

A close-up photograph of a woman with light brown hair, wearing a red shirt with white polka dots. She is looking down and to the right with a thoughtful or somber expression. Her hands are clasped in front of her. The image is overlaid with a semi-transparent dark grey banner at the top containing the chapter title.

Chapter 13

Mental Health



Mental Health

Mental wellness is a fundamental component of overall health. The World Health Organization (WHO) defines mental health as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (1). Individuals with mental health disorders may have difficulty performing day-to-day tasks, such as going to work or school. Individuals may experience varying degrees of impairment in their mental wellness, and more moderate degrees of impairment can alter the way people feel, reason, and relate to others (2).

Impaired mental health is common in the United States general population. In 2015, nearly one in five adults suffered from a diagnosable mental illness such as depression or anxiety (3), and about 1 in 7 will have a major depressive episode in their lifetime (4). In 2015, 12% of children ages 12-17 reported having a major depressive episode in the past year, higher than the percentages from 2004-2014 (3). Between 1999 and 2014, the overall suicide rate in the U.S. rose by 24% to 13.0 per 100,000 population. In 2015, the overall suicide rate was 13.3 (5, 6). In 2014, suicide was the tenth leading cause of death in the U.S. (5) and more than 90% of patients who died because of suicide also had mental illness (4).

Connection to physical health

Mental health can also influence physical health. For example, individuals who struggle with eating disorders are at higher risk for brain damage, anemia, infertility, and multi-organ failure (7). Improvements in mental health may lead to more positive health behaviors, such as improved sleep, exercise, and diet, and decreased smoking and alcohol intake (2).

Mental health and substance use disorders

Of the 20 million U.S. adults who had a substance use disorder in 2015, 41% also had a mental illness in the past year (3). About half of these adults with co-occurring mental illness and substance use disorders did not receive treatment for either illness in the past year (3). Some of the same areas of the brain that are disrupted from mental illness are also disrupted by changes in the brain caused by substance use disorders (8). It can be difficult to separate the symptoms of mental illness and substance use disorders due to their similarities (8). Causality and connection cannot always be proven; however, research shows that some mental illnesses are risk factors for substance use disorders (8). People will often use substances as self-medication for their mental illness, which can result in substance misuse (8). Additionally, some individuals with a substance use disorder experience symptoms of mental illness due to their substance use (8). Mental illness and substance use disorders are both caused by overlapping factors such as underlying biology, genetics, and an individual's experiences (8).

Sex, race, and ethnicity

The distribution of mental disorders in the general population varies by sex, race/ethnicity, and socioeconomic status. Generally, women are more likely than men to experience an anxiety disorder in their lifetime (9). Black and Latino individuals have a higher lifetime prevalence of dysthymic disorder compared to White individuals (10, 11). Dysthymic disorder is a persistent depressive disorder characterized by chronic feelings of hopelessness and low-self-esteem that can last for years and can significantly interfere with daily life. However, research has shown that the prevalence of major depressive disorder (an episode of persistent feelings of sadness and loss of interest that can lead to a variety of emotional and physical problems) is higher in White individuals compared with Black and Latino individuals (10, 11). Black and Latino individuals are less likely than White individuals to receive medical treatment for mental health disorders when they do arise, which may contribute to the development of chronic depression (4, 10, 11).

Additional research has demonstrated that the longer an immigrant lives in the U.S., the higher the risk of mental health conditions (moderate to severe symptoms of psychological distress, depression, and anxiety) (12-15). It has been suggested that the more time immigrants spend as a resident of the U.S., the more they are exposed to discrimination and stressful conditions, which can contribute to poor health (12-15). In addition, it is thought that the loss of protective factors (e.g. social and cultural networks from their native country) after living in the U.S. for long periods of time contributes to the increased risk of mental health conditions (15).

LGBTQ population

Lesbian, gay, bisexual, transgender, and/or queer (LGBTQ) individuals are about three times more likely than straight individuals to have a mental health condition such as depression or anxiety (16). LGBTQ individuals of color are subjected to both racism and homophobia, and recent research has found that psychiatric symptoms were associated with both racist and heterosexist stressors for Black and Latino LGBTQ individuals (17, 18). Discrimination has mental health implications; 41% of transgendered individuals attempt suicide at some point in their lives compared to 5% of the general population (19). These rates are even higher among transgendered people of color compared to White transgendered people (19). The increased rate of mental health illnesses can come from rejection or lack of support from family and friends, as well as discrimination faced by LGBTQ individuals in health care, employment, and housing (20).

Of LGBTQ homicides in 2013, 67% of the victims were transgendered women of color (20). This disproportionate number of homicides highlights the need for specialized LGBTQ anti-discrimination and antiviolence programs (20). Among LGBTQ youth, studies show elevated rates of emotional distress, symptoms related to mood and anxiety disorders, self-harm, suicidal ideation, and suicidal behavior when compared to heterosexual youth (21). Support from family and friends, as well as in school and work environments, can act as a buffer to the discrimination LGBTQ youth and adults face (22).

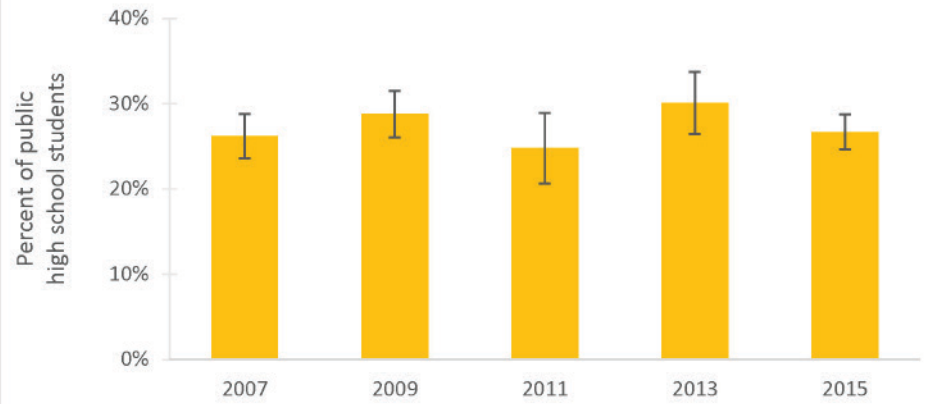
Effect of stress

Although mental illness can be attributed to a variety of genetic, environmental, psychological, and developmental factors, exposure to stressors may partially explain why certain groups suffer from poorer mental and physical health outcomes than others (23). Economic difficulties, physical deprivation, job strain, family responsibilities, material disadvantage, and discrimination can have harmful effects on mental health (24, 25). In addition, chronic stress shares a connection with morbidity and mortality (24). A growing body of evidence demonstrates how chronic stress levels, even low levels can “get under the skin” and influence the release of stress hormones that affect cholesterol levels, blood pressure, and inflammation. These markers of high stress are connected with both depression and heart disease, demonstrating how mental health is integrated with the “whole person” health experience (2). The WHO suggests that in order to reduce the inequities in the occurrence of mental disorders, the social, economic, and physical environment conditions of everyday life must improve, beginning at birth through old age (26).



Students were asked if during the past 12 months they felt sad or hopeless every day for 2 weeks or more. In 2015, 27% of Boston public high school students reported persistent sadness. Between 2007 and 2015, there was no significant change in the percentage of students experiencing persistent sadness.

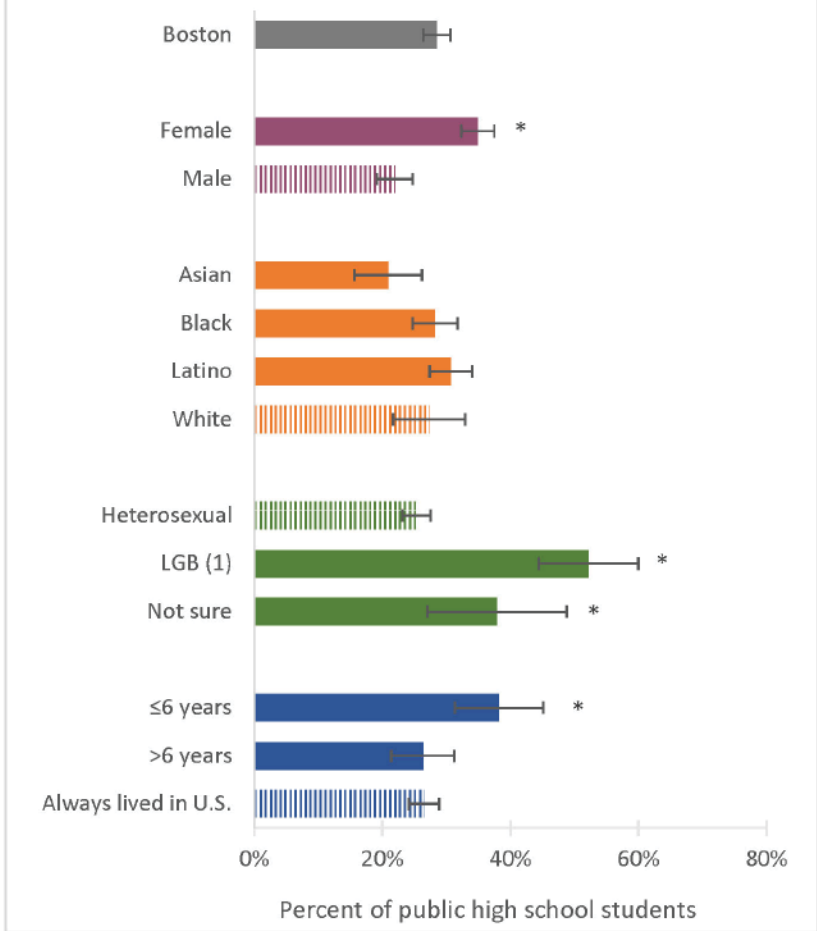
Figure 13.1 Persistent Sadness Among Public High School Students by Year



DATA SOURCE: Youth Risk Behavior Survey (2007, 2009, 2011, 2013, 2015), Centers for Disease Control and Prevention and Boston Public Schools



Figure 13.2 Persistent Sadness Among Public High School Students by Selected Indicators, 2013 and 2015 Combined



* Statistically significant difference when compared to reference group
 (1) Includes lesbian, gay, and bisexual

NOTE: Bars with patterns indicate the reference group within each selected indicator.
 DATA SOURCE: Youth Risk Behavior Survey (2013, 2015), Centers for Disease Control and Prevention and Boston Public Schools

For 2013 and 2015 combined, 28% of Boston public high school students experienced persistent sadness.

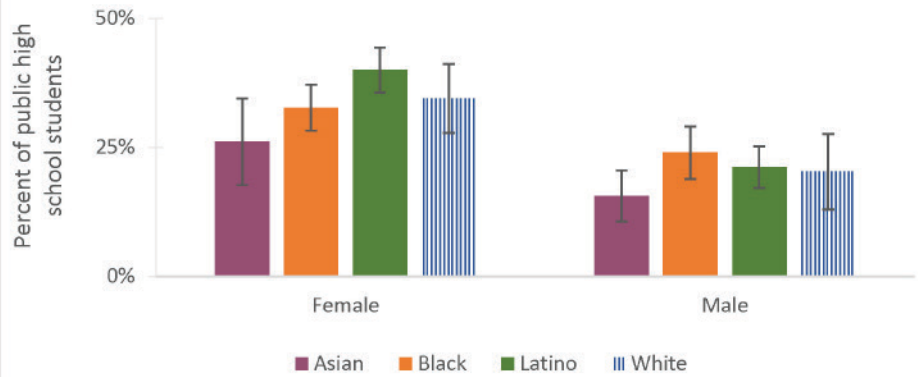
The percentage of students with persistent sadness was higher for the following groups:

- Females (35%) compared with males (22%)
- Students who identified as lesbian, gay, or bisexual (52%) and students who were not sure of their sexual orientation (38%) compared with heterosexual students (25%)
- Foreign-born students who lived in the United States for six years or fewer (38%) compared with students who have always lived in the United States (26%)

During 2013 and 2015 combined, there were no significant differences in the percentage of Boston public high school students with persistent sadness by race/ethnicity among female students when compared with White female students.

There were also no significant differences by race/ethnicity among male students compared with White male students.

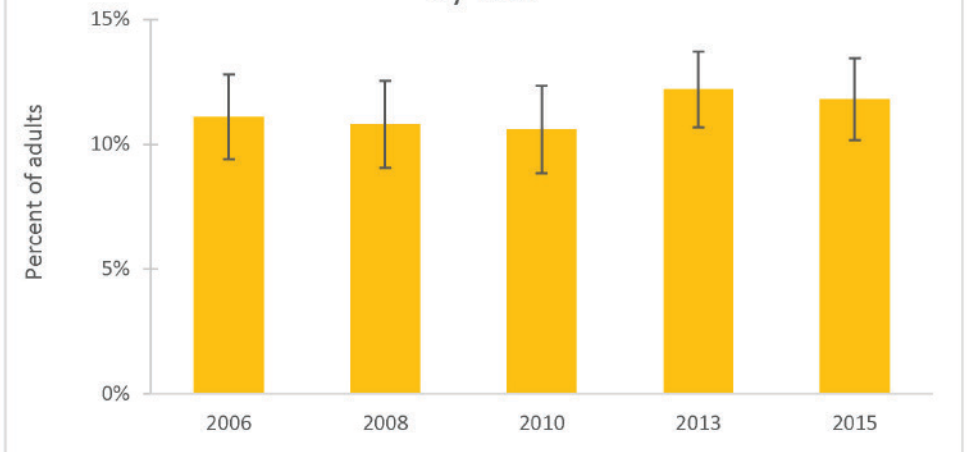
Figure 13.3 Persistent Sadness Among Public High School Students by Sex and Race/Ethnicity, 2013 and 2015 Combined



NOTE: Bars with patterns indicate the reference group for statistical testing within each selected indicator.
 DATA SOURCE: Youth Risk Behavior Survey (2013, 2015), Centers for Disease Control and Prevention and Boston Public Schools

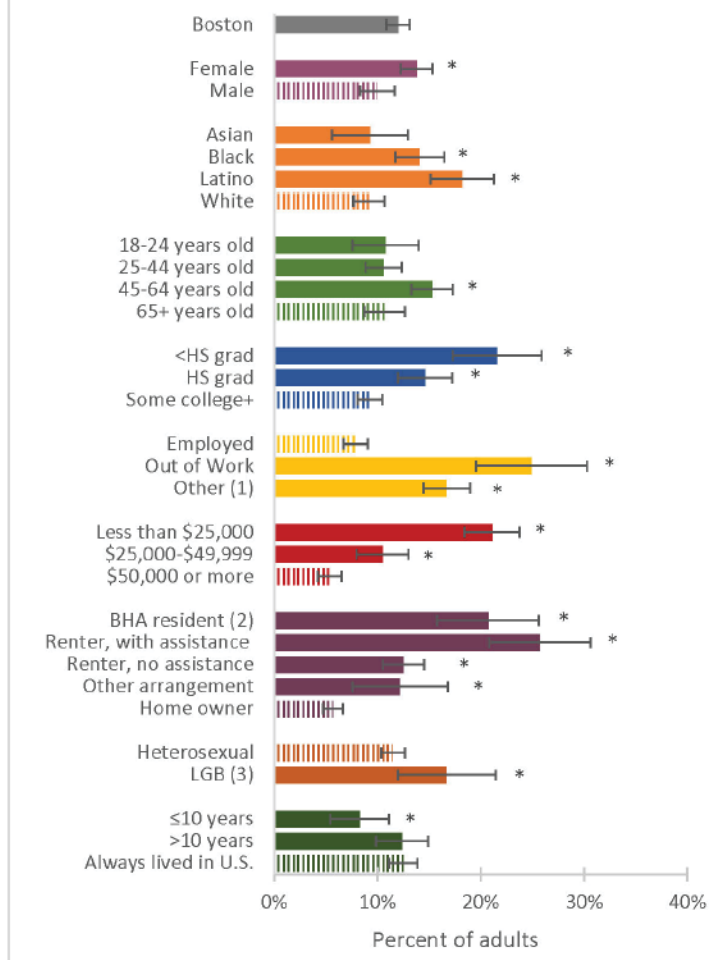
In 2015, 12% of Boston adult residents reported feeling persistent sadness (feeling sad, blue, or depressed for more than 15 days within the past 30 days). Between 2006 and 2015, the percentage of adults with persistent sadness did not change significantly.

Figure 13.4 Persistent Sadness Among Adults by Year



DATA SOURCE: Boston Behavioral Risk Factor Survey (2006, 2008, 2010, 2013, 2015), Boston Public Health Commission

Figure 13.5 Persistent Sadness Among Adults by Selected Indicators, 2013 and 2015 Combined



* Statistically significant difference when compared to reference group

(1) Includes homemakers, students, retirees, and those unable to work

(2) Boston Housing Authority resident

(3) Includes lesbian, gay, bisexual, and other

NOTE: Bars with patterns indicate the reference group within each selected indicator.

DATA SOURCE: Boston Behavioral Risk Factor Survey (2013, 2015), Boston Public Health Commission

For 2013 and 2015 combined, 12% of Boston adult residents reported experiencing persistent sadness.

The percentage of adults with persistent sadness was higher for the following groups:

- Females (14%) compared with males (10%)
- Black (14%) and Latino (18%) adults compared with White adults (9%)
- Adults ages 45-64 (15%) compared with adults ages 65 and older (11%)
- Adults with less than a high school diploma (22%) and adults with a high school diploma (15%) compared with those with at least some college education (9%)
- Adults who were out of work (25%) or whose employment status was "other" (17%) compared with adults who were employed (8%)
- Adults living in households with an annual income of less than \$25,000 (21%) and those with an income of \$25,000-\$49,999 (11%) compared with adults living in households with an annual income of \$50,000 or more (5%)
- Adults who were Boston Housing Authority residents (21%), renters who received rental assistance (26%), adults who rented but did not receive rental assistance (13%), and those with other housing arrangements (12%) compared with homeowners (6%)
- Adults who identified as lesbian, gay, bisexual, or other (17%) compared with heterosexual adults (11%)

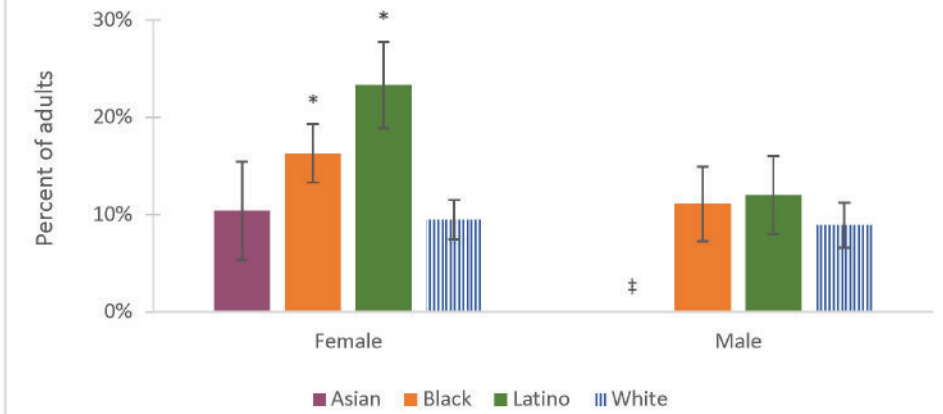
The percentage of adults with persistent sadness was lower for the following groups:

- Foreign-born adults who lived in the United States for 10 years or less (8%) compared with adults who were born in the United States (13%)

For 2013 and 2015 combined, a higher percentage of Black (16%) and Latino (23%) Boston female residents reported having persistent sadness compared with White females (10%).

There were no significant differences for Black and Latino males when compared with White males.

Figure 13.6 Persistent Sadness Among Adults by Sex and Race/Ethnicity, 2013 and 2015 Combined



* Statistically significant difference when compared to reference group

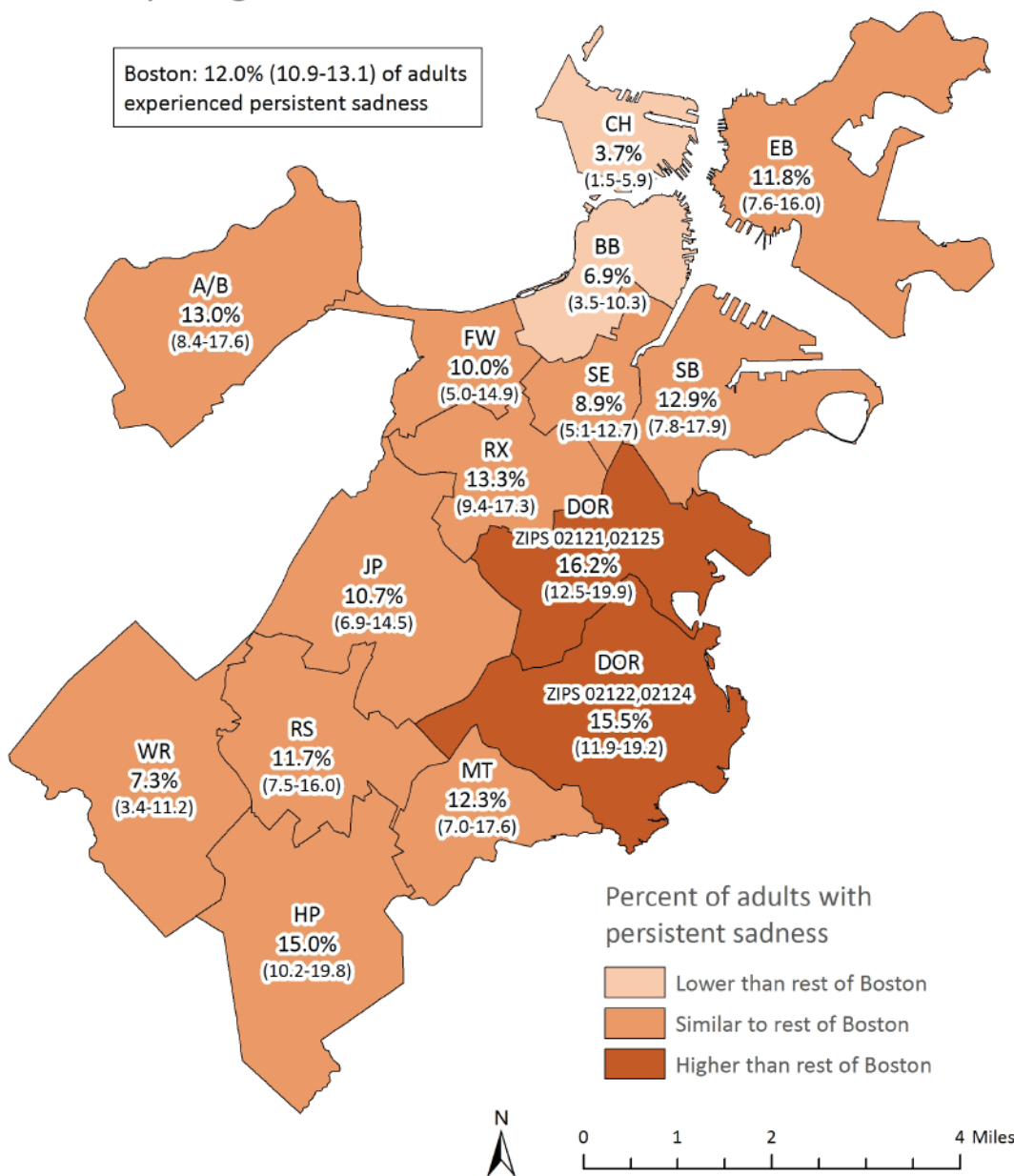
‡ Data not presented due to insufficient sample size

NOTE: Bars with patterns indicate the reference group within each selected indicator.

DATA SOURCE: Boston Behavioral Risk Factor Survey (2013, 2015), Boston Public Health Commission



Figure 13.7 Persistent Sadness Among Adults by Neighborhood, 2013 and 2015 Combined

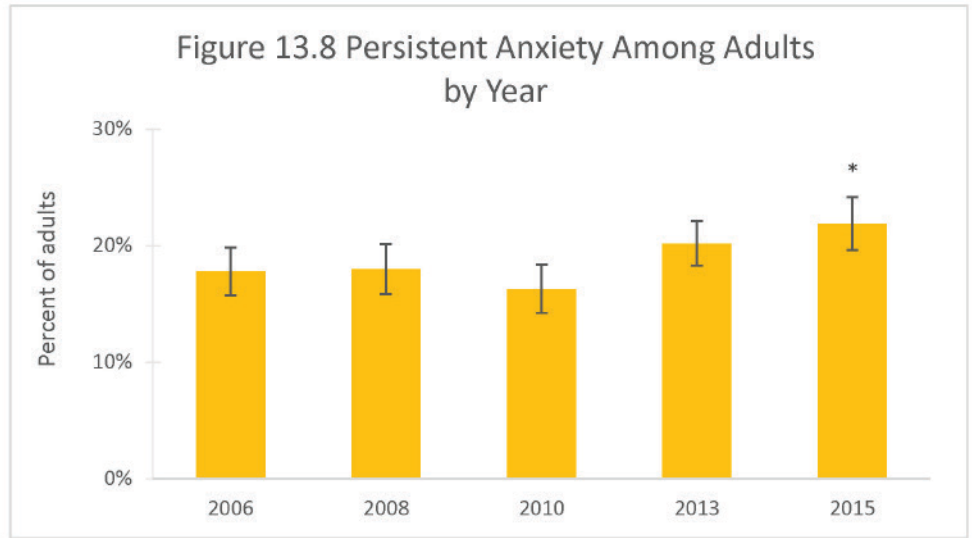


NOTE: "BB" includes the Back Bay, Beacon Hill, Downtown, the North End, and the West End.
 "SE" includes the South End and Chinatown.

DATA SOURCE: Boston Behavioral Risk Factor Survey (2013, 2015), Boston Public Health Commission

For 2013 and 2015 combined, the percentage of adults with persistent sadness was higher for Dorchester (zip codes 02121, 02125) and Dorchester (zip codes 02124, 02126) compared with the rest of Boston. The percentage was lower for Back Bay and Charlestown compared with the rest of Boston.

In 2015, 22% of Boston adult residents reported feeling persistent anxiety (feeling worried, tense, or anxious for more than 15 days within the past 30 days). The percentage of adults with persistent anxiety increased significantly between 2006 and 2015.

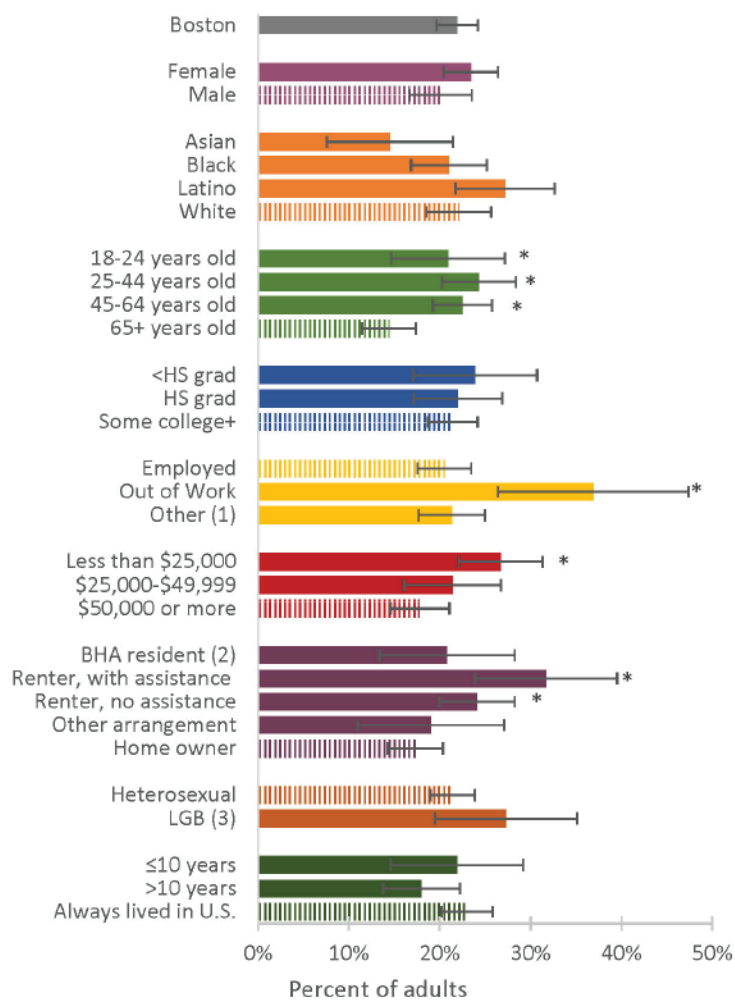


* Statistically significant change over time

DATA SOURCE: Boston Behavioral Risk Factor Survey (2006, 2008, 2010, 2013, 2015), Boston Public Health Commission



Figure 13.9 Persistent Anxiety Among Adults by Selected Indicators, 2015



* Statistically significant difference when compared to reference group
 (1) Includes homemakers, students, retirees, and those unable to work
 (2) Boston Housing Authority resident
 (3) Includes lesbian, gay, bisexual, and other

NOTE: Bars with patterns indicate the reference group within each selected indicator.
 DATA SOURCE: Boston Behavioral Risk Factor Survey (2015), Boston Public Health Commission

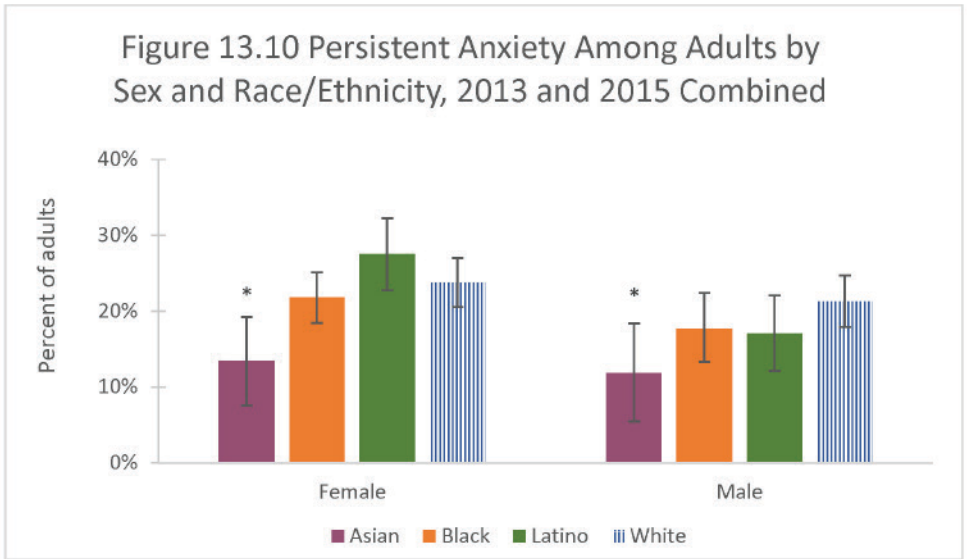
In 2015, 22% of Boston adult residents reported experiencing persistent anxiety.

The percentage of adults with persistent anxiety was higher for the following groups:

- Adults ages 18-24 (21%), 25-44 (24%), or 45-64 (22%) compared with adults ages 65 and older (14%)
- Adults who were out of work (37%) compared with adults who were employed (21%)
- Adults living in households with an annual income of less than \$25,000 (27%) compared with adults living in households with an annual income of \$50,000 or more (18%)
- Renters who received rental assistance (32%) and adults who rented but did not receive rental assistance (24%) compared with homeowners (17%)

For 2013 and 2015 combined, a lower percentage of Asian female Boston residents (13%) reported having persistent anxiety compared with White females (24%).

A lower percentage of Asian males (12%) experienced persistent anxiety compared with White males (21%).



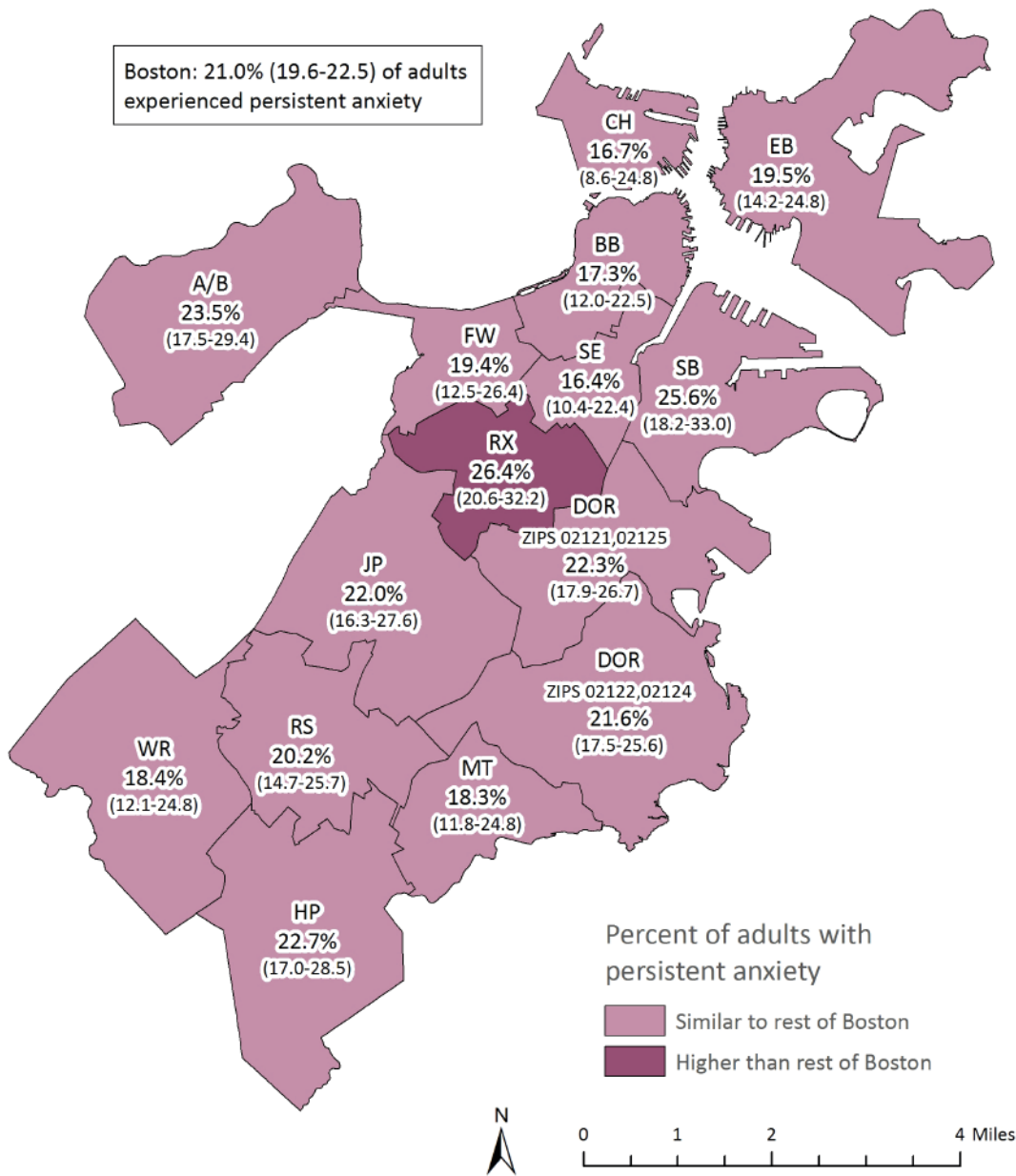
* Statistically significant difference when compared to reference group

NOTE: Bars with patterns indicate the reference group within each selected indicator.

DATA SOURCE: Boston Behavioral Risk Factor Survey (2013, 2015), Boston Public Health Commission



Figure 13.11 Persistent Anxiety Among Adults by Neighborhood, 2013 and 2015 Combined



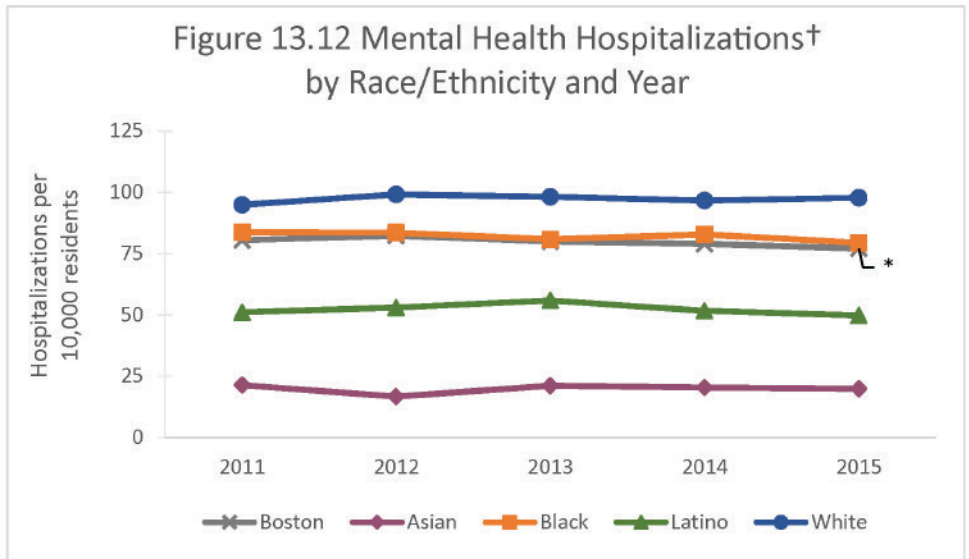
NOTE: "BB" includes the Back Bay, Beacon Hill, Downtown, the North End, and the West End.
 "SE" includes the South End and Chinatown.

DATA SOURCE: Boston Behavioral Risk Factor Survey (2013, 2015), Boston Public Health Commission

For 2013 and 2015 combined, the percentage of adults with persistent anxiety was higher for Roxbury compared with the rest of Boston.

In 2015, the rate of mental health hospitalizations in Boston was 77.1 per 10,000 residents. From 2011 to 2015, the rate of mental health hospitalizations decreased by 5%. There was no significant decrease over time for any of the racial/ethnic groups presented.

In 2015, compared with White residents (97.8), the mental health hospitalization rate was 80% lower for Asian residents (19.9), 19% lower for Black residents (79.4), and 49% lower for Latino residents (49.8).

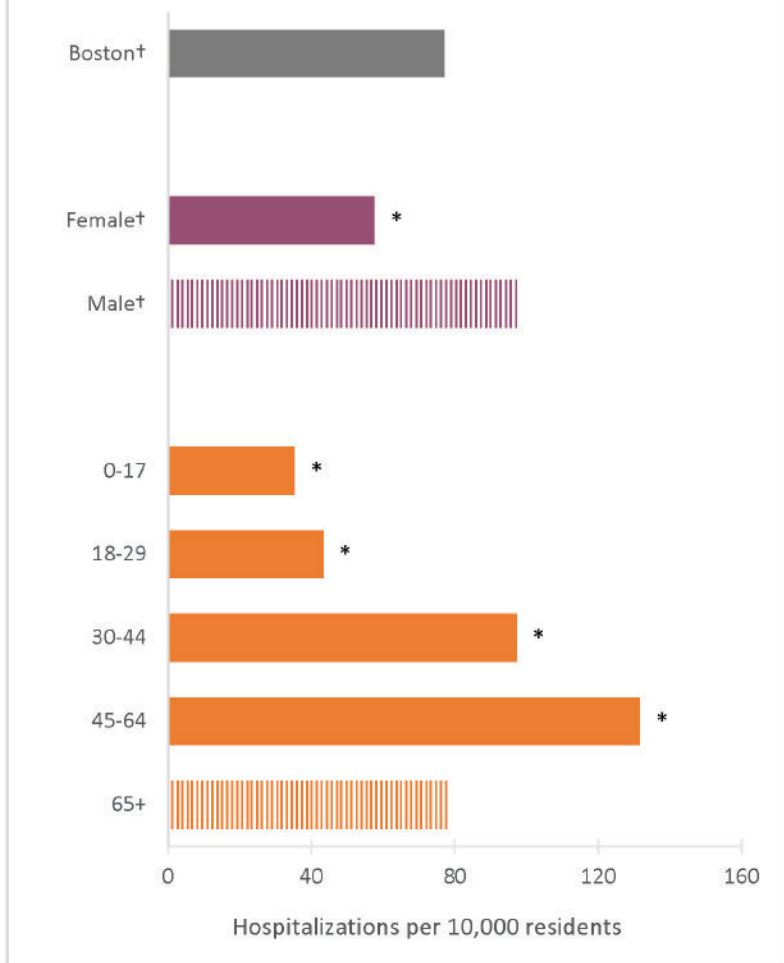


* Statistically significant change over time
 † Age-adjusted rates per 10,000 residents

DATA SOURCE: Acute hospital case-mix databases, Massachusetts Center for Health Information and Analysis



Figure 13.13 Mental Health Hospitalizations by Selected Indicators, 2015



* Statistically significant difference when compared to reference group
 † Age-adjusted rates per 10,000 residents

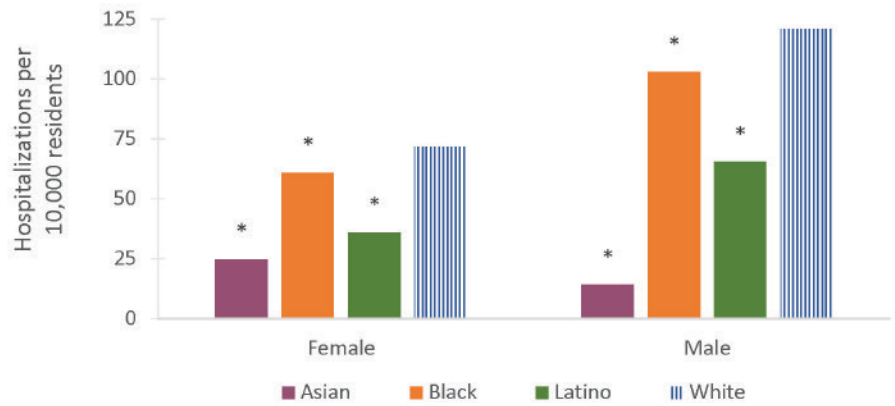
NOTE: Bars with patterns indicate the reference group within each selected indicator.
 DATA SOURCE: Acute hospital case-mix databases, Massachusetts Center for Health Information and Analysis

In 2015, the rate of mental health hospitalizations in Boston was 77.1 hospitalizations per 10,000 residents. The rate was 41% lower for females (57.6) compared with males (97.6). The rate was 24% and 68% higher, respectively, for residents ages 30-44 (97.3) and 45-64 (131.7) compared with those ages 65 and older (78.2). The rate was 55% and 45% lower, respectively, for residents ages 0-17 (35.2) and 18-29 (43.3) compared with those ages 65 and older.

In 2015, the mental health hospitalization rate was 66% lower for Asian female Boston residents (24.8 hospitalizations per 10,000 residents), 15% lower for Black females (60.9), and 50% lower for Latino females (35.9) compared with White females (71.8).

The mental health hospitalization rate was also 88% lower for Asian male residents (14.1), 15% lower for Black males (102.9), and 46% lower for Latino males (65.4) compared with White males (120.9).

Figure 13.14 Mental Health Hospitalizations† by Sex and Race/Ethnicity, 2015



* Statistically significant difference when compared to reference group

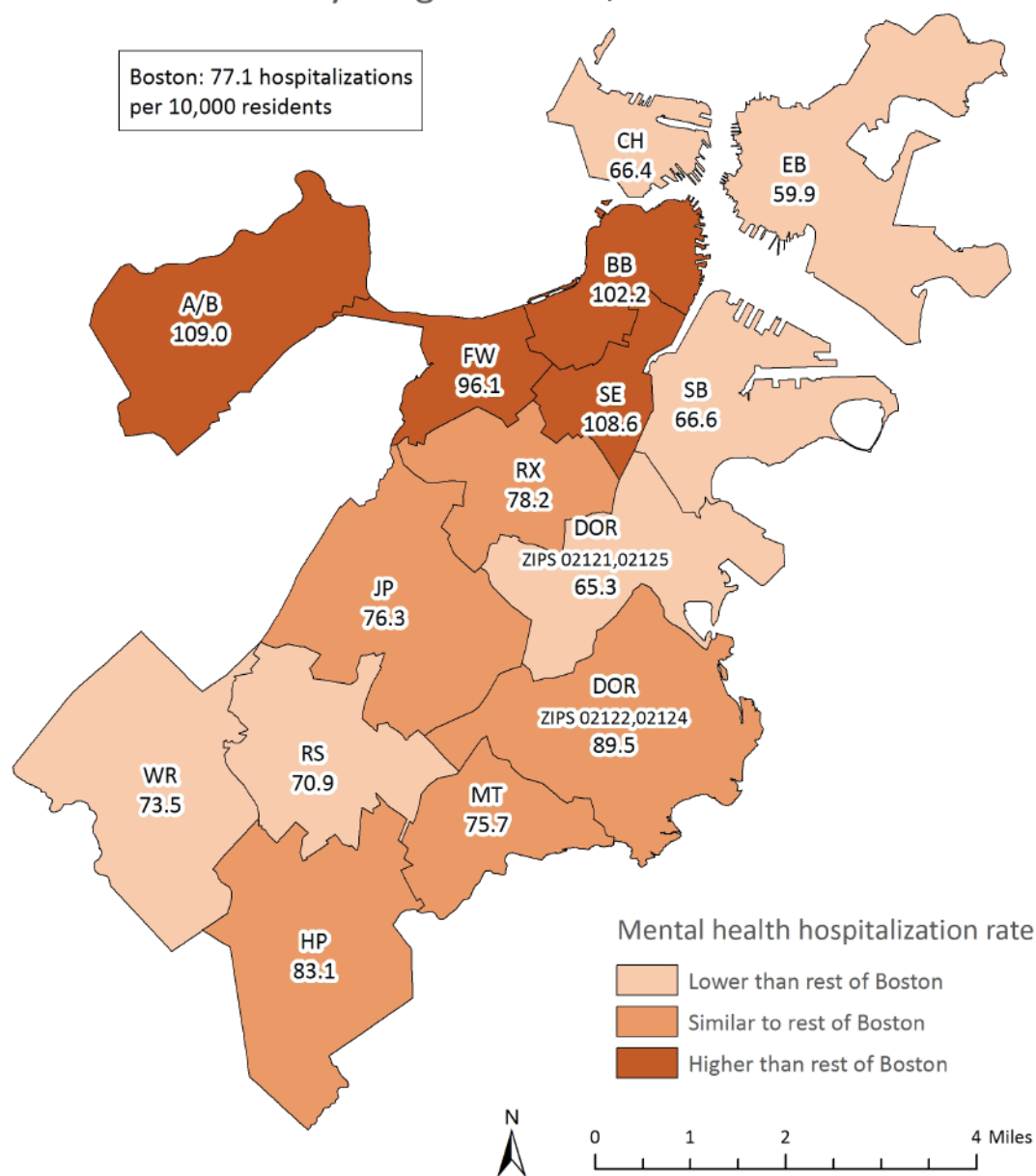
† Age-adjusted rates per 10,000 residents

NOTE: Bars with patterns indicate the reference group within each selected indicator.

DATA SOURCE: Acute hospital case-mix databases, Massachusetts Center for Health Information and Analysis



Figure 13.15 Mental Health Hospitalizations†
by Neighborhood, 2015



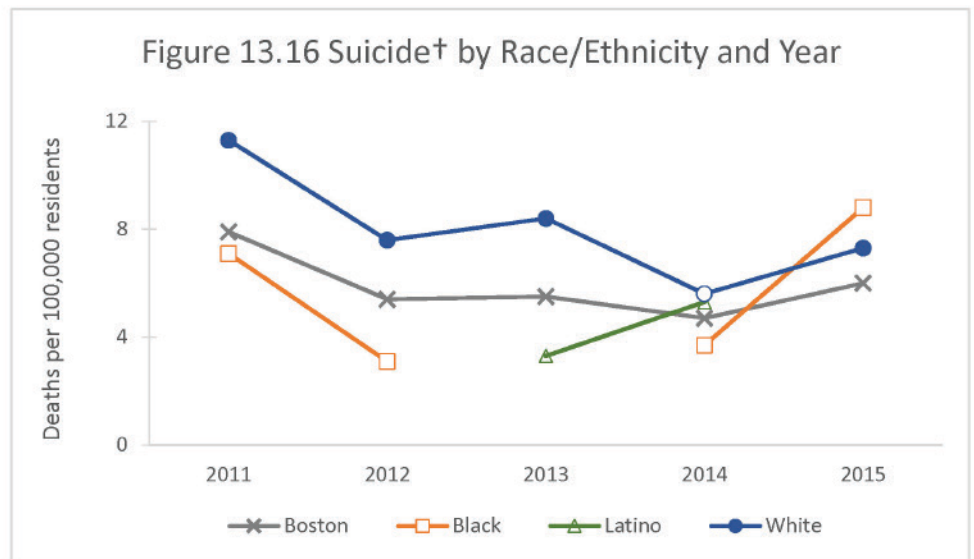
† Age-adjusted rates per 10,000 residents

NOTE: "BB" includes the Back Bay, Beacon Hill, Downtown, the North End, and the West End.
"SE" includes the South End and Chinatown.

DATA SOURCE: Acute hospital case-mix databases, Massachusetts Center for Health Information and Analysis

In 2015, the rate of mental health hospitalizations was higher in Allston/Brighton, Back Bay, Fenway, and the South End compared with the rest of Boston. The rate was lower in Charlestown, Dorchester (zip codes 02121, 02125), East Boston, Roslindale, South Boston, and West Roxbury compared with the rest of Boston.

In 2015, the suicide rate in Boston was 6.0 deaths per 100,000 residents. From 2011 to 2015, the rate did not change significantly over time. In 2015, there was no significant difference between the rates for Black and White residents.

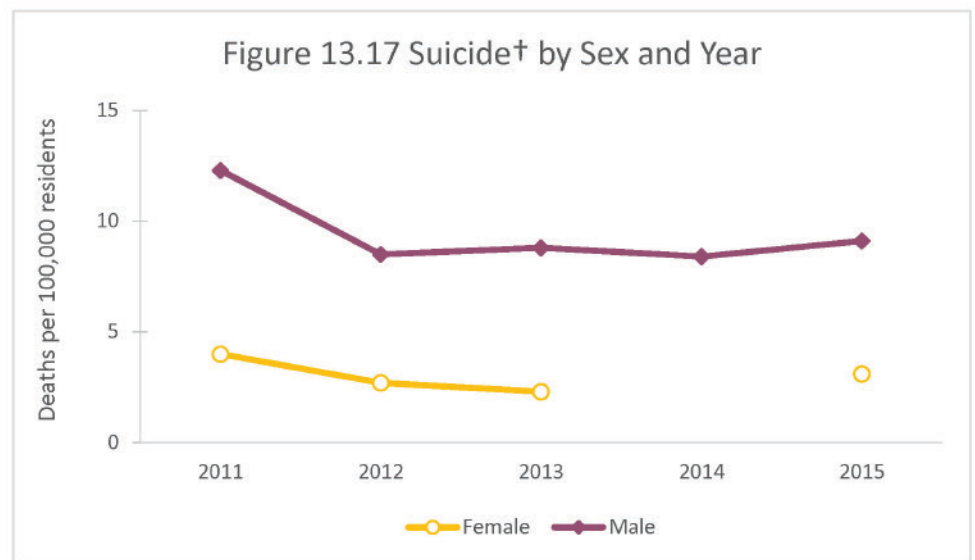


† Age-adjusted rates per 100,000 residents

NOTE: HOLLOWED-OUT symbols represent rates based on 20 or fewer cases and should be interpreted with caution. Rates are not presented due to a small number of cases for Asian residents for 2011-2015, Black residents in 2013, and Latino residents in 2011, 2012, and 2015. Beginning in October 2014, the method for collecting race/ethnicity for mortality data changed. Interpret trends with caution.

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health (data as of December 2016). Data may be updated as more information becomes available.

From 2011 to 2015, the rate of suicide did not change significantly over time for female or male Boston residents. In 2015, the rate was 66% lower for females (3.1 deaths per 100,000 residents) compared with males (9.1).



† Age-adjusted rates per 100,000 residents

NOTE: HOLLOWED-OUT symbols represent rates based on 20 or fewer cases and should be interpreted with caution. Rates are not presented due to a small number of cases for female residents in 2014.

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health (data as of December 2016). Data may be updated as more information becomes available.

Suicide

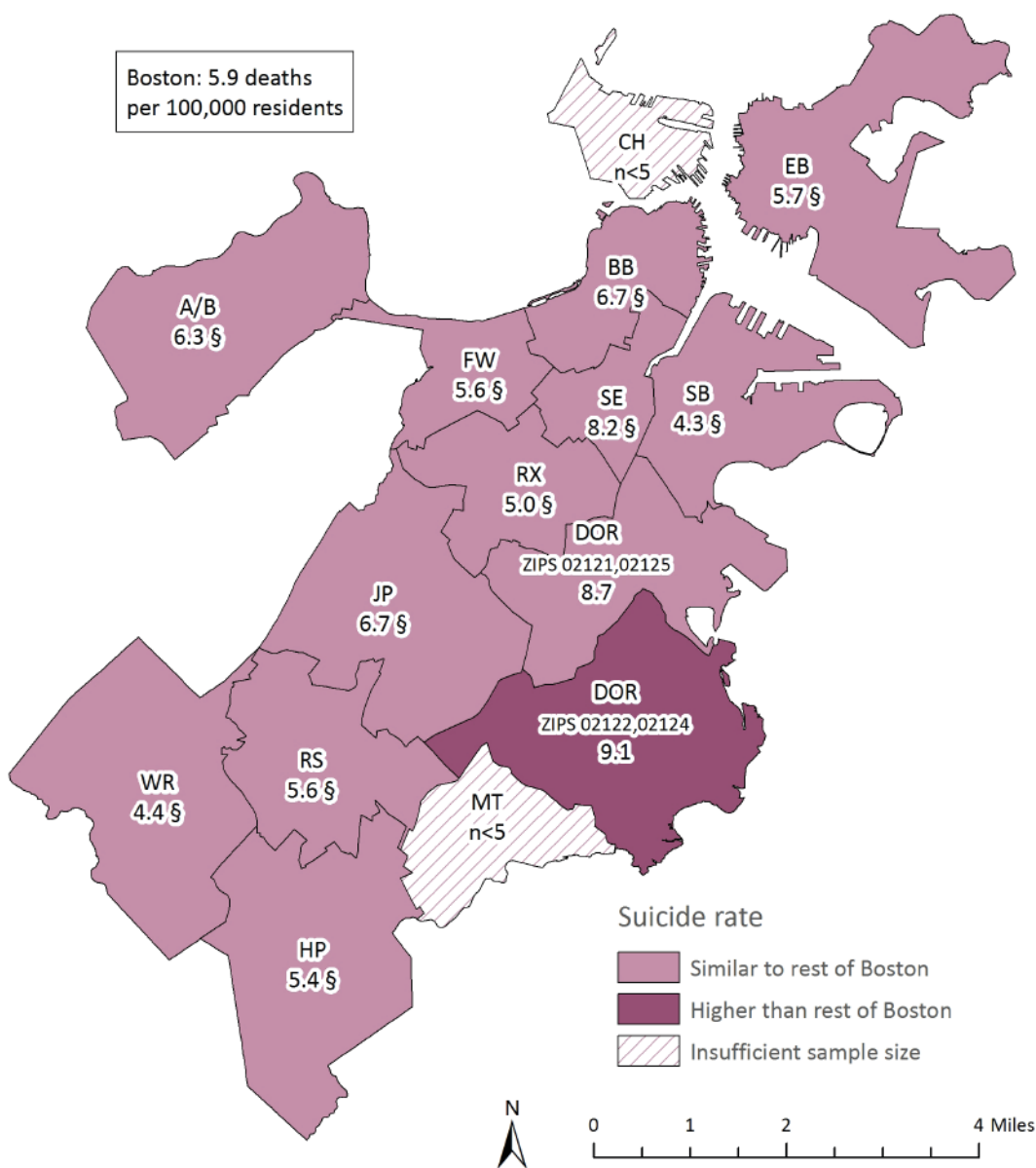
Healthy People 2020 Target: 10.2 per 100,000 population

US 2015: 13.3

MA 2015: 8.9

Boston 2015: 6.0

Figure 13.18 Suicide† by Neighborhood, 2011-2015



† 5-year average annual age-adjusted rates per 100,000 residents
 § Rates are based on 20 or fewer cases and should be interpreted with caution.

NOTE: "BB" includes the Back Bay, Beacon Hill, Downtown, the North End, and the West End.
 "SE" includes the South End and Chinatown.

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health (data as of December 2016). Data may be updated as more information becomes available.

For 2011-2015, the rate of suicide was higher in Dorchester (zip codes 02122, 02124) compared with the rest of Boston.

Summary

The rate of mental health hospitalizations among all Boston residents decreased by 5% from 2011 to 2015. However, data from 2015 reveal inequities across categories of age, sex, and race/ethnicity. The rate of mental health hospitalizations was higher for those ages 30-65 years compared with those 65 and older, males compared with females, and White residents compared with Asian, Black, and Latino residents. At the neighborhood level, elevated rates of mental health hospitalizations were observed for Allston/Brighton, Back Bay, Fenway, and the South End.

Inconsistent with the findings for mental health hospitalizations among all Boston residents, higher percentages of Black and Latino adults reported persistent sadness in comparison with White adults. Higher percentages of persistent sadness were observed in women compared with men, unemployed compared with employed adults, low income (less than \$25,000) compared with higher income (\$50,000 or more) adults, and adults who self-identified as lesbian, gay, bisexual, or other compared with heterosexual adults. Higher percentages of persistent sadness were also found in the neighborhoods of Dorchester (zip codes 02121, 02125) and Dorchester (zip codes 02122, 02124). For persistent anxiety, inequities were observed across categories of age, employment status, housing status, and household income. Percentages of persistent anxiety among adult residents were higher in age categories spanning 18 to 64 years compared with those 65 years and older, those out of work compared with those who were employed, renters compared with homeowners, and those whose household income was less than \$25,000 compared with those whose household income was \$50,000 and higher.

Approximately 27% of Boston public high school students reported persistent sadness, which is consistent with what is observed nationally (29). Persistent sadness was two times higher for students who identified as lesbian, gay, or bisexual compared with their heterosexual classmates. Percentages of persistent sadness were also higher in female students compared with male students and in students who lived in the U.S. for six years or fewer compared with students who always lived in the U.S.

The suicide rate remained stable in Boston in recent years. The point estimate for the suicide rate among Boston residents also meets the Healthy People 2020 target, and was also more than two-fold lower than the rate observed nationally. Suicide was almost three-fold lower in women than in men, which is a pattern consistent with national data.

To reduce the inequities of mental health conditions in Boston, interventions targeting subpopulations at higher risk of mental illness are needed. It is also necessary to educate the public about the availability of mental health services and to decrease the stigma of seeking such services. Work also needs to be done to stop discrimination, which impacts the mental health of the person facing the discrimination. Additionally, as the World Health Organization (WHO) suggests, in order to reduce the inequities in the occurrence of mental disorders, the conditions of everyday life, which are the social determinants of health, must improve.

Mental health



% of adults with persistent sadness for 2013 and 2015 combined



18% of Latino residents



14% of Black residents



9% of White residents

The suicide mortality rate in 2015 was nearly three times higher for male than female residents



Mental health among public high school students in 2015



52% of lesbian, gay, or bisexual students reported persistent sadness



25% of heterosexual students reported persistent sadness

Our Point of View: Thoughts from public health

The Silent Crisis in Outpatient Mental Health Care

By Association for Behavioral Healthcare

There is a silent crisis in outpatient mental healthcare. While workforce shortages challenge all of healthcare, they are compounded in behavioral health by decades of low reimbursement rates. Clinics are closing or reducing their schedules. Adults and children are waiting weeks or months for routine outpatient care.

We have made tremendous strides promoting mental health services. The Mental Health Parity and Addiction Equity Act and the Affordable Care Act unequivocally establish that behavioral healthcare is integral to healthcare.

Care delivery is shifting. Team-based, person-centered care can improve quality, improve mental health, and reduce unnecessary costs. In Massachusetts, policymakers have put forth a bold new vision to implement this team-based approach for Medicaid members. The model calls for Accountable Care Organizations (ACOs) to work with Community Partners (CPs), community-based organizations expert in serving members with behavioral health needs to transform the system.

If people cannot get services however, when they need them, transformation will not succeed, and improved individual and population outcomes are unlikely. The Association for Behavioral Healthcare (ABH), an association of community-based, behavioral healthcare organizations, surveyed our members on the state of outpatient services and found:

- 68% have reduced their outpatient clinic capacity in the past three years to minimize growing financial losses; 45% are actively considering further reductions
- 60% have wait times of at least one month for a child to get a routine prescriber assessment; 58% have wait times of at least one month for adults
- 59% have unfilled psychiatrist positions; 45% have unfilled nurse prescriber positions
- 76% lost money delivering outpatient services in FY15; the average annual loss was \$555,000 - 17% of the average operating budget.

These struggles are due largely to poor reimbursement rates from private and public payers. The Commonwealth recently committed to an unprecedented, multi-year investment in outpatient services. Even with this investment, providers will struggle to deliver outpatient behavioral health services essential to care transformation. If bold visions are to become a reality, policymakers and payers must work together on a long-term strategy to adequately pay for outpatient behavioral healthcare services.

Our Point of View: Thoughts from a community resident

Treating mental health and substance use at the same time

By a consumer of Boston Public Health Commission programming

I'm 46 years old. I am dually diagnosed with both substance use and mental health disorders. I was diagnosed with ADHD when I was six, and within the last 15 years I was diagnosed with bipolar and social anxiety disorders. I also struggle with agoraphobia sometimes. There are days when I can't leave the house at all because I'm worried something bad will happen if I do. It's not all the time though. It used to be worse but it has gotten better. Usually I just pull the blanket over my head and go to sleep and then later that day or the next day, I can go out again.

Treatment has been very helpful. I started mental health treatment because my counselor suggested it. It wasn't a surprise to find out I had a mental illness. So many people with substance use disorders have mental illness too. It's one of the reasons why we use drugs – to self-medicate.

Getting into treatment here at BPHC was easy. I go to a methadone clinic and they referred me a Boston Public Health Commission treatment program. I did an intake and started treatment the next day. I used to go to another place in Lynn but the doctor retired, leaving about 200 patients high and dry. It was terrible. I found a new doctor who wouldn't prescribe the same medications so I went through withdrawal until I found another new doctor who would.

The only other thing I wish they had here in Boston is Double Trouble meetings. It's a support group for people who are dually diagnosed that I used to go to out in Worcester. It would be great if they did it here in Boston. I believe we really need Double Trouble meetings, I think a lot of people would benefit from them, including myself. I would even love to start one.

References

1. World Health Organization. Mental Health: A State of Well-Being 2014.
2. Friedli L. Mental health, resilience, and inequalities. Copenhagen, Denmark: World Health Organization Regional Office for Europe, 2009.
3. Center for Behavioral Health Statistics and Quality. Key substance use and mental health indicators in the United States: Results from the 2015 National Survey on Drug Use and Health 2016.
4. Agency for Healthcare Research and Quality. 2010 National Healthcare Agency for Healthcare Research and Quality. Rockville, MD: 2010.
5. Curtin S. C., Warner M., Hedegaard H. Increase in suicide in the United States, 1999–2014 and Suicide rates for females and males by race and ethnicity, United States, 1999-2014. Hyattsville, MD: National Center for Health Statistics, 2016.
6. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. NCHS Vital Statistics System for numbers of deaths. Bureau of Census for population estimates 2015 [04/20/17]. Available from: https://webappa.cdc.gov/sasweb/ncipc/mortrate10_us.html.
7. National Institute of Mental Health. What are eating disorders? [February 14, 2014]. Available from: <http://www.nimh.nih.gov/health/publications/eating-disorders/index.shtml>.
8. National Institute on Drug Abuse. Comorbidity: Addiction and Other Mental Illnesses. Washington, D.C.: U.S. Department of Health and Human Services 2010.
9. National Institute of Mental Health. Any Anxiety Disorder Among Adults 2016. Available from: <https://www.nimh.nih.gov/health/statistics/prevalence/any-anxiety-disorder-among-adults.shtml>.
10. Mayo Clinic Staff. Persistent depressive disorder (dysthymia) 2015, Available from: <http://www.mayoclinic.org/diseases-conditions/persistent-depressive-disorder/home/ovc-20166590>.
11. Riolo SA, Nguyen TA, Greden JF, King CA. Prevalence of depression by race/ethnicity: findings from the National Health and Nutrition Examination Survey III. American journal of public health. 2005;95(6).
12. Henning-Smith C, Shippee TP, McAlpine D, Hardeman R, Farah F. Stigma, Discrimination, or Symptomatology Differences in Self-Reported Mental Health Between US-Born and Somalia-Born Black Americans. American journal of public health. 2013;103(5):861-7.
13. Budhwani H., Hearld KR., Chavez-Yenter D. Depression in Racial and Ethnic Minorities: the Impact of Nativity and Discrimination. Journal of racial and ethnic health disparities. 2015;2(1):34-42.
14. Fox M, Entringer S., Buss C, DeHaene J, Wadhwa PD. Intergenerational Transmission of the Effects of Acculturation on Health in Hispanic Americans: A Fetal Programming Perspective. American journal of public health. 2015;105((Suppl 3)):S409-S23.

15. Perreira KM, Gotman N, Isasi CR, Arguelles W, Castañeda SF, Daviglius ML, et al. Mental Health and Exposure to the United States: Key Correlates from the Hispanic Community Health Study of Latinos. *The Journal of Nervous and Mental Disease*. 2015;203(9):670-8.
16. National Alliance on Mental Illness. Find Support LGBTQ Arlington, VA2017 [March 29, 2017]. Available from: <http://www.nami.org/Find-Support/LGBTQ#sthash.Lm8Sa0o7.dpuf>.
17. Balsam KFea. Measuring Multiple Minority Stress: The LGBT People of Color Microaggressions Scale. *Cultural diversity & ethnic minority psychology*. 2011;17(2):163-74.
18. Calabrese S. K., Meyer I. H., Overstreet N. M., Haile R., Hansen N. B. Exploring Discrimination and Mental Health Disparities Faced By Black Sexual Minority Women Using a Minority Stress Framework. *Psychology of women quarterly*. 2015;30(3):287-304.
19. Haas A, Rodgers P. Findings of the National Transgender Discrimination Survey. American Foundation for Suicide Prevention, Williams Institute, UCLA School of Law,, 2014.
20. National Coalition of Anti-Violence Programs. Lesbian, Gay, Bisexual, Transgender, Queer and HIV-Infected Hate Violence 2013,. New York, NY: 2014.
21. Russell ST, Fish JN. Mental Health in Lesbian, Gay, Bisexual, and Transgender (LGBT) Youth. *Annual review of clinical psychology*. 2016;12:465-87.
22. Rodgers S. M. Transitional Age Lesbian, Gay, Bisexual, Transgender, and Questioning Youth: Issues of Diversity, Integrated Identities, and Mental Health. *Child Adolesc Psychiatr Clin N Am*. 2017;26(2):297-309.
23. Sternthal MJ, Slopen N, Williams DR. Racial Disparities in Health: How Much Does Stress Really Matter? *Du Bois Review: Social Science Research on Race*. 2011;8.
24. National Research Council Panel on Race E, and Health in Later Life,. *Understanding Racial and Ethnic Differences in Health in Late Life: A Research Agenda*. Washington D.C. : 2004.
25. American Psychology Association. How stress affects your health 2014 [Februray 14, 2014]. Available from: <https://www.apa.org/helpcenter/stress-facts.pdf>.
26. World Health Organization. *Social Determinants of Mental Health*. 2014.
27. The Center for Consumer Information & Insurance Oversight. *The Mental Health Parity and Addiction Equity Act*. 2014.
28. Few Americans Aware of Their Rights for Mental Health Coverage [press release]. May 20, 2014 2014.
29. 2015 Youth Risk Behavior Survey Data [Internet]. [cited 12/06/16]. Available from: www.cdc.gov/yrbs.