



October 2005

DATA SUMMARY No. DS05-08002

Disparities in death rates for California residents by level of education and by nativity status are examined in this report.

Highlights

- Deaths among persons aged 25-64 caused by chronic diseases, injuries, and communicable diseases were examined by level of education and birthplace of the decedent.
Adults who had completed 12th grade had significantly higher death rates than those with either a higher or lower levels of education.
Significant disparities in mortality rates by educational level by nativity, gender, and race/ ethnicity were found.
Eliminating health disparities is one of the primary goals of Healthy People 2010.

Disparities in Mortality by Educational Attainment California, 1999-2001

By Jim Sutocky

Background

To address a long-standing lack of socioeconomic status (SES) data in United States Vital Statistics databases, education was added to the 1989 revision of the U.S. standard death certificate. Educational attainment has been used as a measure of SES and as a proxy measure of income level by many researchers to identify and describe disparities in health status. A substantial body of research has examined multiple pathways that lead to illnesses, injuries, and deaths, but published reports of national and state vital statistics typically do not include data relating health status to SES and specifically to factors such as educational level. Although educational attainment or years of schooling completed is often positively and strongly correlated with health status, no single factor can be said to account for a direct causal link between SES and mortality or morbidity.

Demographic changes as reflected in the 1990 and 2000 U.S. Census enumerations indicate that California continues to be the most populous and race-ethnic diverse state in the nation, with approximately 34 million residents in 2000. Between 1990 and 2000, there was an 11 percent increase in the number of Californians aged 25 and over who had not completed 12th grade, a three percent increase in the number who graduated from high school, and a 20 percent increase in the number who had completed some college or had earned college degrees (Table A).

The number of high school dropouts in California's population is expected to increase, as is the gap in educational attainment between racial and ethnic groups. Some researchers have suggested that educational attainment of the state's adult population will be lower than that for the rest of the nation by 2015 because of the disproportionate immigration and relatively high share of Hispanics primarily of Mexican origin in California, partially offset by the projected growth of the Asian population with its larger share of college graduates. These racial and ethnic groups are the fastest growing segments of the California population, according to data derived from the 2000 Census. Other researchers, on the other hand, have found substantial nativity differences in health status, with foreign-born immigrants generally experiencing lower mortality risks than their U.S.-born counterparts.

**Table A. Educational Attainment Among Persons 25 Years and Over, California 1990 and 2000**

	1990	Percent of Population Aged 25 and Over	2000	Percent of Population Aged 25 and Over	Percent Change in Population by Education Level 1990 to 2000
Less than 9th grade	2,085,905	11.2%	2,446,324	11.5%	17.3%
9th to 12th grade, no diploma	2,364,623	12.6%	2,496,419	11.7%	5.6%
High school graduate	4,167,897	22.3%	4,288,452	20.1%	2.9%
Some college, no degree	4,225,911	22.6%	4,879,336	22.9%	15.5%
Associate degree	1,484,489	7.9%	1,518,403	7.1%	2.3%
Bachelor's degree	2,858,107	15.3%	3,640,157	17.1%	27.4%
Graduate or professional degree	1,508,567	8.1%	2,029,809	9.5%	34.6%
Subtotal	18,695,499	100.0%	21,298,900	100.0%	13.9%

## Methods

Three-year average mortality data for California residents 25-64 years of age were extracted from the 1999-2001 Death Statistical Master Files maintained by the California Department of Health Services.<sup>26</sup> California death certificate data includes "highest grade completed," and these were compiled into three mutually exclusive groupings: completed less than 12<sup>th</sup> grade; completed 12<sup>th</sup> grade (high school graduate); and completed one or more years of college. A total of 5,528 (3.5 percent) of the 158,381 death records for 1999-2001 were missing information on the decedent's education and were excluded from the analysis.

Age-adjusted mortality rates per 100,000 population aged 25-64 years were calculated by the direct method using population proportions by age group, gender, race/ethnicity, nativity, and educational level extracted from the U.S. Census Bureau's Public Use Microdata Sample (PUMS) One-Percent file, and adjustment weights derived from the 2000 U.S. Standard Population.<sup>27-29</sup> Age-adjusted rates were calculated by educational level and nativity (native-born and foreign-born), gender, and race-ethnicity (Hispanic, and non-Hispanic White, African American/Black, Asian, Native Hawaiian/Other Pacific Islander (NHOPI), American Indian/Alaska Native (AIAN), Multirace, and Other/Unknown). The age range of 25-64 years was chosen to represent the adult population for whom educational attainment data were available and comparable across state and national data sources.

Upper and lower 95 percent confidence intervals were calculated to provide a measure of variability in the data, and are used to determine whether statistically significant differences ( $p \leq 0.05$ ) exist between two groups.<sup>30</sup> Relative Standard Errors (RSE) were also calculated to provide measures of reliability, and rates having an RSE value equal to or greater than 23 percent ( $RSE \geq 23\%$ ) considered unreliable and marked with triple asterisks (\*\*\*)).

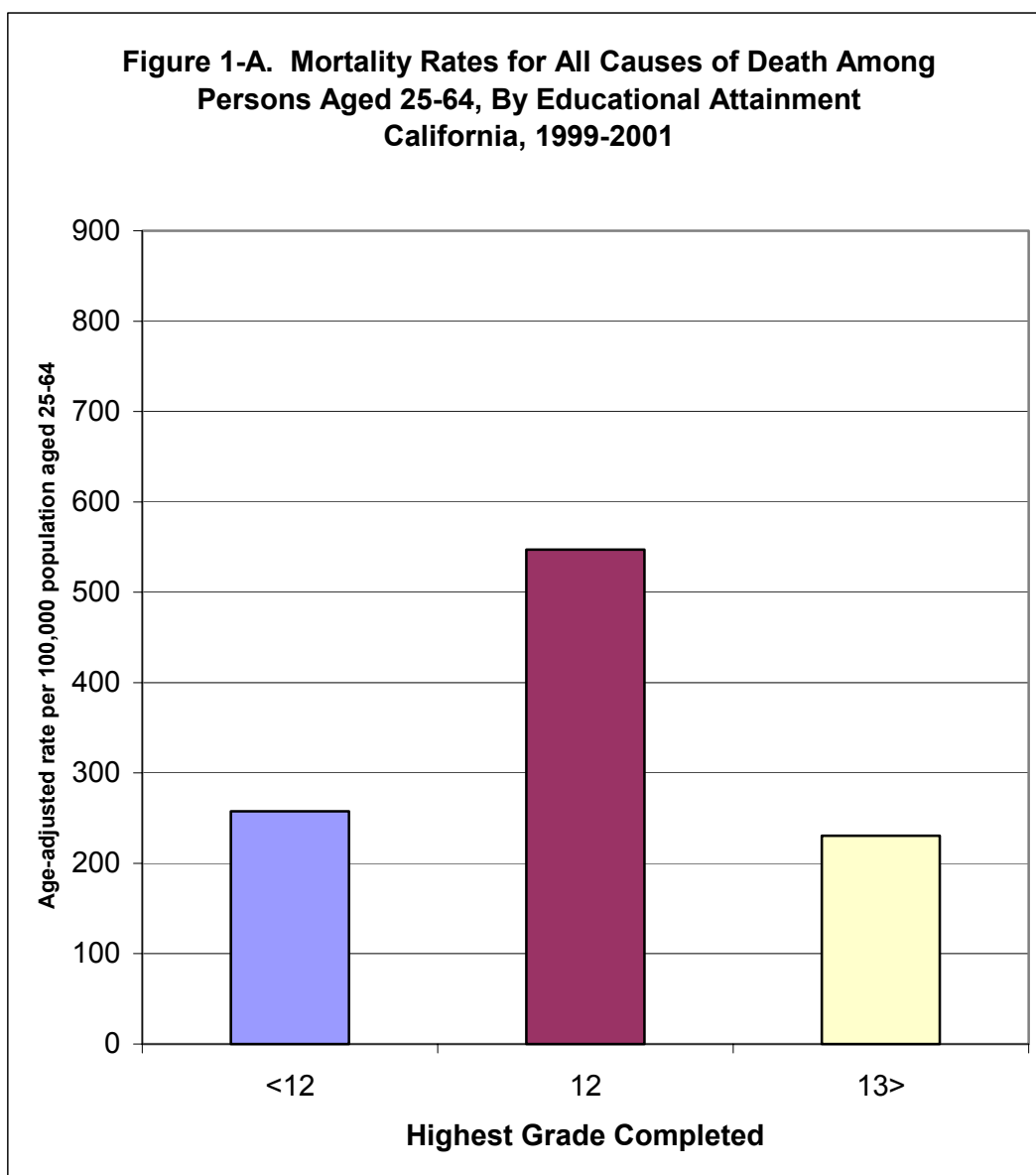
The ICD-10 code sets used to define causes of death for this report were adapted from the NCHS:<sup>14</sup>

All Causes of Death	A00-Y89
Communicable Diseases	A00-B99, J00-J22
Chronic Diseases	C00-I99, J30-R99
Injuries	U01-U03, V01-Y34, Y85-Y87, Y89

## Results

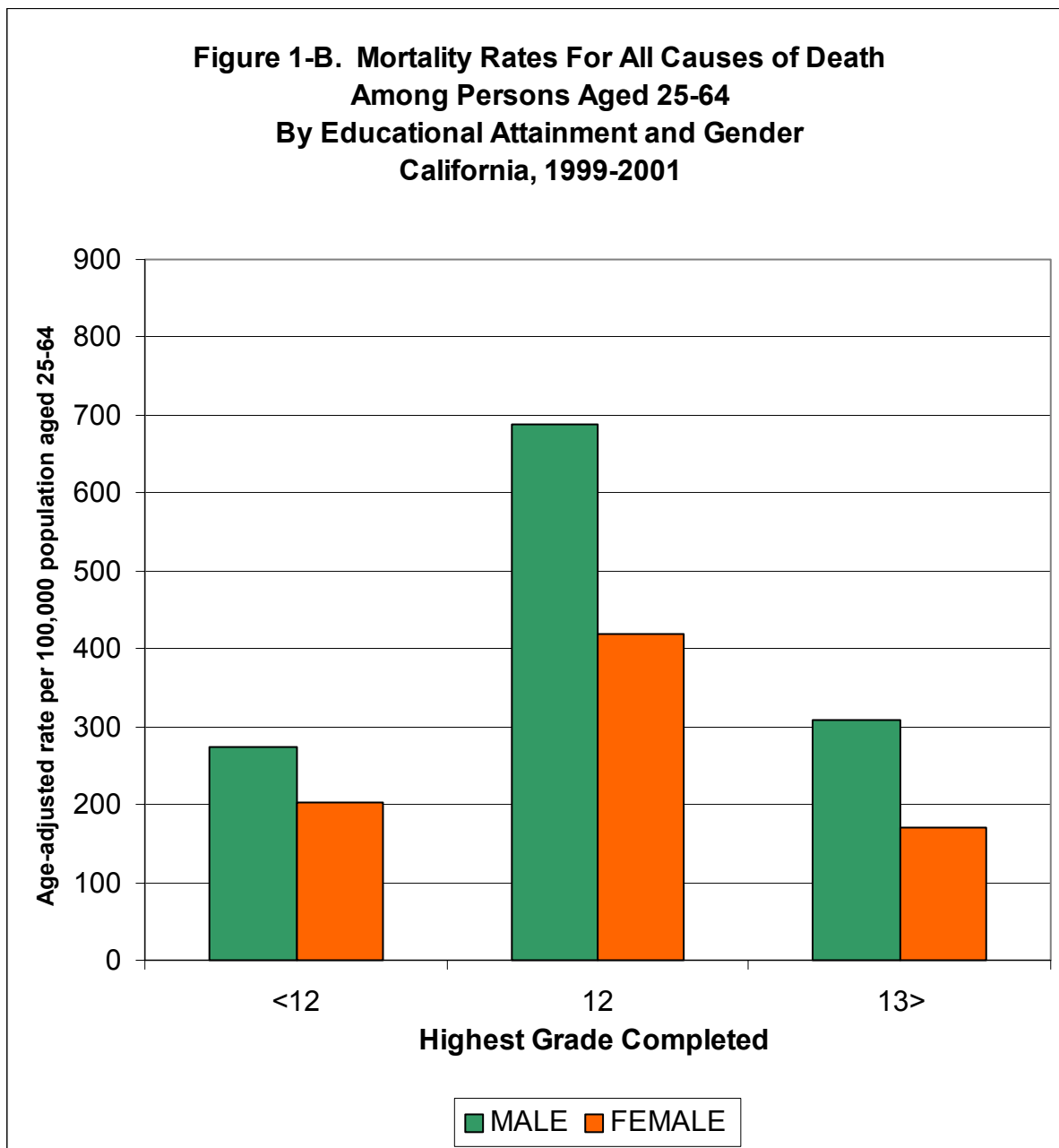
### All Causes of Death

Three-year average age-adjusted all cause mortality rates among California residents aged 25-64 (Figure 1-A, Table 1-A [Appendix I]) were significantly higher for those who had completed 12<sup>th</sup> grade (high school graduates) (547.2 per 100,000 population) than those with less than a 12<sup>th</sup> grade education (257.6 per 100,000) or those having completed some level of post-secondary education (230.4 per 100,000). This finding stands in contrast to the trend observed in national data for 1994-2002, in which those with less than a 12<sup>th</sup> grade education experienced higher death rates than those who had completed high school.<sup>14</sup> California data does, however, fit the national pattern wherein those with a post-secondary education (i.e., those who had completed one or more years of college) experienced lower death rates than those who completed high school.



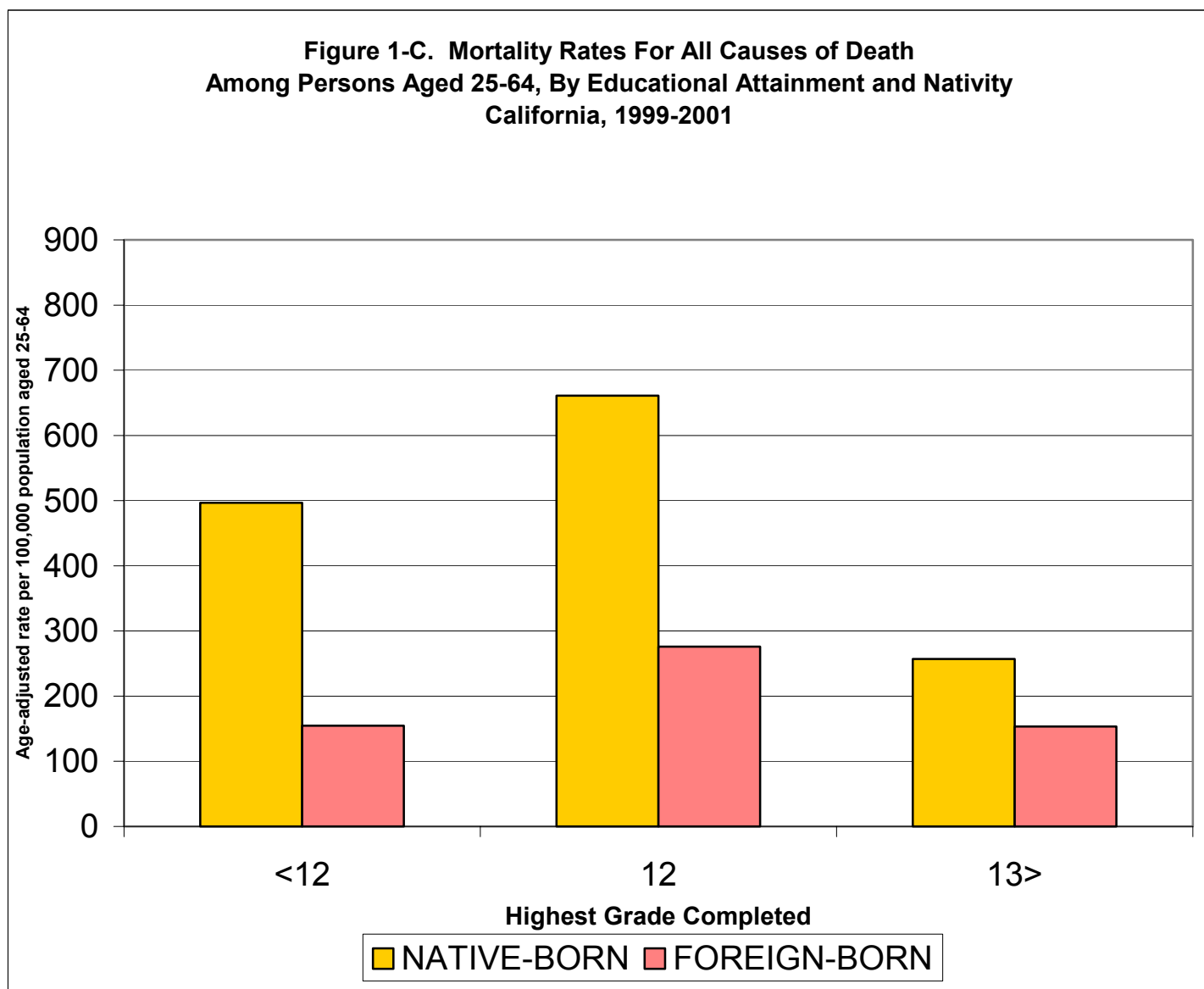
SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001; U.S. Census Bureau, Public Use Microdata Sample 1-Percent (PUMS 1%), 2000.

Consistent with the pattern seen in the national data, all cause mortality rates for males were significantly higher than females across all levels of educational attainment (Figure 1-B, Table 1-A [Appendix I]). However, Californians who completed 12<sup>th</sup> grade experienced higher mortality rates than those with either a lower or a higher level of educational attainment regardless of gender, a finding inconsistent with the national data. A further departure from the national pattern is seen where the all cause mortality rate for males with less than a 12<sup>th</sup> grade education (274.9 per 100,000) was significantly lower than that for males with some level of post-secondary education (308.3 per 100,000).



SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001; U.S. Census Bureau, Public Use Microdata Sample 1-Percent (PUMS 1%), 2000.

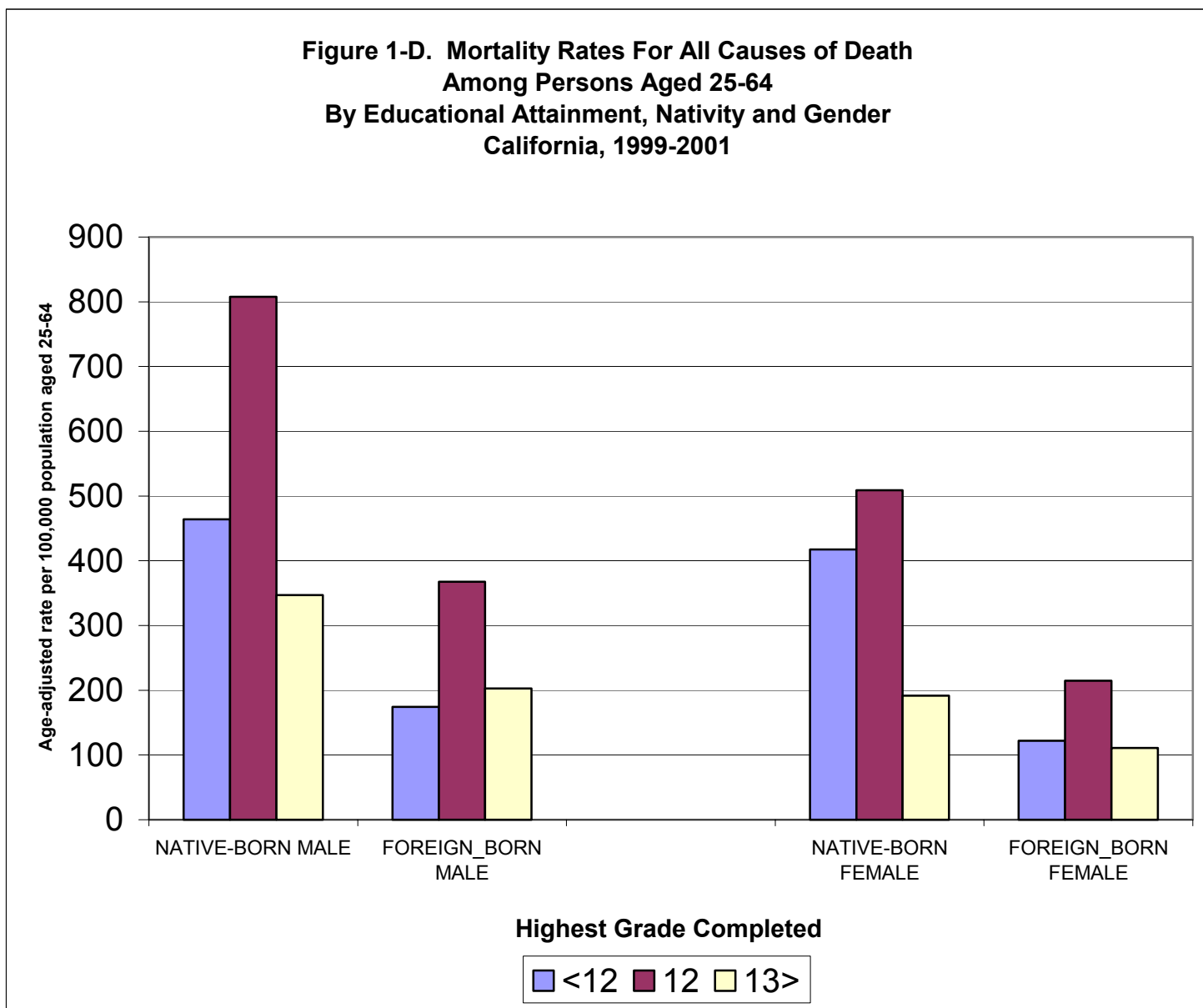
Examined by nativity status, foreign-born persons had significantly lower all cause mortality rates than native-born persons across all levels of educational attainment (Figure 1-C, Tables 1-B and 1-C [Appendix I]). However, both native-born and foreign-born persons aged 25-64 who had completed 12<sup>th</sup> grade had significantly higher all cause mortality rates than those with either a higher or a lower level of educational attainment. Interestingly, no significant differences in all cause mortality rates were found between foreign-born persons who had completed less than 12<sup>th</sup> grade and those who had some level of post-secondary education (154.8 vs. 153.5 per 100,000 population, respectively). Among native-born persons, those who had completed less than 12<sup>th</sup> grade experienced an all cause mortality rate that was twice as high as the rate for those with some level of post-secondary education (496.9 vs. 257.0 per 100,000 population, respectively).



SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001; U.S. Census Bureau, Public Use Microdata Sample 1-Percent (PUMS 1%), 2000.

Mortality data by nativity status and gender (Figure 1-D) shows that foreign-born males and females had significantly lower all cause mortality rates than their native-born counterparts across all levels of educational attainment. Native-born males experienced the highest all cause mortality rates across all levels of educational attainment, while foreign-born females experienced the lowest rates.

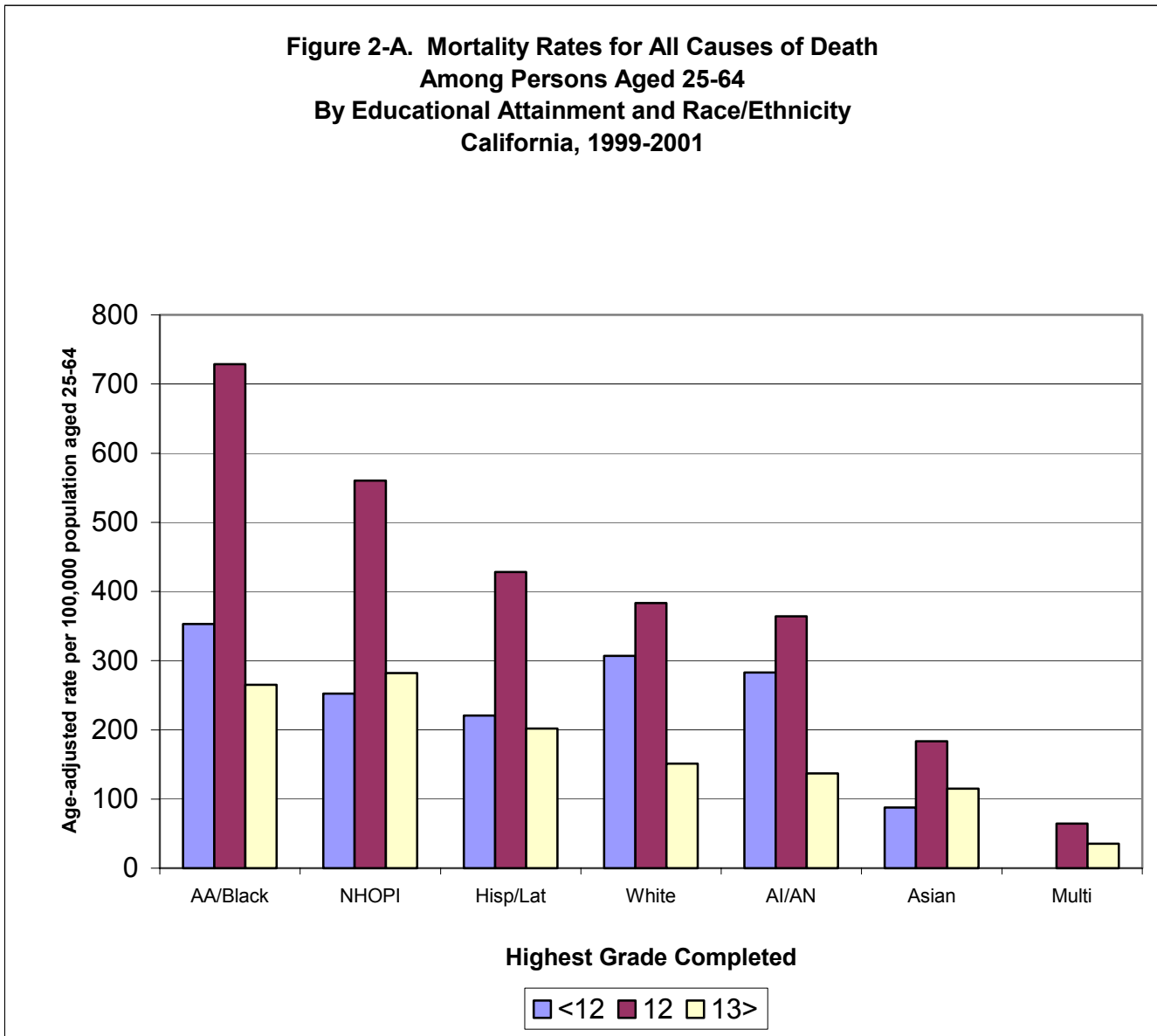
The pattern of higher death rates among persons who completed high school is also apparent in these data, regardless of nativity status or gender. Interestingly, foreign-born males with less than 12<sup>th</sup> grade education had a lower mortality rate (174.2 per 100,000) than foreign-born males with some level of post-secondary education (202.9 per 100,000). No significant difference was found between foreign-born females with less than a high school education versus those with some level of post-secondary (121.8 vs. 110.9 per 100,000 population, respectively).



SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001; U.S. Census Bureau, Public Use Microdata Sample 1-Percent (PUMS 1%), 2000.

All cause mortality rates by educational attainment are examined by race and ethnicity in Figure 2-A and Table 2-A (Appendix I). Among those with less than a 12<sup>th</sup> grade education, the highest death rate was for African Americans/Blacks (353.0 per 100,000), with the next highest death rate observed for White, non-Hispanics (307.0 per 100,000). Hispanics/Latinos with less than a 12<sup>th</sup> grade education had a significantly lower mortality rate than their White, non-Hispanic counterparts. However, this finding was reversed at higher levels of education with Hispanics/Latinos having significantly higher death rates than non-Hispanic Whites. Among those who completed high school, African Americans/Blacks had the highest all cause mortality rate (728.8 per 100,000), followed by NHOPI (560.2 per 100,000). Among those with a post-secondary education, the highest death rate was found for NHOPI (282.0 per 100,000), followed by African Americans/Blacks (265.1 per 100,000). The relatively low death rates among the Multirace population in part reflects the recent addition of this category in the U.S. Census reporting, and in part the possible misreporting of a decedent's multiracial status on California death certificates.<sup>31</sup>

**Figure 2-A. Mortality Rates for All Causes of Death  
Among Persons Aged 25-64  
By Educational Attainment and Race/Ethnicity  
California, 1999-2001**



SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001; U.S. Census Bureau, Public Use Microdata Sample 1-Percent (PUMS 1%), 2000.

All cause mortality data by educational attainment, nativity status, and race/ethnicity are provided in Figures 2-B and 2-C and Tables 2-B and 2-C (Appendix I). Among persons with less than a 12<sup>th</sup> grade education, foreign-born Hispanics/Latinos accounted for 70 percent of all deaths among Hispanics/Latinos. Foreign-born NHOPI persons aged 25-64 who had completed high school experienced the highest all cause mortality rate (1590.6 per 100,000 population) than any other race/ethnic and nativity group - the next highest death rate was for native-born African Americans/Blacks who completed high school (737.8 per 100,000). The lowest death rates were observed for the native-born multiracial population with either a high school education (99.1 per 100,000) or a post-secondary education (44.1 per 100,000). Foreign-born Hispanics/Latinos and foreign-born non-Hispanic Whites had significantly lower mortality rates than their native-born counterparts across all levels of education.

Examined by gender, native-born Hispanic/Latino males aged 25-64 who had completed less than 12<sup>th</sup> grade had a significantly higher all cause death rate than native-born African American/Black males (508.4 vs. 348.2 per 100,000 population, respectively). Among females with less than a 12<sup>th</sup> grade education, native-born African Americans/Blacks had a significantly higher mortality rate (322.2 per 100,000).

Among persons who completed high school, foreign-born NHOPI males had the highest all cause death rate (2289.2 per 100,000), followed by native-born AIAN males (1693.6 per 100,000). Native-born White males who completed high school had a lower death rate than their foreign-born counterparts (466.0 vs. 482.6 per 100,000 population, respectively). Among females with a high school education, foreign-born NHOPI had the highest death rate (1414.7 per 100,000), followed by native-born African Americans/Blacks (609.3 per 100,000).

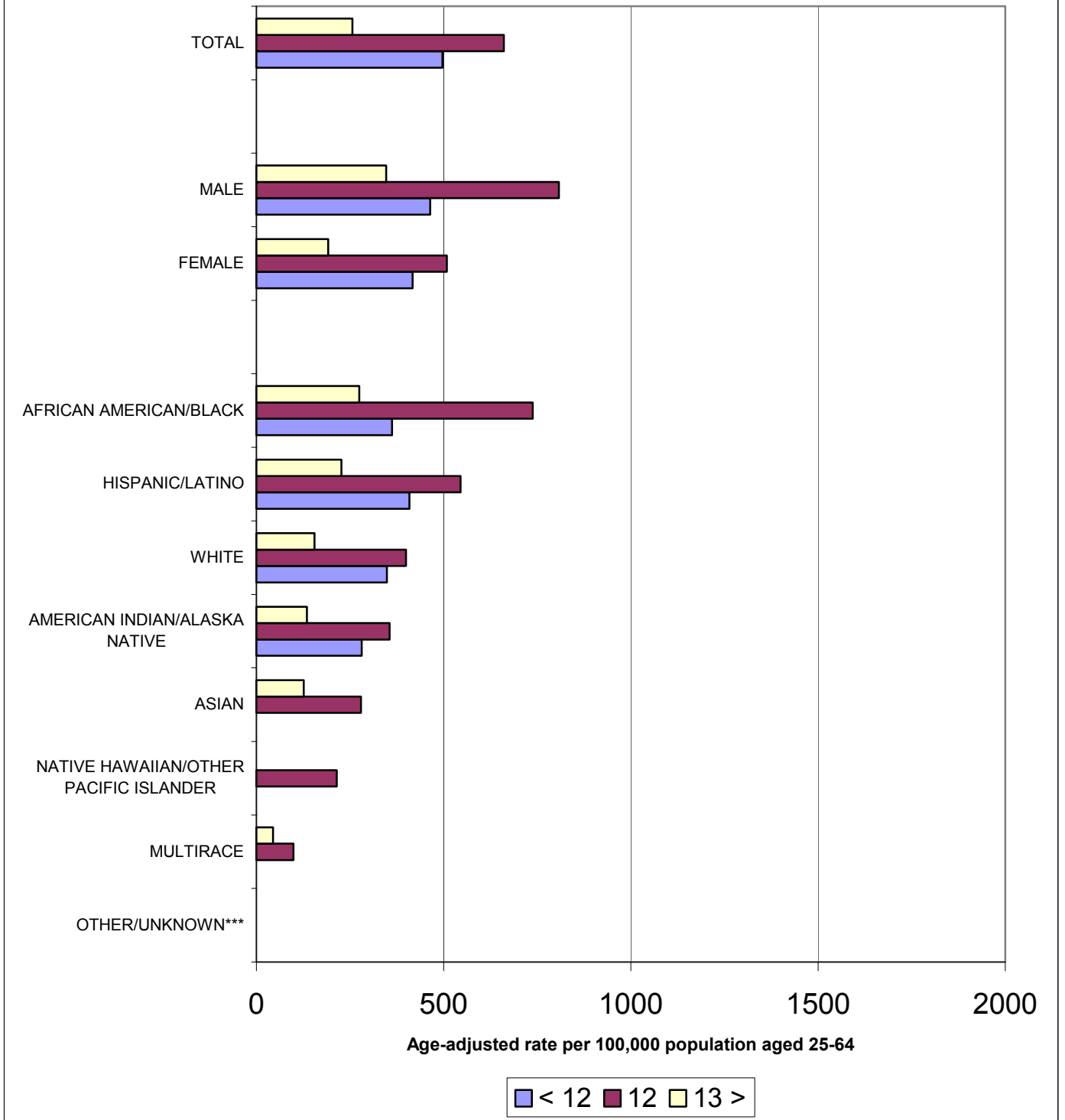
Among those who completed 13 or more years of education, native-born African American/Black males had the highest death rate (357.8 per 100,000), followed by native-born Hispanic/Latino males (325.8 per 100,000). Among females with a post-secondary education, native-born African Americans/Blacks had a significantly higher all cause mortality rate (230.6 per 100,000).

The only California population group that fit the national pattern of declining death rates with increasing level of educational attainment was found for native-born AIAN females, whose all cause mortality rates were 251.6 per 100,000 for those with less than a high school education, 246.4 per 100,000 for those who graduated from high school, and 128.0 per 100,000 for those with some level of post-secondary education. In all other instances, persons who had graduated from high school experienced higher all cause mortality rates than either those with less than a high school education or those with some level of post-secondary education.

California data also indicate that, in some instances, those with less than a high school education experienced significantly lower all cause mortality rates than their counterparts who had some level of post-secondary education (e.g., Asian total, Asian males, foreign-born Asians, foreign-born Asian males).



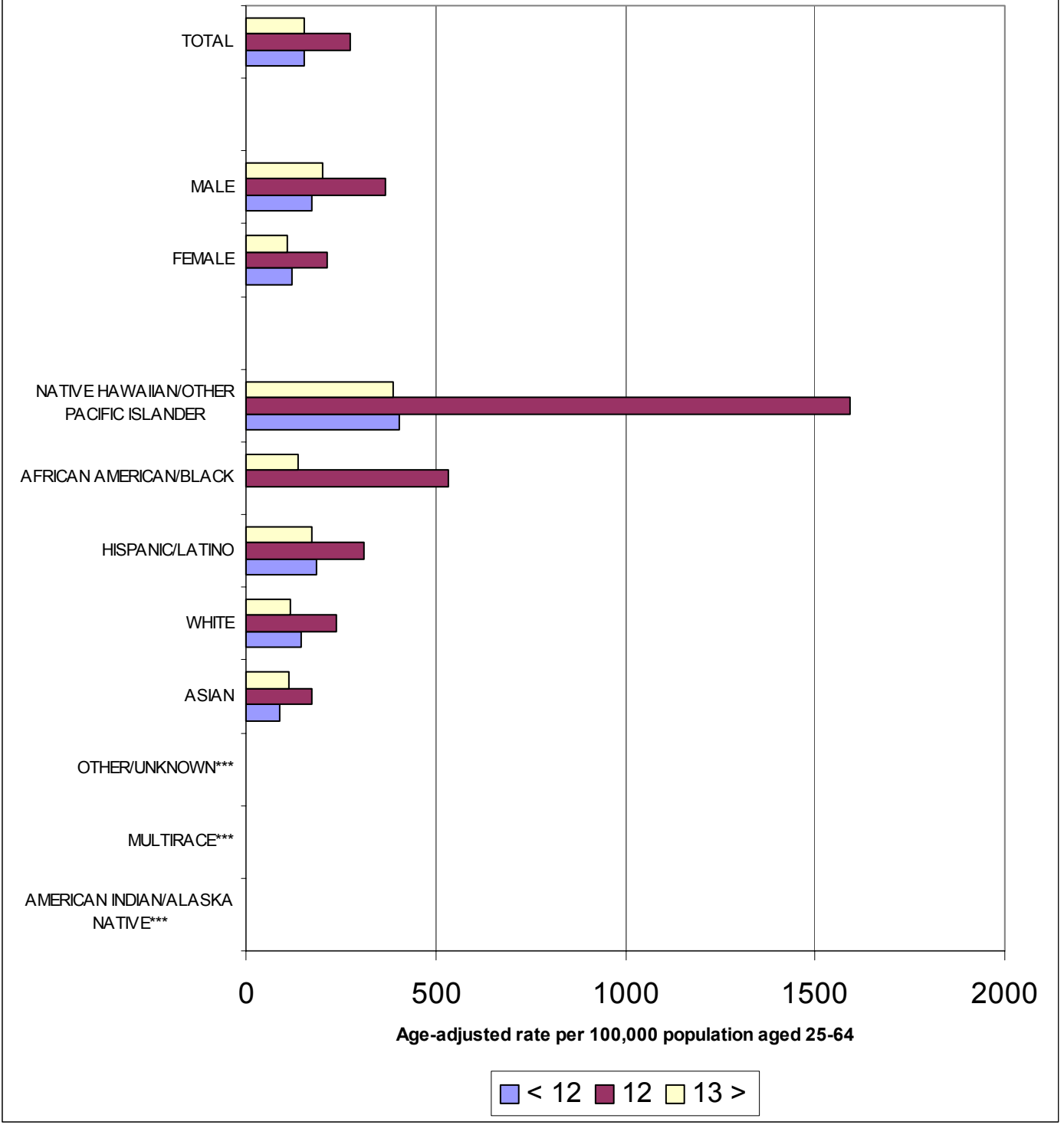
**Figure 2-B. Mortality Rates for All Causes of Death  
Among Native-Born Persons Aged 25-64, By Educational Attainment  
California, 1999-2001**



SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001; U.S. Census Bureau, Public Use Microdata Sample 1-Percent (PUMS 1%), 2000.

NOTE: \*\*\* Data statistically unreliable, Relative Standard Error (RSE) equal to or greater than 23 percent.

**Figure 2-C. Mortality Rates for All Causes of Death  
Among Foreign-Born Persons Aged 25-64, By Educational Attainment  
California, 1999-2001**

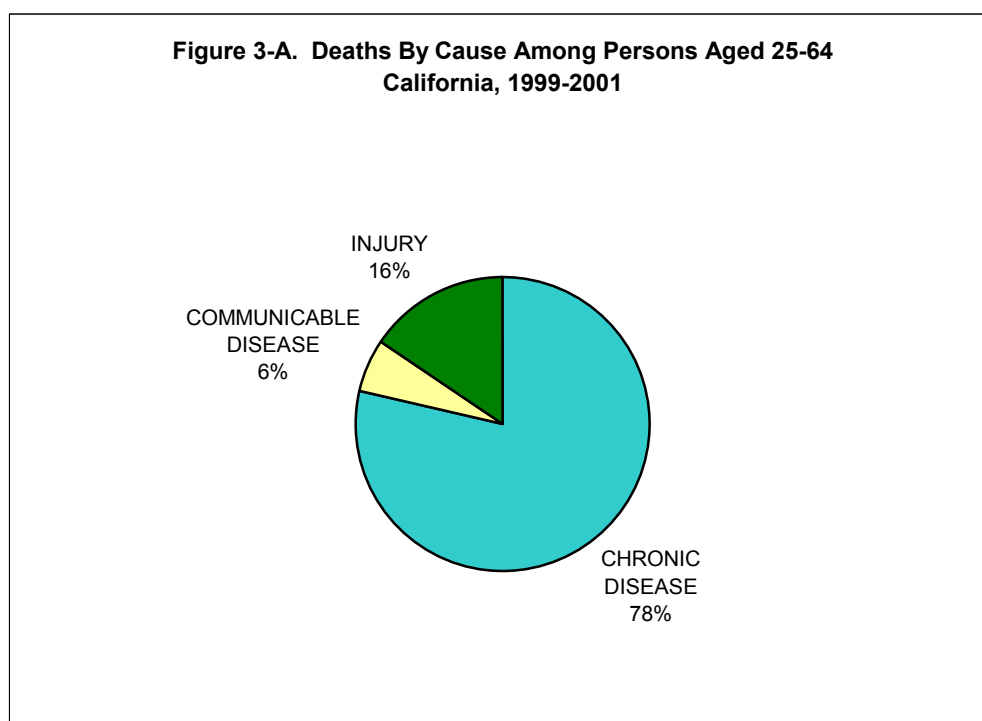


SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001; U.S. Census Bureau, Public Use Microdata Sample 1-Percent (PUMS 1%), 2000.

NOTE: \*\*\* Data statistically unreliable, Relative Standard Error (RSE) equal to or greater than 23 percent.

## Deaths Due To Chronic Diseases

Chronic diseases (e.g., heart disease, cancer, stroke, chronic lower respiratory disease, diabetes) were responsible for the largest proportion (78 percent) of all deaths among California residents aged 25-64 during the 1999-2001 period (Figure 3-A).<sup>26</sup>

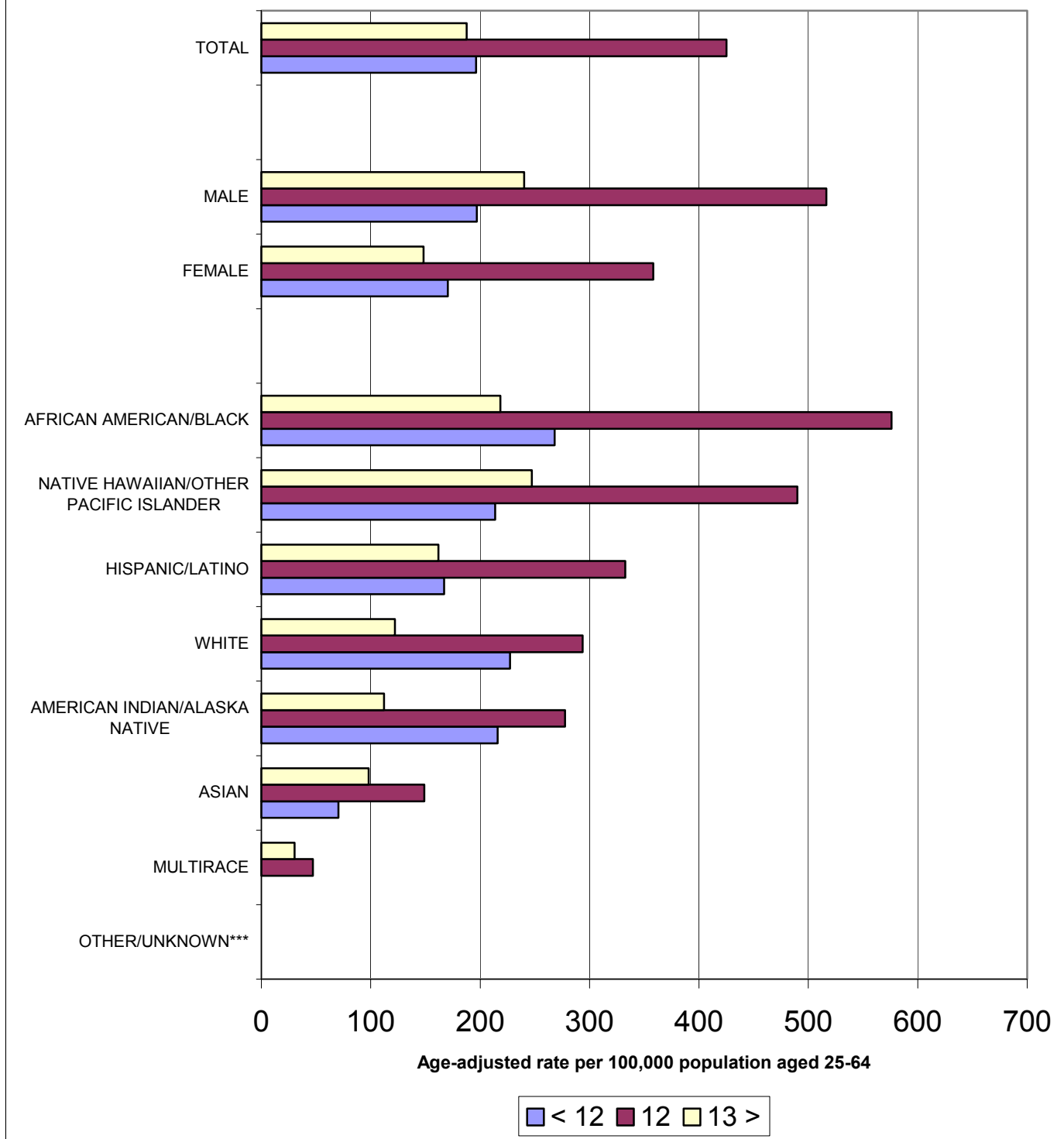


Consistent with the national pattern cited earlier, Californians who had completed some level of post-secondary education (grade 13 or higher) experienced significantly lower age-adjusted chronic disease death rates than those who either completed 12<sup>th</sup> grade or those who completed less than 12<sup>th</sup> grade (Figure 3-B, Table 3-A [Appendix I]).<sup>14</sup> Also consistent with the national trend, females experienced significantly lower chronic disease death rates than males across all levels of educational attainment. However, males with less than a 12<sup>th</sup> grade education experienced a significantly lower chronic disease death rate (197.0 per 100,000) than their counterparts who had either completed high school (516.4 per 100,000) or had some level of post-secondary education (240.1 per 100,000).

Examined by race/ethnicity (Figure 3-B, Table 3-A [Appendix I]), African Americans/Blacks experienced significantly higher chronic disease mortality rates among those with less than a 12<sup>th</sup> grade education (268.0 per 100,000 population) and among those who had completed 12<sup>th</sup> grade (576.1 per 100,000). Native Hawaiians/Other Pacific Islanders experienced the highest chronic disease death rates among persons with some level of post-secondary education (247.3 per 100,000), followed by African Americans/Blacks (218.4 per 100,000).

Asians with less than a 12<sup>th</sup> grade education had significantly lower chronic disease death rates (70.4 per 100,000) than Asians who had some level of post-secondary education (98.1 per 100,000). Chronic disease mortality rates were not significantly different among Hispanics/Latinos who had less than a 12<sup>th</sup> grade education (167.1 per 100,000) and those who had some level of post-secondary education (161.9 per 100,000). However, Hispanic/Latino males with less than a 12<sup>th</sup> grade education had a significantly lower chronic disease death rate (190.1 per 100,000) than those with a 12<sup>th</sup> grade education (470.8 per 100,000) or those with some level of post-secondary education (218.6 per 100,000).

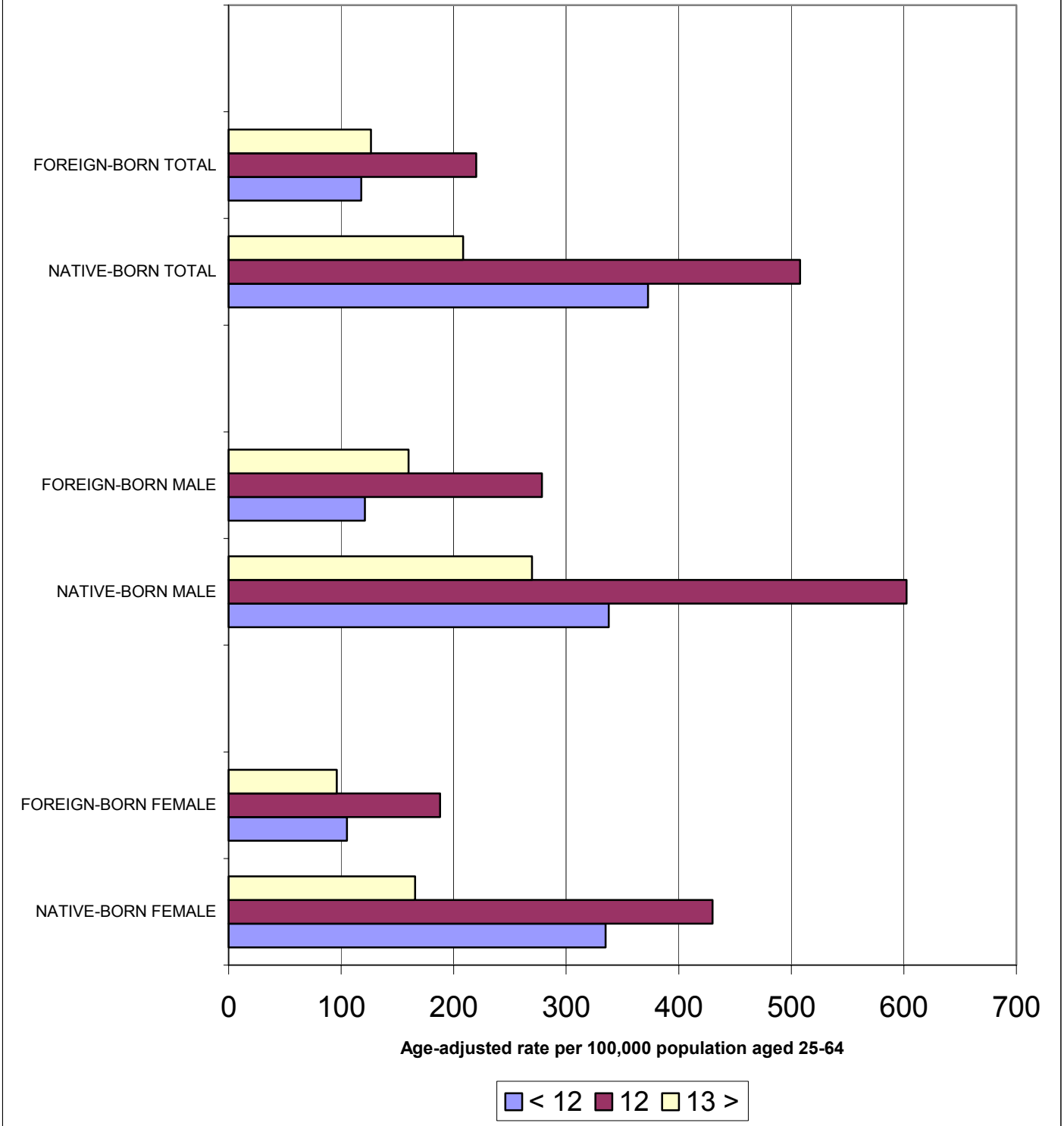
**Figure 3-B. Chronic Disease Mortality Rates  
Among Persons Aged 25-64 Years, By Educational Attainment  
California, 1999-2001**



SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001; U.S. Census Bureau, Public Use Microdata Sample 1-Percent (PUMS 1%), 2000.

NOTE: \*\*\* Data statistically unreliable, Relative Standard Error (RSE) equal to or greater than 23 percent.

**Figure 3-C. Chronic Disease Mortality Rates  
Among Persons Aged 25-64, By Educational Attainment and Nativity  
California, 1999-2001**



SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001; U.S. Census Bureau, Public Use Microdata Sample (PUMS 1%), 2000.

Chronic disease mortality data by educational attainment and nativity are shown in Tables 3-B and 3-C (Appendix I) and Figure 3-C. Persons who had completed 12<sup>th</sup> grade experienced significantly higher chronic disease death rates than those with either higher or lower levels of educational attainment, regardless of nativity. Also, foreign-born persons experienced significantly lower chronic disease mortality rates than their native-born counterparts across all levels of educational attainment regardless of gender and race/ethnicity. One exception was found among non-Hispanic White males who had completed 12<sup>th</sup> grade, but the difference between foreign-born (364.0 per 100,00) and native-born (342.9 per 100,000) was not statistically significant.

Foreign-born NHOPI persons who had completed 12<sup>th</sup> grade experienced the highest chronic disease mortality rates (1480.2 per 100,000 total; 2096.8 per 100,000 males; and 1303.8 per 100,000 females). Foreign-born White, non-Hispanic males who had completed 12<sup>th</sup> grade had a significantly higher chronic disease death rate (364.0 per 100,000) than their Hispanic/Latino counterparts (289.9 per 100,000). However, among native-born males, Hispanics/Latinos experienced significantly higher chronic disease death rates than their White, non-Hispanic counterparts across all levels of educational attainment.

### Deaths Due To Communicable Diseases

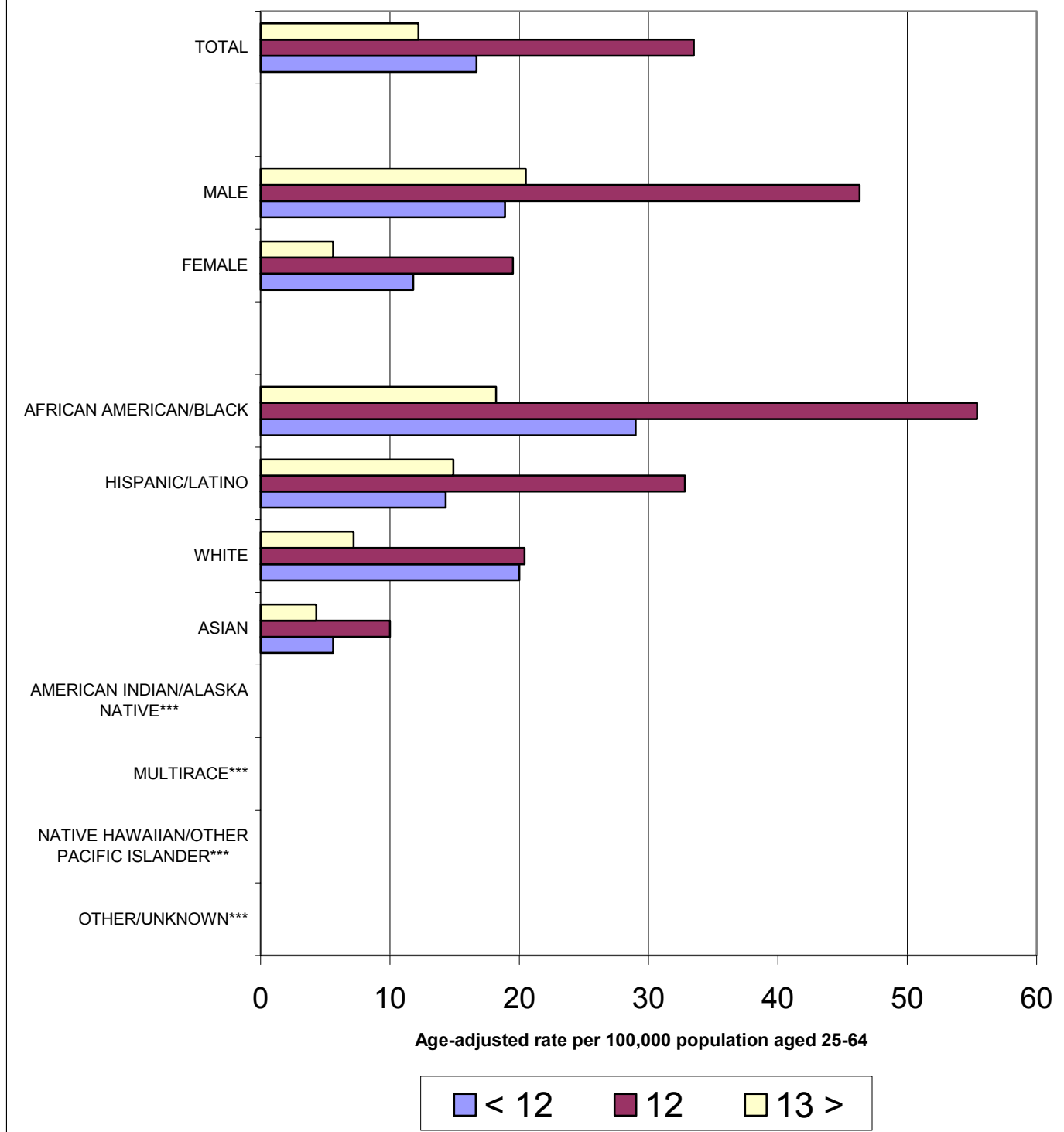
Communicable diseases (e.g., pneumonia, influenza, HIV, hepatitis, pertussis, tuberculosis) accounted for only six percent of all deaths among California residents aged 25-64 for the period 1999-2001 (Figure 3-A). Persons having some level of post-secondary education experienced significantly lower age-adjusted communicable disease death rates, and females experienced significantly lower death rates than males across all levels of educational attainment (Figure 4-A, Tables 1-A and 4-A [Appendix I]).

Among persons aged 25-64 with an elementary education, African Americans/Blacks experienced the highest reliable communicable disease death rate (29.0 per 100,000), followed by Whites (20.0 per 100,000). Once again, the California data does not follow the national pattern wherein those having less than a 12<sup>th</sup> grade education experienced higher death rates than those having higher levels of educational attainment. The one exception that fit the national pattern was found for White, non-Hispanic females: those with less than a 12<sup>th</sup> grade education had a communicable disease death rate of 15.9 per 100,000; those who completed 12<sup>th</sup> grade had a rate of 11.4 per 100,000; and those with some level of post-secondary education had a rate of 3.1 per 100,000 population.

Among persons aged 25-64 who completed 12<sup>th</sup> grade, African Americans/Blacks experienced the highest reliable communicable disease death rate (55.4 per 100,000), followed by Hispanics/Latinos (32.8 per 100,000). African American/Black males experienced a communicable disease death rate (70.3 per 100,000) that was nearly twice the rate for their female counterparts (36.0 per 100,000). The gender disparity was even greater for Hispanics/Latinos: males had a communicable disease death rate of 52.5 per 100,000 population, while females experienced a death rate of 16.7 per 100,000.

Among persons aged 25-64 with some level of post-secondary education, African Americans/Blacks experienced the highest reliable communicable disease death rate (18.2 per 100,000), followed by Hispanics/Latinos (14.9 per 100,000). The death rate for African American/Black males (34.6 per 100,000) was 4.5 times greater than the rate for African American/Black females (7.7 per 100,000). The communicable disease death rate for Hispanic/Latino males (24.2 per 100,000) was over three times greater than the rate for Hispanic/Latino females (7.2 per 100,000).

**Figure 4-A. Communicable Disease Mortality Rates  
Among Persons Aged 25-64 Years, By Educational Attainment  
California, 1999-2001**



SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001; U.S. Census Bureau, Public Use Microdata Sample 1-Percent (PUMS 1%), 2000.

NOTE: \*\*\* Data statistically unreliable, Relative Standard Error (RSE) equal to or greater than 23 percent.

Communicable disease mortality data examined by nativity status indicate that foreign-born persons experienced significant lower death rates than their native-born counterparts across all levels of educational attainment, and that females experienced significantly lower communicable disease death rates than males across all levels of educational attainment (Tables 4-B, 4-C [Appendix I], Figure 4-B).

Among persons with less than a 12<sup>th</sup> grade education, native-born Hispanics/Latinos had the highest communicable disease death rate (34.7 per 100,000), followed by African Americans/Blacks (29.7 per 100,000), and non-Hispanic Whites (22.8 per 100,000).

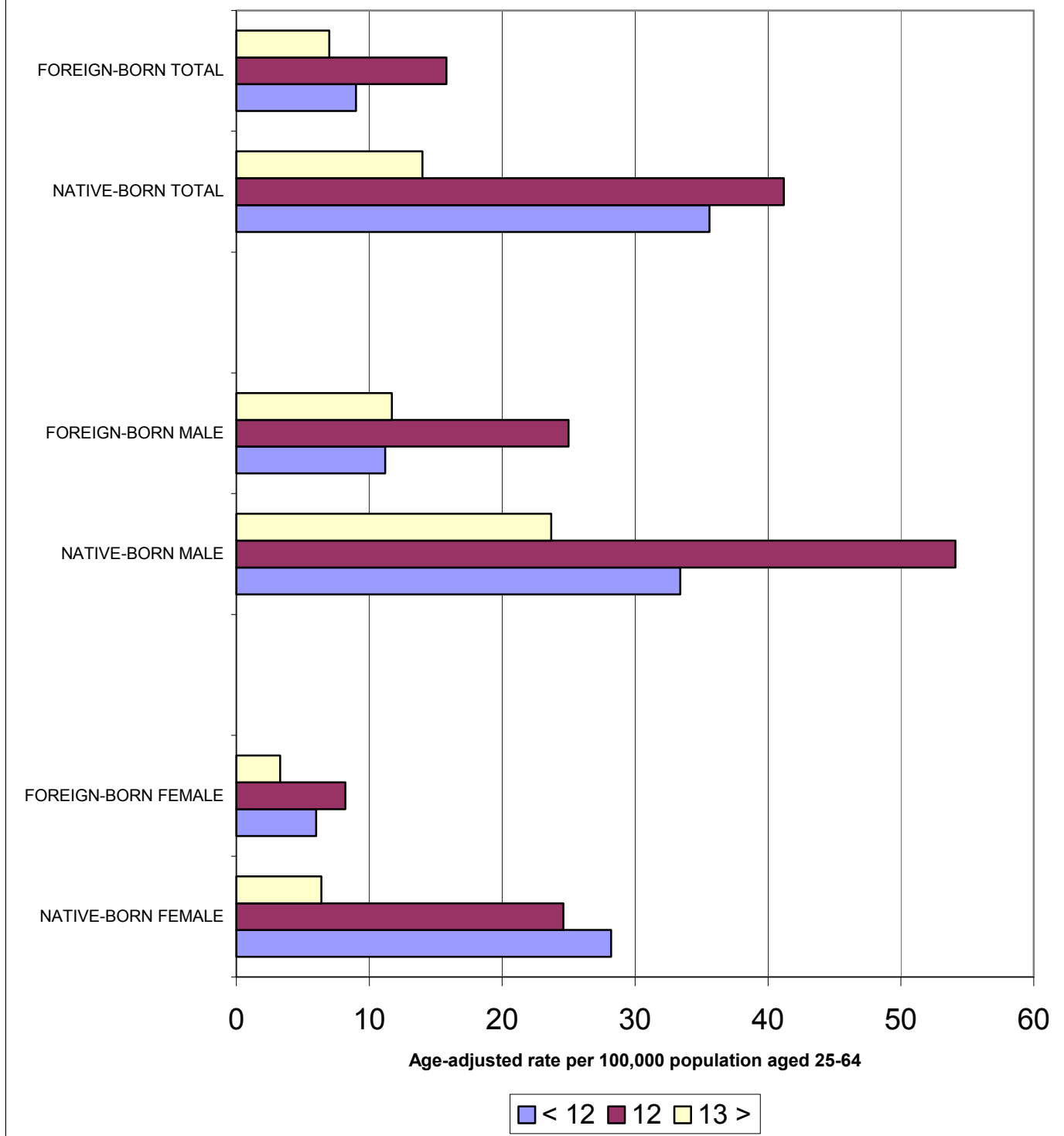
Among persons who completed 12<sup>th</sup> grade and those who had some level of post-secondary education, African Americans/Blacks had the highest death rates (56.2 and 19.1 per 100,000 population, respectively), followed by Hispanics/Latinos (45.6 and 16.7 per 100,000 population, respectively), and Whites (21.4 and 7.6 per 100,000 population, respectively).

Native-born females were the only nativity-gender group to experience declining communicable disease death rates with increasing levels of educational attainment, similar to the national pattern. Native-born non-Hispanic Whites were the only nativity-race/ethnic group to experience this trend, and native-born White, non-Hispanic females were the only nativity-race/ethnic-gender group to experience declining death rates with increasing levels of education.

Hispanic/Latino males who had completed 12<sup>th</sup> grade had the highest communicable disease mortality rate (31.2 per 100,000) among foreign-born persons. Foreign-born Hispanic/Latino males also had the highest reliable communicable disease death rate (20.6 per 100,000) among those who had some level of post-secondary education.



**Figure 4-B. Communicable Disease Mortality Rates  
Among Persons Aged 25-64, By Educational Attainment and Nativity  
California, 1999-2001**



SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001; U.S. Census Bureau, Public Use Microdata Sample (PUMS 1%), 2000.

## Deaths Due To Injuries

Injuries accounted for 16 percent of all deaths among persons aged 25-64 during the 1999-2001 period (Figure 3-A, Table 1-A [Appendix I]). Among Californians aged 25-64, the leading causes of injury deaths were: 1) suicide; 2) poisoning; 3) motor vehicle transport accidents; and 4) homicide.<sup>32</sup>

Age-adjusted injury mortality rates were significantly lower for adults aged 25-64 with some level of post-secondary education (30.2 per 100,000 population), compared with those having completed 12<sup>th</sup> grade (87.5 per 100,000) or those with less than a 12<sup>th</sup> grade education (44.1 per 100,000) (Figure 5-A, Table 5-A [Appendix I]).

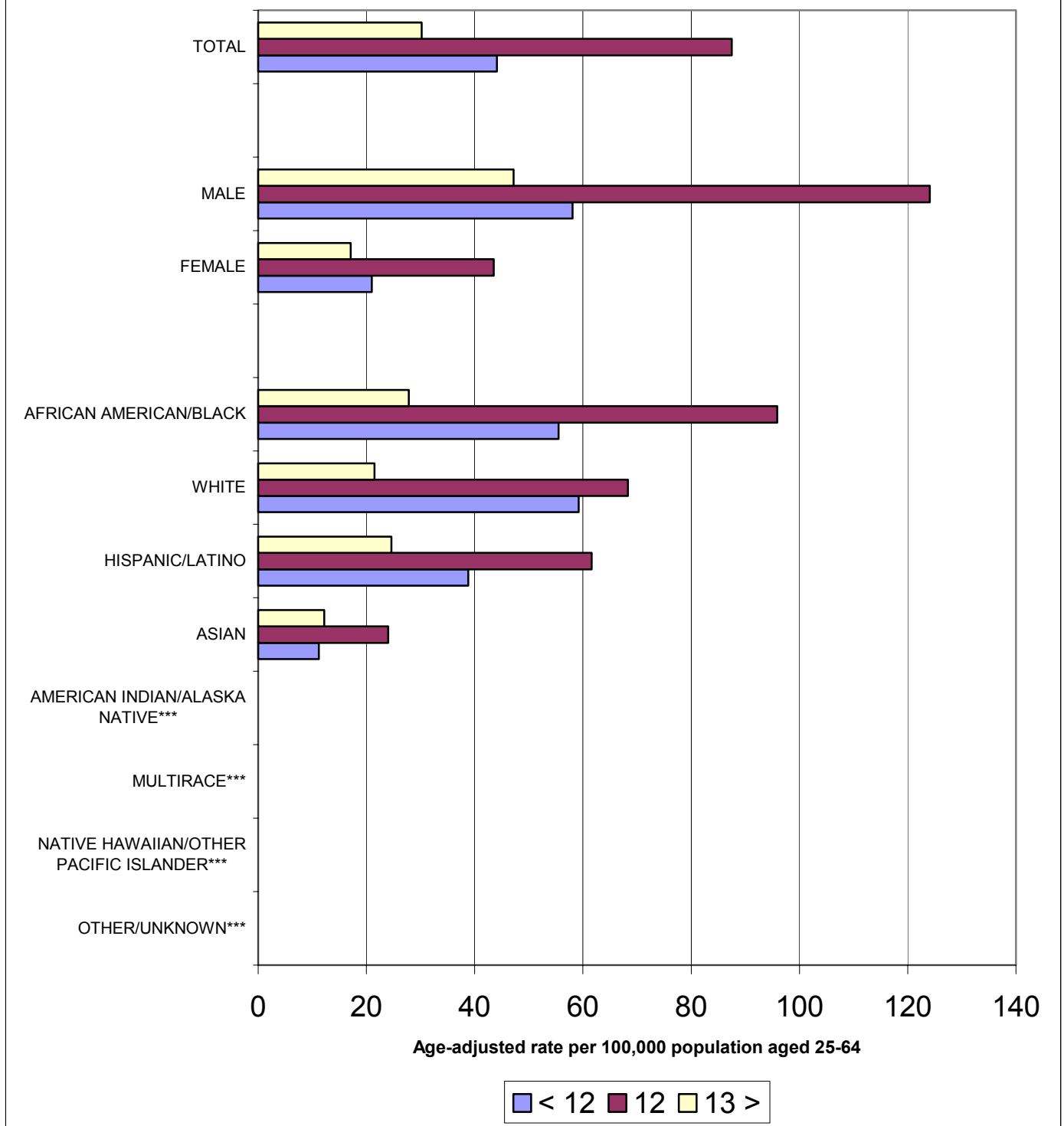
Males aged 25-64 who completed high school experienced the highest injury death rate (124.1 per 100,000), 2.6 times higher than the rate for males with some level of post-secondary education (47.2 per 100,000) and twice as high as the rate for males who had less than a 12<sup>th</sup> grade education (58.1 per 100,000). Among females aged 25-64, those who completed 12<sup>th</sup> grade also exhibited the highest injury death rate (43.5 per 100,000), although this was nearly three times lower than the rate for their male counterparts.

African Americans/Blacks aged 25-64 who had completed high school experienced the highest injury death rate (95.9 per 100,000 population), followed by non-Hispanic Whites (68.3 per 100,000), and Hispanics/Latinos (61.6 per 100,000). African American/Black males who had completed high school had the highest injury death rate (202.1 per 100,000), followed by non-Hispanic White males (156.8 per 100,000), and AIAN males (96.1 per 100,000). These rates were three to four times greater than the reliable injury death rates observed for males of the same race/ethnicity who had some level of post-secondary education. Only non-Hispanic White females fit the national pattern of declining injury death rates with increasing levels of educational attainment (37.6 per 100,000 with less than 12<sup>th</sup> grade education; 36.2 per 100,000 who completed 12<sup>th</sup> grade; and 12.5 per 100,000 with some level of post-secondary education).

Examined by nativity, foreign-born persons experienced significantly lower injury mortality rates than their native-born counterparts (Figure 5-B, Tables 5-B and 5-C [Appendix I]). The disparity in death rates was greatest for persons with less than a 12<sup>th</sup> grade education (27.7 vs. 87.1 per 100,000 population, respectively), followed by those who completed 12<sup>th</sup> grade (39.8 vs. 110.4 per 100,000 population, respectively). Death rates for native-born Hispanic/Latino females and native-born non-Hispanic White females fit the national pattern of declining mortality rates with increasing levels of education.

The highest injury mortality rates were found for native-born Hispanic/Latino males who completed 12<sup>th</sup> grade (140.5 per 100,000), followed by native-born African American/Black males who completed 12<sup>th</sup> grade (131.9 per 100,000). Among foreign-born persons, non-Hispanic White males who completed 12<sup>th</sup> grade experienced the highest injury death rate (90.2 per 100,000), followed by Hispanic/Latino males who completed 12<sup>th</sup> grade (69.4 per 100,000).

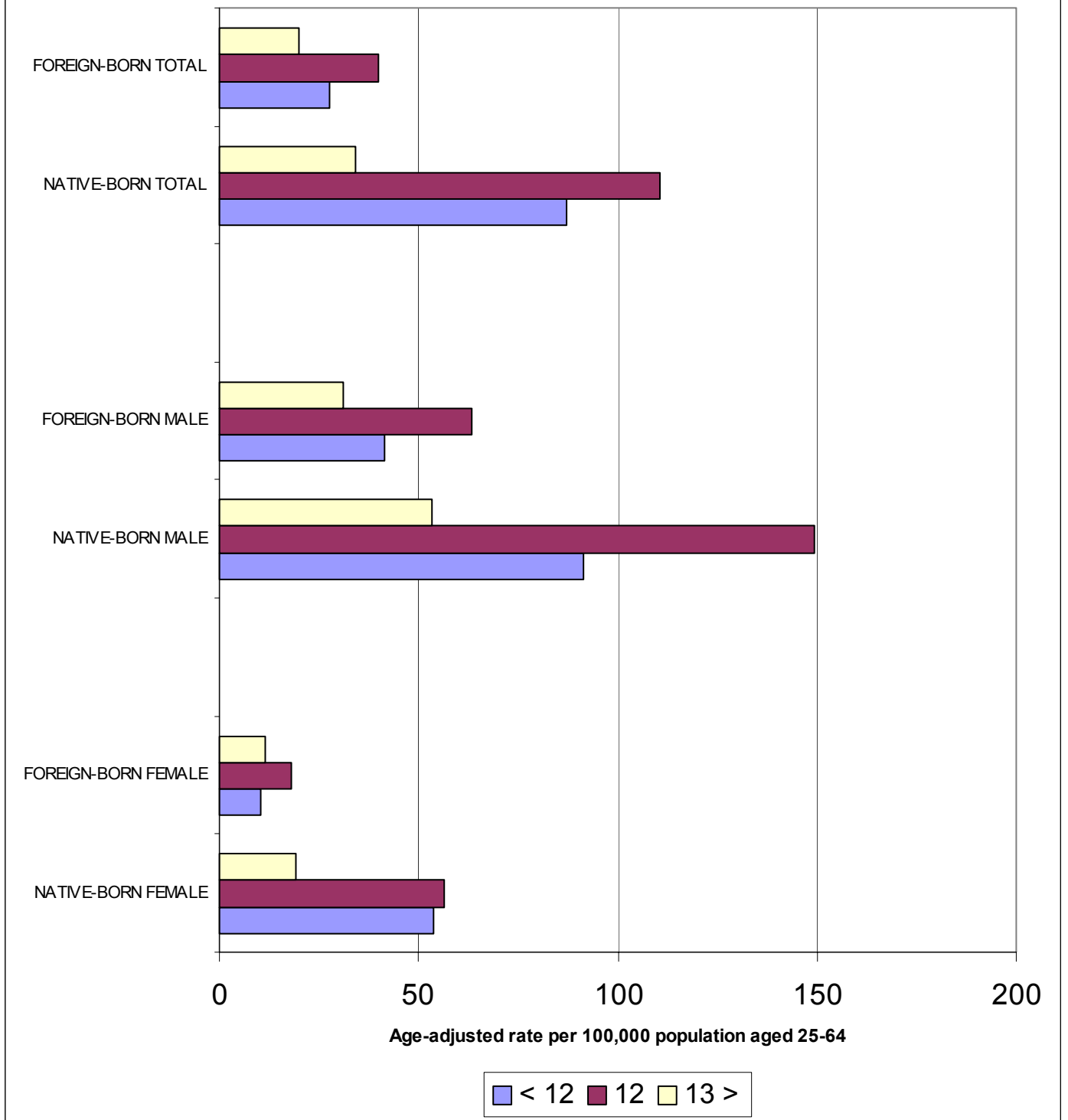
**Figure 5-A. Injury Mortality Rates  
Among Persons Aged 25-64 Years, By Educational Attainment  
California, 1999-2001**



SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001; U.S. Census Bureau, Public Use Microdata Sample 1-Percent (PUMS 1%), 2000.

NOTE: \*\*\* Data statistically unreliable, Relative Standard Error (RSE) equal to or greater than 23 percent.

**Figure 5-B. Injury Mortality Rates  
Among Persons Aged 25-64, By Educational Attainment and Nativity  
California, 1999-2001**



SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001; U.S. Census Bureau, Public Use Microdata Sample (PUMS 1%), 2000.

## Discussion

This analysis highlights mortality differentials between California adults having varying levels of educational attainment and nativity. As shown in this report, California residents having some level of post-secondary education experience lower mortality rates associated with chronic diseases, communicable diseases, and injuries than those having lower levels of education regardless of nativity status. This finding tends to support the hypothesis that a higher level of education increases the likelihood of obtaining and utilizing health-related information needed for developing or maintaining health promotion and disease prevention behaviors. Foreign-born persons were found to experience significantly lower mortality rates than their native-born counterparts across all levels of educational attainment. This finding tends to support the hypothesis that foreign-born immigrants experience lower mortality risk than their native-born counterparts regardless of educational attainment status.

The California data presented in this report does, however, indicate that persons having less than a 12<sup>th</sup> grade education experienced lower mortality rates than persons who had completed 12<sup>th</sup> grade regardless of nativity status. These findings could be the result of a statistical anomaly or a reporting artifact in the data examined, either in the numerator (number of deaths) or denominator (population estimates by educational level and nativity status), or a result of the methods used to create educational attainment and nativity categories based on informant reports of a decedent's background. It could also be the influence of other factors interacting with educational attainment and nativity status in the 25-64 year-old cohort being studied, such as income or occupation variables, social/cultural variables that operate within communities, genetic variables, or personal health behaviors that effect health outcomes. In any event, the present study does not appear to support the hypothesis that adults who completed 12<sup>th</sup> grade will have lower mortality rates than those with less than a 12<sup>th</sup> grade education.

California mortality disparities that stand in contrast with national or international mortality trends will require further investigation and more elaborate analyses. To accomplish this, updated California population denominator data by educational attainment and nativity status beyond the year 2000 will be necessary. In addition, death certificate data quality studies would be important in ascertaining the reliability and validity of the reporting of educational attainment of decedents. This item was changed on the California death certificate from "highest grade completed" to "education level completed" in 2003 to conform with national reporting standards.

One of the overarching goals of the national *Healthy People 2010* (HP2010) initiative is to eliminate health disparities.<sup>33</sup> This goal is supported by 467 specific objectives in 28 Focus Areas targeting reductions in chronic diseases, communicable diseases, and injuries. Improving educational attainment, especially beyond the high school level, among targeted high-risk groups could lead to an overall reduction in mortality. However, the contribution of economic factors such as income and occupation and of behavioral risk factors such as smoking and diet differ across populations, and therefore different educational interventions may be required for different age, sex, race/ethnic, and nativity groups.

Revised and enhanced public health policies that address inequities in health insurance coverage and access to healthcare may also be necessary to reduce mortality differentials between education and nativity groups. Such reductions would have an important public health impact and would serve to further the goal of eliminating health disparities expressed in the HP2010 initiative.

## References

1. Duncan, G.J., et al. Optimal indicators of socioeconomic status for health research. *American Journal of Public Health*, 2002;92(7):1151-1157.
2. Tolson, G. C., et al. The 1989 Revision of the U.S. Standard Certificates and Reports. Hyattsville, MD: National Center for Health Statistics, *Vital and Health Statistics*, (PHS) 91-1465, 1991;4(28): 1-34.
3. Feldman, J.J., et al. National trends in educational differentials in mortality. *American Journal of Epidemiology*, 1989; 129:919-933.
4. Pappas, G., et al. The increasing disparity in mortality between socioeconomic groups in the United States, 1960 and 1986. *New England Journal of Medicine*. 1993; 329:103-109.
5. Elo, I.T. and Preston, S.H. Educational differences in mortality: United States, 1979-1985. *Social Science & Medicine*, 1996;42(1):47-57.
6. Grossman, M. and Kaestner, R. Effects of education on health. In J.R. Behrman and N. Stacey (Eds.), *Social Benefits of Education*. Ann Arbor, MI: University of Michigan Press, 1997.
7. Backlund, E., Sorlie, P.D., and Johnson, N.J. A comparison of the relationships of education and income with mortality: The National Longitudinal Mortality Study. *Social Science & Medicine*. 1999;49(10):1373-1384.
8. Braveman, P., et al. Measuring socioeconomic status/position in studies of racial/ethnic disparities: Maternal and infant health. *Public Health Reports*; 2001:116(5): 449-463.
9. Goldman, D. and Lakdawalla., D. Understanding health disparities across education groups. Cambridge, MA: National Bureau of Economic Research (NBER) Working Papers, No. 8328, 2001.
10. Muller, A. Education, income inequality, and mortality: A multiple regression analysis. *British Medical Journal*, 2002;324:23-25.
11. Smith, J.P. Unraveling the SES health connection. London, UK: Institute for Fiscal Studies (IFS) Working Papers, WP04/02, January 2004.
12. Gornick, M.E., Eggers, P.W., and Riley, G.F. Associations of race, education, and patterns of preventive service use with stage of cancer at time of diagnosis. *Health Services Research*; 2004:39(5), 1403-1427.
13. Lethbridge-Cejku, M., Schiller, J.S., and Bernadel, L. Summary health statistics for U.S. adults: National Health Interview Survey, 2002. Hyattsville, MD: National Center for Health Statistics, *Vital and Health Statistics*, 10(222), DHHS Publication No. (PHS) 2004-1550, July 2004.
14. U.S. Department of Health and Human Services. Health, United States, 2004. Hyattsville, MD: National Center for Health Statistics, DHHS Publication No. 2004-1232, September 2004.
15. Krieger, N., Chen, J.T., and Ebel, G. Can we monitor socioeconomic inequalities in health? A survey of U.S. health departments' data collection and reporting practices. *Public Health Reports*; 1997:112(6), 481-491.
16. U.S. Department of Commerce. 1990 Census of Population, Social and Economic Characteristics, California. Washington, D.C.: U.S Census Bureau, No. 1990 CP-2-6, 1993.
17. U.S. Department of Commerce. Census 2000 Profile: California. Washington, D.C.: U.S. Census Bureau, No. C2KPROF/00-CA, 2002.
18. California Department of Education. Grades 9-12 Dropouts in California. Sacramento, CA: Educational Demographics Unit, DataQuest, May 2005.
19. California Department of Education. Dropout Rates in Public Schools by Ethnicity. Sacramento, CA: Ed-Data Partnership, Ed-Data, May 2005.
20. Vernez, G., Krop, R.A., and Rydell, P. Closing the Education Gap: Benefits and Costs. Santa Monica, CA: RAND, MR-1036-EDU, 1999.

21. Passel, J.S. and Suro, R. Rise, peak, and decline: Trends in U.S. immigration 1992-2004. Washington, D.C.: Pew Hispanic Center, September 2005.
22. California Department of Finance. Census 2000: Summary File 1 California Profile. Sacramento, CA: Demographic Research Unit, August 2002.
23. California Department of Finance. Population Projections by Race/Ethnicity for California and Its Counties 2000-2050. Sacramento, CA: Demographic Research Unit, May 2004.
24. Singh, G.K. and Siahpush, M. Ethnic-immigrant differentials in health behaviors, morbidity, and cause-specific mortality in the United States: An analysis of two national data bases. *Human Biology*, 2002;74(1):83-109.
25. Kestenbaum, B. Mortality by nativity. *Demography*, 1986;23(1):87-90.
26. California Department of Health Services, Center for Health Statistics. Death Statistical Master Files, 1999-2001.
27. U.S. Census Bureau. Public Use Microdata Sample, One-Percent File (PUMS 1%).
28. U.S. Department of Commerce. Educational Attainment in the United States (Update). Washington, D.C.: U.S. Census Bureau, *Current Population Reports*, No. P20-536, 2000.
29. Klein, R.J. and Schoenborn, C.A. Age adjustment using the 2000 projected U.S. population. Hyattsville, MD: National Center for Health Statistics, *Statistical Notes*, No. 20, January 2001.
30. Armitage, P. and Berry, G. *Statistical Methods in Medical Research, Second Edition*. Boston, MA: Blackwell Scientific Publication, 1987.
31. Heck, K.E., Parker, J.D., and McKendry, C.J. Multiple-race mortality data for California, 2000-2001. *Public Health Reports*, 2004;119:187-191.
32. California Department of Health Services, Epidemiology and Prevention for Injury Control, EPICenter Injury Data (available at <http://www.applications.dhs.ca.gov/epicdata/> ).
33. U.S. Department of Health and Human Services. *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000.

---

This Data Summary was prepared by Jim Sutocky, Research Program Specialist, CDHS Center for Health Statistics, Office of Health Information and Research, 1616 Capitol Avenue, Suite 74.165, MS 5101, P.O. Box 997410, Sacramento, CA 95899-7410, Phone: (916) 650-6871, E-mail: [jsutocky@dhs.ca.gov](mailto:jsutocky@dhs.ca.gov)

---

## APPENDIX I

TABLE 1-A	Number of deaths and death rates for persons aged 25-64 by cause of death, educational attainment, and gender, California residents, 1999-2001
TABLE 1-B	Number of deaths and death rates for native-born persons aged 25-64 by cause of death, educational attainment, and gender, California residents, 1999-2001
TABLE 1-C	Number of deaths and death rates for foreign-born persons aged 25-64 by cause of death, educational attainment, and gender, California residents, 1999-2001
TABLE 2-A	All causes of death and death rates for persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001
TABLE 2-B	All causes of death and death rates for native-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001
TABLE 2-C	All causes of death and death rates for foreign-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001
TABLE 3-A	Chronic disease deaths and death rates for persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001
TABLE 3-B	Chronic disease deaths and death rates for native-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001
TABLE 3-C	Chronic disease deaths and death rates for foreign-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001
TABLE 4-A	Communicable disease deaths and death rates for persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001
TABLE 4-B	Communicable disease deaths and death rates for native-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001
TABLE 4-C	Communicable disease deaths and death rates for foreign-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001
TABLE 5-A	Injury deaths and death rates for persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001
TABLE 5-B	Injury deaths and death rates for native-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001
TABLE 5-C	Injury deaths and death rates for foreign-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001



Table 1-A. Number of deaths and death rates for persons aged 25-64 by cause of death, educational attainment, and gender, California residents, 1999-2001

Total (All Races, Both Sexes)	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<i>All Causes</i> <sup>5</sup>	10,622	257.6	252.6 - 262.5	19,590	547.2	539.5 - 554.9	20,595	230.4	227.2 - 233.5
<i>Chronic Diseases</i> <sup>6</sup>	7,962	196.2	191.8 - 200.5	15,123	425.1	418.4 - 431.9	16,539	187.6	184.8 - 190.5
<i>Communicable Diseases</i> <sup>7</sup>	692	16.7	15.5 - 18.0	1,200	33.5	31.6 - 35.4	1,131	12.2	11.4 - 12.9
<i>Injuries</i> <sup>8</sup>	1,943	44.1	42.1 - 46.1	3,227	87.5	84.5 - 90.5	2,889	30.2	29.1 - 31.3

Male (All Races)	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<i>All Causes</i> <sup>5</sup>	6,618	274.9	268.2 - 281.6	11,968	688.4	675.9 - 700.9	12,621	308.3	302.9 - 313.7
<i>Chronic Diseases</i> <sup>6</sup>	4,613	197.0	191.3 - 202.8	8,625	516.4	505.4 - 527.4	9,697	240.1	235.3 - 244.9
<i>Communicable Diseases</i> <sup>7</sup>	462	18.9	17.2 - 20.7	851	46.3	43.2 - 49.5	865	20.5	19.1 - 21.8
<i>Injuries</i> <sup>8</sup>	1,523	58.1	55.2 - 61.1	2,460	124.1	119.1 - 129.1	2,036	47.2	45.1 - 49.2

Female (All Races)	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<i>All Causes</i> <sup>5</sup>	4,003	203.5	197.1 - 209.8	7,622	419.7	410.2 - 429.1	7,974	171.1	167.3 - 174.9
<i>Chronic Diseases</i> <sup>6</sup>	3,349	170.5	164.7 - 176.3	6,531	358.2	349.5 - 366.9	6,842	148.1	144.6 - 151.6
<i>Communicable Diseases</i> <sup>7</sup>	230	11.8	10.2 - 13.3	350	19.5	17.5 - 21.6	266	5.6	4.9 - 6.3
<i>Injuries</i> <sup>8</sup>	420	21.0	19.0 - 23.0	767	43.5	40.4 - 46.6	853	17.1	16.0 - 18.3

Table 1-B. Number of deaths and death rates for native-born persons aged 25-64 by cause of death, educational attainment, and gender, California residents, 1999-2001

Total (All Races, Both Sexes) NATIVE-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
Cause of Death	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<i>All Causes</i> <sup>5</sup>	6,136	496.9	484.3 - 509.5	16,647	660.9	650.8 - 670.9	17,051	257.0	253.1 - 260.8
<i>Chronic Diseases</i> <sup>6</sup>	4,651	372.8	361.9 - 383.7	12,846	507.9	499.1 - 516.7	13,705	208.4	204.9 - 211.9
<i>Communicable Diseases</i> <sup>7</sup>	424	35.6	32.2 - 39.1	1,024	41.2	38.6 - 43.7	961	14.0	13.1 - 14.9
<i>Injuries</i> <sup>8</sup>	1,045	87.1	81.8 - 92.4	2,743	110.4	106.3 - 114.6	2,354	34.1	32.7 - 35.5

Male (All Races) NATIVE-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
Cause of Death	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<i>All Causes</i> <sup>5</sup>	3,832	464.1	449.3 - 478.8	10,194	807.7	791.9 - 823.5	10,407	347.0	340.2 - 353.7
<i>Chronic Diseases</i> <sup>6</sup>	2,758	337.9	325.2 - 350.6	7,365	602.5	588.6 - 616.3	7,990	269.5	263.6 - 275.5
<i>Communicable Diseases</i> <sup>7</sup>	279	33.4	29.4 - 37.3	721	54.1	50.2 - 58.1	735	23.7	21.9 - 25.4
<i>Injuries</i> <sup>8</sup>	781	91.2	84.8 - 97.7	2,081	149.2	142.8 - 155.7	1,663	53.2	50.6 - 55.7

Female (All Races) NATIVE-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
Cause of Death	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<i>All Causes</i> <sup>5</sup>	2,304	417.6	400.0 - 435.1	6,453	508.8	496.3 - 521.2	6,644	191.8	187.1 - 196.4
<i>Chronic Diseases</i> <sup>6</sup>	1,892	335.1	319.5 - 350.7	5,514	430.1	418.6 - 441.5	5,715	165.7	161.4 - 170.0
<i>Communicable Diseases</i> <sup>7</sup>	145	28.2	23.4 - 32.8	304	24.6	21.8 - 27.4	227	6.4	5.6 - 7.3
<i>Injuries</i> <sup>8</sup>	264	53.8	47.2 - 60.4	661	56.4	52.0 - 60.7	692	19.3	17.9 - 20.8

Table 1-C. Number of deaths and death rates for foreign-born persons aged 25-64 by cause of death, educational attainment, and gender, California residents, 1999-2001

Total (All Races, Both Sexes) FOREIGN-BORN Cause of Death	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<i>All Causes</i> <sup>5</sup>	4,486	154.8	150.2 - 159.4	2,943	276.1	266.0 - 286.1	3,544	153.5	148.4 - 158.6
<i>Chronic Diseases</i> <sup>6</sup>	3,311	117.8	113.8 - 121.8	2,277	220.0	210.9 - 229.1	2,834	126.5	121.8 - 131.2
<i>Communicable Diseases</i> <sup>7</sup>	268	9.0	7.9 - 10.1	176	15.8	13.4 - 18.2	169	7.0	5.9 - 8.1
<i>Injuries</i> <sup>8</sup>	897	27.7	25.9 - 29.5	484	39.8	36.2 - 43.4	535	19.8	18.1 - 21.6

Male (All Races) FOREIGN-BORN Cause of Death	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<i>All Causes</i> <sup>5</sup>	2,787	174.2	167.7 - 180.8	1,773	367.4	349.8 - 385.0	2,214	202.9	194.4 - 211.4
<i>Chronic Diseases</i> <sup>6</sup>	1,855	121.1	115.5 - 126.6	1,260	278.3	262.7 - 293.9	1,707	159.9	152.3 - 167.5
<i>Communicable Diseases</i> <sup>7</sup>	183	11.2	9.5 - 12.8	130	25.0	20.6 - 29.5	130	11.7	9.7 - 13.7
<i>Injuries</i> <sup>8</sup>	742	41.6	38.5 - 44.6	379	63.4	56.7 - 70.1	373	31.0	27.8 - 34.2

Female (All Races) FOREIGN-BORN Cause of Death	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<i>All Causes</i> <sup>5</sup>	1,699	121.8	115.9 - 127.6	1,169	214.5	202.2 - 226.9	1,330	110.9	104.8 - 117.0
<i>Chronic Diseases</i> <sup>6</sup>	1,457	105.1	99.7 - 110.6	1,017	187.9	176.3 - 199.5	1,127	96.0	90.3 - 101.6
<i>Communicable Diseases</i> <sup>7</sup>	85	6.0	4.7 - 7.3	46	8.2	5.8 - 10.6	39	3.3	2.2 - 4.3
<i>Injuries</i> <sup>8</sup>	155	10.4	8.8 - 12.1	105	18.1	14.6 - 21.6	161	11.5	9.7 - 13.3

SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001;  
U.S. Census Bureau, Public Use Microdata Sample, 1-Percent File (PUMS 1%), 2000.

NOTES:

<sup>1</sup> Highest grade completed, as reported on California death certificate.

<sup>2</sup> Three-year (1999-2001) average number of deaths.

<sup>3</sup> Three-year average death rates per 100,000 population, age-adjusted by the direct method using the 2000 U.S. standard population;  
rates having a Relative Standard Error (RSE) value greater than or equal to 23 percent are considered unreliable and marked with triple asterisks (\*\*\*).  
rates based on zero (0) events are indeterminate and marked with an exclamation point (!).

<sup>4</sup> Confidence interval values (Lower CI, Upper CI) have a 95 percent probability of covering the true rate.

<sup>5</sup> "All Causes of Death" defined by ICD-10 codes A00 - Y89; data reflect underlying cause of death, defined as the disease or injury  
that initiated the sequence of morbid events leading directly to death.

<sup>6</sup> "Chronic Diseases" defined by ICD-10 codes C00 - I99, J30 - R99 as an underlying cause of death.

<sup>7</sup> "Communicable Diseases" defined by ICD-10 codes A00 - B99, J00 - J22 as an underlying cause of death.

<sup>8</sup> "Injuries" defined by ICD-10 codes U01 - U03, V01 - Y34, Y85 - Y87, Y89 as an underlying cause of death.

Table 2-A. All causes of death and death rates for persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001

TOTAL All Causes of Death <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races, Both Sexes)</b>	<b>10,622</b>	<b>257.6</b>	<b>252.6 - 262.5</b>	<b>19,590</b>	<b>547.2</b>	<b>539.5 - 554.9</b>	<b>20,595</b>	<b>230.4</b>	<b>227.2 - 233.5</b>
<i>African American/Black</i>	620	353.0	325.0 - 381.1	1,890	728.8	695.5 - 762.1	1,680	265.1	252.4 - 277.8
<i>American Indian/Alaska Native</i>	65	282.9	211.4 - 354.5	101	364.2	292.6 - 435.8	65	137.0	102.4 - 171.6
<i>Asian</i>	387	87.5	78.5 - 96.5	630	183.3	169.0 - 197.7	1,278	114.8	108.4 - 121.3
<i>Hispanic</i>	4,938	220.7	214.4 - 227.1	3,115	428.0	411.9 - 444.0	1,711	201.7	191.1 - 212.2
<i>Multirace</i>	15	***	-----	35	64.5	43.0 - 86.0	44	35.6	24.8 - 46.5
<i>Native Hawaiian/Other Pacific Islander</i>	32	252.3	163.1 - 341.5	89	560.2	440.4 - 680.0	47	282.0	195.3 - 368.8
<i>Other/Unknown</i>	3	***	-----	7	***	-----	10	***	-----
<i>White</i>	2,619	307.0	294.8 - 319.3	8,266	383.3	375.0 - 391.7	9,665	151.1	148.1 - 154.1

MALE All Causes of Death <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races)</b>	<b>6,618</b>	<b>274.9</b>	<b>268.2 - 281.6</b>	<b>11,968</b>	<b>688.4</b>	<b>675.9 - 700.9</b>	<b>12,621</b>	<b>308.3</b>	<b>302.9 - 313.7</b>
<i>African American/Black</i>	389	341.4	307.2 - 375.7	1,152	870.0	816.6 - 923.3	898	345.0	322.4 - 367.6
<i>American Indian/Alaska Native</i>	37	289.3	191.2 - 387.5	61	1746.7	1097.7 - 2395.8	36	131.5	88.4 - 174.5
<i>Asian</i>	195	100.3	86.1 - 114.5	379	218.9	196.8 - 240.9	787	149.2	138.6 - 159.8
<i>Hispanic</i>	3,199	269.5	259.8 - 279.2	2,048	625.6	595.1 - 656.0	1,101	283.7	265.2 - 302.1
<i>Multirace</i>	8	***	-----	25	96.0	55.7 - 136.4	24	41.4	24.2 - 58.5
<i>Native Hawaiian/Other Pacific Islander</i>	22	261.2	145.9 - 376.5	52	874.3	615.4 - 1133.2	28	509.7	283.8 - 735.6
<i>Other/Unknown</i>	2	***	-----	4	***	-----	6	***	-----
<i>White</i>	1,607	288.7	274.4 - 303.0	4,990	466.8	453.8 - 479.8	5,999	193.8	188.8 - 198.7

FEMALE All Causes of Death <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races)</b>	<b>4,003</b>	<b>203.5</b>	<b>197.1 - 209.8</b>	<b>7,622</b>	<b>419.7</b>	<b>410.2 - 429.1</b>	<b>7,974</b>	<b>171.1</b>	<b>167.3 - 174.9</b>
<i>African American/Black</i>	231	311.3	270.7 - 352.0	738	597.5	554.1 - 640.8	782	221.4	205.8 - 237.0
<i>American Indian/Alaska Native</i>	28	248.0	152.6 - 343.3	40	253.7	173.5 - 333.8	29	126.9	78.0 - 175.8
<i>Asian</i>	192	78.5	67.0 - 90.0	251	138.6	121.4 - 155.9	491	81.7	74.3 - 89.2
<i>Hispanic</i>	1,739	161.5	153.8 - 169.2	1,067	292.3	274.1 - 310.5	610	136.2	124.4 - 148.0
<i>Multirace</i>	7	***	-----	10	***	-----	20	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	10	***	-----	37	442.7	299.9 - 585.5	19	***	-----
<i>Other/Unknown</i>	1	***	-----	2	***	-----	4	***	-----
<i>White</i>	1,013	260.1	243.0 - 277.2	3,276	298.7	288.3 - 309.1	3,666	112.9	109.2 - 116.6

Table 2-B. All causes of death and death rates for native-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001

TOTAL NATIVE-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
All Causes of Death <sup>2</sup>	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races, Both Sexes)</b>	<b>6,136</b>	<b>496.9</b>	<b>484.3 - 509.5</b>	<b>16,647</b>	<b>660.9</b>	<b>650.8 - 670.9</b>	<b>17,051</b>	<b>257.0</b>	<b>253.1 - 260.8</b>
<i>African American/Black</i>	609	362.6	333.6 - 391.7	1,845	737.8	703.7 - 771.8	1,612	274.8	261.4 - 288.3
<i>American Indian/Alaska Native</i>	64	281.6	209.8 - 353.4	99	355.8	284.9 - 426.7	63	135.4	100.9 - 169.9
<i>Asian</i>	10	***	-----	77	279.6	216.8 - 342.4	191	126.9	107.8 - 146.0
<i>Hispanic</i>	1,445	408.6	387.3 - 430.0	1,981	545.7	520.8 - 570.5	1,038	227.6	212.1 - 243.1
<i>Multirace</i>	13	***	-----	30	99.1	62.7 - 135.6	35	44.1	29.2 - 59.0
<i>Native Hawaiian/Other Pacific Islander</i>	4	***	-----	24	214.6	123.3 - 305.8	17	***	-----
<i>Other/Unknown</i>	0	0.0!	-----	2	***	-----	4	***	-----
<i>White</i>	2,376	349.0	334.5 - 363.4	7,726	400.0	391.0 - 409.0	8,896	155.5	152.2 - 158.7

MALE NATIVE-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
All Causes of Death <sup>2</sup>	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races)</b>	<b>3,832</b>	<b>464.1</b>	<b>449.3 - 478.8</b>	<b>10,194</b>	<b>807.7</b>	<b>791.9 - 823.5</b>	<b>10,407</b>	<b>347.0</b>	<b>340.2 - 353.7</b>
<i>African American/Black</i>	384	348.2	313.0 - 383.4	1,125	872.8	818.7 - 926.9	856	357.8	333.7 - 381.8
<i>American Indian/Alaska Native</i>	36	282.5	185.5 - 379.4	60	1693.6	1055.6 - 2331.6	35	126.8	84.5 - 169.2
<i>Asian</i>	6	***	-----	51	274.9	197.8 - 352.0	114	173.0	138.0 - 208.1
<i>Hispanic</i>	935	508.4	474.5 - 542.2	1,314	903.7	849.7 - 957.7	676	325.8	298.5 - 353.1
<i>Multirace</i>	7	***	-----	21	***	-----	18	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	3	***	-----	14	***	-----	10	***	-----
<i>Other/Unknown</i>	0	0.0!	-----	1	***	-----	2	***	-----
<i>White</i>	1,463	307.5	291.6 - 323.5	4,690	466.0	452.6 - 479.3	5,516	201.1	195.8 - 206.4

FEMALE NATIVE-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
All Causes of Death <sup>2</sup>	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races)</b>	<b>2,304</b>	<b>417.6</b>	<b>400.0 - 435.1</b>	<b>6,453</b>	<b>508.8</b>	<b>496.3 - 521.2</b>	<b>6,644</b>	<b>191.8</b>	<b>187.1 - 196.4</b>
<i>African American/Black</i>	225	322.2	279.6 - 364.7	720	609.3	564.6 - 654.0	756	230.6	214.1 - 247.0
<i>American Indian/Alaska Native</i>	28	251.6	154.4 - 348.9	39	246.4	167.6 - 325.1	29	128.0	78.8 - 177.2
<i>Asian</i>	4	***	-----	27	204.2	126.4 - 282.0	77	96.9	74.2 - 119.6
<i>Hispanic</i>	510	296.8	270.6 - 323.0	666	352.4	325.3 - 379.5	362	149.6	132.4 - 166.7
<i>Multirace</i>	6	***	-----	9	***	-----	18	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	1	***	-----	10	***	-----	7	***	-----
<i>Other/Unknown</i>	0	0.0!	-----	1	***	-----	2	***	-----
<i>White</i>	913	301.3	280.8 - 321.8	3,036	313.9	302.6 - 325.2	3,381	116.1	112.2 - 120.1

Table 2-C. All causes of death and death rates for foreign-born persons aged 25-64 by educational attainment status, race/ethnicity, and gender, California residents, 1999-2001

TOTAL FOREIGN-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
All Causes of Death <sup>2</sup>									
<b>Total (All Races, Both Sexes)</b>	<b>4,486</b>	<b>154.8</b>	<b>150.2 - 159.4</b>	<b>2,943</b>	<b>276.1</b>	<b>266.0 - 286.1</b>	<b>3,544</b>	<b>153.5</b>	<b>148.4 - 158.6</b>
<i>African American/Black</i>	11	***	-----	45	535.0	358.7 - 711.4	68	138.2	103.0 - 173.3
<i>American Indian/Alaska Native</i>	1	***	-----	3	***	-----	2	***	-----
<i>Asian</i>	377	87.2	78.1 - 96.3	552	175.2	160.5 - 189.8	1,086	113.1	106.2 - 120.0
<i>Hispanic</i>	3,493	184.9	178.6 - 191.3	1,135	311.2	291.0 - 331.4	673	172.1	157.9 - 186.2
<i>Multirace</i>	1	***	-----	5	***	-----	9	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	28	404.9	283.3 - 571.5	66	1590.6	1155.0 - 2026.1	30	387.7	244.3 - 531.1
<i>Other/Unknown</i>	2	***	-----	5	***	-----	6	***	-----
<i>White</i>	244	143.7	123.0 - 164.3	540	240.2	219.0 - 261.4	769	115.2	107.0 - 123.3

MALE FOREIGN-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
All Causes of Death <sup>2</sup>									
<b>Total (All Races)</b>	<b>2,787</b>	<b>174.2</b>	<b>167.7 - 180.8</b>	<b>1,773</b>	<b>367.4</b>	<b>349.8 - 385.0</b>	<b>2,214</b>	<b>202.9</b>	<b>194.4 - 211.4</b>
<i>African American/Black</i>	5	***	-----	27	740.1	428.5 - 1051.7	42	195.8	133.6 - 257.9
<i>American Indian/Alaska Native</i>	1	***	-----	2	***	-----	1	***	-----
<i>Asian</i>	189	103.1	88.3 - 118.0	328	213.8	190.6 - 237.0	673	146.8	135.6 - 158.0
<i>Hispanic</i>	2,264	223.8	214.2 - 233.4	734	391.2	358.7 - 423.7	425	235.3	210.9 - 259.6
<i>Multirace</i>	1	***	-----	4	***	-----	6	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	19	***	-----	38	2289.2	1521.2 - 3057.1	19	***	-----
<i>Other/Unknown</i>	1	***	-----	3	***	-----	4	***	-----
<i>White</i>	144	176.4	146.5 - 206.3	300	482.6	427.4 - 537.7	483	137.5	125.2 - 149.8

FEMALE FOREIGN-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
All Causes of Death <sup>2</sup>									
<b>Total (All Races)</b>	<b>1,699</b>	<b>121.8</b>	<b>115.9 - 127.6</b>	<b>1,169</b>	<b>214.5</b>	<b>202.2 - 226.9</b>	<b>1,330</b>	<b>110.9</b>	<b>104.8 - 117.0</b>
<i>African American/Black</i>	6	***	-----	18	***	-----	26	94.4	54.8 - 133.9
<i>American Indian/Alaska Native</i>	0	0.0!	-----	1	***	-----	1	***	-----
<i>Asian</i>	189	78.2	66.6 - 89.9	224	133.5	115.9 - 151.1	413	79.6	71.7 - 87.4
<i>Hispanic</i>	1,229	137.0	129.3 - 144.8	401	232.6	207.9 - 257.2	248	121.2	104.9 - 137.5
<i>Multirace</i>	0	0.0!	-----	1	***	-----	3	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	9	***	-----	28	1414.7	832.8 - 1996.7	12	***	-----
<i>Other/Unknown</i>	1	***	-----	2	***	-----	2	***	-----
<i>White</i>	100	115.7	88.7 - 142.6	240	183.1	158.6 - 207.5	285	86.3	76.3 - 96.4

Table 3-A. Chronic disease deaths and death rates for persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001

TOTAL Chronic Disease Deaths <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races, Both Sexes)</b>	<b>7,962</b>	<b>196.2</b>	<b>191.8 - 200.5</b>	<b>15,123</b>	<b>425.1</b>	<b>418.4 - 431.9</b>	<b>16,539</b>	<b>187.6</b>	<b>184.8 - 190.5</b>
<i>African American/Black</i>	461	268.0	243.3 - 292.6	1,441	576.1	546.1 - 606.2	1,370	218.4	206.8 - 230.0
<i>American Indian/Alaska Native</i>	50	216.0	153.5 - 278.5	78	277.5	215.3 - 339.8	51	112.1	80.3 - 143.9
<i>Asian</i>	322	70.4	62.6 - 78.3	517	148.8	135.9 - 161.6	1,059	98.1	92.1 - 104.2
<i>Hispanic</i>	3,518	167.1	161.5 - 172.7	2,210	332.7	318.2 - 347.3	1,258	161.9	152.2 - 171.6
<i>Multirace</i>	11	***	-----	25	47.2	28.4 - 65.8	36	30.3	20.1 - 40.5
<i>Native Hawaiian/Other Pacific Islander</i>	28	213.8	132.1 - 295.4	76	489.9	377.0 - 602.8	41	247.3	165.7 - 328.9
<i>Other/Unknown</i>	2	***	-----	4	***	-----	4	***	-----
<i>White</i>	2,036	227.4	217.1 - 237.7	6,506	293.7	286.5 - 300.9	7,816	122.1	119.4 - 124.8

MALE Chronic Disease Deaths <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races)</b>	<b>4,613</b>	<b>197.0</b>	<b>191.3 - 202.8</b>	<b>8,625</b>	<b>516.4</b>	<b>505.4 - 527.4</b>	<b>9,697</b>	<b>240.1</b>	<b>235.3 - 244.9</b>
<i>African American/Black</i>	279	252.1	222.3 - 281.8	810	666.0	617.7 - 714.3	677	262.4	242.6 - 282.1
<i>American Indian/Alaska Native</i>	28	220.1	134.3 - 305.9	45	1518.1	899.4 - 2136.8	27	98.5	61.3 - 135.8
<i>Asian</i>	158	79.2	66.8 - 91.6	298	171.9	152.3 - 191.4	637	124.7	114.9 - 134.4
<i>Hispanic</i>	2,056	190.1	181.7 - 198.5	1,325	470.8	443.3 - 498.3	760	218.6	201.8 - 235.4
<i>Multirace</i>	6	***	-----	16	***	-----	19	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	19	***	-----	44	757.5	515.9 - 999.0	23	433.3	223.3 - 643.3
<i>Other/Unknown</i>	1	***	-----	2	***	-----	3	***	-----
<i>White</i>	1,195	208.6	196.6 - 220.6	3,697	344.0	332.9 - 355.1	4,662	149.6	145.3 - 153.9

FEMALE Chronic Disease Deaths <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races)</b>	<b>3,349</b>	<b>170.5</b>	<b>164.7 - 176.3</b>	<b>6,531</b>	<b>358.2</b>	<b>349.5 - 366.9</b>	<b>6,842</b>	<b>148.1</b>	<b>144.6 - 151.6</b>
<i>African American/Black</i>	182	245.1	209.0 - 281.1	631	515.1	474.7 - 555.5	693	197.6	182.8 - 212.4
<i>American Indian/Alaska Native</i>	22	189.0	106.1 - 272.0	33	203.2	132.3 - 274.1	24	111.4	64.9 - 158.0
<i>Asian</i>	164	65.8	55.4 - 76.2	219	120.0	104.1 - 136.0	422	71.8	64.7 - 78.8
<i>Hispanic</i>	1,461	138.3	131.2 - 145.5	885	250.6	233.6 - 267.7	498	116.8	105.6 - 127.9
<i>Multirace</i>	5	***	-----	8	***	-----	18	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	9	***	-----	32	387.9	253.5 - 522.4	17	***	-----
<i>Other/Unknown</i>	1	***	-----	2	***	-----	1	***	-----
<i>White</i>	842	206.3	191.4 - 221.2	2,809	250.6	241.2 - 260.1	3,154	97.1	93.7 - 100.5



Table 3-B. Chronic disease deaths and death rates for native-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001

TOTAL NATIVE-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Chronic Disease Deaths<sup>2</sup></b>									
<i>Total (All Races, Both Sexes)</i>	4,651	372.8	361.9 - 383.7	12,846	507.9	499.1 - 516.7	13,705	208.4	204.9 - 211.9
<i>African American/Black</i>	453	274.3	248.8 - 299.7	1,407	581.1	550.4 - 611.7	1,318	226.2	214.0 - 238.4
<i>American Indian/Alaska Native</i>	49	212.5	150.3 - 274.7	75	268.5	207.2 - 329.8	51	111.8	80.0 - 143.6
<i>Asian</i>	7	***	-----	63	228.7	171.8 - 285.5	160	111.1	92.9 - 129.2
<i>Hispanic</i>	1,025	297.6	279.2 - 315.9	1,413	415.4	393.2 - 437.6	770	184.3	169.9 - 198.6
<i>Multirace</i>	10	***	-----	22	75.1	42.6 - 107.6	28	36.6	22.8 - 50.4
<i>Native Hawaiian/Other Pacific Islander</i>	3	***	-----	17	***	-----	14	***	-----
<i>Other/Unknown</i>	0	0.0!	-----	1	***	-----	2	***	-----
<i>White</i>	1,841	261.2	248.9 - 273.5	6,071	307.0	299.2 - 314.8	7,187	125.6	122.7 - 128.5

MALE NATIVE-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Chronic Disease Deaths<sup>2</sup></b>									
<i>Total (All Races)</i>	2,758	337.9	325.2 - 350.6	7,365	602.5	588.6 - 616.3	7,990	269.5	263.6 - 275.5
<i>African American/Black</i>	276	256.7	226.2 - 287.2	792	668.4	619.4 - 717.5	647	271.8	250.8 - 292.8
<i>American Indian/Alaska Native</i>	27	212.5	128.4 - 296.6	43	1462.5	855.5 - 2069.5	26	96.2	59.4 - 133.1
<i>Asian</i>	5	***	-----	40	218.5	149.8 - 287.2	90	148.2	115.0 - 181.4
<i>Hispanic</i>	615	363.5	334.1 - 392.9	870	683.4	634.6 - 732.1	474	253.6	228.7 - 278.6
<i>Multirace</i>	5	***	-----	13	***	-----	13	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	2	***	-----	11	***	-----	8	***	-----
<i>Other/Unknown</i>	0	0.0!	-----	1	***	-----	1	***	-----
<i>White</i>	1,085	222.8	209.4 - 236.2	3,473	342.9	331.4 - 354.3	4,282	155.4	150.7 - 160.0

FEMALE NATIVE-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Chronic Disease Deaths<sup>2</sup></b>									
<i>Total (All Races)</i>	1,892	335.1	319.5 - 350.7	5,514	430.1	418.6 - 441.5	5,715	165.7	161.4 - 170.0
<i>African American/Black</i>	177	252.1	214.6 - 289.7	615	523.0	481.5 - 564.5	671	205.5	189.9 - 221.1
<i>American Indian/Alaska Native</i>	21	189.8	105.9 - 273.7	32	195.9	126.5 - 265.2	24	112.3	65.6 - 159.1
<i>Asian</i>	2	***	-----	23	174.4	102.3 - 246.4	69	88.9	67.0 - 110.8
<i>Hispanic</i>	410	236.8	213.6 - 260.1	543	293.3	268.4 - 318.2	297	129.1	112.9 - 145.3
<i>Multirace</i>	5	***	-----	7	***	-----	15	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	1	***	-----	7	***	-----	6	***	-----
<i>Other/Unknown</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>White</i>	757	240.7	222.7 - 258.7	2,598	263.4	253.2 - 273.7	2,905	99.8	96.1 - 103.4

Table 3-C. Chronic disease deaths and death rates for foreign-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001

TOTAL FOREIGN-BORN Chronic Disease Deaths <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races, Both Sexes)</b>	<b>3,311</b>	<b>117.8</b>	<b>113.8 - 121.8</b>	<b>2,277</b>	<b>220.0</b>	<b>210.9 - 229.1</b>	<b>2,834</b>	<b>126.5</b>	<b>121.8 - 131.2</b>
<i>African American/Black</i>	8	***	-----	34	458.1	289.7 - 626.4	52	112.5	80.1 - 145.0
<i>American Indian/Alaska Native</i>	1	***	-----	3	***	-----	1	***	-----
<i>Asian</i>	315	70.3	62.4 - 78.3	454	141.9	128.8 - 155.0	899	96.3	89.9 - 102.7
<i>Hispanic</i>	2,492	141.2	135.5 - 146.8	797	246.7	228.1 - 265.3	488	136.6	123.6 - 149.5
<i>Multirace</i>	1	***	-----	3	***	-----	8	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	25	354.7	200.7 - 508.7	59	1480.2	1056.2 - 1904.2	27	347.8	211.0 - 484.6
<i>Other/Unknown</i>	1	***	-----	3	***	-----	3	***	-----
<i>White</i>	195	103.2	86.6 - 119.7	435	184.0	165.9 - 202.1	629	93.8	86.4 - 101.1

MALE FOREIGN-BORN Chronic Disease Deaths <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races)</b>	<b>1,855</b>	<b>121.1</b>	<b>115.5 - 126.6</b>	<b>1,260</b>	<b>278.3</b>	<b>262.7 - 293.9</b>	<b>1,707</b>	<b>159.9</b>	<b>152.3 - 167.5</b>
<i>African American/Black</i>	3	***	-----	18	***	-----	30	146.8	91.7 - 201.9
<i>American Indian/Alaska Native</i>	1	***	-----	2	***	-----	1	***	-----
<i>Asian</i>	153	81.3	68.3 - 94.2	258	166.8	146.4 - 187.3	547	122.2	111.9 - 132.5
<i>Hispanic</i>	1,441	157.0	148.7 - 165.3	455	289.9	260.6 - 319.2	286	178.6	156.5 - 200.6
<i>Multirace</i>	1	***	-----	2	***	-----	6	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	17	***	-----	33	2096.8	1356.4 - 2837.3	16	***	-----
<i>Other/Unknown</i>	1	***	-----	1	***	-----	2	***	-----
<i>White</i>	110	126.3	102.0 - 150.6	224	364.0	315.8 - 412.1	380	105.8	95.1 - 116.4

FEMALE FOREIGN-BORN Chronic Disease Deaths <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races)</b>	<b>1,457</b>	<b>105.1</b>	<b>99.7 - 110.6</b>	<b>1,017</b>	<b>187.9</b>	<b>176.3 - 199.5</b>	<b>1,127</b>	<b>96.0</b>	<b>90.3 - 101.6</b>
<i>African American/Black</i>	5	***	-----	16	***	-----	22	86.0	47.6 - 124.5
<i>American Indian/Alaska Native</i>	0	0.0!	-----	1	***	-----	0	0.0!	-----
<i>Asian</i>	162	65.9	55.4 - 76.5	196	115.8	99.5 - 132.1	353	69.3	61.9 - 76.7
<i>Hispanic</i>	1,051	119.4	112.1 - 126.8	342	206.5	183.0 - 230.0	201	103.0	87.8 - 118.2
<i>Multirace</i>	0	0.0!	-----	1	***	-----	2	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	8	***	-----	26	1303.8	743.8 - 1863.7	11	***	-----
<i>Other/Unknown</i>	1	***	-----	2	***	-----	1	***	-----
<i>White</i>	85	92.2	68.9 - 115.4	212	155.5	133.4 - 177.6	249	75.2	65.8 - 84.5

Table 4-A. Communicable disease deaths and death rates for persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001

TOTAL	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Communicable Disease Deaths<sup>2</sup></b>									
<i>Total (All Races, Both Sexes)</i>	692	16.7	15.5 - 18.0	1,200	33.5	31.6 - 35.4	1,131	12.2	11.4 - 12.9
<i>African American/Black</i>	51	29.0	20.9 - 37.1	154	55.4	46.6 - 64.3	119	18.2	14.9 - 21.5
<i>American Indian/Alaska Native</i>	5	***	-----	7	***	-----	4	***	-----
<i>Asian</i>	24	5.6	3.3 - 7.8	34	10.0	6.6 - 13.4	47	4.3	3.0 - 5.5
<i>Hispanic</i>	330	14.3	12.7 - 15.9	261	32.8	28.5 - 37.0	149	14.9	12.2 - 17.5
<i>Multirace</i>	1	***	-----	3	***	-----	1	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	3	***	-----	3	***	-----	2	***	-----
<i>Other/Unknown</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>White</i>	156	20.0	16.8 - 23.2	420	20.4	18.5 - 22.4	465	7.2	6.6 - 7.9

MALE	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Communicable Disease Deaths<sup>2</sup></b>									
<i>Total (All Races)</i>	462	18.9	17.2 - 20.7	851	46.3	43.2 - 49.5	865	20.5	19.1 - 21.8
<i>African American/Black</i>	31	26.4	16.9 - 35.8	108	70.3	56.4 - 84.2	91	34.6	27.5 - 41.8
<i>American Indian/Alaska Native</i>	2	***	-----	4	***	-----	3	***	-----
<i>Asian</i>	13	***	-----	21	12.3	7.0 - 17.6	33	6.3	4.1 - 8.4
<i>Hispanic</i>	234	19.0	16.5 - 21.6	197	52.5	44.3 - 60.6	117	24.2	19.4 - 29.0
<i>Multirace</i>	1	***	-----	2	***	-----	1	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	2	***	-----	1	***	-----	1	***	-----
<i>Other/Unknown</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>White</i>	99	18.5	14.8 - 22.2	300	28.2	25.0 - 31.4	363	11.8	10.6 - 13.1

FEMALE	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Communicable Disease Deaths<sup>2</sup></b>									
<i>Total (All Races)</i>	230	11.8	10.2 - 13.3	350	19.5	17.5 - 21.6	266	5.6	4.9 - 6.3
<i>African American/Black</i>	20	28.2	15.8 - 40.6	46	36.0	25.6 - 46.4	28	7.7	4.8 - 10.6
<i>American Indian/Alaska Native</i>	3	***	-----	3	***	-----	1	***	-----
<i>Asian</i>	11	***	-----	13	***	-----	14	***	-----
<i>Hispanic</i>	96	8.8	7.0 - 10.5	64	16.7	12.4 - 21.0	32	7.2	4.5 - 10.0
<i>Multirace</i>	0	0.0!	-----	1	***	-----	1	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	1	***	-----	2	***	-----	1	***	-----
<i>Other/Unknown</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>White</i>	57	15.9	11.5 - 20.3	120	11.4	9.3 - 13.5	102	3.1	2.5 - 3.7

Table 4-B. Communicable disease deaths and death rates for native-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California, 1999-2001

TOTAL NATIVE-BORN Communicable Disease Deaths <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races, Both Sexes)</b>	<b>424</b>	<b>35.6</b>	<b>32.2 - 39.1</b>	<b>1,024</b>	<b>41.2</b>	<b>38.6 - 43.7</b>	<b>961</b>	<b>14.0</b>	<b>13.1 - 14.9</b>
<i>African American/Black</i>	50	29.7	21.3 - 38.0	150	56.2	47.1 - 65.2	114	19.1	15.6 - 22.6
<i>American Indian/Alaska Native</i>	5	***	-----	7	***	-----	4	***	-----
<i>Asian</i>	1	***	-----	5	***	-----	10	***	-----
<i>Hispanic</i>	120	34.7	28.4 - 41.0	171	45.6	38.5 - 52.6	90	16.7	12.8 - 20.5
<i>Multirace</i>	1	***	-----	2	***	-----	2	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	1	***	-----	1	***	-----	1	***	-----
<i>Other/Unknown</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>White</i>	145	22.8	19.0 - 26.6	396	21.4	19.2 - 23.5	439	7.6	6.9 - 8.3

MALE NATIVE-BORN Communicable Disease Deaths <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races)</b>	<b>279</b>	<b>33.4</b>	<b>29.4 - 37.3</b>	<b>721</b>	<b>54.1</b>	<b>50.2 - 58.1</b>	<b>735</b>	<b>23.7</b>	<b>21.9 - 25.4</b>
<i>African American/Black</i>	30	26.7	17.0 - 36.4	105	70.3	56.2 - 84.4	87	36.6	28.9 - 44.2
<i>American Indian/Alaska Native</i>	2	***	-----	4	***	-----	3	***	-----
<i>Asian</i>	0	0.0!	-----	3	***	-----	7	***	-----
<i>Hispanic</i>	86	46.7	36.5 - 56.9	125	77.7	62.8 - 92.6	70	27.2	20.2 - 34.2
<i>Multirace</i>	1	***	-----	1	***	-----	1	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	0	0.0!	-----	1	***	-----	0	0.0!	-----
<i>Other/Unknown</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>White</i>	92	19.9	15.8 - 24.0	283	28.3	25.0 - 31.6	341	12.5	11.2 - 13.8

FEMALE NATIVE-BORN Communicable Disease Deaths <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races)</b>	<b>145</b>	<b>28.2</b>	<b>23.4 - 32.8</b>	<b>304</b>	<b>24.6</b>	<b>21.8 - 27.4</b>	<b>227</b>	<b>6.4</b>	<b>5.6 - 7.3</b>
<i>African American/Black</i>	20	29.1	16.1 - 42.1	45	36.8	26.0 - 47.7	27	8.1	5.0 - 11.2
<i>American Indian/Alaska Native</i>	3	***	-----	3	***	-----	1	***	-----
<i>Asian</i>	1	***	-----	2	***	-----	3	***	-----
<i>Hispanic</i>	35	21.2	14.0 - 28.3	46	24.2	17.1 - 31.2	20	***	-----
<i>Multirace</i>	0	0.0!	-----	1	***	-----	1	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	1	***	-----	1	***	-----	1	***	-----
<i>Other/Unknown</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>White</i>	53	19.0	13.7 - 24.3	113	12.1	9.8 - 14.4	98	3.3	2.7 - 4.0

Table 4-C. Communicable disease deaths and death rates for foreign-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California, 1999-2001

TOTAL FOREIGN-BORN Communicable Disease Deaths <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<i>Total (All Races, Both Sexes)</i>	268	9.0	7.9 - 10.1	176	15.8	13.4 - 18.2	169	7.0	5.9 - 8.1
<i>African American/Black</i>	2	***	-----	5	***	-----	5	***	-----
<i>American Indian/Alaska Native</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>Asian</i>	24	5.6	3.2 - 7.9	29	9.5	6.0 - 13.0	37	4.0	2.7 - 5.2
<i>Hispanic</i>	210	10.5	9.0 - 12.0	89	20.4	15.6 - 25.2	58	12.6	9.1 - 16.2
<i>Multirace</i>	0	0.0!	-----	1	***	-----	0	0.0!	-----
<i>Native Hawaiian/Other Pacific Islander</i>	2	***	-----	2	***	-----	1	***	-----
<i>Other/Unknown</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>White</i>	10	***	-----	24	12.1	7.1 - 17.0	26	4.0	2.5 - 5.5

MALE FOREIGN-BORN Communicable Disease Deaths <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<i>Total (All Races)</i>	183	11.2	9.5 - 12.8	130	25.0	20.6 - 29.5	130	11.7	9.7 - 13.7
<i>African American/Black</i>	1	***	-----	3	***	-----	4	***	-----
<i>American Indian/Alaska Native</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>Asian</i>	13	***	-----	19	***	-----	26	5.8	3.6 - 8.0
<i>Hispanic</i>	148	13.7	11.4 - 16.0	72	31.2	23.0 - 39.5	46	20.6	14.2 - 27.1
<i>Multirace</i>	0	0.0!	-----	1	***	-----	0	0.0!	-----
<i>Native Hawaiian/Other Pacific Islander</i>	1	***	-----	1	***	-----	1	***	-----
<i>Other/Unknown</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>White</i>	7	***	-----	17	***	-----	22	6.7	3.9 - 9.4

FEMALE FOREIGN-BORN Communicable Disease Deaths <sup>2</sup>	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<i>Total (All Races)</i>	85	6.0	4.7 - 7.3	46	8.2	5.8 - 10.6	39	3.3	2.2 - 4.3
<i>African American/Black</i>	1	***	-----	2	***	-----	1	***	-----
<i>American Indian/Alaska Native</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>Asian</i>	11	***	-----	10	***	-----	11	***	-----
<i>Hispanic</i>	61	6.7	5.0 - 8.4	17	***	-----	12	***	-----
<i>Multirace</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>Native Hawaiian/Other Pacific Islander</i>	1	***	-----	1	***	-----	0	0.0!	-----
<i>Other/Unknown</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>White</i>	4	***	-----	7	***	-----	4	***	-----

Table 5-A. Injury deaths and death rates for persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001

TOTAL	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Injury Deaths<sup>2</sup></b>									
<b>Total (All Races, Both Sexes)</b>	<b>1,943</b>	<b>44.1</b>	<b>42.1 - 46.1</b>	<b>3,227</b>	<b>87.5</b>	<b>84.5 - 90.5</b>	<b>2,889</b>	<b>30.2</b>	<b>29.1 - 31.3</b>
<i>African American/Black</i>	107	55.5	44.8 - 66.1	290	95.9	84.8 - 107.1	186	27.8	23.8 - 31.8
<i>American Indian/Alaska Native</i>	10	***	-----	16	***	-----	9	***	-----
<i>Asian</i>	40	11.2	7.6 - 14.8	77	24.0	18.6 - 29.4	169	12.2	10.3 - 14.1
<i>Hispanic</i>	1,076	38.8	36.4 - 41.2	637	61.6	56.4 - 66.9	301	24.6	21.5 - 27.7
<i>Multirace</i>	3	***	-----	8	***	-----	7	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	2	***	-----	10	***	-----	4	***	-----
<i>Other/Unknown</i>	1	***	-----	3	***	-----	6	***	-----
<i>White</i>	423	59.2	53.5 - 64.9	1,324	68.3	64.6 - 72.0	1,367	21.5	20.4 - 22.6

MALE	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Injury Deaths<sup>2</sup></b>									
<b>Total (All Races)</b>	<b>1,523</b>	<b>58.1</b>	<b>55.2 - 61.1</b>	<b>2,460</b>	<b>124.1</b>	<b>119.1 - 129.1</b>	<b>2,036</b>	<b>47.2</b>	<b>45.1 - 49.2</b>
<i>African American/Black</i>	78	62.4	48.4 - 76.4	230	131.6	113.9 - 149.3	128	47.3	39.1 - 55.5
<i>American Indian/Alaska Native</i>	7	***	-----	12	***	-----	6	***	-----
<i>Asian</i>	23	13.7	8.0 - 19.3	59	34.1	25.4 - 42.9	115	18.0	14.6 - 21.3
<i>Hispanic</i>	897	59.5	55.4 - 63.6	520	101.0	90.8 - 111.2	222	40.5	34.6 - 46.4
<i>Multirace</i>	1	***	-----	6	***	-----	4	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	2	***	-----	6	***	-----	4	***	-----
<i>Other/Unknown</i>	1	***	-----	2	***	-----	3	***	-----
<i>White</i>	310	61.1	54.2 - 68.0	981	93.4	87.5 - 99.3	962	32.0	29.9 - 34.0

FEMALE	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Injury Deaths<sup>2</sup></b>									
<b>Total (All Races)</b>	<b>420</b>	<b>21.0</b>	<b>19.0 - 23.0</b>	<b>767</b>	<b>43.5</b>	<b>40.4 - 46.6</b>	<b>853</b>	<b>17.1</b>	<b>16.0 - 18.3</b>
<i>African American/Black</i>	28	37.7	23.6 - 51.7	60	46.1	34.4 - 57.9	59	15.5	11.5 - 19.4
<i>American Indian/Alaska Native</i>	3	***	-----	4	***	-----	3	***	-----
<i>Asian</i>	17	***	-----	19	***	-----	54	7.4	5.3 - 9.4
<i>Hispanic</i>	179	14.3	12.1 - 16.4	117	24.6	19.9 - 29.3	79	11.9	9.0 - 14.8
<i>Multirace</i>	1	***	-----	2	***	-----	2	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	0	0.0!	-----	3	***	-----	0	0.0!	-----
<i>Other/Unknown</i>	0	0.0!	-----	0	0.0!	-----	2	***	-----
<i>White</i>	113	37.6	30.5 - 44.7	343	36.2	32.4 - 40.2	405	12.5	11.3 - 13.7

Table 5-B. Injury deaths and death rates for native-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001

TOTAL NATIVE-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Injury Deaths<sup>2</sup></b>									
<i>Total (All Races, Both Sexes)</i>	1,045	87.1	81.8 - 92.4	2,743	110.4	106.3 - 114.6	2,354	34.1	32.7 - 35.5
<i>African American/Black</i>	105	58.1	46.8 - 69.3	284	99.1	87.5 - 110.8	175	28.8	24.5 - 33.1
<i>American Indian/Alaska Native</i>	10	***	-----	16	***	-----	9	***	-----
<i>Asian</i>	2	***	-----	10	***	-----	22	9.7	5.3 - 14.0
<i>Hispanic</i>	293	74.7	65.9 - 83.5	391	83.4	74.7 - 92.1	174	26.2	21.8 - 30.6
<i>Multirace</i>	2	***	-----	7	***	-----	6	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	1	***	-----	5	***	-----	2	***	-----
<i>Other/Unknown</i>	0	0.0 !	-----	1	***	-----	2	***	-----
<i>White</i>	385	64.4	57.8 - 70.8	1,244	70.8	66.8 - 74.8	1,254	22.0	20.8 - 23.2

MALE NATIVE-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Injury Deaths<sup>2</sup></b>									
<i>Total (All Races)</i>	781	91.2	84.8 - 97.7	2,081	149.2	142.8 - 155.7	1,663	53.2	50.6 - 55.7
<i>African American/Black</i>	77	64.1	49.7 - 78.6	224	131.9	114.0 - 149.8	119	48.5	39.8 - 57.3
<i>American Indian/Alaska Native</i>	7	***	-----	12	***	-----	6	***	-----
<i>Asian</i>	1	***	-----	8	***	-----	17	***	-----
<i>Hispanic</i>	229	95.9	82.8 - 108.9	315	140.5	122.7 - 158.3	130	44.5	35.8 - 53.2
<i>Multirace</i>	1	***	-----	5	***	-----	4	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	1	***	-----	3	***	-----	2	***	-----
<i>Other/Unknown</i>	0	0.0 !	-----	1	***	-----	1	***	-----
<i>White</i>	283	64.2	56.6 - 71.8	923	93.6	87.5 - 99.7	881	32.8	30.6 - 35.0

FEMALE NATIVE-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Injury Deaths<sup>2</sup></b>									
<i>Total (All Races)</i>	264	53.8	47.2 - 60.4	661	56.4	52.0 - 60.7	692	19.3	17.9 - 20.8
<i>African American/Black</i>	28	40.5	25.4 - 55.6	60	49.2	36.7 - 61.8	56	16.3	12.0 - 20.5
<i>American Indian/Alaska Native</i>	3	***	-----	4	***	-----	3	***	-----
<i>Asian</i>	1	***	-----	2	***	-----	5	***	-----
<i>Hispanic</i>	64	38.2	28.7 - 47.8	76	34.3	26.4 - 42.2	44	11.7	7.9 - 15.5
<i>Multirace</i>	1	***	-----	1	***	-----	2	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	0	0.0 !	-----	2	***	-----	0	0.0 !	-----
<i>Other/Unknown</i>	0	0.0 !	-----	0	0.0 !	-----	1	***	-----
<i>White</i>	102	41.3	33.2 - 49.5	321	38.0	33.8 - 42.2	373	12.9	11.6 - 14.2

Table 5-C. Injury deaths and death rates for foreign-born persons aged 25-64 by educational attainment, race/ethnicity, and gender, California residents, 1999-2001

TOTAL FOREIGN-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
Injury Deaths <sup>2</sup>	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races, Both Sexes)</b>	<b>897</b>	<b>27.7</b>	<b>25.9 - 29.5</b>	<b>484</b>	<b>39.8</b>	<b>36.2 - 43.4</b>	<b>535</b>	<b>19.8</b>	<b>18.1 - 21.6</b>
<i>African American/Black</i>	1	***	-----	7	***	-----	11	***	-----
<i>American Indian/Alaska Native</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>Asian</i>	38	11.0	7.4 - 14.7	68	23.2	17.6 - 28.8	147	12.6	10.5 - 14.7
<i>Hispanic</i>	783	32.9	30.5 - 35.3	246	43.6	37.4 - 49.9	126	22.8	18.4 - 27.2
<i>Multirace</i>	0	0.0!	-----	1	***	-----	1	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	1	***	-----	5	***	-----	2	***	-----
<i>Other/Unknown</i>	1	***	-----	2	***	-----	3	***	-----
<i>White</i>	38	33.0	21.8 - 44.3	80	43.6	33.8 - 53.4	112	17.2	14.0 - 20.4

MALE FOREIGN-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
Injury Deaths <sup>2</sup>	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races)</b>	<b>742</b>	<b>41.6</b>	<b>38.5 - 44.6</b>	<b>379</b>	<b>63.4</b>	<b>56.7 - 70.1</b>	<b>373</b>	<b>31.0</b>	<b>27.8 - 34.2</b>
<i>African American/Black</i>	1	***	-----	6	***	-----	8	***	-----
<i>American Indian/Alaska Native</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>Asian</i>	22	14.0	8.0 - 19.9	51	33.7	24.4 - 43.0	98	18.4	14.7 - 22.2
<i>Hispanic</i>	668	52.5	48.3 - 56.8	205	69.4	58.1 - 80.8	92	36.0	28.0 - 44.0
<i>Multirace</i>	0	0.0!	-----	1	***	-----	0	0.0!	-----
<i>Native Hawaiian/Other Pacific Islander</i>	1	***	-----	4	***	-----	2	***	-----
<i>Other/Unknown</i>	1	***	-----	2	***	-----	2	***	-----
<i>White</i>	27	40.3	24.7 - 55.9	58	90.2	66.7 - 113.6	81	25.0	19.5 - 30.4

FEMALE FOREIGN-BORN	Educational Attainment <sup>1</sup>								
	Less than 12 <sup>th</sup> grade completed			High School Graduate			Post-Secondary		
Injury Deaths <sup>2</sup>	Number <sup>3</sup>	Rate <sup>4</sup>	95% CI <sup>5</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>	Number <sup>2</sup>	Rate <sup>3</sup>	95% CI <sup>4</sup>
<b>Total (All Races)</b>	<b>155</b>	<b>10.4</b>	<b>8.8 - 12.1</b>	<b>105</b>	<b>18.1</b>	<b>14.6 - 21.6</b>	<b>161</b>	<b>11.5</b>	<b>9.7 - 13.3</b>
<i>African American/Black</i>	0	0.0!	-----	1	***	-----	3	***	-----
<i>American Indian/Alaska Native</i>	0	0.0!	-----	0	0.0!	-----	0	0.0!	-----
<i>Asian</i>	16	***	-----	17	***	-----	49	7.9	5.6 - 10.2
<i>Hispanic</i>	115	10.8	8.8 - 12.8	41	16.5	10.9 - 22.0	35	12.1	7.7 - 16.6
<i>Multirace</i>	0	0.0!	-----	0	0.0!	-----	1	***	-----
<i>Native Hawaiian/Other Pacific Islander</i>	0	0.0!	-----	1	***	-----	0	0.0!	-----
<i>Other/Unknown</i>	0	0.0!	-----	0	0.0!	-----	1	***	-----
<i>White</i>	11	***	-----	22	21.2	12.0 - 30.4	32	9.8	6.4 - 13.3



SOURCES: California Department of Health Services, Center for Health Statistics, Death Statistical Master Files, 1999-2001;  
U.S. Census Bureau, Public Use Microdata Sample, 1-Percent File (PUMS 1%), 2000.

NOTES: "Native-born" persons are defined as those born in the United States or a U.S. Territory;  
"Foreign-born" persons are defined as those born outside the United States or a U.S. Territory.

<sup>1</sup> Highest grade completed, as reported on California death certificate.

<sup>2</sup> Data reflect underlying cause of death, defined as the disease or injury that initiated the sequence of morbid events leading directly to death;

"All Causes of Death" defined by ICD-10 codes A00 - Y89;

"Chronic Disease Deaths" defined by ICD-10 codes C00 - I99, J30 - R99;

"Communicable Disease Deaths" defined by ICD-10 codes A00 - B99, J00 - J22;

"Injury Deaths" defined by ICD-10 codes U01-U03, V01-Y34, Y85-Y87, Y89.

<sup>3</sup> Three-year (1999-2001) average number of deaths.

<sup>4</sup> Three-year average death rates per 100,000 population, age-adjusted by the direct method using the 2000 U.S. standard population;

rates having a Relative Standard Error (RSE) value greater than or equal to 23 percent are considered unreliable and marked with triple asterisks (\*\*\*)

rates based on zero (0) events are indeterminate and marked with an exclamation point (!).

<sup>5</sup> Confidence interval values (Lower CI, Upper CI) have a 95 percent probability of covering the true rate.