Florida Life Course Indicator Report
Discrimination and Segregation

Life Course Theory looks at health as an integrated continuum where biological, behavioral, psychological, social and environmental factors interact to shape health outcomes across the course of a person's life. The adoption of the Life Course Theory into public health practice requires movement away from isolated efforts and encourages broader thinking about the factors impacting health. Instead of concentrating on one health disease or condition at a time, the Life Course Theory looks to social, economic and environmental factors as underlying causes of persistent inequalities in health.

The indicators in the report were calculated according to guidelines published by the Association of Maternal and Child Health Programs. For each indicator, a brief description of the topic and definition, connection to the Life Course Theory, and data source are provided in the report. When possible, a state-level estimate for each indicator was calculated with 95% confidence intervals (CI) and Florida's status was compared to the nation. The indicators were then stratified by race/ethnicity when available and appropriate.

This section details the following life course indicators related to **discrimination and segregation:**

- **LC-12.** Bullying
- **LC-13.** Experiences of Race-Based Discrimination or Racism among Women
- **LC-14.** Perceived Experiences of Race or Ethnic Based Discrimination among Children
- **LC-15.** Perceived Experiences of Racial Discrimination in Health Care among Adults
- **LC-16.** Racial Residential Segregation

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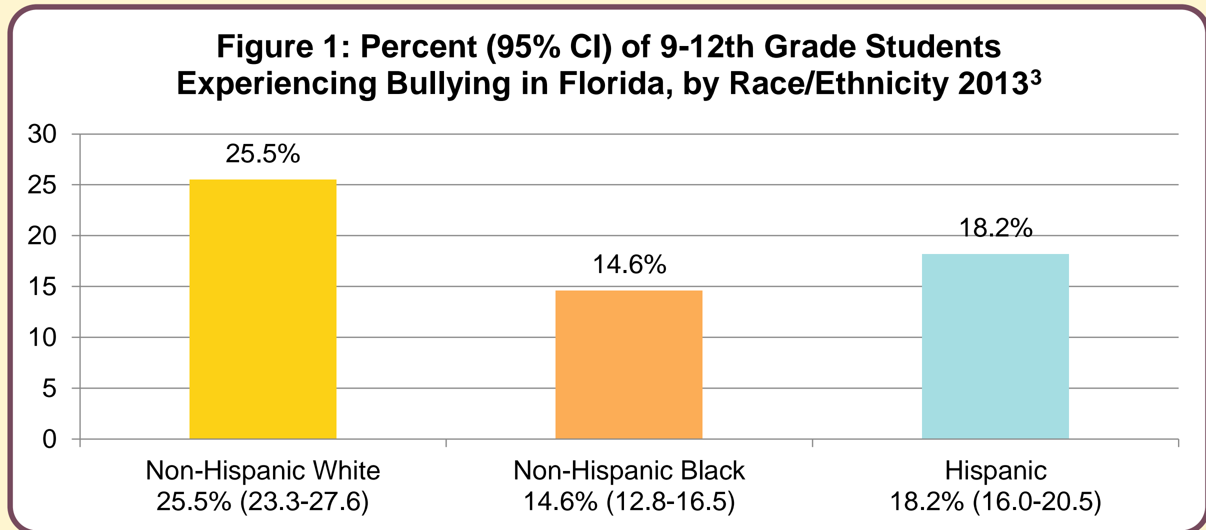
LC-12: Bullying

Bullying is unwanted, aggressive behavior among school aged children that involves a real or perceived imbalance of power and that happens more than once.[1] There are three types of bullying: verbal (e.g. teasing), physical (e.g. hitting or pushing) and social (e.g. spreading rumors about someone else). [1] Bullying has negative health outcomes for both the children who are bullied and the children who bully others. Children who are bullied are more likely to suffer from depression and anxiety and to experience decreased academic achievement.[1] Children who bully others are more likely to abuse alcohol and other drugs later in life, get into fights, and engage in early sexual activity.[1]

Data Source: Youth Risk Behavior Surveillance Survey (YRBS), 2013
Numerator: Number of 9th through 12th grade students who have experienced being bullied on school property or electronically during the past 12 months
Denominator: Total number of 9th through 12th grade students

Table 1: Percent (95% CI) of 9th-12th Grade Students Experiencing Bullying in the Past 12 Months	
Nation[2], 2011	**Florida[3], 2013**
25.5% (24.6-26.4)	21.0% (19.7-22.2)

In 2013, the percent of 9-12th grade students who reported being bullied (on school property or electronically) was 21.0% in Florida, or one in five high school students (Table 1).



High school students experiencing bullying differs by race/ethnicity in Florida (Figure 1). Non-Hispanic White students had the highest percent of being bullied on school property or electronically in 2013.

LC-13: Experiences of Race-Based Discrimination or Racism among Women

In the United States, infants born to Black women are at higher risk of adverse birth outcomes such as prematurity and low birth weight than infants born to White women. Research has shown that the causes of this disparity may lie outside of traditional risk factors such as socioeconomic status, prenatal care and maternal behavior, and that chronic stress of racism and social inequality may have a larger impact on birth outcomes.[5] Lu et al. argued that closing the Black-White gap in birth outcomes requires a life course approach targeted at reducing early life disadvantages and cumulative allostatic load over the life-course.[6] Un-doing racism is one of the 12 points aimed at reducing the Black-White gap in adverse birth outcomes.[6]

Experiencing racism during pregnancy is of particular concern as pregnancy is a critical and sensitive period in life course theory. A woman's health and behavior during this time has a direct impact on the health of her child and her family. Experiencing racism during this critical time may induce stress and possibly unhealthy coping mechanisms.

Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS), 2009-2011
Numerator: Number of women who felt emotionally upset (for example, angry, sad, or frustrated) as a result of how they were treated based on their race, in the 12 months prior to their most recent live birth
Denominator: Total number of women who recently had a live birth

Table 2: Percent (95% CI) of Women who Recently had a Live Birth who Experienced Race-Based Discrimination, 2009-2011	
Nation, 2009-2011[2]	**Florida**
8.8% (8.7-8.9)	Not available

Approximately one in twelve women experienced race-based discrimination in the twelve months prior to their most recent live birth (Table 2). This question is not a core PRAMS question, therefore it is not asked by all states administering PRAMS, including Florida. The 2009-2011 national estimate was based on weighted responses from the following four states: Michigan, North Carolina, Tennessee, and Wisconsin. These data were not available by race/ethnicity.

LC-14: Perceived Experiences of Race or Ethnic Based Discrimination among Children

The chronic stress of racism experienced by women of color negatively affects birth outcomes and thus puts their children at a disadvantage from the earliest stages of life.[6] Children who self-report racial discrimination are more likely to suffer from depressive symptoms, low self-esteem and anxiety.[7] Additionally, studies show that experiencing racism as a child negatively impacts mental and behavioral health. Perceptions of racism have also been associated with anger, conduct problems and delinquent behaviors in preadolescents and adolescents.[6]

This indicator can help measure the impact of racism across the life span and across generations, why disparities in health outcomes persist and what can be done to reverse these trends.[8]

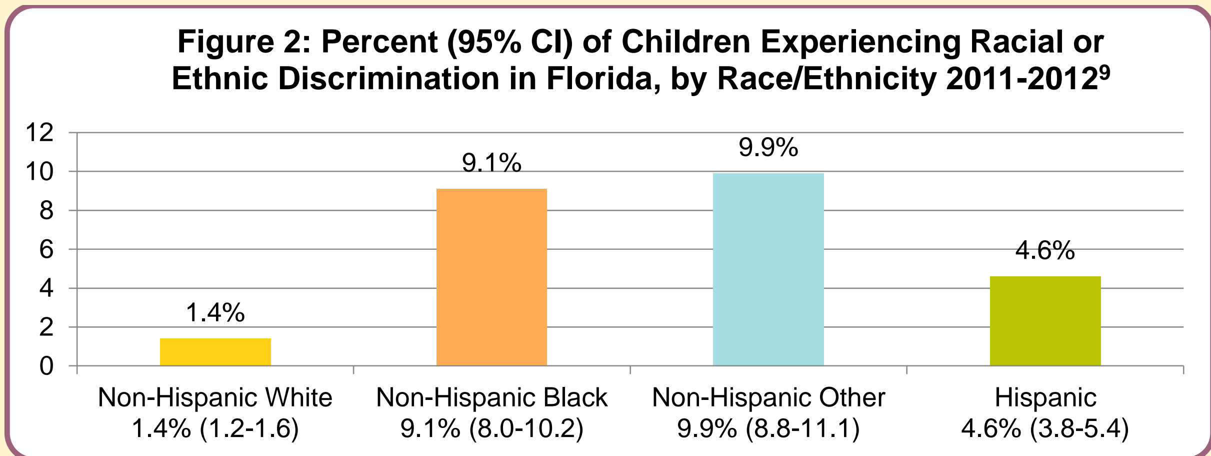
Data source: National Survey of Children's Health (NSCH), 2011-2012
Numerator: Number of children aged 0-17 years who somewhat or very often experienced racial/ethnic discrimination in the past year
Denominator: Total number of children aged 0-17 years

Parents responded on behalf of their children's experiences. The NSCH question asked the following: "Was your child ever treated or judged unfairly because of his/her racial or ethnic group?" Those who responded "very often" or "somewhat often" were considered as having answered "yes."

Table 3: Percent (95% CI) of Children who Experienced Racial or Ethnic Discrimination, 2011-2012[9]

Nation	Florida
4.1% (3.8-4.3)	4.1% (2.8-5.4)

Approximately, four percent of U.S. children experienced racial or ethnic discrimination in the past year. The percent of children experiencing racial or ethnic discrimination in Florida was similar to the national average (Table 3). Children aged 12-17 years had a higher percent of experiencing racial or ethnic discrimination than younger children in Florida.[9]



The percent of experiencing racial discrimination varies by race/ethnicity in Florida (Figure 2). Children identifying as non-Hispanic Black and Non-Hispanic other had a higher percent of experiencing racism when compared to non-Hispanic White and Hispanic children.

LC-15: Perceived Experiences of Racial Discrimination in Health Care among Adults

It has been proposed that the disparity in health outcomes between White and Black Americans is due in part to the impact of racism experienced by Black Americans over generations.[10] Experiencing racism is negatively associated with mental well-being and physical health. Health care patients who perceive that they are being racially discriminated against are less likely to receive preventive services[11], more likely to be dissatisfied with care received[12], and less likely to continue to seek care.[13]

Racism can occur at both the physician-patient level and the health care system level. Focusing on racism in the health care system is of particular importance as historical events such as the Tuskegee Syphilis Study led to distrust and underuse of the health care system among racial minorities.[14] Achieving equity in health care services requires not only equal access but cultural competency as well.

Data source: Behavioral Risk Factor Surveillance System (BRFSS), *Reactions to Race* module
Numerator: Number of adults aged 18 years and older experiencing perceived racial discrimination in health care
Denominator: Total adult population

BRFSS survey respondents were asked the following question: *Within the past 12 months, when seeking health care, do you feel your experiences were worse than, the same as, or better than for people of other races?* Those who responded that they felt their experiences were worse than other races or worse than some races but better than others, were considered as "Yes."

Table 4: Percent (95% CI) of Adults Experiencing Racial Discrimination in Health Care, 2012	
Nation[2]	**Florida**
3.9% (3.2-4.6)	Not Available

Approximately 4% of adults experience racial discrimination in health care (Table 4). The 2012 national estimate is based on responses from the following states: Arizona and Wyoming. This BRFSS question is part of an optional module, *Reactions to Race*, which states can choose to include on their annual BRFSS survey. Florida did not ask this question during this time period. However, this question was asked on the 2010 BRFSS Survey, and an analysis looking at the impact of perceived racial discrimination in health care among women of child bearing age found that approximately 14.1% of women aged 18-44 years experienced perceived racial discrimination in health care.[15] Being overweight, low income, and having no health insurance coverage was significantly associated with perceived racial discrimination in health care.[15]

Note: This question was asked on the 2015 Florida BRFSS survey. For more information please visit: http://www.floridahealth.gov/statistics-and-data/survey-data/behavioral-risk-factor-surveillance-system/index.html

LC-16: Racial Residential Segregation

Racial residential segregation is the differential spatial separation of racial groups in a defined population area (i.e., county, metropolitan statistical area (MSA)). One common measure of racial residential segregation is a measure of evenness called the dissimilarity index (DI). The DI summarizes the degree to which geographic subunits are evenly distributed between two racial groups when compared to the racial compilation of a larger entity like a city, metropolitan area, or county.[16] The DI is a measure of evenness that involves the differential distribution of the subject population.[17]

$$D = .5 * \sum_{i=1}^{n} \left| x_i / X - y_i / Y \right|$$

Xi=non-Hispanic Black, census tract
X=non-Hispanic Black, county
Yi=non-Hispanic White, census tract
Y=non-Hispanic White, county

Typically, a DI is calculated individually for each minority population group of interest compared to a reference group, using non-Hispanic White people. The DI ranges from 0 to 1 with a score of 0 reflecting complete integration (e.g., an even spatial distribution between two racial groups within a defined population area) and a score of 1 represents an area that is completely segregated (e.g., a differential distribution between two racial groups within a defined population area).[17] The standard interpretation for the DI is: [18]

- Very segregated: DI value above 0.6
- Moderately segregated: DI value between 0.3 and 0.6
- Well integrated: DI value under 0.3

The causes of racial residential segregation include Black self-segregation, White collective action (discriminatory housing practices) and White individual action (choosing to move from diverse neighborhoods).[16] Racial residential segregation is associated with geographic accumulation of disadvantage which can adversely impact health. Segregation limits the socioeconomic advancement of minorities because school quality, job opportunities and property values are lower in disadvantaged neighborhoods.[19] Segregation also increases minorities' exposure to undesirable environmental factors such as crime, environmental hazards, and food deserts.[19] All of these factors increase health disparities among minority populations and affect health outcomes across the life course.

Data source: American Community Survey, U.S. Census Bureau, 2013
Numerator: Number of counties with a DI value > 0.6
Denominator: Total number of counties

Table 5: Percent of Counties with Segregation by Dissimilarity Index (DI), 2013

	Nation	Florida[20]
Very Segregated (>0.6)	Not Available	12.0% (8 out of 67)
Moderately Segregated (0.3-0.6)	Not Available	74.6% (50 out of 67)
Well Integrated (<0.3)	Not Available	13.4% (9 out of 67)

To measure the level of segregation between non-Hispanic Black (minority) and non-Hispanic White (majority) people, DIs were calculated for all 67 counties in Florida using 2013 census tract data. Approximately 12 percent of Florida counties had a DI value greater than 0.6 and are considered to be very segregated (Table 5). The majority of Florida counties, 74.6 percent, are considered to be moderately or somewhat segregated based on the calculated DIs (Table D-5). Overall, the state of Florida has a DI value of 0.58, meaning that it is moderately segregated considering the evenness of the spatial distributions of non-Hispanic Black people compared to non-Hispanic White people (Figure 3).[20]

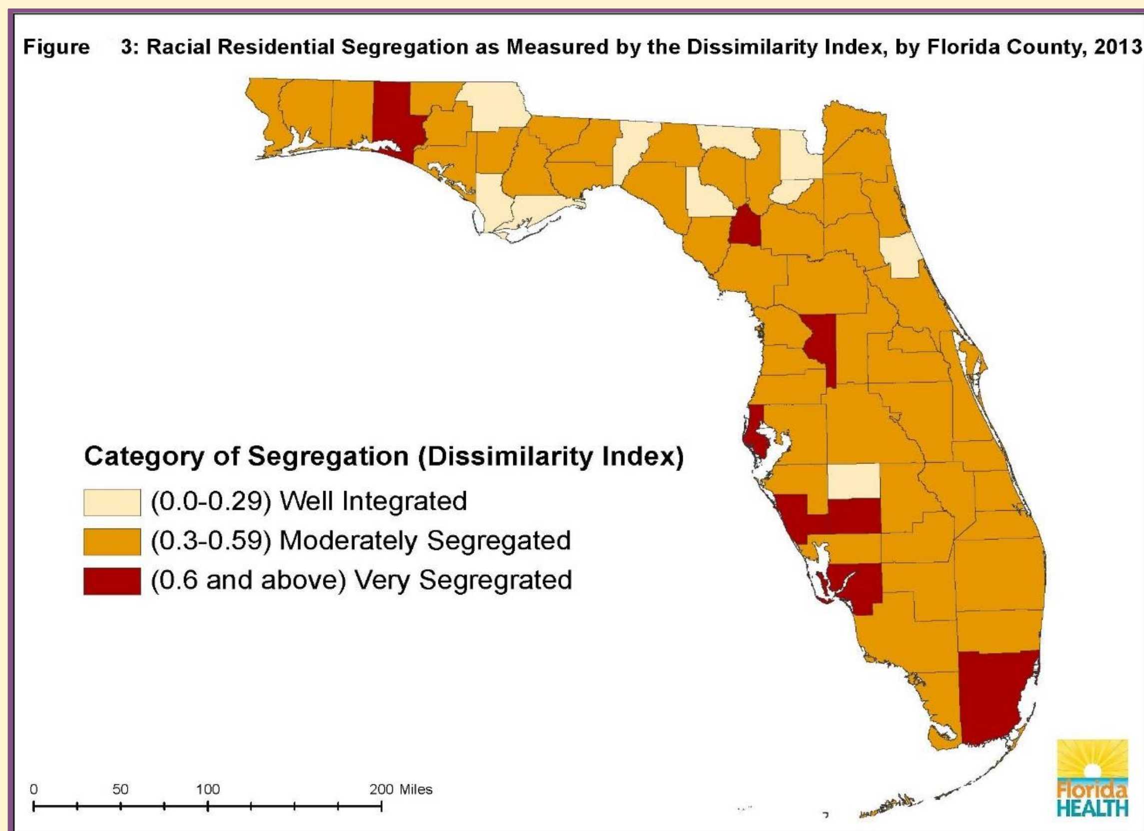


Figure 3: Racial Residential Segregation as Measured by the Dissimilarity Index, by Florida County, 2013

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