

The Impact of Education on Women's Health

Introduction

Education influences health in multiple ways. Education improves health by increasing access to health knowledge and guidance on healthy behaviors. It provides opportunities to earn higher income, which can lead to better housing and neighborhood environments with more opportunities for healthy diet and physical activity; decreased levels of stress; and better working conditions, with reduced exposure to hazards and improved employment-based resources, including health insurance, sick leave, retirement benefits, and wellness programs.¹ Evidence also supports links between education and psychosocial factors that affect health, including increased sense of control, social standing, and social support. The educational level of individuals links to the health of whole families; the health of children is closely associated with the education levels of their parents.

Educating women, and girls in particular, is associated with healthier families and more successful economies around the world.² In the United States, investments in universal education have resulted in growing parity between men and women in educational attainment. Nationally, 30.5% of women and 30.1% of men ages 25+ have earned college or postgraduate degrees, while 13.5% of men and 12.3% of women have left school before completing high school.³ However, despite educational parity between men and women, persistent gender disparities exist in workplace opportunities, advancement, and earnings. Though increasing parity in access to higher education has decreased the gender wage gap in the U.S., women working full-time, year-round still earn a median of \$40,742, compared with men's \$51,212.⁴ In Los Angeles (LA) County, men earn

almost \$6,000 more than women on average each year.⁵ The gender wage gap leads to real world consequences for women, including higher poverty rates.

To better understand the impact of educational attainment across the life span of women, this brief examines levels of education of LA County women ages 25 and older using survey data as well as life expectancy and mortality data. When reviewing these data, it is important to remember that inequality in educational attainment across population groups does not reflect individual characteristics such as ambition or intelligence, but rather the inequitable distribution of the resources and opportunities that people need for optimal well-being. The Center for Health Equity at the Los Angeles County Department of Public Health notes that there is growing evidence that discrimination and injustice based on a person's race or ethnicity play a decisive role in access to educational opportunity.^{6,7,8} Furthermore, educational success often depends upon the resources invested in students and teachers, which are greatly lacking in public schools where children of color, specifically black, Latinx, American Indian and Alaska Native, and Native Hawaiian and other Pacific Islander children, are concentrated. Research has also demonstrated that teachers' expectations of students impact their success; low expectations of poor children and some children of color negatively impact their chances for academic achievement.^{9,10}

A discussion of the complex factors underlying educational attainment is beyond the scope of this brief. However, the data presented here provide a foundation for public discourse around education and health among LA County women and allow us to offer recommendations for eliminating inequities.

Educational Attainment of LA County Women

- American Community Survey data show that women and men ages 25 and older in Los Angeles County have similar levels of educational attainment; 22% of each gender reported that they did not graduate from high school, and nearly equivalent percentages of women and men attained a high school diploma without further education (21% of men vs. 20% of women) (Table 1).
- Nearly equivalent percentages of women and men completed some college or earned an associate degree (27% vs. 26%, respectively), while approximately 31% of women and men had college or postgraduate degrees.
- Forty-one percent of LA County Latinas ages 25 and older reported that they did not graduate from high school compared to 14% of Asian women, 13% of Native Hawaiian or other Pacific Islander (NHOPI) women, 11% of American Indian/Alaska Native women, 10% of black women, and 6% of white women.[▲]
- A higher percentage of Asian and white women have college or postgraduate degrees (49% and 47%, respectively) than do black and AI/AN women (both 25%), NHOPI women (18%), and Latinas (12%).
- Half of women (50%) living in the South Service Planning Area (SPA) reported that they did not graduate from high school, compared to 7%* of women living in the West SPA.[◆]

Education, Employment, & Income

- Among women ages 25 and older who were employed, 39% had a college or postgraduate degree and 29% completed some college or earned an associate degree. In contrast, 18% of employed women had attained a high school diploma and 15% reported that they had not graduated from high school (Table 2).
- Unemployed women reported a full spectrum of educational attainment. Nearly 25% of unemployed women had a college or postgraduate degree, while 30% attended some college or earned an associate degree. Almost 23% of unemployed women had a high school diploma and another 23% did not complete their high school education.^A
- Among women ages 25 and older whose household incomes were below the federal poverty level, 13% had a college or postgraduate degree, while 41% reported that they did not graduate from high school.
- Compared to women of other races/ethnicities, black women ages 20-64 in LAC had the highest rate of unemployment in 2016 at 6%, compared to 5% on average and 3% for Asian women. (Please see the report *Economic Security among Women in LA County* for more data.) Nationally, black and Latina women do not enjoy the same level of employment or earnings as white or Asian women with the same level of educational attainment.¹¹ This is likely also true for American Indian/Alaska Native women and NHOPI women, though data are not available.

TABLE 1 Educational Attainment by Selected Socio-Demographic Characteristics in Los Angeles County Women

	Less Than High School	Completed High School	Some College/ Associate	College or Postgraduate Degree
All Adults (Ages 25+)	22.3%	20.7%	26.3%	30.8%
Gender				
Men	22.2%	21.2%	25.8%	30.8%
Women	22.3%	20.2%	26.7%	30.7%
Among Women				
Age Groups				
25-34	12.8%	18.4%	30.1%	38.8%
35-44	21.1%	19.0%	26.0%	33.9%
45-64	24.3%	20.2%	26.9%	28.7%
65+ or older	30.5%	23.6%	23.5%	22.4%
Race/Ethnicity				
American Indian/Alaska Native	11.1%	26.3%	37.5%	25.0%
Asian	13.9%	15.7%	21.0%	49.3%
Black	10.2%	23.0%	41.5%	25.2%
Latina	41.1%	24.0%	22.8%	12.1%
Native Hawaiian and other Pacific Islander	13.3%	28.6%	39.9%	18.1%
White	5.9%	17.3%	30.5%	46.3%
Service Planning Area#				
Antelope Valley	23.6%	21.1%	38.0%	17.2%
San Fernando	18.3%	16.7%	32.8%	32.2%
San Gabriel	28.8%	18.8%	25.9%	26.5%
Metro	34.4%	14.9%	21.7%	29.0%
West	7.4%*	7.7%	27.5%	57.4%
South	50.2%	16.5%	23.1%	10.1%
East	32.2%	24.5%	27.6%	15.6%
South Bay	21.6%	17.3%	34.1%	27.0%

Source: American Community Survey 2012 – 2016, 5-year estimates, Females 25 and over.

Source of SPA data is 2015 Los Angeles County Health Survey. Office of Health Assessment and Epidemiology, Los Angeles County Department of Public Health.

▲ This reflects the proportion of each population born and educated outside the US. The significance of immigration is discussed on page 5.

△ Note that unemployed women are those who reported that they were looking for work; this excludes women who stated they were not in the labor force.

*The estimate is statistically unstable (relative standard error >30%) and therefore may not be appropriate to use for planning or policy purposes.

◆ Service planning area (SPA) refers to a specific geographic region in Los Angeles County. Dividing the County into SPAs allows for more customized planning and management of services delivered by the Departments of the Los Angeles County Health Agency. See <http://publichealth.lacounty.gov/chs/SPAMain/ServicePlanningAreas.htm> for more information.

TABLE 2 Employment Status and Poverty by Selected Socio-Demographic Characteristics in Los Angeles County Women Ages 25+

	Less than High School	Completed High School	Some College/ Associate	College or Postgraduate Degree
Employment Status				
Employed	14.6%	17.7%	28.9%	38.7%
Unemployed	22.5%	22.5%	30.0%	24.9%
Not in the Labor Force	32.5%	22.8%	24.1%	20.5%
Income				
Income in the past 12 months below poverty level	41%	24%	22%	13%

\$ Poverty level: Based on US Census Federal Poverty Level thresholds, which for a family of four (2 adults and 2 dependents) corresponded to annual income of \$23,283 in 2012 and \$24,339 in 2016 (100% FPL).

Source: American Community Survey 2012 – 2016, 5-year estimates, Females 25 and over.

Education, Health Care Access, & Health Status

- Nearly 4 times as many women who had not graduated from high school reported their current health to be fair or poor (44%) compared to women who had college or postgraduate degrees (12%) (Table 3).
- Similarly, 42% of women without high school diplomas reported difficulty accessing medical care compared to 12% of women with college or postgraduate degrees.
- Only 5% of women ages 25-64 with a college or post graduate degree and 4% of those with some college or an associate degree reported not having health insurance coverage, compared to 19% of women without a high school diploma.

TABLE 3 Selected Health Characteristics by Educational Attainment in Los Angeles County Women Ages 25+

	Fair or Poor Health Status	Difficulty Accessing Medical Care	No Health Insurance (25-64 years only)	Life Expectancy [^] (Expected Years of Life from Birth)
Education				
Less than High School	43.5%	42.1%	18.9%	78.2 years
Completed High School	22.6%	25.1%	14.2%	79.6 years
Some College/Associate Degree	18.9%	17.1%	4.0%	86.9 years
College or Postgraduate Degree	11.6%	12.2%	4.8%	86.8 years

Source: 2015 Los Angeles County Health Survey. Office of Health Assessment and Epidemiology, Los Angeles County Department of Public Health.

[^] Source: Office of Health Assessment and Epidemiology, Los Angeles County Department of Public Health. For more information on life expectancy methodology, please contact OWH@ph.lacounty.gov.

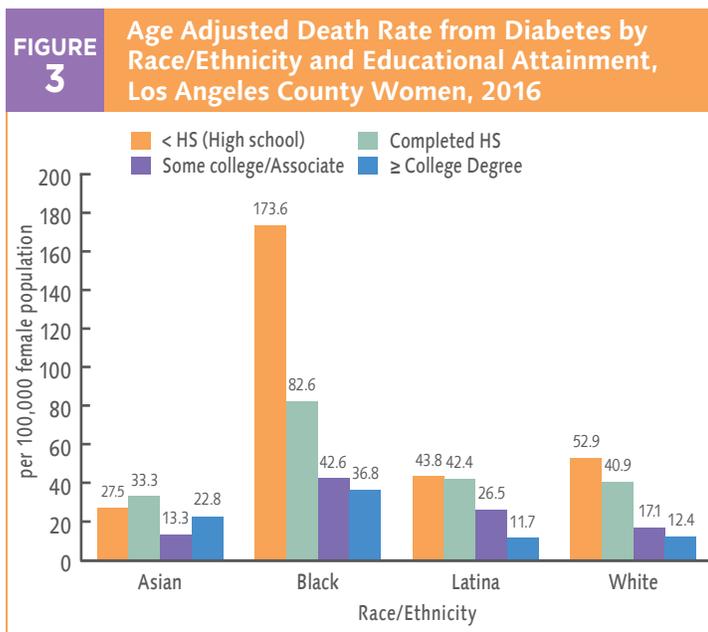
Education Level and Life Expectancy^{12, 13, 14}

- In 2016, the life expectancy from birth for women without a high school degree was 78 years, while it was 80 years for women who earned a high school diploma. Meanwhile, women with some college/trade school and women with a college or postgraduate degree lived 87 years on average (Table 3).
- For every level of education, black women in LA County live shorter lives (Figure 1).[◇] The sharpest gap within an education category is between black and Asian women who did not graduate from high school: life expectancy for black women in this educational cohort was more than 34 years less than that for Asian women (54 years v 88 years).
- Education is strongly associated with length of life for both black and white women. Black women without a high school diploma had a life expectancy of 54 years, 26 years shorter than black women who earned a college or post-graduate degree (80 years). White women without a high school diploma had a life expectancy of 67 years, nearly 20 years less than white women with a college or post-graduate degree (87 years).
- It is important to note that even small advances in educational attainment were associated with increased life expectancy for black women; black women with a high school degree lived on average 19 years longer than those who did not graduate from high school (73 years vs. 54 years).
- Life expectancy for Latina and Asian women did not vary much by educational attainment.

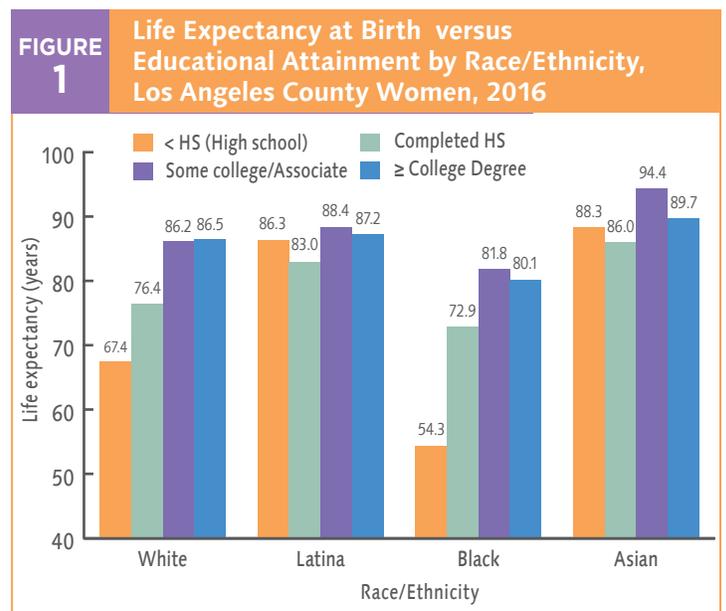
[◇] These disparities in life expectancy reflect the cumulative impact of social injustices that decrease educational and economic opportunities for black women, ultimately resulting in poorer health outcomes and shorter lifespans. See the discussion section for more information.

Education, Race, & Disease-Specific Mortality^{15, 16}

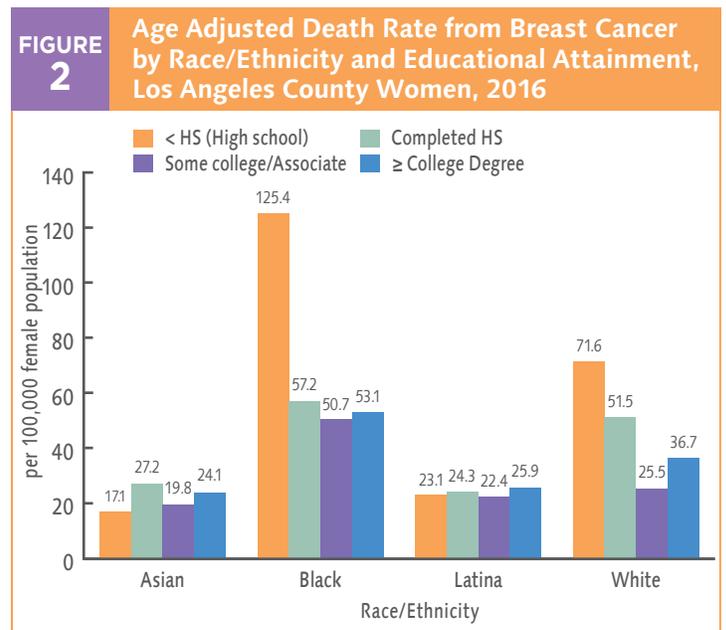
- In 2016, the age-adjusted death rates for black women from breast cancer and diabetes were higher than for any other racial/ethnic group for each level of educational attainment (Figure 2 and Figure 3).
- The highest age-adjusted mortality rates from breast cancer and diabetes were observed among black women who did not graduate from high school. Gaps between black women and women in other race/ethnicity groups were lower among women with higher levels of education.
- Within racial/ethnic groups, breast cancer and diabetes death rates among both black and white women were substantially higher among women who did not graduate from high school compared to those at all other educational levels.
- For Latina women, breast cancer mortality did not vary greatly by educational attainment.
- Among black, Latina, and white women, diabetes death rates decreased as educational attainment increased. For example, the diabetes death rate for Latinas who did not graduate from high school was 44 deaths per 100,000 female population, but it was 12 per 100,000 for Latinas with a college or post-graduate degree.
- For Asian women, diabetes death rates were higher among those who did not graduate from high school and those with a high school diploma (28 and 33 deaths per 100,000 women), compared to those who attended some college or had a college or postgraduate degree (13 and 23 deaths per 100,000 women, respectively).



Data source: Office of Health Assessment and Epidemiology, Los Angeles County Department of Public Health. 2015.^{15, 16}



Data source: Office of Health Assessment and Epidemiology, Los Angeles County Department of Public Health. 2015.^{12, 13, 14}



Data source: Office of Health Assessment and Epidemiology, Los Angeles County Department of Public Health. 2015.^{15, 16}

Discussion & Recommendations

Our findings demonstrate substantial racial/ethnic disparities in educational attainment for women in LA County, and serious consequences for health among women with less formal education. As previously noted, variations in educational achievement at the population level do not reflect individuals' innate capacity to succeed in school, but rather differences in the distribution of and access to resources and opportunities needed for optimal well-being. Historically, federal and local policies segregated, excluded and essentially shut out black and brown students from upward mobility and educational advancement. Racism and discrimination continue to contribute to inequitable learning environments and inadequate resource investments in communities of color. Advocates and lawmakers must work collectively to address this injustice.

In LA County, Latinas have by far the largest proportion of women who have not graduated from high school, compared to women from other racial/ethnic groups. Because most adult Latinas in the County are immigrants,¹⁷ their educational attainment may reflect limited opportunities in Mexico, Central America, and other countries of origin. However, conditions in LA County itself perpetuate this inequity; while high school graduation rates are improving, they remain relatively low for Latinx youth, as well as for black and American Indian/Alaska Native youth.¹⁸

Our data show that for Latinas and Asian women in LA County, of whom approximately 55% and 79% are foreign born, respectively,¹⁷ lower educational attainment does not impact health outcomes in the same way it does for black and white women. This finding may be a result of the "healthy immigrant effect," in which migrants to a country are healthier than natives.¹⁹ Differing exposures to racism and discrimination may also play a role. Nonetheless, low educational attainment can perpetuate social and economic inequities, posing an ongoing risk to women's health and well-being.

Historical underinvestment by federal and local policymakers and intentional segregation policies have created a disadvantage for certain communities of color in LA County. Geographic disparities among women who report not completing high school correlate with SPAs that have both the County's highest poverty rates and higher concentrations of people of color.

As expected, social determinants that impact health status such as employment, income, health insurance coverage, and accessing care are associated with educational attainment, improving with increasing levels of education. Indeed, nearly four times as many women without high school diplomas perceived their health to be fair or poor compared to college-educated women. This finding may reflect higher rates of disease and disability among women with less education and lower incomes,²⁰ as well as the daily life challenges that are associated with lower social and economic status.

Our data demonstrate that for some LA County women, a clear association exists between low educational attainment and

higher rates of disease and death. This is particularly true among black women. For black women, life expectancy is lower and disease-associated death rates are higher than for other groups at every level of educational attainment, but especially so for women without a high school diploma. Disparities in life expectancy reflect the cumulative impact of social stressors including racism, discrimination, and trauma; even among black women with advanced education, inequality based on race/ethnicity persists. These stressors and social injustices decrease educational and economic opportunities for black women, and ultimately result in poorer health outcomes and shorter lifespans. While improvement of these outcomes requires dismantling racism and discrimination in all its forms, including in the health care system, it is important to highlight the finding that gains in education improve health outcomes for black women.

Educational attainment will only become more essential for women's health in the future. According to the 2016-2020 Los Angeles County Strategic Plan for Economic Development, it is estimated that 30% of all job openings in the State of California will require some form of post-secondary education.²¹ Our findings indicate that over 22% of women 25 years and older in LA County have not earned a high school diploma, while another 20% have graduated high school but have no additional education. In addition, economic planners predict increased need for individuals with industry-valued, middle-skill degrees, certificates and credentials, especially in the health care, information, and scientific industry sectors.²¹ However, only 31% of women in LA County attended some college or earned an associate degree, and women are very underrepresented in the information technology and science fields.

Recommendations

To reduce inequities in educational attainment for women in LA County, policymakers, funders, and education and workforce development leaders should:

- Strengthen and sustain commitment to and investments in public Pre-Kindergarten through 12th grade education to ensure that all LA County students graduate high school ready for college and career.²²
- Address the educational needs of a multi-cultural population by developing more equitable systems that involve parents, students and communities as vital stakeholders in decision-making and engage them in student progress, and by hiring culturally competent teachers and administrators that represent the student body.²³
- Adopt policies that focus on educational equity for English Learners (ELs). EL students are simultaneously learning academic content and a new language. Creating environments that support linguistically and culturally diverse students is key for academic success.²⁴

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References

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Discussion and Recommendations (continued)

- Eliminate discriminatory discipline practices that disproportionately push black and brown girls and boys out of school.²⁵ These practices include out-of-school suspensions for relatively minor and subjective offenses, which also increase African American and Latinx students' involvement with the criminal justice system.
- Adopt policies that eliminate suspensions for children perceived to exhibit "defiant" or "disrespectful" behavior, which disproportionately impact black and brown girls, and adopt policies that offer alternative forms of discipline such as restorative justice and behavioral counseling.²⁶
- Adopt anti-harassment policies that support women and girls in schools, particularly women and girls of color.
- Adopt strategies to promote gender and racial/ethnic equity in access to higher-paid, traditionally male career training opportunities, such as incentivizing vocational education and training programs to actively encourage and recruit women to pursue nontraditional majors and careers.²⁷
- Encourage and support women pursuing male-dominated or nontraditional fields, including science, technology, engineering, and mathematics.²¹

Adoption of these strategies by institutions such as early childhood learning programs, school districts, and local governments should decrease existing disparities in educational attainment. In the context of multi-sector and collaborative approaches to achieving health equity, efforts to eliminate educational disparities play an important part in promoting better health status for LA County women and their families. ■