-24.8)	29.2 (27.0-31.5)	30.0 (28.9-31.1)	44.9 (31.0-58.8)	32.7 (25.6-39.8)	28.0 (27.3-28.7)
Cesarean delivery	27.5 (26.7-28.3)	30.8 (28.5-33.1)	24.5 (23.4-25.5)	*	29.0 (22.2-35.8)	25.8 (25.1-26.5)
Preterm birth (<37 weeks)	8.1 (7.6-8.6)	14.2 (12.5-15.9)	8.9 (8.2-9.6)	*	*	6.7 (6.3-7.1)
Low birth weight (<2500 g)	8.0 (7.5-8.5)	14.2 (12.5-15.9)	6.4 (5.8-7.0)	*	*	5.6 (5.3-6.0)

^{*}Data are suppressed if fewer than 20 births. Values in orange are significantly higher than the corresponding value for the White group, which serves as the comparison group. Prenatal care is rated by Kotelchuck index: inadequate (<50%) or extra (≥110%) of expected prenatal care visits).

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