Infant Mortality

TITLE V INDICATOR TEMPLATE

INDICATOR: **Infant Mortality Rate**

DEFINITION: The number of infant deaths occurring at less than 365 days of age per 1,000 live births

NUMERATOR: The number of infant deaths occurring at less than 365 days of age, by place of residence, in a calendar year

DENOMINATOR: The total number of live births, by place of residence, in a calendar year

HEALTHY PEOPLE 2010 OBJECTIVE:

Reduce the infant mortality rate to no more than 4.5 per 1,000 live births.
(Baseline: 7.2 per 1,000 live births in 1998) (Objective 16-1c)

HEALTHY PEOPLE 2020 OBJECTIVE:

Reduce the infant mortality rate to no more than 6.0 per 1,000 live births.
(Baseline: 6.7 per 1,000 live births in 2006) (Objective MICH-1.3)
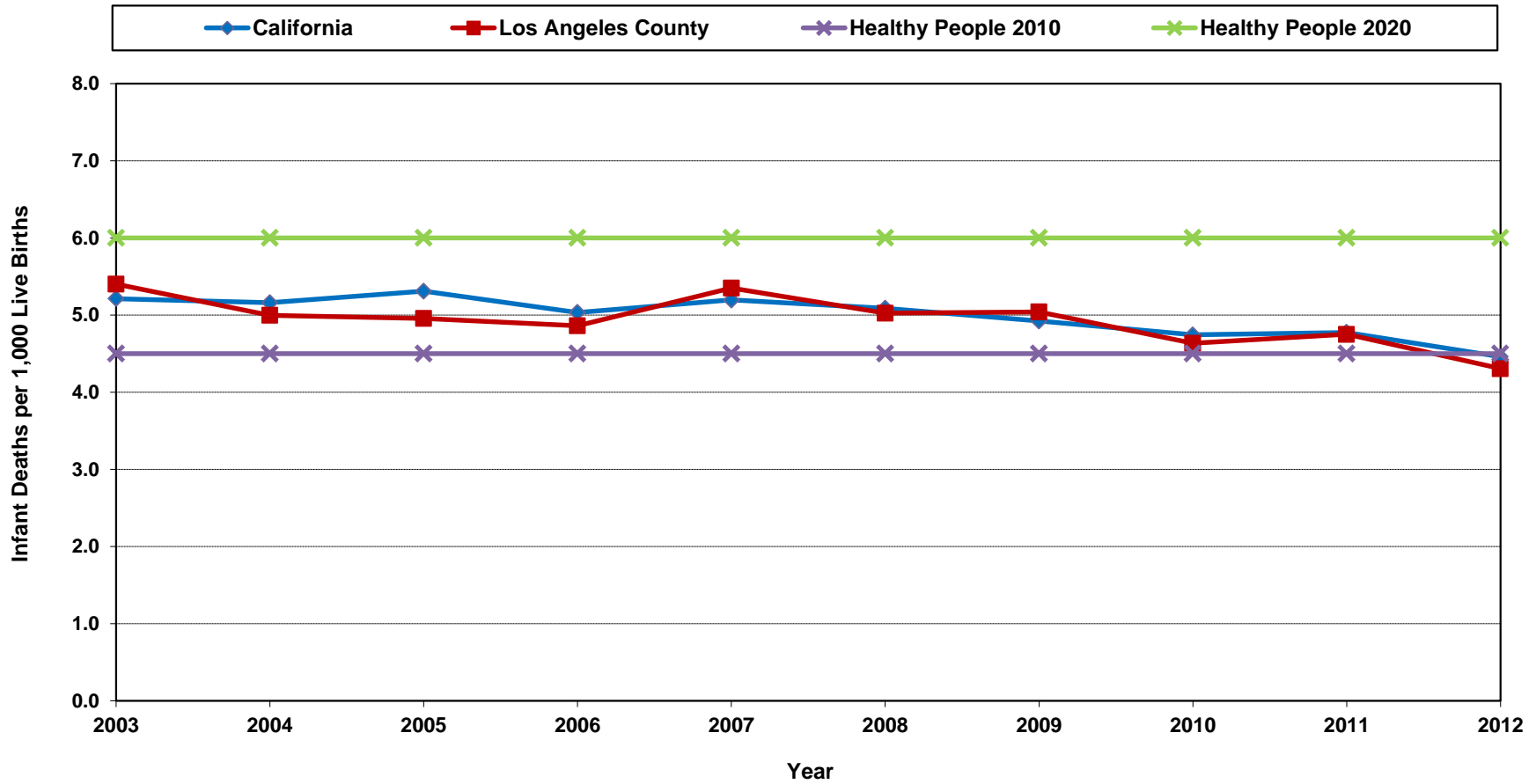
RISK FACTORS: Race/ethnicity; prematurity/disorders related to short gestation; low birth weight; congenital anomalies; young maternal age; low maternal education level; maternal tobacco use; maternal alcohol or substance use/abuse; poor maternal nutrition; inadequate prenatal care; unintended pregnancy; maternal psychosocial problems; maternal medical complications/chronic illness during pregnancy (including diabetes); pregnancy complications; short interpregnancy interval; injury (including domestic violence); infection; respiratory distress syndrome; family history of SIDS

Year	California				Los Angeles County					Denominator: Live Births		
	Infant Mortality		95% Confidence Interval		Infant Mortality		95% Confidence Interval					
	Deaths	Rate	Lower	Upper	Deaths	Rate	Lower	Upper		Year	California	LA County
2003	2,819	5.2	5.0	5.4	822	5.4	5.0	5.8		2003	540,827	152,192
2004	2,811	5.2	5.0	5.4	757	5.0	4.6	5.4		2004	544,685	151,504
2005	2,913	5.3	5.1	5.5	745	5.0	4.6	5.3		2005	548,700	150,377
2006	2,829	5.0	4.8	5.2	738	4.9	4.5	5.2		2006	562,157	151,837
2007	2,941	5.2	5.0	5.4	812	5.3	5.0	5.7		2007	566,137	151,813
2008	2,806	5.1	4.9	5.3	742	5.0	4.7	5.4		2008	551,567	147,684
2009	2,593	4.9	4.7	5.1	704	5.0	4.7	5.4		2009	526,774	139,679
2010	2,419	4.7	4.6	4.9	617	4.6	4.3	5.0		2010	509,979	133,160
2011	2,397	4.8	4.6	5.0	619	4.8	4.4	5.1		2011	502,023	130,313
2012	2,247	4.5	4.3	4.6	567	4.3	4.0	4.7		2012	503,788	131,697

Source: California Department of Public Health, Center for Health Statistics, OHIR Vital Statistics Section, 2003-2012

Infant Deaths per 1,000 Live Births
California vs. Los Angeles County, 2003-2012

Legend: California — Los Angeles County — Healthy People 2010 — Healthy People 2020

Y-axis: Infant Deaths per 1,000 Live Births (0.0 to 8.0)

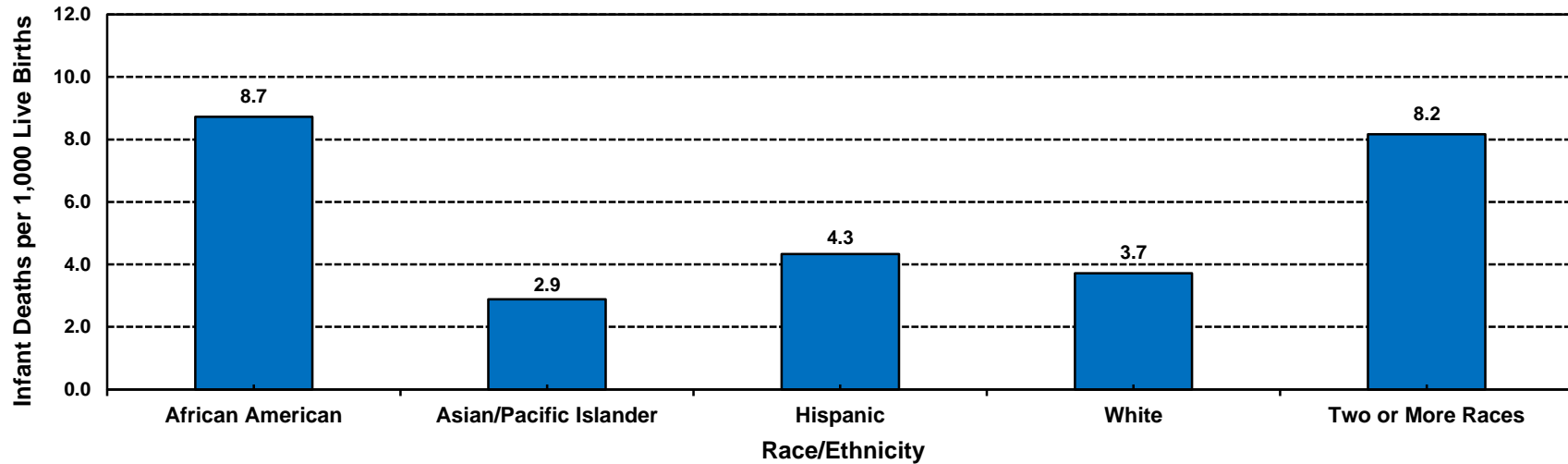X-axis: Year (2003 to 2012)

Year 2010 Objective: Reduce the infant mortality rate to no more than 4.5 per 1,000 live births.

Year 2020 Objective: Reduce the infant mortality rate to no more than 6.0 per 1,000 live births.

Source: California Department of Public Health, Center for Health Statistics, OHIR Vital Statistics Section, 2003-2012
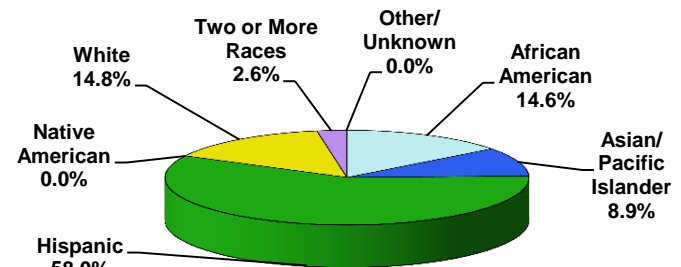
Infant Mortality Rate by Race/Ethnicity
Los Angeles County, 2012

Infant Deaths per 1,000 Live Births

Race/Ethnicity	Rate
African American	8.7
Asian/Pacific Islander	2.9
Hispanic	4.3
White	3.7
Two or More Races	8.2

Los Angeles County, 2012					Total Live Births
Race/Ethnicity	Infant Mortality		95% Confidence Interval		
	Deaths	Rate	Lower	Upper	
African American	83	8.7	6.9	10.6	9,514
Asian/Pacific Islander	56	2.9	2.1	3.6	19,389
Hispanic	329	4.3	3.9	4.8	75,899
Native American	<5	N/C	N/C	N/C	117
White	84	3.7	2.9	4.5	22,623
Two or More Races	15	8.2	4.1	12.3	1,837
Other/Unknown	<5	N/C	N/C	N/C	2,318
Total	567	4.3	4.0	4.7	131,697

Percent Distribution of Infant Deaths by Race/Ethnicity Los Angeles County, 2012

- White 14.8%
- Two or More Races 2.6%
- Other/Unknown 0.0%
- African American 14.6%
- Asian/Pacific Islander 8.9%
- Native American 0.0%
- Hispanic 58.0%

Year 2010 Objective: Reduce the infant mortality rate to no more than 4.5 per 1,000 live births.

Year 2020 Objective: Reduce the infant mortality rate to no more than 6.0 per 1,000 live births.

Note: Infant mortality rate is defined as infant deaths occurring less than 365 days per 1,000 live births.

Racial/ethnic categorization has been revised in this report; data from previous year reports may not be comparable.

African American, Asian/Pacific Islander, Native American, White and other races exclude Hispanic ethnicity. Hispanic includes any race category.

Numbers fewer than 5 are shown as "<5". Rates are not calculated (N/C) if number is fewer than five.

Source: California Department of Public Health, Center for Health Statistics, OHIR Vital Statistics Section, 2012

INDICATOR: **Neonatal Mortality Rate**

DEFINITION: The number of infant deaths occurring at less than 28 days of age per 1,000 live births

NUMERATOR:

The number of infant deaths occurring at less than 28 days of age, by place of residence, in a calendar year

DENOMINATOR: The total number of live births, by place of residence, in a calendar year

HEALTHY PEOPLE 2010 OBJECTIVE:

Reduce the neonatal mortality rate to no more than 2.9 per 1,000 live births.
(Baseline: 4.8 per 1,000 live births in 1998) (Objective 16-1d)

HEALTHY PEOPLE 2020 OBJECTIVE:

Reduce the neonatal mortality rate to no more than 4.1 per 1,000 live births.
(Baseline: 4.5 per 1,000 live births in 2006) (Objective MICH-1.4)

RISK FACTORS: Congenital anomalies; respiratory distress syndrome; short gestation; low birth weight; maternal
complications; race/ethnicity (African American, Puerto Rican)
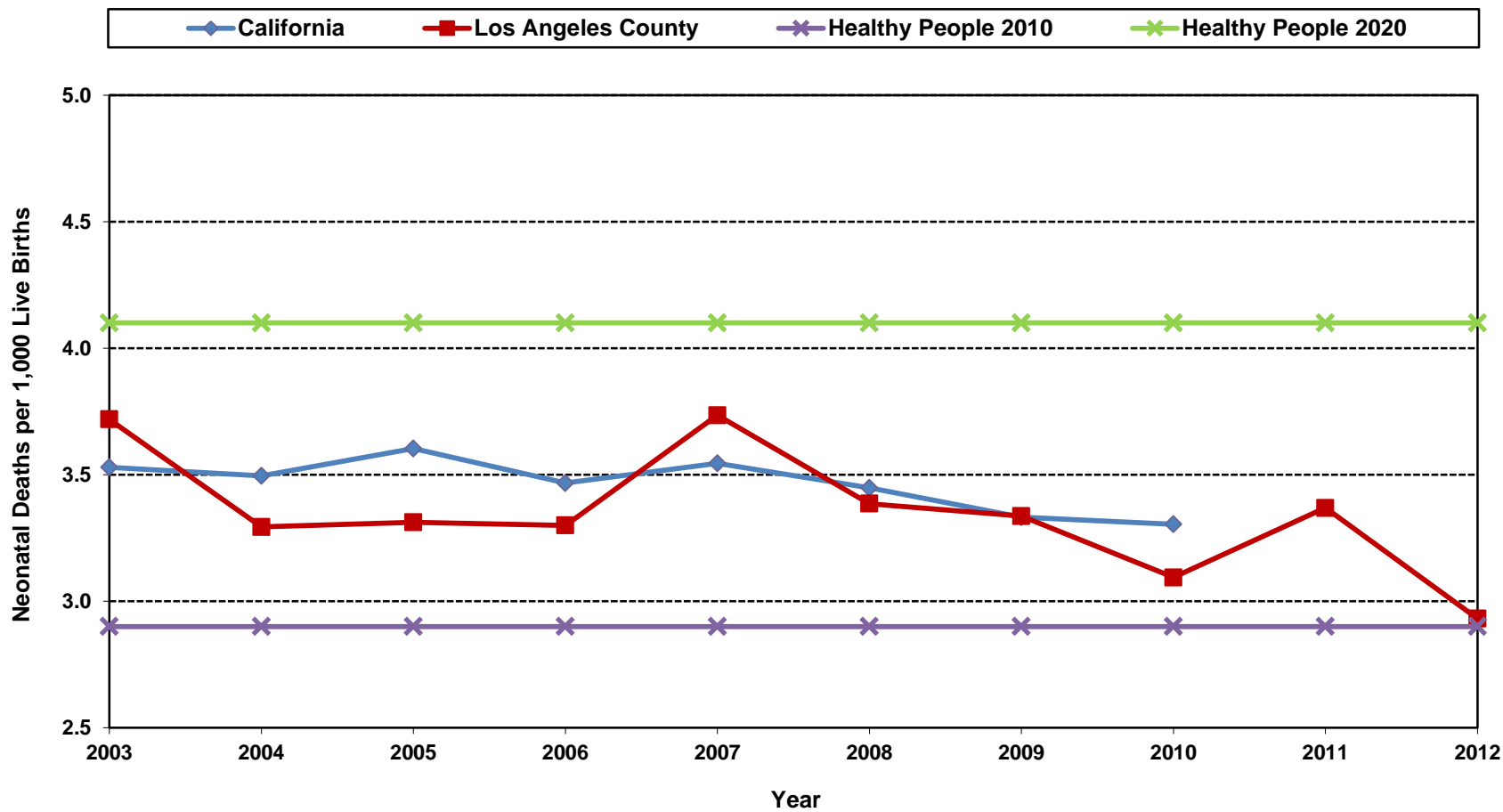
See also risk factors for infant mortality.

| Year | California | | | | Los Angeles County | | | | | Denominator: Live Births | | |
| | Neonatal Mortality | | 95% Confidence Interval | | Neonatal Mortality | | 95% Confidence Interval | | | | | |
	Deaths	Rate	Lower	Upper	Deaths	Rate	Lower	Upper		Year	California	LA County
2003	1,909	3.5	3.4	3.7	566	3.7	3.4	4.0		**2003**	540,827	152,192
2004	1,904	3.5	3.3	3.7	499	3.3	3.0	3.6		**2004**	544,685	151,504
2005	1,977	3.6	3.4	3.8	498	3.3	3.0	3.6		**2005**	548,700	150,377
2006	1,949	3.5	3.3	3.6	501	3.3	3.0	3.6		**2006**	562,157	151,837
2007	2,007	3.5	3.4	3.7	567	3.7	3.4	4.0		**2007**	566,137	151,813
2008	1,902	3.4	3.3	3.6	500	3.4	3.1	3.7		**2008**	551,567	147,684
2009	1,755	3.3	3.2	3.5	466	3.3	3.0	3.6		**2009**	526,774	139,679
2010	1,685	3.3	3.1	3.5	412	3.1	2.8	3.4		**2010**	509,979	133,160
2011	N/A	N/C	N/C	N/C	439	3.4	3.1	3.7		**2011**	502,023	130,313
2012	N/A	N/C	N/C	N/C	386	2.9	2.6	3.2		**2012**	503,788	131,697

Note: California data for 2011 and 2012 not available (N/A) for retrieval. Rates are not calculated (N/C).

Source: California Department of Public Health, Center for Health Statistics, OHIR Vital Statistics Section, 2003-2012

Neonatal Deaths per 1,000 Live Births
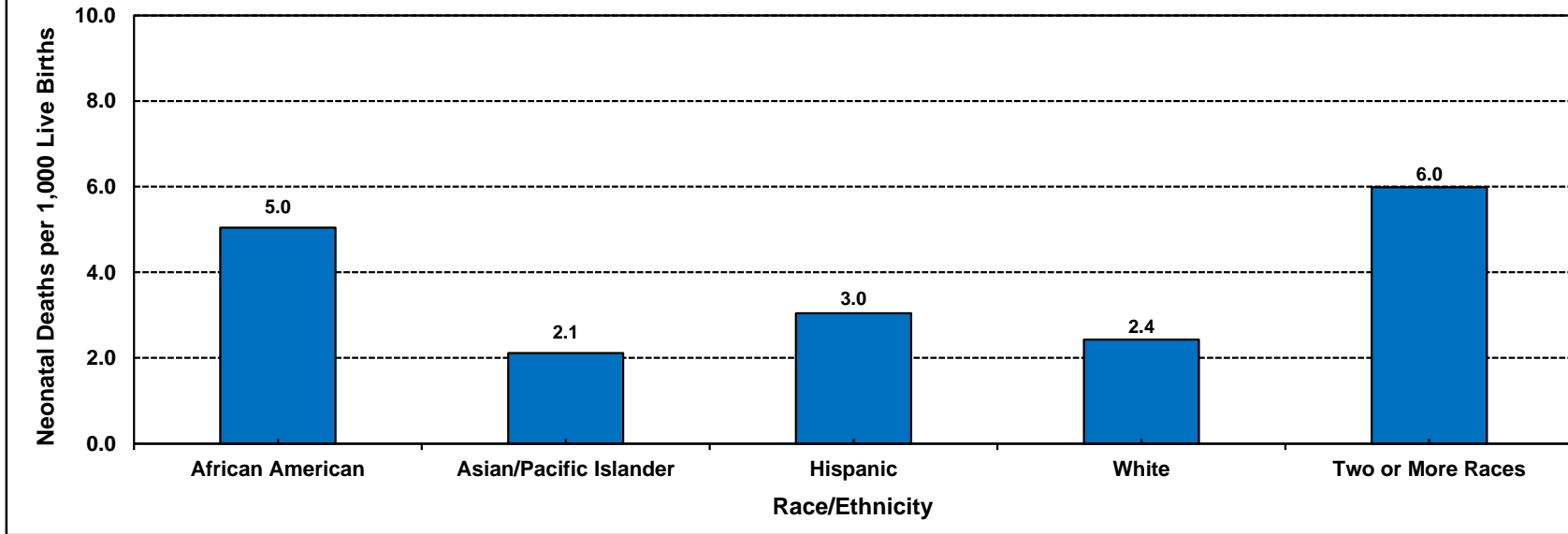**California vs. Los Angeles County, 2003-2012**

Year 2010 Objective: Reduce the neonatal mortality rate to no more than 2.9 per 1,000 live births.

Year 2020 Objective: Reduce neonatal deaths to no more than 4.1 per 1,000 live births.
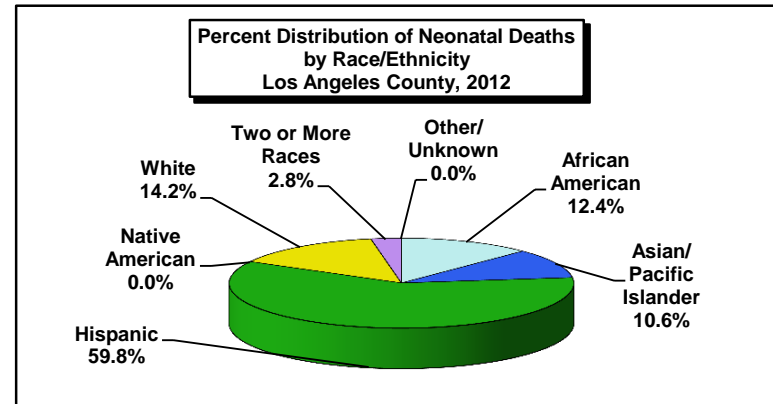
Source: California Department of Public Health, Center for Health Statistics, OHIR Vital Statistics Section, 2003-2012

Neonatal Mortality Rate by Race/Ethnicity
Los Angeles County, 2012

Neonatal Deaths per 1,000 Live Births

Race/Ethnicity	Rate
African American	5.0
Asian/Pacific Islander	2.1
Hispanic	3.0
White	2.4
Two or More Races	6.0

Los Angeles County, 2012					
Race/Ethnicity	Neonatal Mortality		95% Confidence Interval		Total Live Births
	Deaths	Rate	Lower	Upper	
African American	48	5.0	3.6	6.5	9,514
Asian/Pacific Islander	41	2.1	1.5	2.8	19,389
Hispanic	231	3.0	2.7	3.4	75,899
Native American	<5	N/C	N/C	N/C	117
White	55	2.4	1.8	3.1	22,623
Two or More Races	11	6.0	2.5	9.5	1,837
Other/Unknown	<5	N/C	N/C	N/C	2,318
Total	386	2.9	2.6	3.2	131,697

Percent Distribution of Neonatal Deaths by Race/Ethnicity
Los Angeles County, 2012

- White 14.2%
- Two or More Races 2.8%
- Other/Unknown 0.0%
- African American 12.4%
- Asian/Pacific Islander 10.6%
- Native American 0.0%
- Hispanic 59.8%

Year 2010 Objective: Reduce the neonatal mortality rate to no more than 2.9 per 1,000 live births.

Year 2020 Objective: Reduce neonatal deaths to no more than 4.1 per 1,000 live births.

Note: Neonatal mortality rate is defined as infant deaths occurring less than 28 days per 1,000 live births.

Racial/ethnic categorization has been revised in this report; data from previous year reports may not be comparable.

African American, Asian/Pacific Islander, Native American, White and other races exclude Hispanic ethnicity. Hispanic includes any race category.

Infant deaths missing date of birth are excluded from this analysis (missing = 1).

Numbers fewer than 5 are shown as "<5". Rates are not calculated (N/C) if number is fewer than five.

Source: California Department of Public Health, Center for Health Statistics, OHIR Vital Statistics Section, 2012

INDICATOR: **Post-Neonatal Mortality Rate**

DEFINITION: The number of infant deaths occurring from 28 through 364 days of age per 1,000 live births

NUMERATOR: The number of infant deaths occurring from 28 through 364 days of age, by place of residence, in a calendar year

DENOMINATOR: The total number of live births, by place of residence, in a calendar year

HEALTHY PEOPLE 2010 OBJECTIVE:

Reduce the post-neonatal mortality rate to no more than 1.2 per 1,000 live births.
(Baseline: 2.4 per 1,000 live births in 1998) (Objective 16-1e)

HEALTHY PEOPLE 2020 OBJECTIVE:

Reduce the post-neonatal mortality rate to no more than 2.0 per 1,000 live births.
(Baseline: 2.2 per 1,000 live births in 2006) (Objective MICH-1.5)

RISK FACTORS: Congenital anomalies; injuries; infection in late pregnancy; family history of SIDS; maternal smoking or drug use; young maternal age (teen births); race/ethnicity (African American, Puerto Rican)

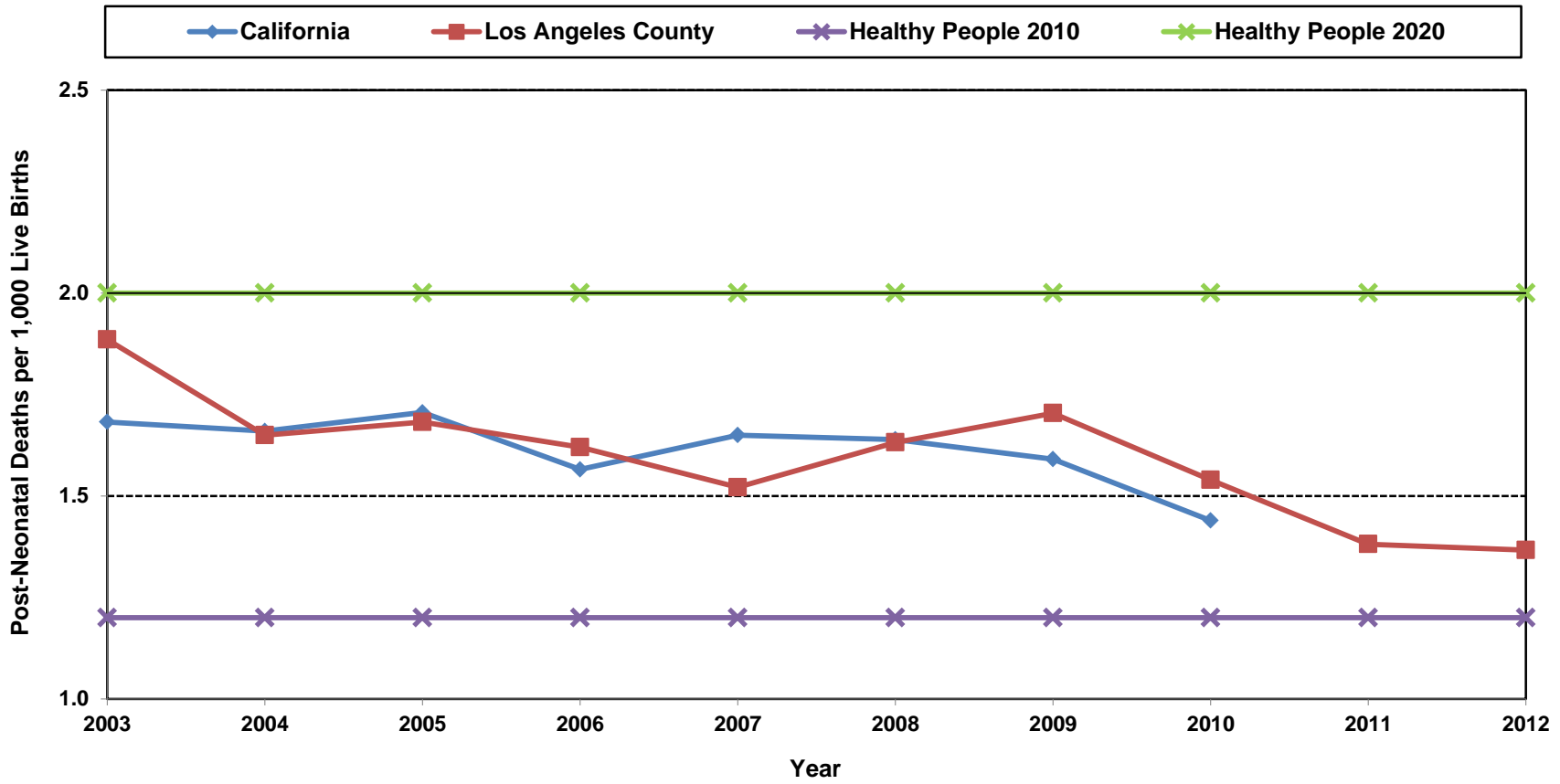See also risk factors for infant mortality.

Year	California				Los Angeles County					Year	Denominator: Live Births	
	Post-Neonatal Mortality		95% Confidence Interval		Post-Neonatal Mortality		95% Confidence Interval					
	Deaths	Rate	Lower	Upper	Deaths	Rate	Lower	Upper		Year	California	LA County
2003	910	1.7	1.6	1.8	287	1.9	1.7	2.1		**2003**	540,827	152,192
2004	904	1.7	1.6	1.8	250	1.7	1.4	1.9		**2004**	544,685	151,504
2005	936	1.7	1.6	1.8	253	1.7	1.5	1.9		**2005**	548,700	150,377
2006	880	1.6	1.5	1.7	246	1.6	1.4	1.8		**2006**	562,157	151,837
2007	934	1.6	1.5	1.8	231	1.5	1.3	1.7		**2007**	566,137	151,813
2008	904	1.6	1.5	1.7	241	1.6	1.4	1.8		**2008**	551,567	147,684
2009	838	1.6	1.5	1.7	238	1.7	1.5	1.9		**2009**	526,774	139,679
2010	734	1.4	1.3	1.5	205	1.5	1.3	1.8		**2010**	509,979	133,160
2011	N/A	N/C	N/C	N/C	180	1.4	1.2	1.6		**2011**	502,023	130,313
2012	N/A	N/C	N/C	N/C	180	1.4	1.2	1.6		**2012**	503,788	131,697

Note: California data for 2011 and 2012 not available (N/A) for retrieval. Rates are not calculated (N/C).

Source: California Department of Public Health, Center for Health Statistics, OHIR Vital Statistics Section, 2003-2012

Post-Neonatal Deaths per 1,000 Live Births
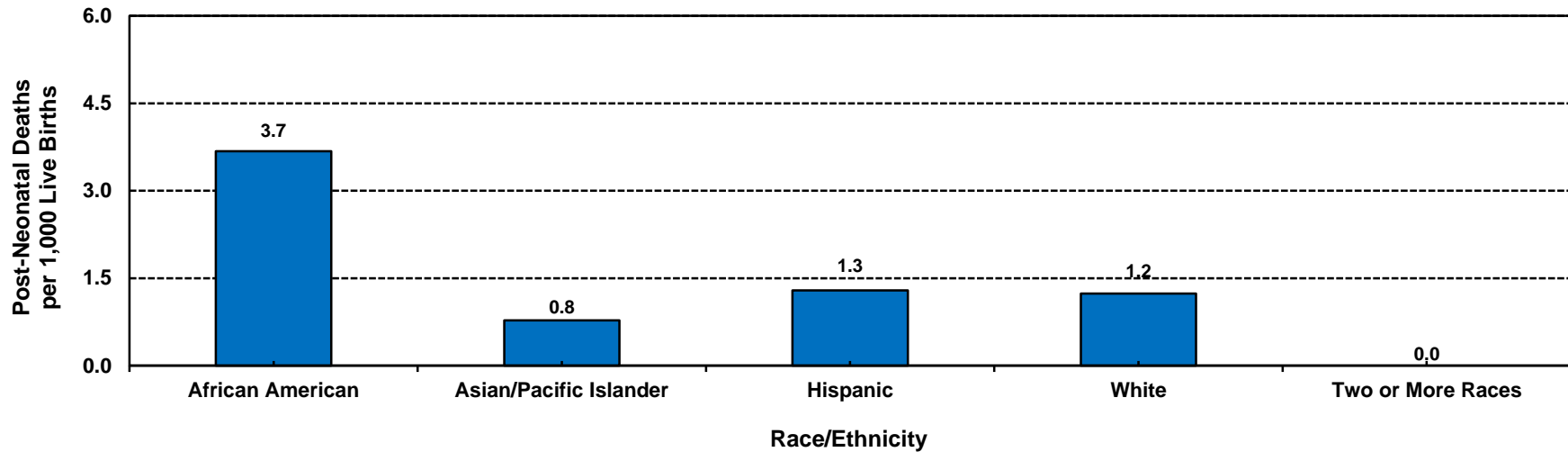**California vs. Los Angeles County, 2003-2012**

Year 2010 Objective: Reduce the post-neonatal mortality rate to no more than 1.2 per 1,000 live births.

Year 2020 Objective: Reduce the post-neonatal deaths to no more than 2.0 per 1,000 live births.
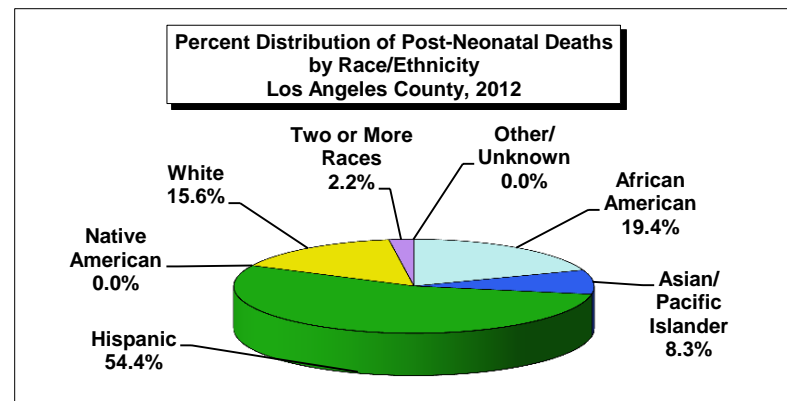
Source: California Department of Public Health, Center for Health Statistics, OHIR Vital Statistics Section, 2012

Post-Neonatal Mortality Rate by Race/Ethnicity
Los Angeles County, 2012

Post-Neonatal Deaths per 1,000 Live Births (Y-axis)

Race/Ethnicity (X-axis)

- African American: 3.7
- Asian/Pacific Islander: 0.8
- Hispanic: 1.3
- White: 1.2
- Two or More Races: 0.0

Los Angeles County, 2012					Total Live Births
Race/Ethnicity	Post-Neonatal Mortality		95% Confidence Interval		
	Deaths	Rate	Lower	Upper	
African American	35	3.7	2.5	4.9	9,514
Asian/Pacific Islander	15	0.8	0.4	1.2	19,389
Hispanic	98	1.3	1.0	1.5	75,899
Native American	<5	N/C	N/C	N/C	117
White	28	1.2	0.8	1.7	22,623
Two or More Races	<5	N/C	N/C	N/C	1,837
Other/Unknown	<5	N/C	N/C	N/C	2,318
Total	180	1.4	1.2	1.6	131,697

Percent Distribution of Post-Neonatal Deaths by Race/Ethnicity
Los Angeles County, 2012

- Two or More Races: 2.2%
- Other/Unknown: 0.0%
- White: 15.6%
- Native American: 0.0%
- African American: 19.4%
- Asian/Pacific Islander: 8.3%
- Hispanic: 54.4%

Year 2010 Objective: Reduce the post-neonatal mortality rate to no more than 1.2 per 1,000 live births.

Year 2020 Objective: Reduce the post-neonatal deaths to no more than 2.0 per 1,000 live births.

Note: Post-neonatal mortality rate is defined as infant deaths occurring from 28 through 364 days of age per 1,000 live births.

Racial/ethnic categorization has been revised in this report; data from previous year reports may not be comparable.

African American, Asian/Pacific Islander, Native American, White and other races exclude Hispanic ethnicity. Hispanic includes any race category.

Infant deaths missing date of birth are excluded from this analysis (missing = 1).

Numbers fewer than 5 are shown as "<5". Rates are not calculated (N/C) if number is fewer than five.

Source: California Department of Public Health, Center for Health Statistics, OHIR Vital Statistics Section, 2012