

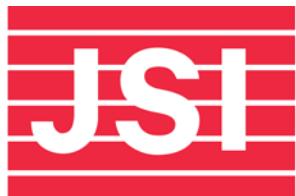
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**Rhode Island Department of Health  
(RIDOH)**

**Community Health and Health Systems  
Impact Assessment Related to the Closure  
of Memorial Hospital of Rhode Island  
(MHRI) Report**

**February 2020**

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**JOHN SNOW, INC.**

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# Executive Summary

## Introduction

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The Rhode Island Department of Health (RIDOH) approved the request of Care New England Health Systems (CNE) to eliminate the Emergency Department (ED) at the Memorial Hospital of Rhode Island (MHRI) effective January 1, 2018 and to eliminate primary care services under the MHRI license effective January 25, 2018.<sup>1, 2</sup> As a condition of approval, RIDOH would engage a consultant to assess whether additional health services are necessary to protect the health and well-being of Pawtucket and Central Falls most vulnerable populations. The consultant would determine the long-term impacts of the closure of the Emergency Department at MHRI and of the elimination of primary care under MHRI license on the community and on other licensed hospitals and health care providers in the state. CNE shall work in collaboration with RIDOH to implement a plan to remedy such impact. The consultant would provide preliminary findings to RIDOH and would create a full report on findings and how community input was solicited and incorporated into the strategies to address findings of long-term impact. RIDOH engaged John Snow, Inc., a public health and healthcare consulting organization, as the consultant to support this effort.<sup>3</sup>

## Overview of CNE services pre- and post-closure

CNE had owned and operated MHRI since 2013. MHRI was a licensed acute care hospital and a teaching affiliate of the Warren Alpert Medical School of Brown University. On November 2, 2017, CNE submitted a written plan to RIDOH to eliminate the ED thus ceased operations as a licensed inpatient hospital. Because of the cessation of MHRI hospital operations, MHRI also proposed to eliminate the provision of primary care services under its license. Under RIDOH's approval, the license to provide primary care services was transferred to Kent Hospital, although primary care services (Family Care Center and Internal Medicine Clinic) remain on the former MHRI campus at 111 Brewster Street, Pawtucket. Further, pediatric services remain at the Pediatric Care Center at 555 Prospect Street, Pawtucket. CNE signed a memorandum of understanding (MOU) with Miriam Hospital (Lifespan) to provide an inpatient-

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<sup>1</sup> Decision for Approval with Conditions from the Director of Rhode Island Department of Health with Respect to the Application of Care New England Health System for Elimination of the Emergency Department at Memorial Hospital of Rhode Island, December 28, 2017.

<sup>2</sup> Decision for Approval with Conditions from the Director of Rhode Island Department of Health with Respect to the Application of Care New England Health System for Elimination of Primary Care under the Hospital Licenses of Memorial Hospital of Rhode Island, January 25, 2017.

<sup>3</sup> Headquartered in Boston, JSI has an office in Providence, Rhode Island, and has a deep understanding of the public health, health care systems, and the communities of Rhode Island. The majority of the JSI project team members live in Rhode Island and work in the JSI Rhode Island office. More information at [www.jsi.com](http://www.jsi.com).

training site for Family Medicine and Internal Medicine residents to be compliant with Centers for Medicare and Medicaid (CMS) graduation medical education requirements. CNE Health System currently owns and operates the following facilities: Women & Infants Hospital (Providence), Kent Hospital (Warwick), Butler Hospital (Providence, psychiatric services), Providence Center (behavioral health and substance use disorders outpatient services), VNA Care of New England – home health services, Family Care Center and Internal Medicine Clinic (former MHRI campus, Pawtucket), including the newly formed Walk-in Clinic, Pediatric Care Center (Pawtucket). As a condition of elimination of Emergency Department services, CNE expanded operations at the Family Care Center/Internal Medicine Clinic to provide a Walk-in Clinic.

### **Project goals, scope and technical approach**

The primary goal of the project is to assess the long-term impacts on the community and health care providers related to the closure of Memorial Hospital of Rhode Island (MHRI), including the elimination of the Emergency Department at MHRI and elimination of primary care services under MHRI's license.<sup>4</sup> The research and analysis focused on the health care and health of the affected communities and the health care providers that serve them, and other licensed hospitals and health care providers in the state.

JSI conducted the research and analysis needed to assess the long-term impacts on the community and health care providers related to the elimination of the Emergency Department at the Memorial Hospital of Rhode Island (MHRI) and elimination of primary care services under MHRI licenses. The research and analysis focused on the health care and health of the affected communities and the health care providers that serve them. In completing the project, JSI worked in close collaboration with RIDOH through the MHRI Closure Impact Assessment Steering Committee (see Appendix A of the full report). The Steering Committee met regularly throughout the project to identify data sources, confirm and coordinate on stakeholder interviews and focus groups, review and discuss interim quantitative and qualitative findings, review interim and final plans, and review deliverables. In addition, JSI and RIDOH leadership reviewed preliminary findings with CNE and other key stakeholders.

JSI used a mixed methods approach that included both qualitative and quantitative data collection and analysis, using both secondary data (quantitative and qualitative) and primary data (key informant interviews, focus groups). The analysis was completed in two distinct but related components – foundational research and impact analysis, including community health needs assessment and access to health care services.

### **Findings**

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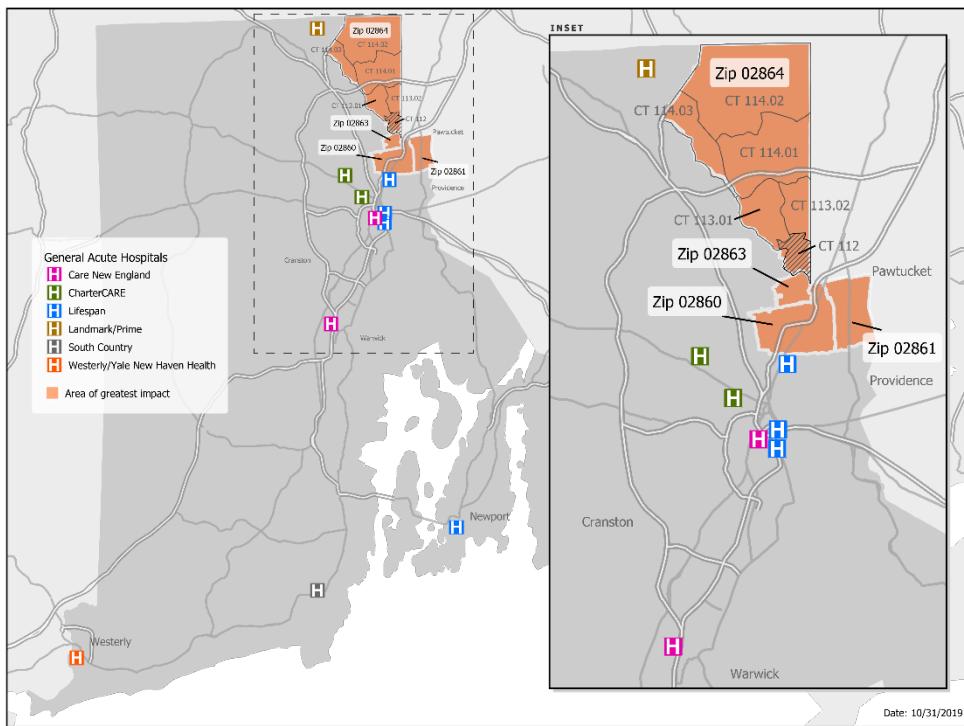
The population most impacted by MHRI closure are residents of Pawtucket, Central Falls, and parts of Cumberland (census tract 112 has similar demographic characteristics to Pawtucket and Central Falls). The impacted area (referred to as “the service area”) was defined based upon quantitative analysis of health care utilization patterns and census data as well as findings from qualitative research. The service

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<sup>4</sup> The license was transferred to Kent Hospital, a CNE-owned hospital located in Warwick, Rhode Island.

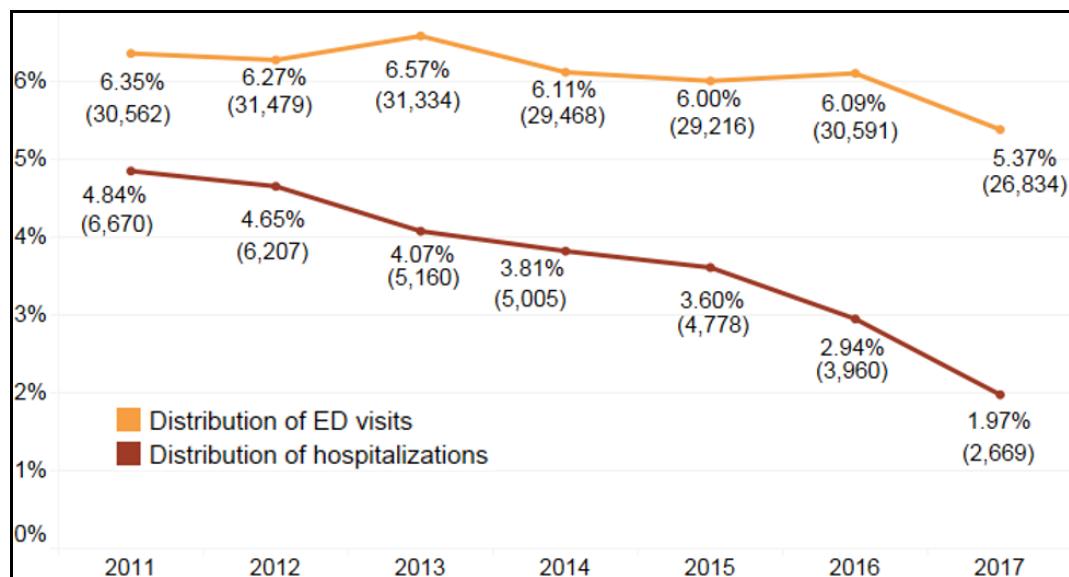
area is shown in Figure 1. The impact analysis focused on the service area and the providers that serve this population pre- and post-closure.

**Figure 1: Impact study service area map**



MHRI was a significant provider of health care for service area residents, including inpatient, emergency services, and outpatient hospital services. For the period 2011-2017, MHRI provided 21.49% service area resident admissions compare to 3.75% for the state, and 37.06% of emergency department visits compared to 6.22% for the state. As shown in Figure 2, MHRI's annual volume of emergency department visits remained consistent throughout the period, even as inpatient admissions declined. On December 1, 2017, RIDOH and MHRI entered into a Consent Agreement stating MHRI would cease providing elective surgeries, surgery, and anesthesia service. This likely affected 2017 volume for both ED visits and hospitalizations. If this agreement had not been entered into, the volume and share for 2017 might have been close to the 30,000-visit level.

**Figure 2: Distribution of Rhode Island emergency department visits and hospitalizations to MHRI, 2011-2017**



Source: Rhode Island Hospital Discharge Data

Qualitative research supported the importance of MHRI to the service area, noting that the hospital provided walkable access to services and was a “welcoming” place. The state’s discharge data does not include outpatient services, but qualitative research indicated that the closure of the hospital affected access to outpatient services, specifically infusion therapy and imaging services.

MHRI was a licensed acute care hospital and a teaching affiliate of the Warren Alpert Medical School of Brown University. With the elimination of MHRI’s license as an acute care facility, 72 graduate medical education (GME) slots were returned to CMS for reallocation. CNE submitted a letter to CMS on October 26, 2018 requesting the MHRI slots (now under Kent Hospital license); CMS responded on May 22, 2019, indicating that CNE was awarded 52 direct medical education (DME) slots. CNE entered into an agreement with The Miriam Hospital to serve as inpatient training site for the residency programs and transferred internal medicine resident slots to Kent Hospital. Residents add to the primary care capacity for the Family Care Center/Internal Medicine Clinic, providing approximately 20% of primary care visits to patients from the service area. Qualitative research indicated the importance of the residency program not only for CNE but also for the supply of primary care providers for the state. Community health centers, in particular, rely on family medicine physicians to serve populations that are more vulnerable.

The service area population is a vulnerable population as demonstrated in utilization of services, health status, and social determinants of health that affect access and health outcomes. These factors would contribute to the long-term impact of the closure and were taken into consideration in formulating the

conclusions and mitigating strategies. A comprehensive health needs assessment is included in the full report and summarized below.

- The service area population had higher rates of emergency room utilization compared to the state, 522 visits per 1000 residents compared to 450 visit per 1000 residents for the state. An analysis of MHRI ED visits by service area residents in 2017 indicated emergency department visits (classified) for the service area population were evenly split between those that were emergent/urgent and those that were primary care treatable or avoidable.<sup>5</sup>
- In 2018, the chronic PQI per 10,000 population in the service area was 119.87 compared to the state at 113.32. In the same year, MHRI service area residents had higher PQI scores than the state for all chronic conditions observed except congestive heart failure. Prevention Quality Indicators (PQI)<sup>6</sup> are used to measure quality of care conditions, since appropriate access and engagement in services can help prevent related hospital admissions; lower rates represent better results. Service area residents are also more likely to smoke and be diagnosed with cancer.
- Opioid-related accidental death rates (per 10,000 residents) were consistently higher for zip code 02860-Pawtucket (3.54) was consistently above the statewide average (2.57)
- Overall, the service area population faced significant barriers to access related to race/ethnicity, language, education, and economic status. In general, the service area population compared to the state are:
  - More likely to be of a racial minority,
  - More likely to identify as Hispanic/Latino, Portuguese, or Cape Verdean, and more likely to speak Spanish.
  - More likely to be uninsured or have public health coverage.
  - More likely to live in poverty, be unemployed, and have less than a high school education.
  - More likely to live in a household without a vehicle.
- Mental health emergency department visits to MHRI increased steadily from 2013 to 2017, with the third highest percentage in 2017.

The closure of MHRI also had an effect on health care service utilization patterns. Qualitative research indicated that those that had used MHRI in the past were less likely to use Kent Hospital given the distance from the service area as well as cultural and language barriers. These findings were supported in the quantitative data on hospitalizations and emergency department visits across the state and for

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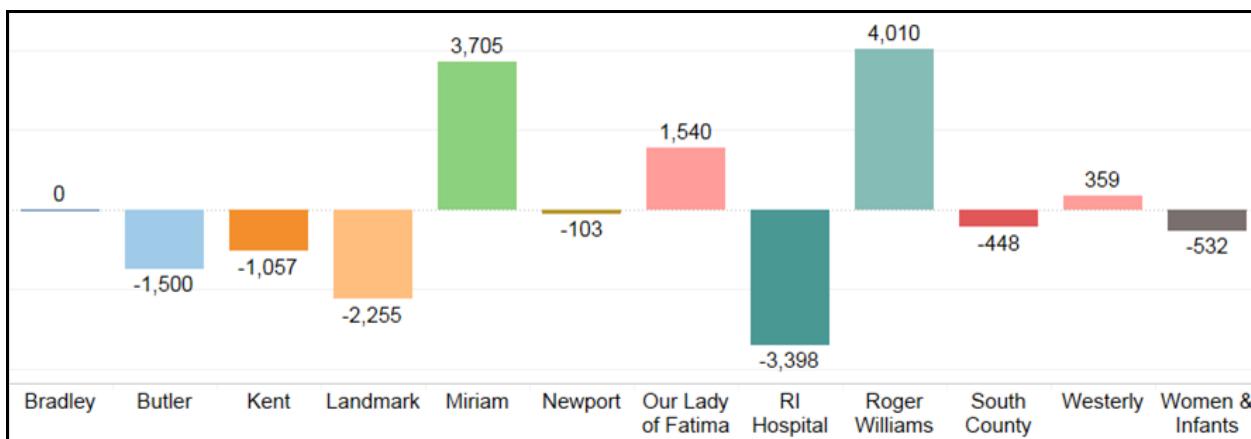
<sup>5</sup>Faculty & Research. (n.d.). Retrieved November 3, 2019, from <https://wagner.nyu.edu/faculty/billings/nyued-background>.

<sup>6</sup> “PQIs are a set of measures that can be used with hospital inpatient discharge data to identify quality of care for “ambulatory care sensitive conditions.” These are conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease. The PQIs are population based and adjusted for covariates.”

[https://www.qualityindicators.ahq.gov/modules/pqi\\_overview.aspx](https://www.qualityindicators.ahq.gov/modules/pqi_overview.aspx)

service area residents. The Miriam Hospital experienced an increase in emergency room visits across all patients in 2018 of 3,705, but an even greater increase in emergency room visits by service area residents of 7,311. The Miriam Hospital had the largest percentage in mental health related emergency department visits during this same period, consistent with the qualitative research which indicated long waiting times at The Miriam Hospital ED due to increased volume and more time required to provide care to patients with co-morbid conditions. Emergency department visits from the service area to Kent Hospital increased by 200 during the same period. The Miriam Hospital also saw an increase in the number of hospitalizations from service areas residents in part due to admissions from higher ED volume, according to qualitative research.

**Figure 3: Difference in number of emergency department visits by hospital from 2017 to 2018**



The full report provides significantly more detailed information on findings from the quantitative and qualitative research.

## Conclusions

The following conclusions are drawn from the synthesis of the findings from the foundational research, from key informant interviews and focus groups, analysis of utilization of health care services pre- and post-closure, and the health needs assessment for the service area population. Data used to inform the conclusions are both quantitative and qualitative, both of which are important for the assessment. JSI used quantitative analysis to confirm qualitative research findings where such data was available. Overall, research findings from qualitative research and quantitative research were consistent, bringing strength to the conclusions. The long-term impact is focused on the impact to the community served by MHRI and health care provider organizations that serve the community. The key conclusions are numbered and outlined below.

- 1. The closure of MHRI removed a “nucleus” of health care services for communities with high healthcare need. Although inpatient utilization had declined over the years, residents continued to use emergency services, hospital outpatient services, and ancillary services located on the MHRI campus.**
- 2. The closure of MHRI emergency department reduced access to emergent/urgent care services for service area residents.**

3. The closure of MHRI emergency department reduced access to primary care services for the service area population and demonstrated the need for enhanced primary care within the service area.
4. The closure of MHRI Emergency Department reduced access to emergency mental health and substance use services for service area population.
5. The closure of MHRI eliminated a teaching facility for Family Medicine Residents and Internal Medicine Residents, leading to reduced number of resident slots allocated by Centers for Medicare and Medicaid (CMS) to CNE. The immediate impact reduced primary care capacity within the Family Care Center/Internal Medicine Clinic, but there is the potential for a greater long-term impact, should the residency program be further cutback or eliminated. Currently, the family medicine residents' training is conducted via a memorandum of understanding between CNE and The Miriam Hospital. Internal medicine residents have mostly been shifted to the Kent Hospital campus.
6. Due to the impact of the closure, the mitigating strategies must take into consideration the findings from the health needs assessment.
7. The health care needs of the community also affected the hospitals that now serve this population, or a greater percentage of this population. The service area population is more likely to be living in poverty, and more likely to have public insurance or be uninsured, resulting in shifts in payer mix for area providers now serving this population.

The overall conclusion is that the closure of MHRI will have long-term impacts on the community and other area providers in the absence of strategies to mitigate those impacts. The following section lays out recommended strategies, informed by the research, as well as health care industry practices, to improve access and health outcomes.

### **Recommended Strategies to Mitigate Impact of MHRI Closure and Primary Care License Transfer**

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These recommended strategies are focused on addressing the long-term impacts of MHRI Closure and Primary Care License Transfer. JSI recommends that these strategies be implemented through a state-led collaborative effort that would bring together key stakeholders, including but not necessarily limited to CNE, RIDOH, major health care providers serving the impacted community, elected officials, insurers, other state agencies, community leaders, the local HEZ, community-based organizations, and philanthropic organizations. Due to the interconnectedness of health care, including the health care market, the needs of the service area residents will be best served through a collaborative approach to address the long-term impact of the MHRI closure.

### **Recommendations**

The following recommendations are intended to be implemented through state-led collaborative efforts. The full report included further details on the recommendations.

1. Provide access to affordable emergent/urgent care that is linked to primary care within the service area.
2. Expand access to affordable, integrated primary care within the service area.
3. Enhance access to affordable substance use disorder/opioid use disorder (SUD/OUD) services for service area residents, with specific focus on zip code 02860-Pawtucket which had a higher rate of opioid death compared to the state and other zip codes within the service area.
4. RIDOH monitor long-term impact through defined measures. RIDOH would take the lead on this action item, continuing monitoring established as part of its approval to CNE.

### **Proposed Action Items for CNE**

The recommendations included specific action items for CNE, as allowed for in the conditions of closure. The proposed action items for CNE are listed below:

1. **Maintain and promote a health care campus at 111 Brewster Street, Pawtucket (former MHRI campus) or other community-supported location that maintains access to affordable primary care and specialty services for the service area population.**
2. **Maintain the Walk-in Clinic (Express Care) on the former MHRI campus or other community supported location and continue to ensure walk-in coverage as defined in the conditions of approval, working in collaboration with local health centers as needed.**
3. **Maintain commitment to charity care for services provided within the service area.**
4. **Maintain arrangement with The Miriam Hospital to retain the Family Medicine/Internal Medicine Residency Program in Pawtucket. Work to maintain at least current number of residency slots (53).**
5. **Maintain at least current level of access to primary care with complement of family medicine residents and internal medicine residents, physicians, physician assistants, and advance practice nurses.**
6. **Maintain integration of primary care and behavioral health, with LCSW on staff at Family Care Center/Internal Medicine Clinic.**
7. **Continue to offer MAT services at the Family Care Center/Internal Medicine Clinic supported by behavioral health counselors, recovery coaches, and other support services provided through CNE's Providence Center programs.**
8. **Enhance specialty medical and surgical clinics on the former-MHRI campus (or other community-supported location) with hours of operation to support need/demand for services. Promote availability of specialty services within the community – both to the general population and medical community.**
9. **Implement culturally appropriate and evidence-based strategies to engage patients in prevention and care management. For example, use community health workers or faith-based organizations to actively engage service area population in preventive care and learning how**

to better manage their chronic conditions through awareness and education and building confidence in their ability to self-manage.

10. Assess the needs of Family Care Center/Internal Medicine Clinic and Walk-in Clinic patients that are experiencing a change in providers and give support as needed to navigate change and support patients in returning to CNE primary care practice post hospitalization and recovery. Employ existing or new staff (counselors, community health workers, and/or patient navigators) to meet this need.
11. Continue to offer transportation for patients residing within the service area that require care at Kent Hospital and need transportation support. Provide transportation for the caregiver to accompany patient, if indicated.
12. Strengthen cultural competency and awareness training for new hires and existing staff throughout the CNE Health System (including but not limited to Women & Infants Hospital and Kent Hospital), taking into consideration the demographics of the service area population.
13. Strengthen hiring practices for the Family Care Center and Internal Medicine Clinic that support hiring qualified candidates that are from the community or reflect the community. Hiring staff from the community will also support investment in workforce development for local community members in health service positions, reducing impact of social determinant of health by supporting employment within the service area population. CNE's efforts in this area should be enhanced by its hiring of a Chief Diversity Officer who will be focused on diversity of staff within CNE as well as improving patient care delivery.
14. Work in collaboration with RIDOH/Health Equity Institute/HEZ to take advantage of their knowledge and engagement with the community.
15. Address impact of social determinants of health on health outcomes and status for the service area population through CNE's community benefits activities.
16. Provide information to RIDOH to support monitoring of the impact of the MHRI closure and meet with RIDOH at least semi-annually to review progress on action items and metrics.

The closure of MHRI will have a long-term impact on the communities of Pawtucket, Central Falls and parts of Cumberland, as well as the health care providers that serve these communities absent the implementation of recommended mitigating strategies. The expected long-term impact is related to a reduction in service capacity as well as health needs and social determinants of health of the communities served by MHRI. Recommended strategies, including both those implemented through state-led collaborations as well as action items taken by CNE, are needed to mitigate the long-term impact and work to restore access to services and improve the health status of the impacted communities.

## I. Introduction

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The Rhode Island Department of Health (RIDOH) approved the request of Care New England Health Systems (CNE) to eliminate the Emergency Department (ED) at the Memorial Hospital of Rhode Island (MHRI) effective January 1, 2018 and to eliminate primary care services under the MHRI license effective January 25, 2018.<sup>7, 8</sup> As a condition of approval, RIDOH would engage a consultant to assess whether additional health services are necessary to protect the health and well-being of Pawtucket and Central Falls most vulnerable populations. The consultant would determine the long-term impacts of the closure of the Emergency Department at MHRI and of the elimination of primary care under MHRI license on the community and on other licensed hospitals and health care providers in the state. CNE shall work in collaboration with RIDOH to implement a plan to remedy such impact. The consultant would provide preliminary findings to RIDOH and would create a full report on findings and how community input was solicited and incorporated into the strategies to address findings of long-term impact. As part of this assessment process, the consultant would conduct a community health needs assessment that includes the following components:

- a. Solicit community input to identify and prioritize community health needs, including collaboration with the Pawtucket and Central Falls Health Equity Zone (HEZ);
- b. Interview subject matter experts to further understand how the elimination of MHRI health services has impacted the community;
- c. Utilize community forums to solicit such input;
- d. Analyze publicly available data to complete this assessment;
- e. Evaluate the impact of any actions that CNE has taken to address any significant unmet health needs since the shuttering of MHRI services;
- f. Assess the social, economic, and environmental determinants of health in the community to determine baseline measures;
- g. Assess CNE and MHRI's efforts to address local social determinants of health and to increase access to high quality, affordable care;
- h. Identify alternative community resources available to address significant unmet health needs;
- i. Identify health disparities, the needs of vulnerable populations, and unmet health needs or gaps in primary care services;
- j. Characterize any changes in referral patterns among health care providers, including the role of community health centers, as applicable;

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<sup>7</sup> Decision for Approval with Conditions from the Director of Rhode Island Department of Health with Respect to the Application of Care New England Health System for Elimination of the Emergency Department at Memorial Hospital of Rhode Island, December 28, 2017.

<sup>8</sup> Decision for Approval with Conditions from the Director of Rhode Island Department of Health with Respect to the Application of Care New England Health System for Elimination of Primary Care under the Hospital Licenses of Memorial Hospital of Rhode Island, January 25, 2017.

- k. Specify if continuity of care has been a major challenge for patients in accessing care;
- l. Identify the marginal changes in the availability of primary care services, pre- and post-closure;
- m. Identify long-term impacts on primary care in the MHRI primary service area in light of the elimination in MHRI services;
- n. Assess and identify the impacts (such as number of patient visits, wait times, etc.) on other Hospital Emergency Departments and inpatient capacity in the state following the closure of the MHRI Emergency Department; and
- o. Develop a set of recommendations and a plan, approved and determined to be reasonable by RIDOH, from the consultancy that CNE may implement going forward to protect the health and well-being of Pawtucket and Central Falls residents.

RIDOH engaged John Snow, Inc., as the consultant to support this effort.

### **About John Snow, Inc.**

John Snow, Inc. (JSI) is a public health and healthcare consulting firm driven by a mission to improve the health and well-being of individuals and communities, particularly those who are vulnerable, struggling with complex conditions, and living in underserved communities. JSI has extensive experience working with government agencies, health plans, health service providers, and community-based organizations of all types to develop and advance models of organizing, financing, and delivering programs that maintain and improve health. Headquartered in Boston, JSI has an established office in Providence, Rhode Island and has a deep understanding of the public health, health care systems, and the communities of Rhode Island. The majority of the JSI project team members live in Rhode Island and work in the JSI Rhode Island office.

## **II. Project scope and technical approach**

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The primary goal of the project is to assess the long-term impacts on the community and health care providers related to the closure of MHRI, including the elimination of the Emergency Department at MHRI and elimination of primary care services under MHRI's license.<sup>9</sup> The research and analysis focused on the health care and health of the affected communities and the health care providers that serve them, and other licensed hospitals and health care providers in the state.

JSI conducted the research and analysis needed to assess the long-term impacts on the community and health care providers related to the elimination of the Emergency Department at MHRI and elimination of primary care services under MHRI licenses. The research and analysis focused on the health care and health of the affected communities and the health care providers that serve them. The assessment also took into consideration RIDOH's immediate and short-term conditions of approval placed on CNE, for example, transportation, financial support for emergency services, etc. JSI's approach for completing the scope of work is presented below. In completing the project, JSI worked in close collaboration with

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<sup>9</sup> The license was transferred to Kent Hospital, a CNE-owned hospital located in Warwick, Rhode Island.

RIDOH through the MHRI Closure Impact Assessment Steering Committee (the Steering Committee). The Steering Committee included representatives from RIDOH, and members of the JSI team. A list of Steering Committee members is included as an Appendix A. The Steering Committee met regularly throughout the project to identify data sources, confirm and coordinate on stakeholder interviews and focus groups, review and discuss interim quantitative and qualitative findings, review interim and final plans, and review deliverables. In addition, JSI and RIDOH leadership reviewed preliminary findings with CNE and other key stakeholders.

JSI used a mixed methods approach that included both qualitative and quantitative data collection and analysis, using both secondary data (quantitative and qualitative) and primary data (key informant interviews, focus groups). The analysis was completed in two distinct but related components – foundational research and impact analysis, including community health needs assessment and access to health care services.

## A. Foundational research

The foundational research met several objectives:

- Defined the geographic areas and population groups potentially most impacted by the closure/elimination of services;
- Defined the inpatient facilities and other area providers potentially most impacted by the closure/elimination of services;
- Identified potential issues to be included in key informant interviews and initial set of interviewees; and
- Identified potential issues to be explored through community focus groups and defined the composition of focus groups.

JSI's approach to foundational research included the following:

- Critically reviewed and obtained contextual information from CNE's application for closure, RIDOH's decisions with conditions, and transcripts from the community forums held regarding the closure.
- Conducted quantitative analysis to define MHRI's geographic service area and populations most impacted by MHRI's closure, using patient origin studies of MHRI-specific discharge data. JSI analyzed utilization data from 2011 through 2017 (wherever possible) to identify trends and any significant shifts pre- and post-closure.
- Conducted initial interviews with senior executive staff of Care New England (CNE) and local officials.
- Reviewed relevant reports, including the Rhode Island Coordinated Health Planning Project, Final Report (2013), produced by the Lewin Group for the Health Care Planning and Accountability Advisory Council, that studied inpatient capacity for the State of Rhode Island.

Findings from the foundational research were used to inform the context and content for the community health needs assessment and long-term impact assessment, outlined in the following section.

## **B. Community health needs assessment, changes in utilization patterns and access to services**

### ***Qualitative research***

JSI used qualitative research to gather input directly from the community, health care providers, industry experts, and other key stakeholders. JSI utilized two primary methods in our qualitative research: key informant interviews and focus groups.

JSI conducted key informant interviews with key stakeholders and subject matter experts that have a strong understanding of the communities and health care delivery system at the local, state, and regional levels. JSI used individual or small group interviews. The majority of the key informant interviews were conducted in-person; telephone interviews were used when schedules did not allow for in-person interview or for follow up. In general, interviews were conducted using a semi-structured interview guide; however, tailored guides were used for CNE and for the Health Equity Zone (HEZ). Members of the Steering Committee informed the selection of key informants (organizations and individuals) and assisted with securing interviews. Key informants included representatives from health care provider organizations, state and local agencies, elected officials, community leaders, health plans, advocacy organizations, trade associations, and community service organizations. A list of interviewees and the interview guides are provided in the Appendix E.

JSI conducted key informant interviews with a broad spectrum of stakeholders including individual physicians, hospital representatives, medical groups, health plans, as well as local government officials, community-based organizations and health industry advisors. Topics for the interviews included discussing prior relationships with MHRI before the closure, adjustments after the closure, perceived greatest health and non-health related impacts of the closure, greatest needs for the community, strategies for mitigating impacts, and measures/indicators for on-going evaluation of the impact long-term. Several interviews were conducted with CNE over the course of the project. An initial interview was conducted with Dr. Finale, CEO, followed by two site visits to the Family Care Center / Walk-in Clinic / Internal Medicine Clinic on the former MHRI campus. The site visits included interviews with management staff, walk through of the facility, and gathering of data. Further discussions were held with CNE to present preliminary findings and obtain additional information/clarification to support the study.

JSI conducted a group interview (round-table discussion) with organizational representatives of the Pawtucket and Central Falls Health Equity Zone (HEZ). A HEZ-specific interview guide was used to obtain their member organizations' perspectives on MHRI's role in the community, impacts of the closure, response or adjustments from the community or organizations, strategies to mitigate impact, and recommendations for organizations and individuals to connect with for community focus groups. In addition, JSI explored, with the HEZ members, the impact on the residents living with the communities served by MHRI.

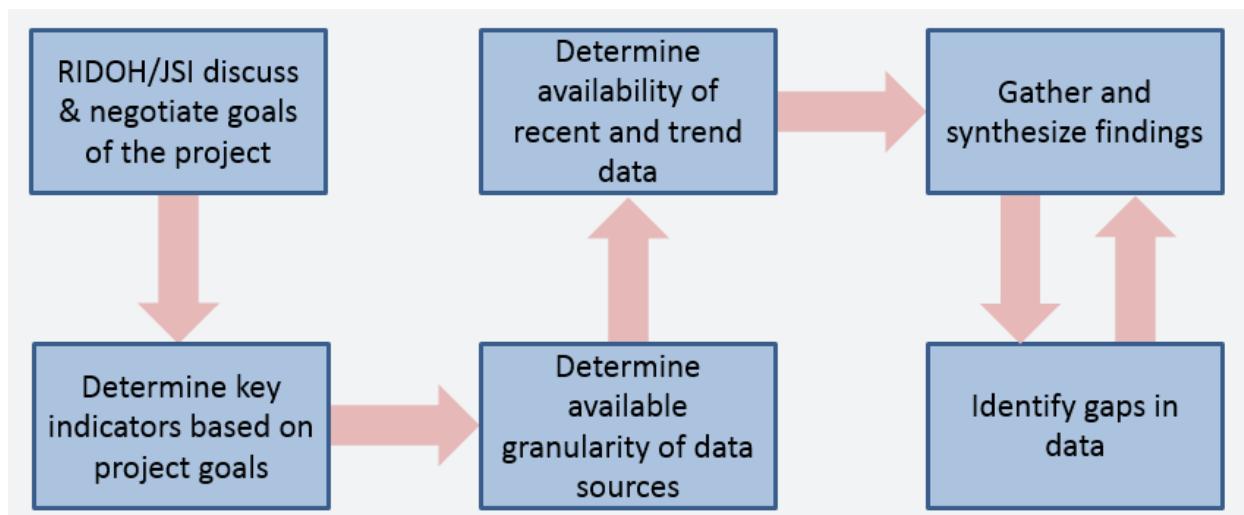
JSI used focus groups to solicit input directly from the community that was served by MHRI as well as community health workers that work with the target populations. Focus groups were used to explore impact at the individual level – directly from consumers and community health workers that serve the impacted communities. Five community focus groups were conducted – two with Pawtucket residents (one conducted in English and one in Spanish), two with Central Falls residents (one conducted in English and one in Spanish), and 3) one with community health workers (CHWs) that serve residents of these communities. Focus groups were held at locations known to participants and participants were provided a gift card for their participation. Participants included those that had used or whose family members had used services on the MHRI campus. Details on focus group locations, etc. and moderator's guide are included in Appendix E.

Qualitative data analysis was an iterative process starting at data collection that was guided by both deductive and inductive data approaches, whereby some codes, categories, or themes were preconceived and organized using the questions as a foundational point of analyses. Other themes were drawn directly from the data. JSI evaluators debriefed after every focus group to identify preliminary themes and potential "codes" occurring across the groups. Focus group notes were reviewed in detail to confirm the initial themes identified as well as identify new ones. Themes that were consistent across groups and those that were found to be specific to one group were identified. Key informant interviews were summarized similarly for themes across individuals. Codes were created and continually refined throughout the data analysis process. The JSI team as a whole reviewed and discussed codes to resolve any inconsistencies and differences in perspective.

#### *Quantitative analysis*

JSI conducted quantitative analyses in three major areas: 1) demographic and health status data for residents in the defined service area, 2) utilization of health care services pre-and post-closure, and 3) emergency medical services (EMS) data for the defined service area. The quantitative methodology is illustrated in Figure 1.

**Figure 1: Quantitative methodology logic model**



## **Demographic and health status data analysis**

JSI conducted an analysis of demographic and health data for the defined service area. The following data scan addresses various factors including access and barriers to services, social determinants of health, and select health indicators. JSI worked closely with the Steering Committee to confirm the goals of the project and develop a list of relevant indicators drawing from existing and trusted sources of data, including US Census, RIDOH Hospital Discharge Data, RIDOH ED Visit Database, and Behavioral Health Risk Factor Surveillance System (BRFSS).

Where available, service area data are presented at the individual ZCTA level (02860-Pawtucket, 02861-Pawtucket, 02863-Central Falls, and 02864-Cumberland) or combined as one service area, as appropriate. In the case of BRFSS data, data are not available at the ZCTA level, but they are available for those cities which are part of the 500 Cities<sup>10</sup> project in the United States through the Centers for Disease Control and Prevention (CDC), the Robert Wood Johnson Foundation, and the CDC Foundation's 500 Cities project. As Pawtucket is part of this project, BRFSS data are presented for Pawtucket.

All data are benchmarked to the State of Rhode Island, as available. Data are also benchmarked to Providence and Woonsocket in data visualizations when that data is available, since Pawtucket and Central Falls are two (2) of four (4) core cities in Rhode Island, the other two (2) core cities being Providence and Woonsocket. However, data are not benchmarked to Providence and Woonsocket in the report narrative. Core cities are cities where the child poverty level is greater than 15%. When available, confidence intervals are provided. Appendix C provides demographic and social determinates of health (SDOH) databook.

The data scan was further informed by consumer focus groups and key informant interviews with local health experts as described below.

## **Utilization trends**

JSI worked closely with the RIDOH Center for Health Data and Analysis (CHDA) to define data sources and prepare data analysis structure. The primary care data source was the Rhode Island Hospital Discharge Data Set that provides inpatient and emergency department data. CHDA prepared the analyses for JSI based upon the analysis structure, including:

- Patient origin study for MHRI prior to closure;
- Hospitalizations and emergency department visits by hospital pre-and post-closure;
- New York University (NYU) algorithm to classify emergency department visits for MHRI prior to closure;
- Prevention Quality Indicator (PQI) scores for service area residents.

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<sup>10</sup> CDC, the Robert Wood Johnson Foundation, and the CDC Foundation have developed the 500 Cities project to provide select health data estimates for some cities, including Pawtucket, Providence, Cranston, and Warwick in Rhode Island. <https://www.cdc.gov/500cities/index.htm>

Statewide data for outpatient services are not readily available for analysis. Consideration was given to using the All Payer Claims Database (APCD) as a source of data, but given concerns with the integrity of the data and the time and resources needed to conduct the analysis, the APCD was not considered a usable data source. Instead, JSI obtained data directly from CNE or from other key informants. Appendix B provides utilization databook.

### **Emergency Medical Services (EMS)**

The analysis of EMS data focused on the impact of closure on EMS services in the defined service area, mostly related to volume and average trip times. RIDOH EMS uses the National EMS Information System (NEMSIS) and provided NEMSIS data to JSI for relevant data elements for the service area. NEMSIS data was available for one year prior to closure (2017) and one year post-closure (2018) within the study period. JSI imported the data files and analyzed the data using SAS (see Appendix D)

## **III. Research findings**

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### **A. Impacted community (service area)**

JSI used MHRI utilization data from 2011 to 2017, provided by RIDOH's CHDA, to determine the service area at the ZIP code level.

JSI, with input from the Steering Committee, defined the service area to include communities served by the former MHRI. Figures 2 and 3 show that four ZIP codes of patient residence rose to the top: 02860 (Pawtucket), 02861 (Pawtucket), 02863 (Central Falls), and 02864 (Cumberland). In 2017, patients from each of these individual ZIP codes made up 7% or greater hospitalizations and 4% or greater ED visits. The percentages from other zip codes dropped considerably, creating a natural "cut-line" for the zip codes to be included in the impacted area, referred to as the service area.

The Steering Committee chose to include ZIP code 02862 (Pawtucket) in the service area, though residents of this ZIP code made up a small percentage of MHRI utilization, for three reasons:

1. MHRI was located in the city of Pawtucket, leading the Steering Committee to conclude that all ZIP codes in the city should be included in analysis.
2. JSI employed American Community Survey (ACS) data to complete the service area demographic scan. Rather than ZIP codes, the ACS uses ZIP Code Tabulation Areas (ZCTA), which often align with ZIP codes. In the case of the MHRI service area, ZCTAs and ZIP codes do not completely align; the 02862-Pawtucket ZIP code is rolled up into the 02860-Pawtucket ZCTA, as shown in the service area, defined by through foundational research by the Steering Committee, in Figure 4. The 02862-Pawtucket ZIP code cannot be excluded from ACS data. For consistency, it needed to be included in other data where available.

As it represents the mostly commercial downtown area of Pawtucket, the ZIP code 02862 has a tiny population, which would mean that even if every resident utilized MHRI, the ZIP code may not appear among the top utilizing ZIP codes.

**Figure 2: Spread of Memorial Hospital of Rhode Island hospitalizations by ZIP code and year, 2011-2017**

	2011 n=6,670	2012 n=6,207	2013 n=5,160	2014 n=5,005	2015 n=4,778	2016 n=3,960	2017 n=2,669
Pawtucket - 02860	29.34%	28.34%	28.00%	29.37%	27.94%	27.83%	29.49%
Pawtucket - 02861	18.88%	19.14%	18.99%	19.00%	17.43%	17.75%	20.87%
Central Falls - 02863	12.01%	11.16%	10.72%	10.07%	11.26%	11.72%	11.09%
Cumberland - 02864	7.53%	8.26%	7.60%	7.79%	8.04%	6.92%	7.04%
Lincoln - 02865	2.47%	2.45%	1.98%	1.76%	2.57%	2.17%	2.14%
Attleboro, MA - 02703	1.95%	1.24%	1.86%	1.88%	1.90%	1.89%	2.02%
East Providence - 02916	2.38%	2.82%	2.05%	1.94%	1.72%	1.87%	1.80%
East Providence - 02914	2.74%	2.79%	2.46%	2.66%	2.93%	2.65%	1.80%
North Providence - 02904	1.66%	1.79%	2.25%	2.62%	1.90%	1.54%	1.69%
Seekonk, MA - 02771	1.95%	1.77%	1.76%	1.70%	1.13%	2.07%	1.50%
Pawtucket - 02862	0.07%	0.21%	0.06%	0.06%	0.13%	0.03%	0.26%
All Others	19.01%	20.03%	22.27%	21.16%	23.04%	23.56%	20.31%

Source: Rhode Island Hospital Discharge Data

**Figure 3: Spread of Memorial Hospital of Rhode Island emergency department visits by ZIP code and year, 2011-2017**

	2011 n=30,562	2012 n=31,479	2013 n=31,334	2014 n=29,468	2015 n=29,216	2016 n=30,591	2017 n=26,834
Pawtucket - 02860	37.09%	37.38%	37.29%	37.76%	37.73%	37.49%	39.19%
Central Falls - 02863	15.63%	15.76%	15.89%	16.02%	17.25%	17.64%	17.72%
Pawtucket - 02861	17.21%	17.50%	17.68%	17.32%	16.75%	16.53%	15.86%
Cumberland - 02864	5.74%	5.43%	5.52%	5.22%	4.93%	4.30%	4.05%
East Providence - 02914	2.26%	2.06%	2.20%	2.21%	2.12%	1.96%	1.88%
East Providence - 02916	1.86%	1.93%	1.87%	1.97%	1.81%	1.65%	1.66%
North Providence - 02904	1.65%	1.51%	1.61%	1.71%	1.62%	1.58%	1.62%
Providence - 02909	1.09%	1.17%	1.09%	1.12%	1.00%	1.20%	1.23%
Lincoln - 02865	1.97%	1.71%	1.78%	1.54%	1.49%	1.26%	1.17%
Attleboro, MA - 02703	1.38%	1.24%	1.21%	1.13%	1.19%	1.02%	1.01%
Pawtucket - 02862	0.20%	0.20%	0.11%	0.15%	0.12%	0.10%	0.15%
All Others	13.91%	14.11%	13.74%	13.84%	13.99%	15.27%	14.44%

Source: Rhode Island Hospital Discharge Data

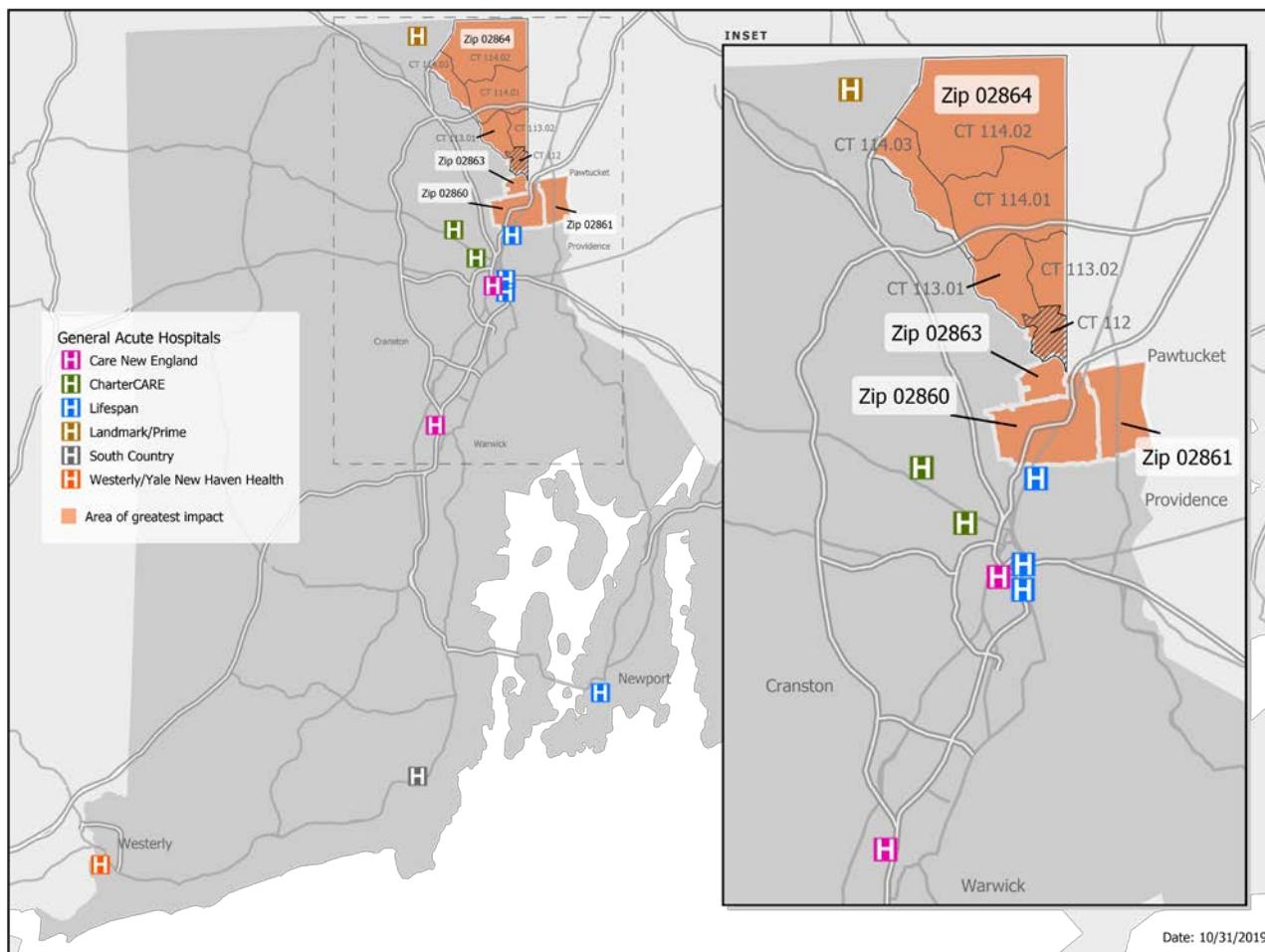
**Figure 4: Target service area as defined by ZIP codes and ZIP code tabulation areas**

ZIP Codes	ZIP Code Tabulation Areas	City
02860	02860	Pawtucket
02861	02861	Pawtucket
02862	02860 <sup>11</sup>	Pawtucket
02863	02863	Central Falls
02864	02864	Cumberland

<sup>11</sup> ZCTA 02860 includes ZIP codes 02860 and 02862. <https://www.udsmapper.org/zcta-crosswalk.cfm>

The results of the patient origin study were used to define the communities most impacted by the closure of MHRI, referred to as “the service area” for purposes of this impact analysis. The service area is presented in the map shown as Figure 5. (Note: the rationale for identifying census tract 112 is discussed later in this report).

**Figure 5: Impact study service area map**



## B. Community health needs assessment

The scope of work for the long-term impact analysis included a community health needs assessment. The community health needs assessment looks at socio-ecological factors that affect individual's access to health care service and health status. Socio-economic factors include those that have a direct impact on access to services, such as health insurance coverage, as well as social determinants of health. Social determinants of health (SDOH) are the conditions in which people live, work, learn, and play.<sup>12</sup> SDOH,

<sup>12</sup> Centers for Disease Control and Prevention, “Social Determinants of Health: Know What Affects Health,” Centers for Disease Control and Prevention website, <https://www.cdc.gov/socialdeterminants/>, January 29, 2018.

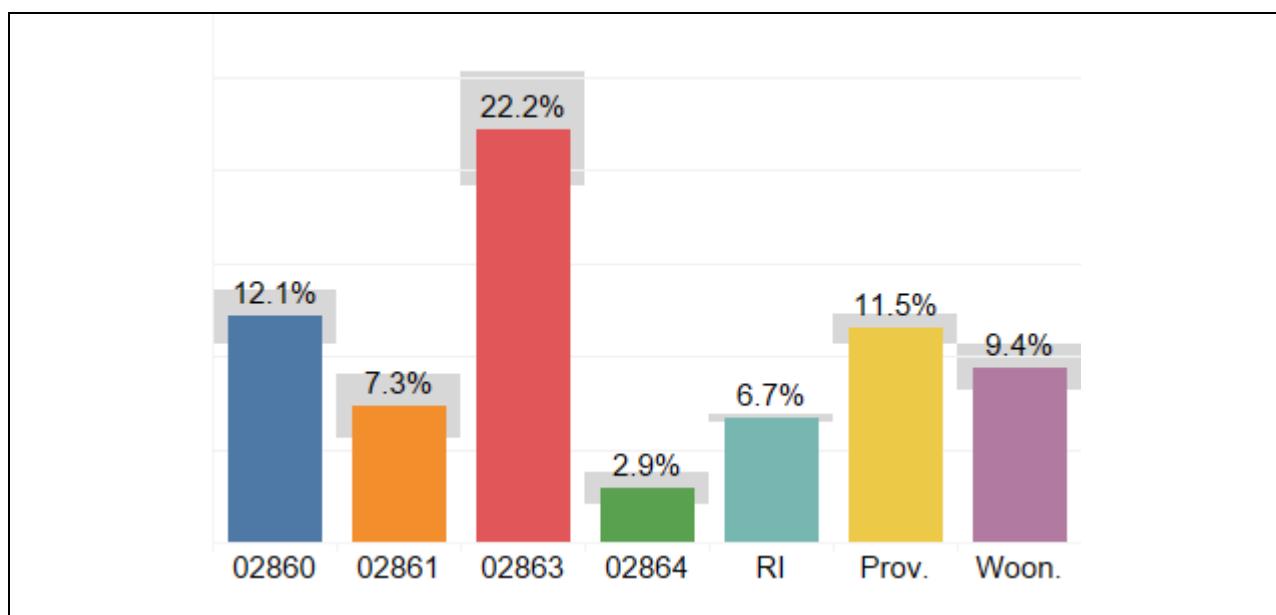
such as living in poverty, facing racial barriers, or lack of transportation, can also affect individual's access to health care services as well as ability to have good health.

In this section, socio-economic data are provided by ZCTA for the service area (see Figure 4 and Figure 5). Unless otherwise noted, data are from the ACS and findings will be presented by ZCTA. In general, the service area population tends to have different demographics and experience different social determinants of health than the state's population as a whole.

### Health insurance coverage

Health insurance coverage is a critical factor for accessing health care services. More than one in five (22.2%) residents of 02863-Central Falls have no health insurance coverage. In 02860-Pawtucket, the percentage is 12.1. These figures are statistically high compared to the state (6.7%). At 7.3%, the percentage of the population in 02861-Pawtucket without insurance is not statistically different from the state, and the percentage of the population in 02864-Cumberland without insurance (2.9%) is statistically low compared to the state. See Figure 6.

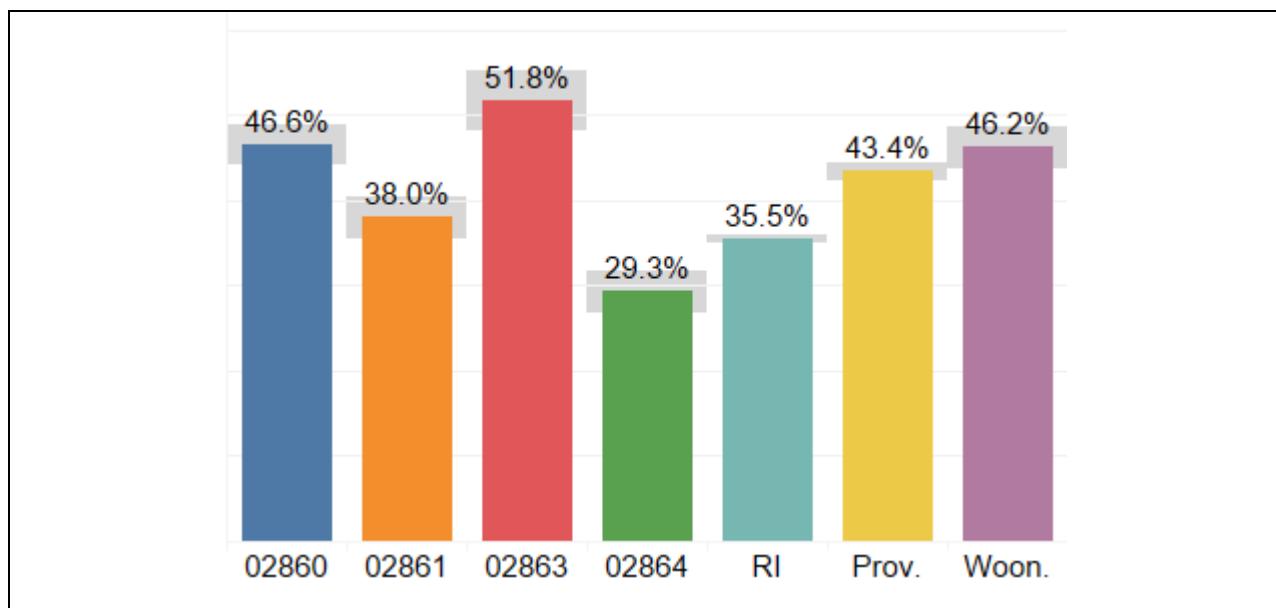
**Figure 6: Percentage of population without health insurance coverage, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

More than half (51.8%) of the 02863-Central Falls population and almost half (46.6%) of the 02860-Pawtucket population has public health insurance coverage, which is statistically high compared to the state at 35.5%. The percentage of the 02861-Pawtucket population, at 38.0%, with public health insurance coverage is not statistically different from the state, and the percentage of the population in 02864-Cumberland (29.3%) is statistically low in comparison. See Figure 7.

**Figure 7: Percentage of population with public health insurance coverage, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

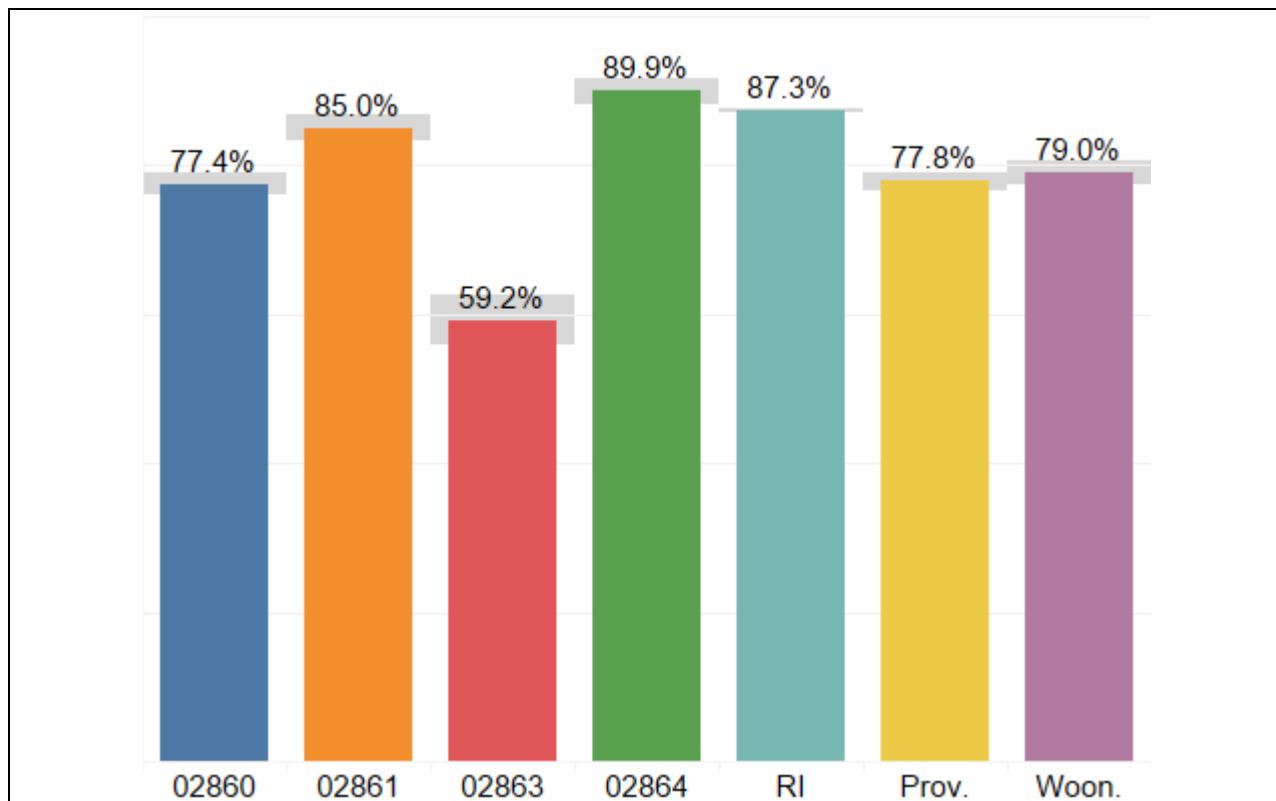
### **Education and income**

The service area population is less likely to graduate high school and more likely to have low incomes and be unemployed.

Higher education is associated with improved health outcomes and social development at the individual and community levels.<sup>13</sup> With the exception of 02864-Cumberland (89.9%), all areas had a statistically low percentage of people with a high school diploma compared to the state (87.3%). The area with the greatest to lowest percentage of people with a high school diploma is as follows: 02861-Pawtucket (85.0%), 02860-Pawtucket (77.4%), 02863-Central Falls (59.2%). See Figure 8.

<sup>13</sup> Zimmerman, Emily B., Woolf, Steven H., and Haley, Amber. "Understanding the Relationship Between Education and Health." *Institute of Medicine*, June 2014, <https://nam.edu/wp-content/uploads/2015/06/BPH-UnderstandingTheRelationship1.pdf>.

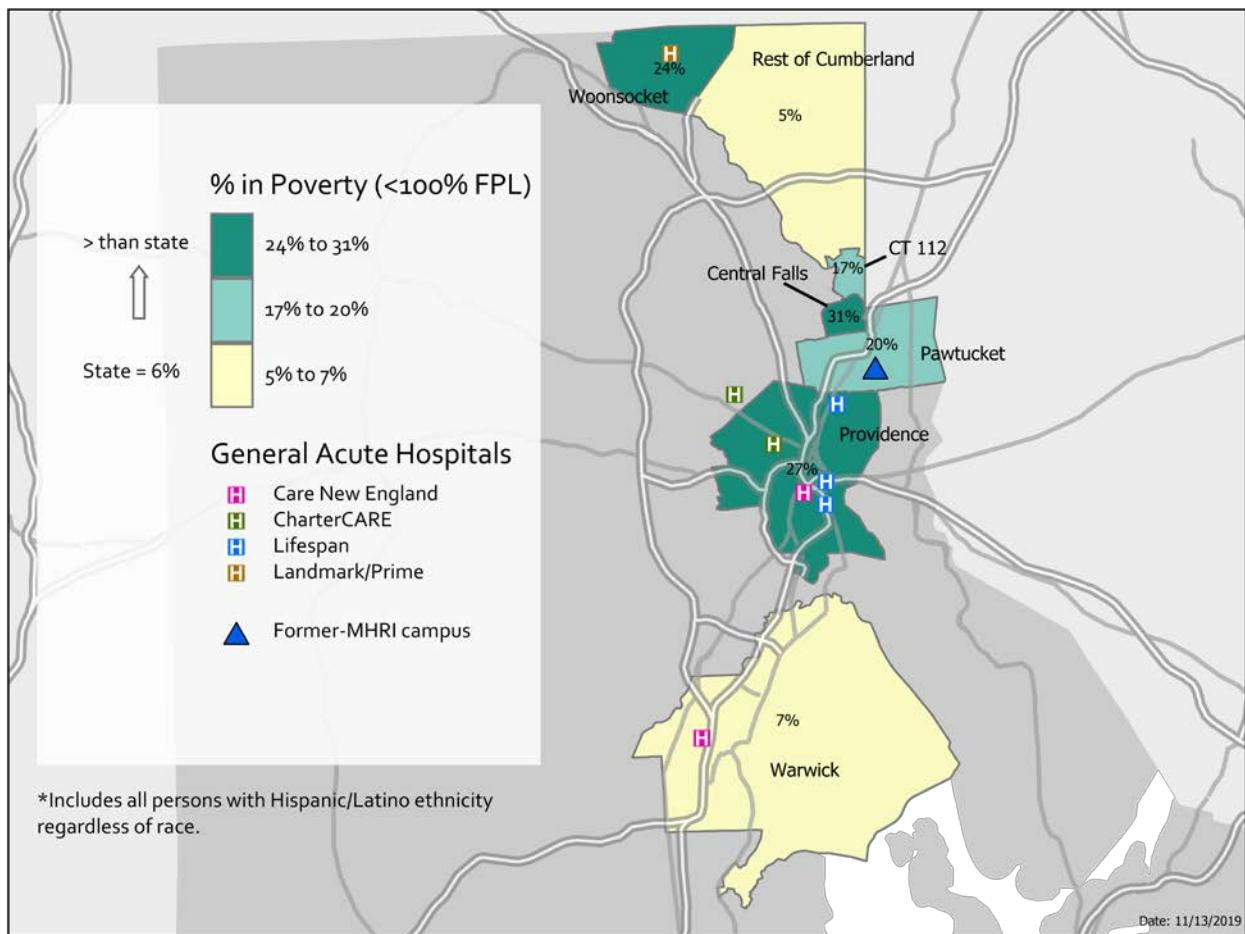
**Figure 8: High school graduation rates, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

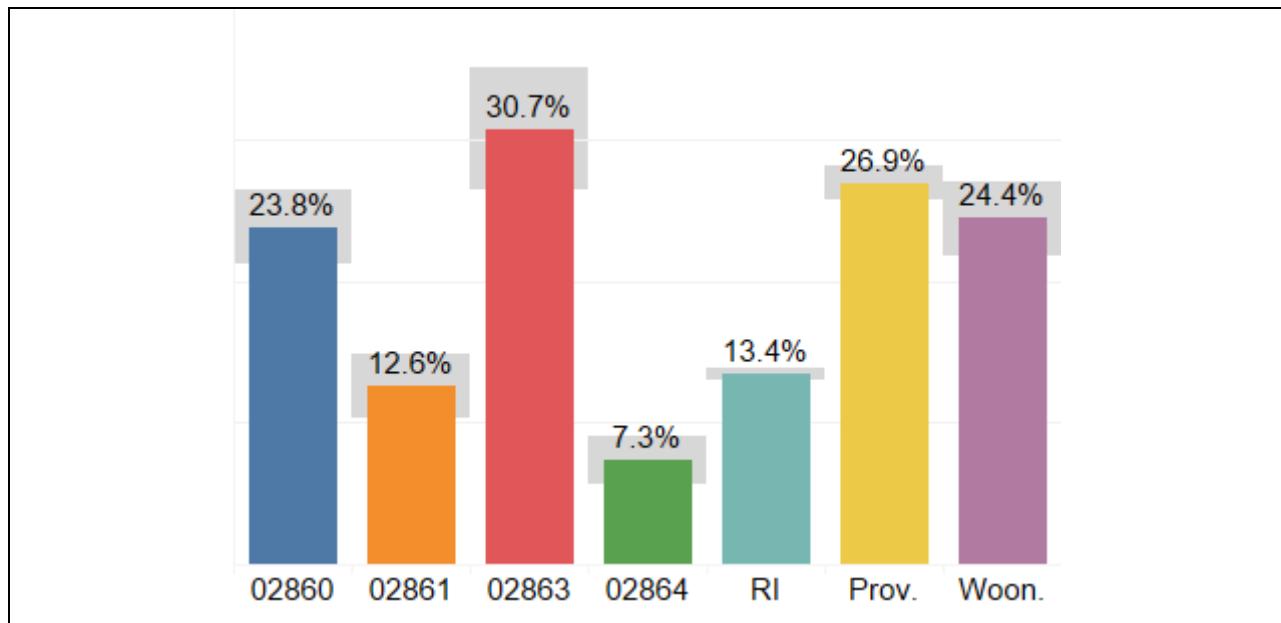
The connections between poverty and health status are well documented. Within the service area, 23.8% of the population in 02860-Pawtucket and 30.7% of the population in 02863-Central Falls had an income below the federal poverty level (FPL) in the last 12 months, compared to the state at 13.4%. These differences from the state are statistically significant. See Figure 8 and Figure 9. These figures display the same data represented in chart and map forms. For the state, 18.9% of people under 18 had a family income below the FPL, which was not statistically different from 02861-Pawtucket (18.5%). Child poverty (under age 18) in ZCTAs 02860-Pawtucket (36.2%) and 02863-Central Falls (41.5%) are statistically high compared to Rhode Island. See Figure 11. In 02864-Cumberland, the percentage of people (7.3%) and children (11.0%) living in poverty was statistically low compared to all other areas observed.

**Figure 9: Percentage of population whose income in the past 12 months is below the poverty level, 2017**



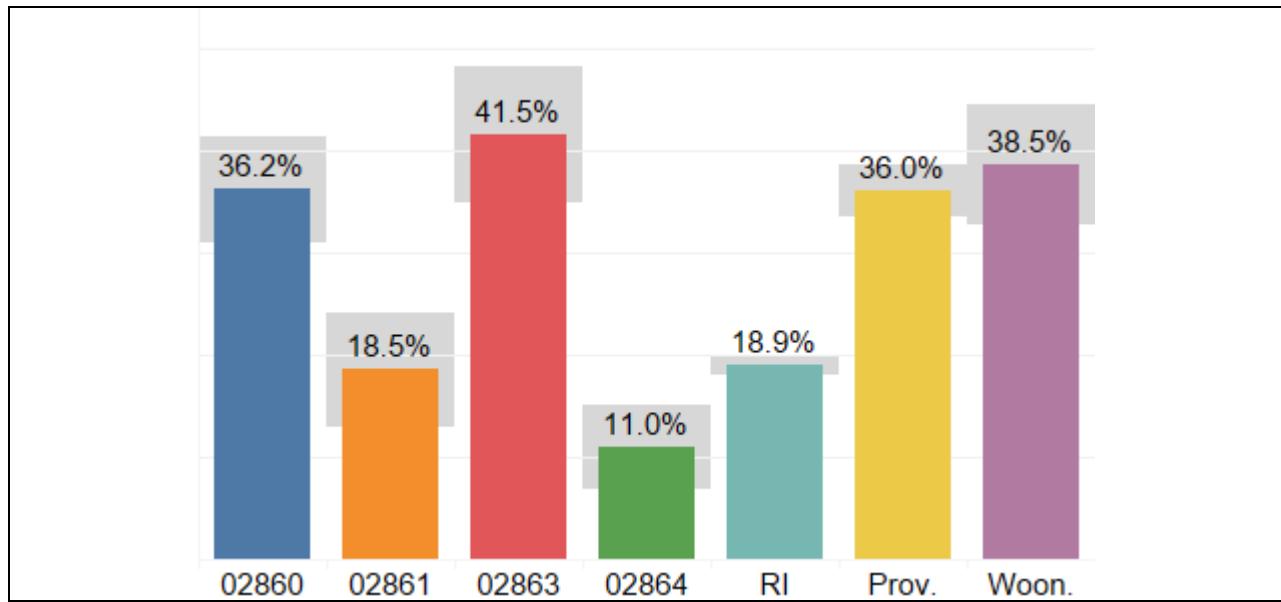
Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

**Figure 10: Percentage of Population whose income in the past 12 months is below the poverty level, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

**Figure 11: Percentage of population under 18 whose family's income in the past 12 months is below the poverty level, 2017**

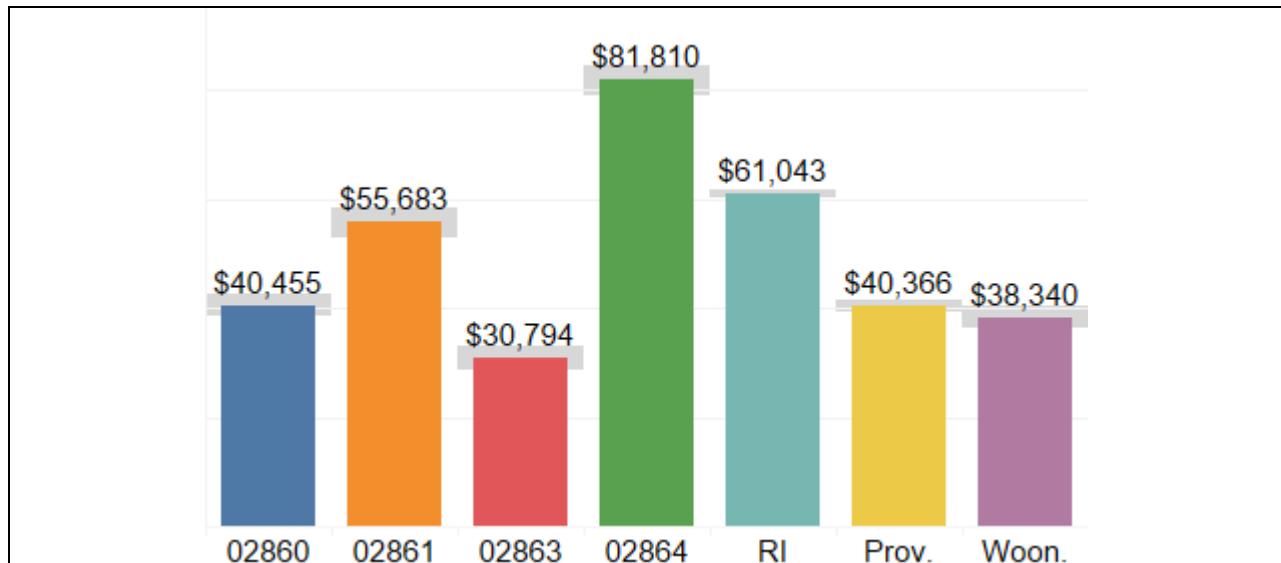


Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

In 02864-Cumberland, median household income (\$81,810) was statistically high and unemployment rate (3.0%) was statistically low, compared to all other areas. The median household incomes in 02861-Pawtucket (\$55,683), 02860-Pawtucket (\$40,455), and 02863-Central Falls (\$30,794) were statistically low compared to the state (\$61,043). See Figure 12. The unemployment rates in 02860-Pawtucket

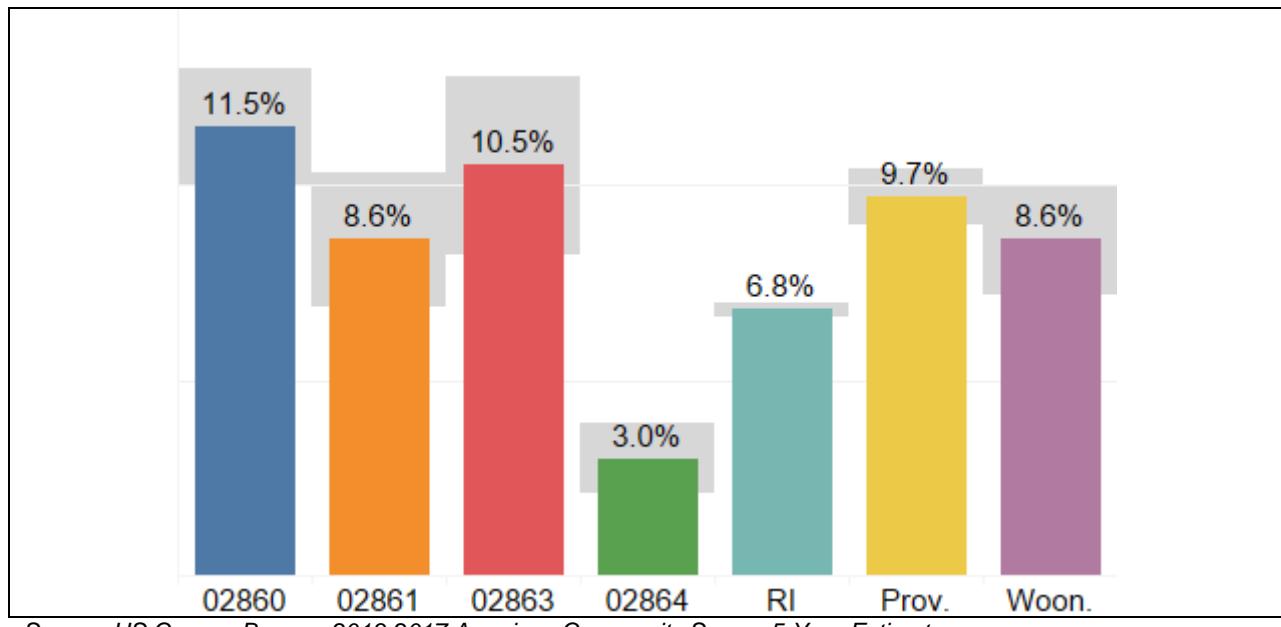
(11.5%) and 02863-Central Falls (10.5%) are statistically high compared to the state (6.8%). The rate in 02861-Pawtucket (8.6%) is not statistically different from the state. See Figure 13.

**Figure 12: Median household income in the past 12 months (in 2017 inflation-adjusted dollars), 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

**Figure 13: Unemployment rate for population 16+, 2017**

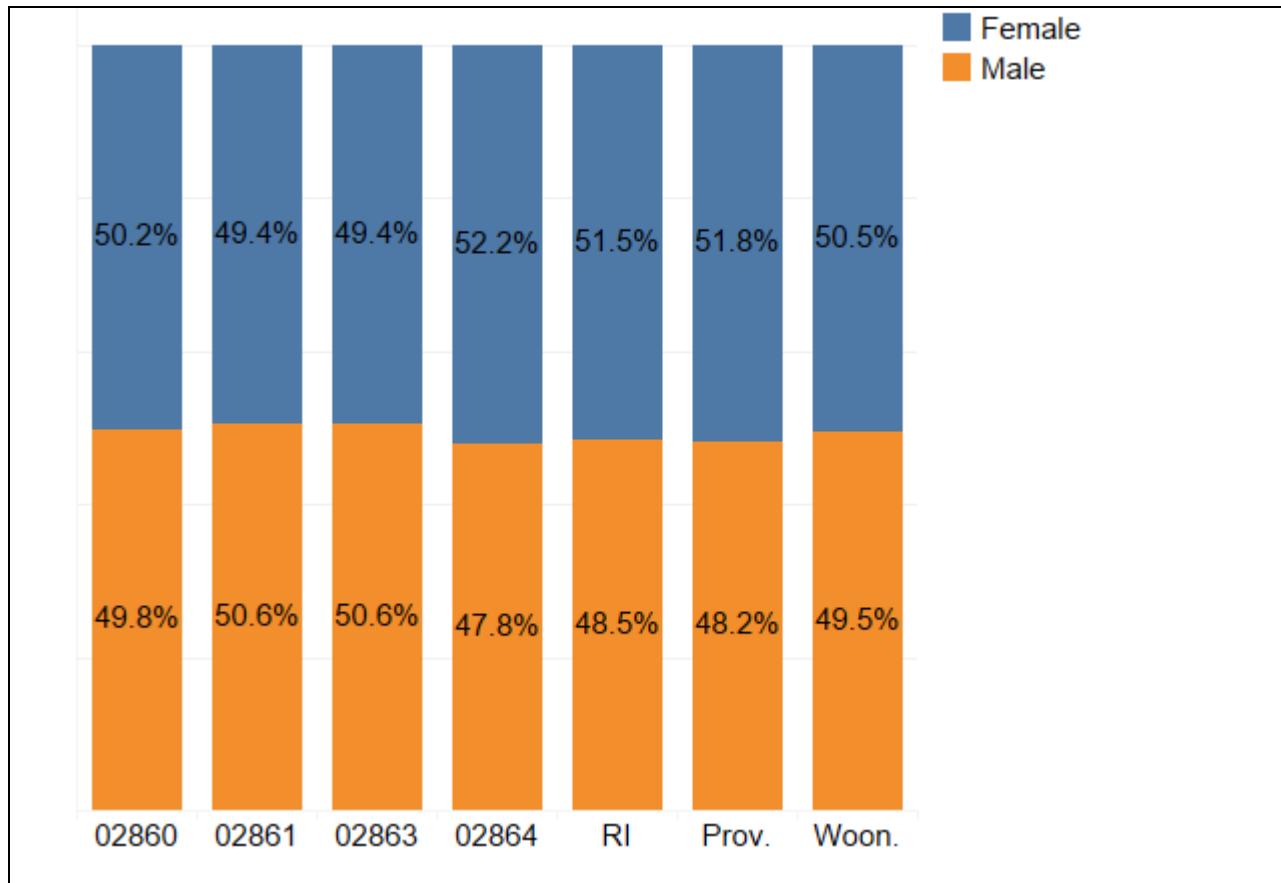


Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

## Age and sex

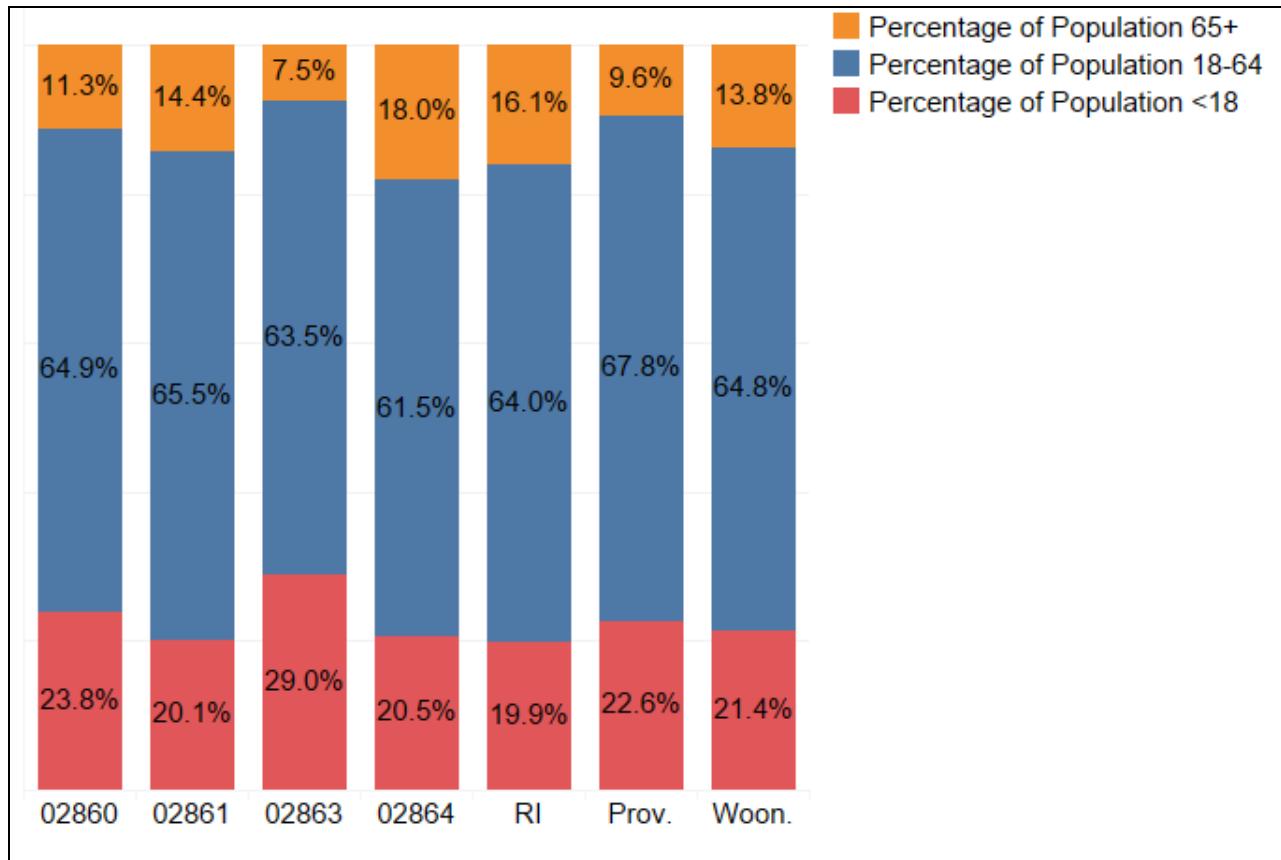
The service area population does not appear different from the state when looking at sex of the population, with about half reporting being male and about half reporting being female. See Figure 14. The service area population does appear to be slightly younger, with the exception of 02864-Cumberland (18.0% 65-plus population). In Rhode Island, about 16.1% of the population is 65-plus, compared to 14.4% in 02861-Pawtucket, 11.3% in 02860-Pawtucket, and 7.5% in 02863-Central Falls. See Figure 15.

**Figure 14: Percentage of population by sex, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

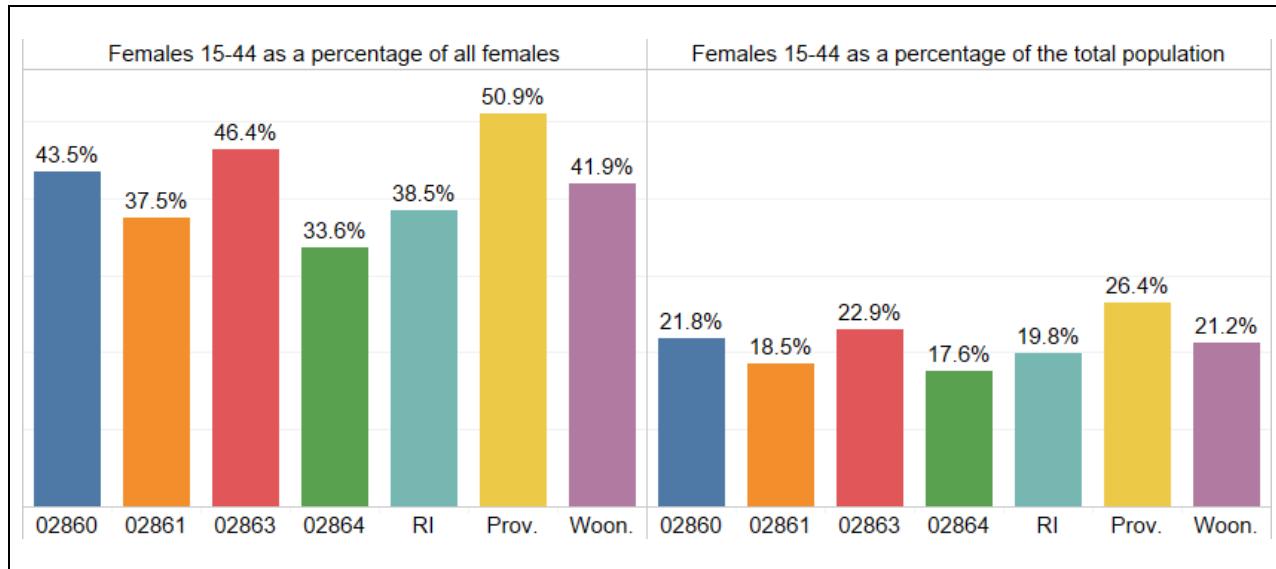
**Figure 15: Age distribution, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

There appears to be a greater percentage of the total population that are women of childbearing age in 02860-Pawtucket (21.8%) and 02863-Central Falls (22.9%) compared to the state (19.8%), 02861-Pawtucket (18.5%), and 02864-Cumberland (17.6%). See Figure 16.

**Figure 16: Percentage of women of childbearing age, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

### Race<sup>14</sup>, ethnicity<sup>15</sup>, and language

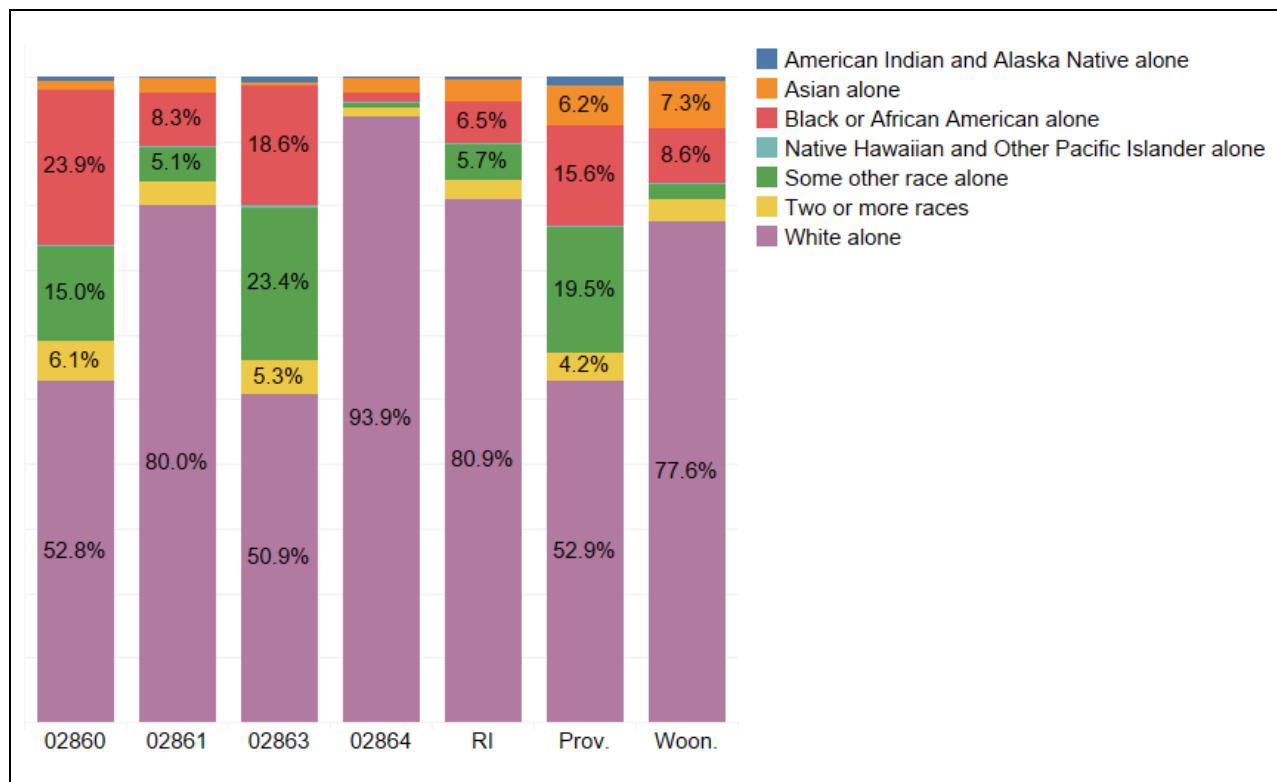
An extensive body of research illustrates the health disparities and differences in health care access and utilization that exist for racial/ethnic minorities and foreign-born populations.

According to the ACS, the state (80.9%) and 02861-Pawtucket (80.0%) have similar percentages of the population who reported being White. A greater percentage of people in 02864-Cumberland (93.9%) reported being White, and a smaller percentage of people in 02860-Pawtucket (52.8%) and 02863-Central Falls (50.9%) reported being White. At 23.9%, 02860-Pawtucket had the greatest percentage of population reporting being Black, followed by 02863-Central Falls, at 18.6%. The smallest percentage of people reporting being Black was in 02864-Cumberland (1.4%), followed by 02861-Pawtucket (8.3%). The statewide percentage was 6.5%. See Figure 17.

<sup>14</sup> Categories for race include American Indian and Alaska Native, Asian, Black or African American, Native Hawaiian and Other Pacific Islander, and Other. Ethnicity is not a factor in race categories.

<sup>15</sup> Ethnicity captures Hispanic/Latino heritage regardless of race.

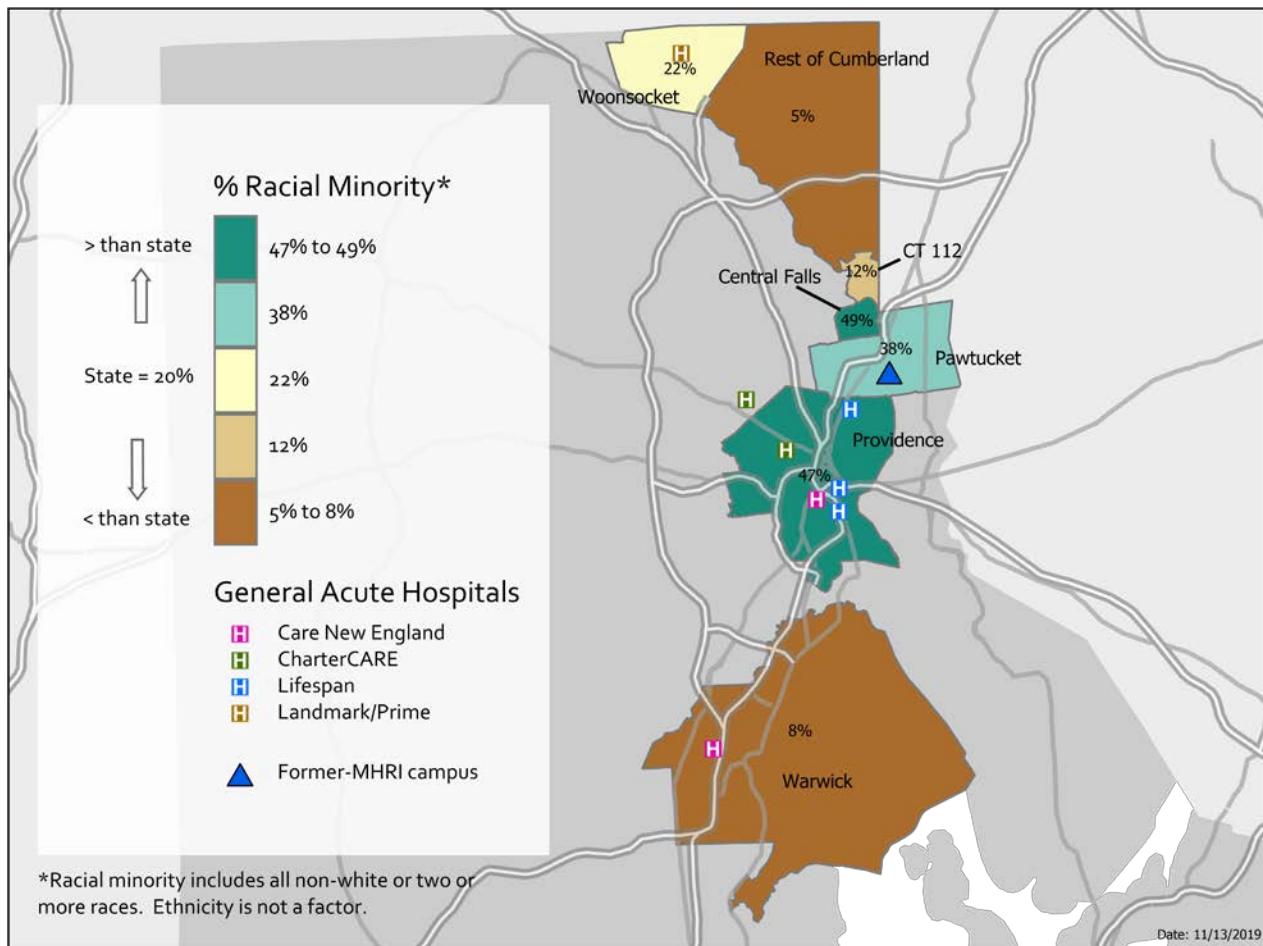
**Figure 17. Race distribution by residence location, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

The map shown in Figure 18 shows the distribution of minority population for the service area as well as Providence, Woonsocket, and Warwick for comparative purposes. This represents the same data shown in Figure 17 above, except that race categories are grouped into two categories: 1) white alone and 2) all non-white or two or more races. Pawtucket and Central Falls have greater percentages of minority population compared to the state overall. Central Falls also has a greater percentage compared to Providence. Warwick and Cumberland are both well below the state average; Census tract 112 in Cumberland is below the state average, but greater compared to the rest of Cumberland, 12% to 5%.

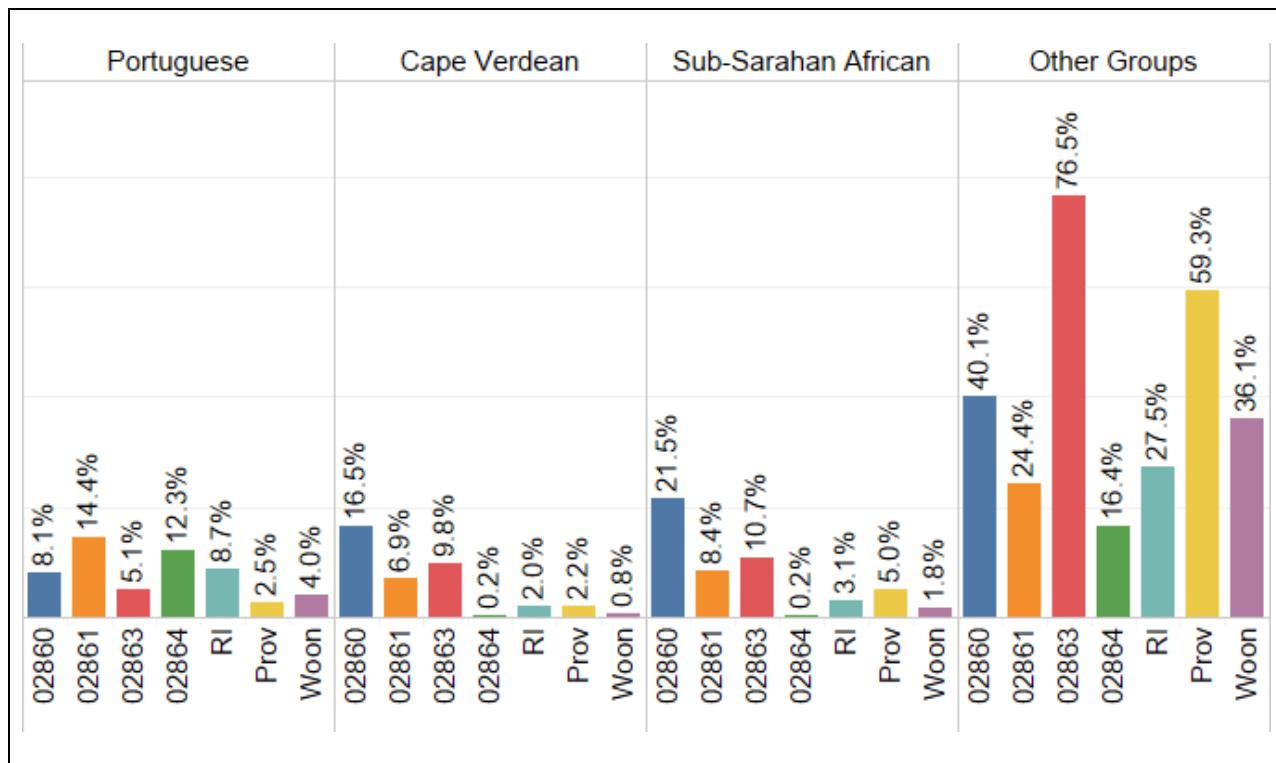
**Figure 18. Percentage of population that is a racial minority**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

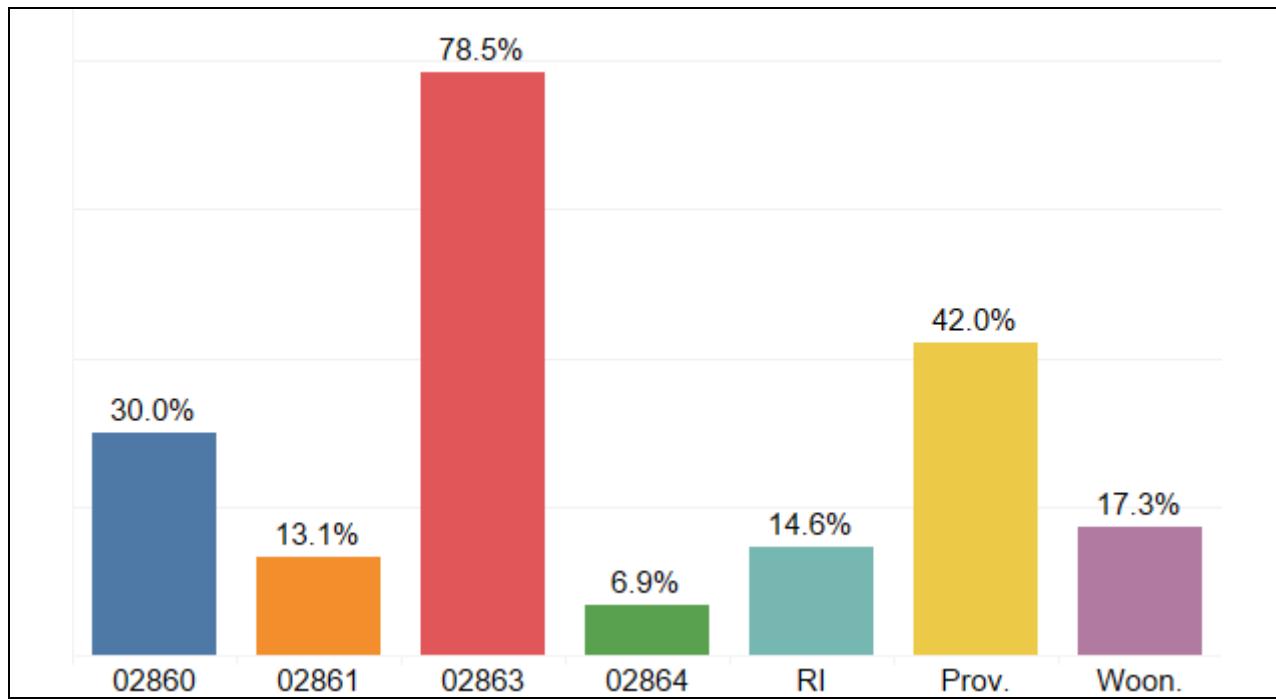
Pawtucket residents (02860, 02861) represent a diverse ancestry compared to the state. Nearly one-quarter (22.5%) of Pawtucket residents identified as Portuguese, compared to 8.7% for Rhode Island. Similarly, 23.4% identified as Cape Verdean and 29.9% as Sub-Saharan African, compared to 2.0% and 3.1% for the state, respectively. See Figure 19. A greater percentage of residents of 02863-Central Falls (78.5%) and 02860-Pawtucket (30.0%) identify as Hispanic/Latino compared to the state (14.6%), 02861-Pawtucket (13.1%), and 02864-Cumberland (6.9%). See Figures 20 and 21. They display the same data in chart and map forms, respectively.

**Figure 19: Percentage of population who reported selected ancestry, 2017**



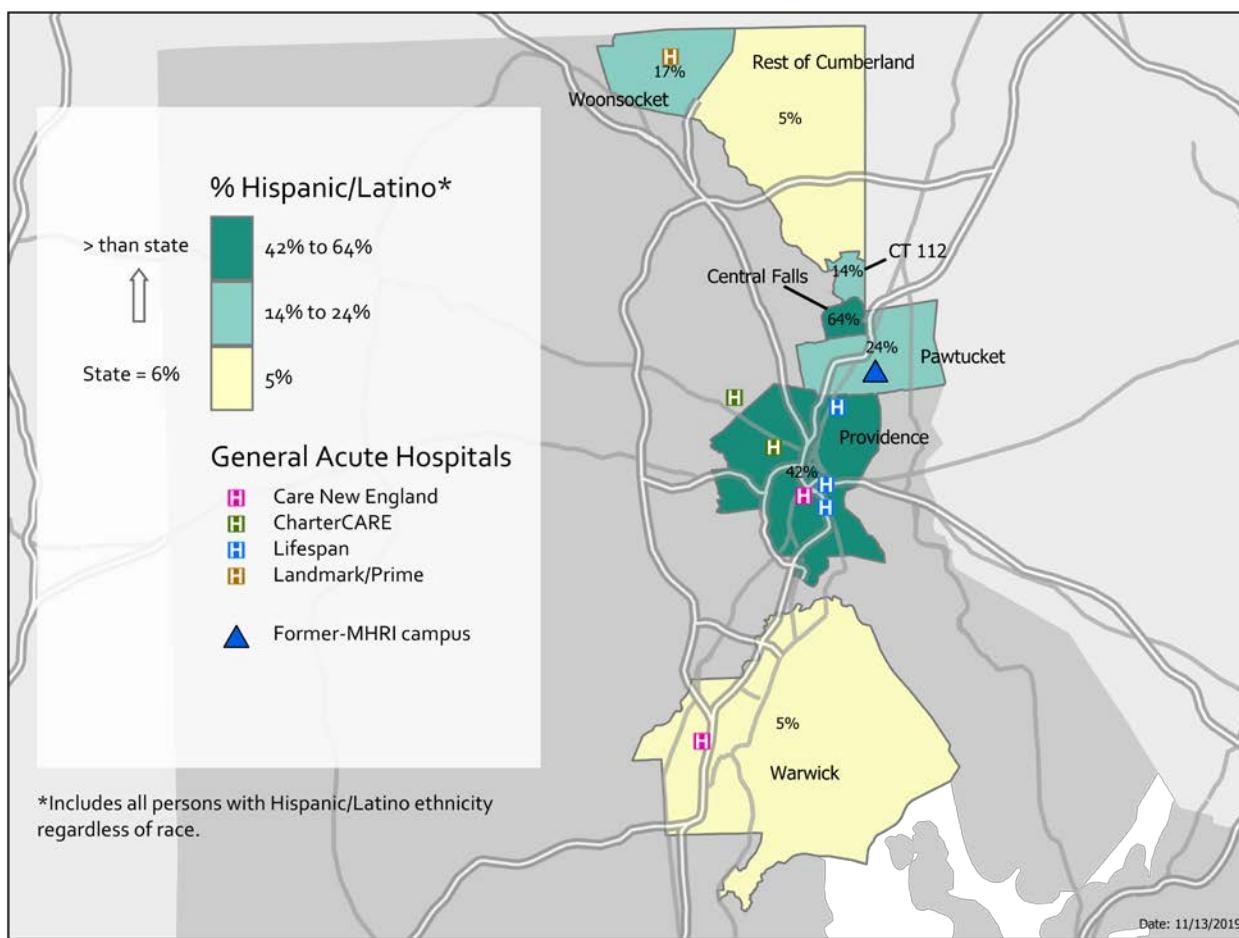
Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

**Figure 20: Percentage of population that identifies as Hispanic/Latino, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

**Figure 21: Percentage of population that identifies as Hispanic/Latino, 2017**

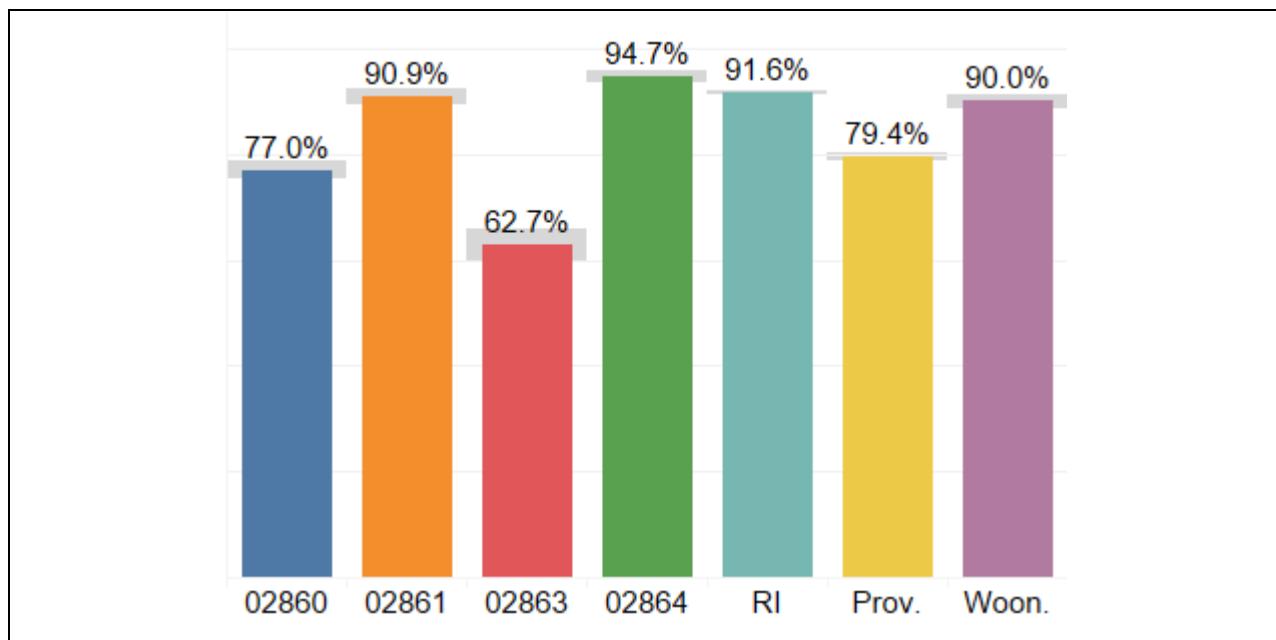


Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Language barriers pose significant challenges to providing effective and high-quality community services and health care. While many health care providers, including CNE, have medical interpreter services available at their facilities, research has found that the health care providers' cultural competency is key to reducing racial and ethnic health disparities. Less than two-thirds (62.7%) of the 02863-Central Falls population speak English only or speak English very well. This is statistically low compared to all other areas observed. The percentage for 02860-Pawtucket is also statistically low (77.0%) compared to 02861-Pawtucket (90.9%), 02864-Cumberland (94.7%), Rhode Island (91.6%), and Woonsocket (90.0%). Providence (79.4%) and 02860-Pawtucket were not statistically different. See Figure 22. More than two thirds (70.5%) of the 02863-Central Falls population over 5 years are reported to speak a language other than English at home. Of that 70.5%, 52.8% speak English less than very well. These percentages are statistically high compared to the state at 22.0% and 38.1%, respectively. For the percentage of population over 5 years speaking a language other than English at home, both 02860-Pawtucket (49.8%) and 02861-Pawtucket (25.5%) are also statistically high compared to the state. At 16.8%, the percentage of population is statistically low in 02864-Cumberland, compared to all other areas observed. See Figure 23. In 02860-Pawtucket (46.2%), the percentage of population speaking a language other than English at

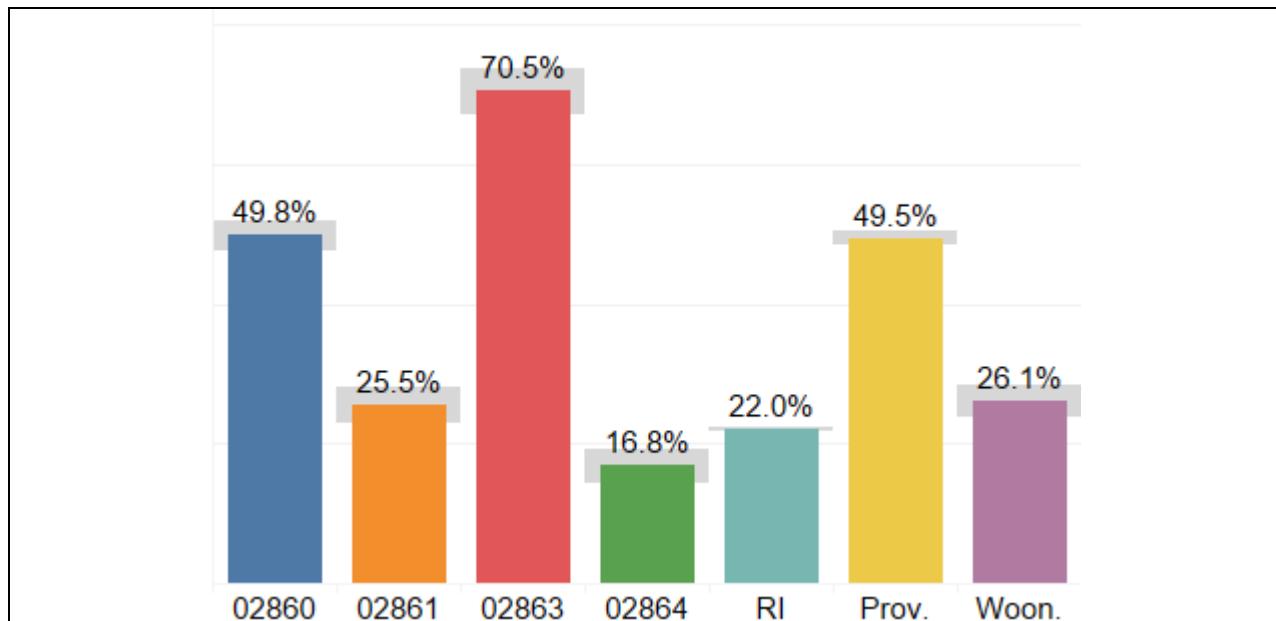
home who speak English less than very well is statistically high compared to the state (38.1%). In 02861-Pawtucket (35.9%), the percentage is not statistically different from the state, and in 02864-Cumberland (31.5%), the percentage is statistically low compared to the state. See Figure 24.

**Figure 22: Percentage of population over 5 years who speak English only or speak English “very well”, 2017**



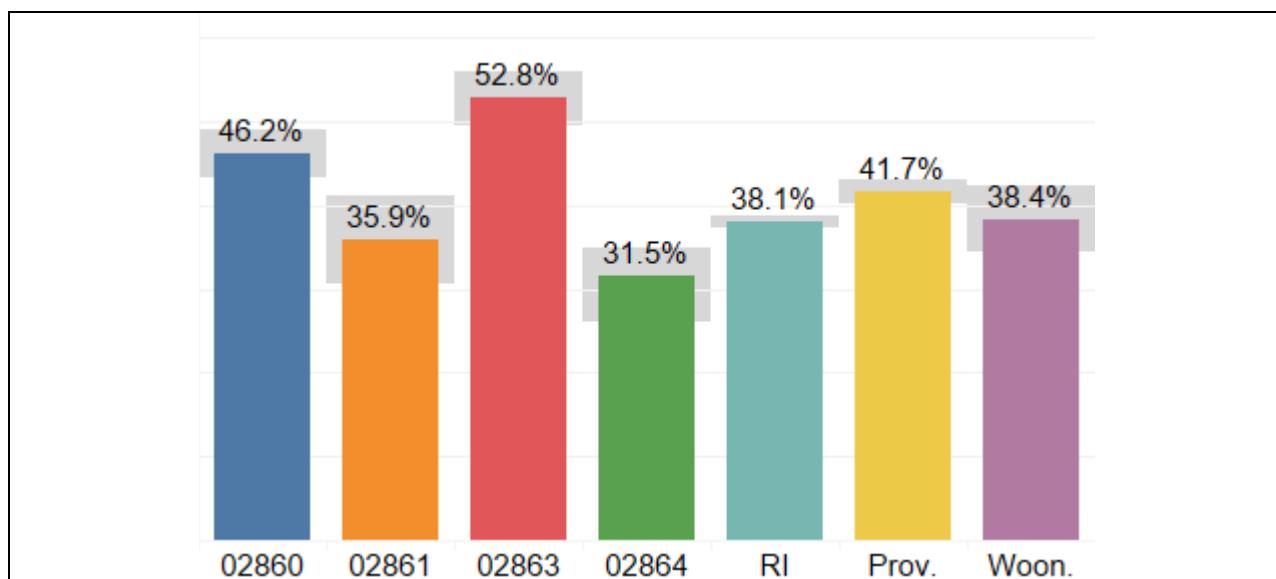
Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

**Figure 23: Percentage of population over 5 years speaking a language other than English at home, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

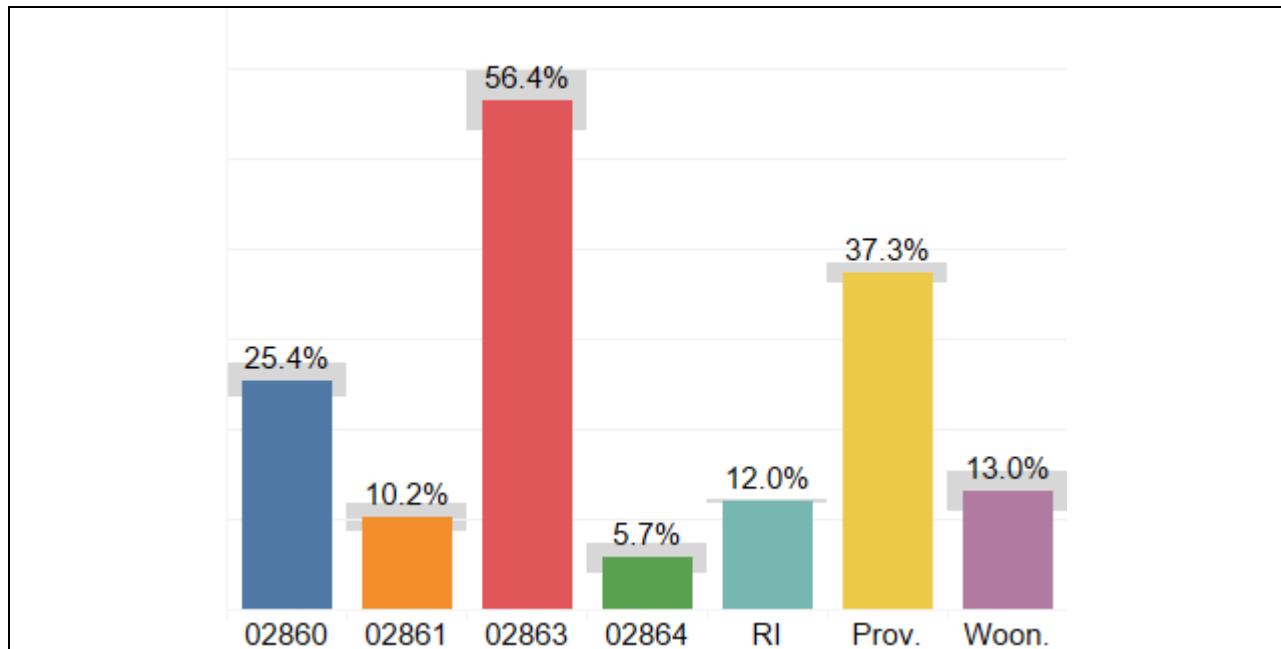
**Figure 24: Of those who speak another language at home, the percentage of population over 5 years that speak English less than “very well”, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

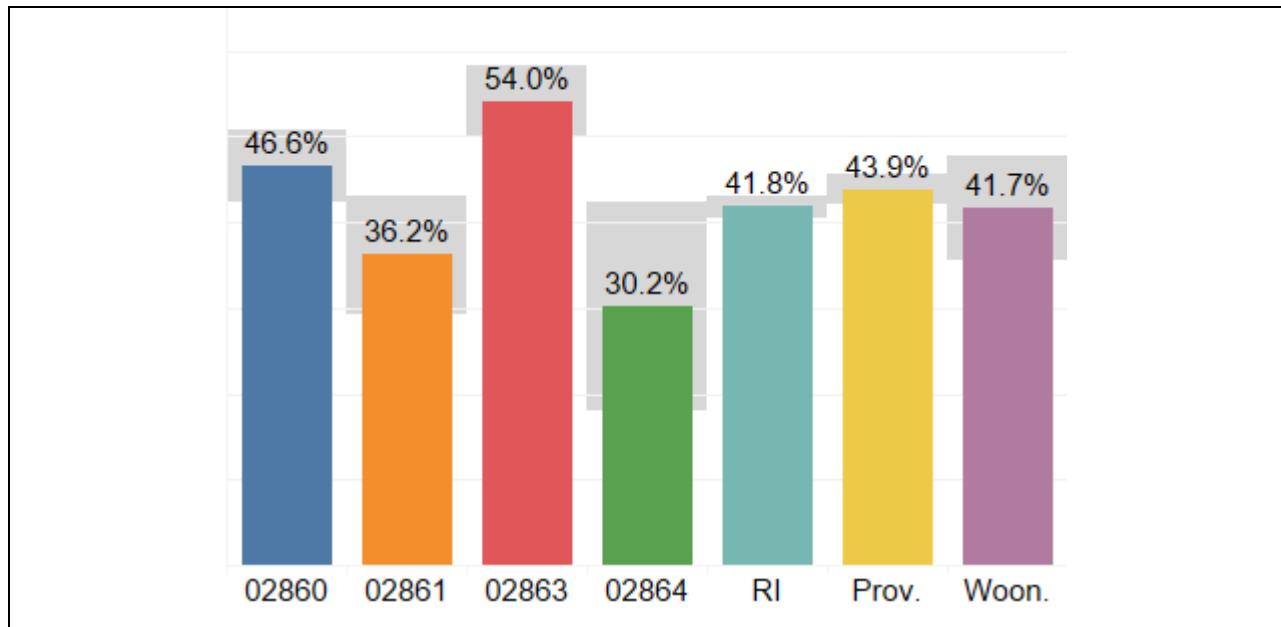
More than half (56.4%) of the 02863-Central Falls population and more than a quarter (25.4%) of the 02860-Pawtucket population over 5 years are reported to speak Spanish at home. See Figure 25. Of those percentages of the populations in 02863-Central Falls and 02860-Pawtucket, 52.8% and 46.2%, respectively, speak English less than very well. See Figure 24. These percentages are statistically high compared to the state, at 12.0% of the population speaking Spanish at home and 41.8% of those speaking Spanish at home speaking English less than very well. In 02864-Cumberland, 5.7% of the population is reported to speak Spanish at home and 31.5% of those speaking Spanish at home are reported to speak English less than very well.

**Figure 25: Percentage of population over 5 years speaking Spanish at home, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

**Figure 26: Of those who speak Spanish at home, the percentage of population over 5 years that speak English less than “very well”, 2017**

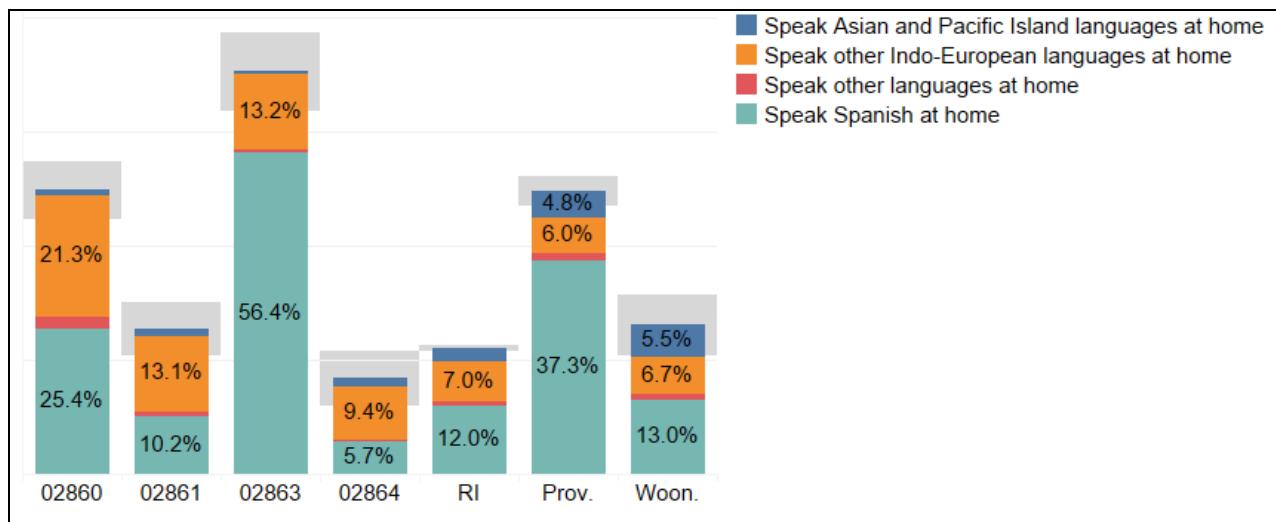


Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Other than English, Spanish is the most common language spoken among residents of the former MHRI service area, with “other Indo-European languages” being the next most common. See Figure 27. The US

Census Bureau retired their public data table which broken the Indo-European languages down into individual languages.

**Figure 27: Of those who speak Spanish at home, the percentage of population over 5 years that speak English less than “very well”, 2017**



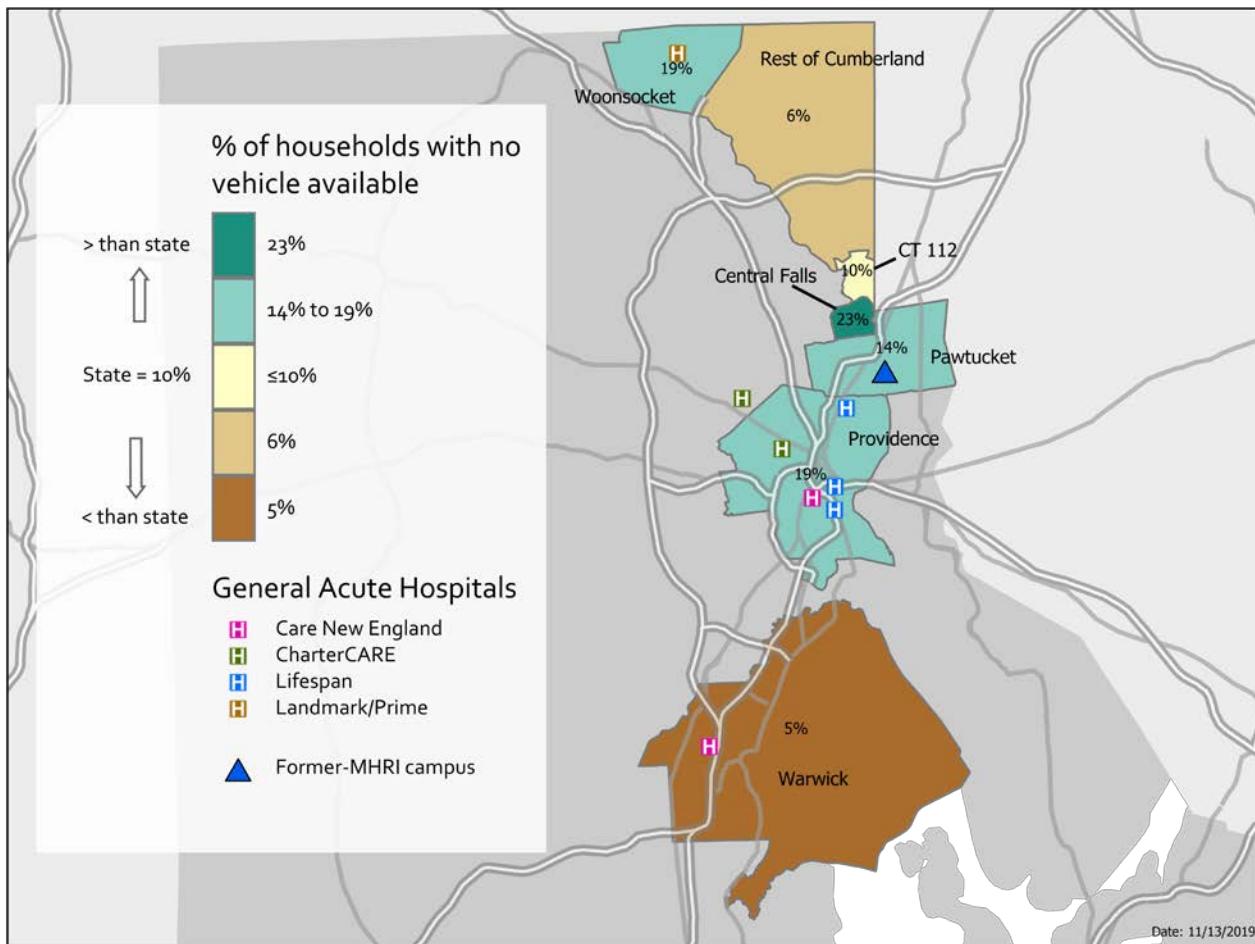
Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

### Vehicle access

Households in 02860-Pawtucket (17.5%) and 02863-Central Falls (23.2%) appear to have a greater percentage of households with no vehicle than the state (9.7%). Households in 02861-Pawtucket (8.2%) and 02864-Cumberland (6.9%) appear to have greater access to vehicles.

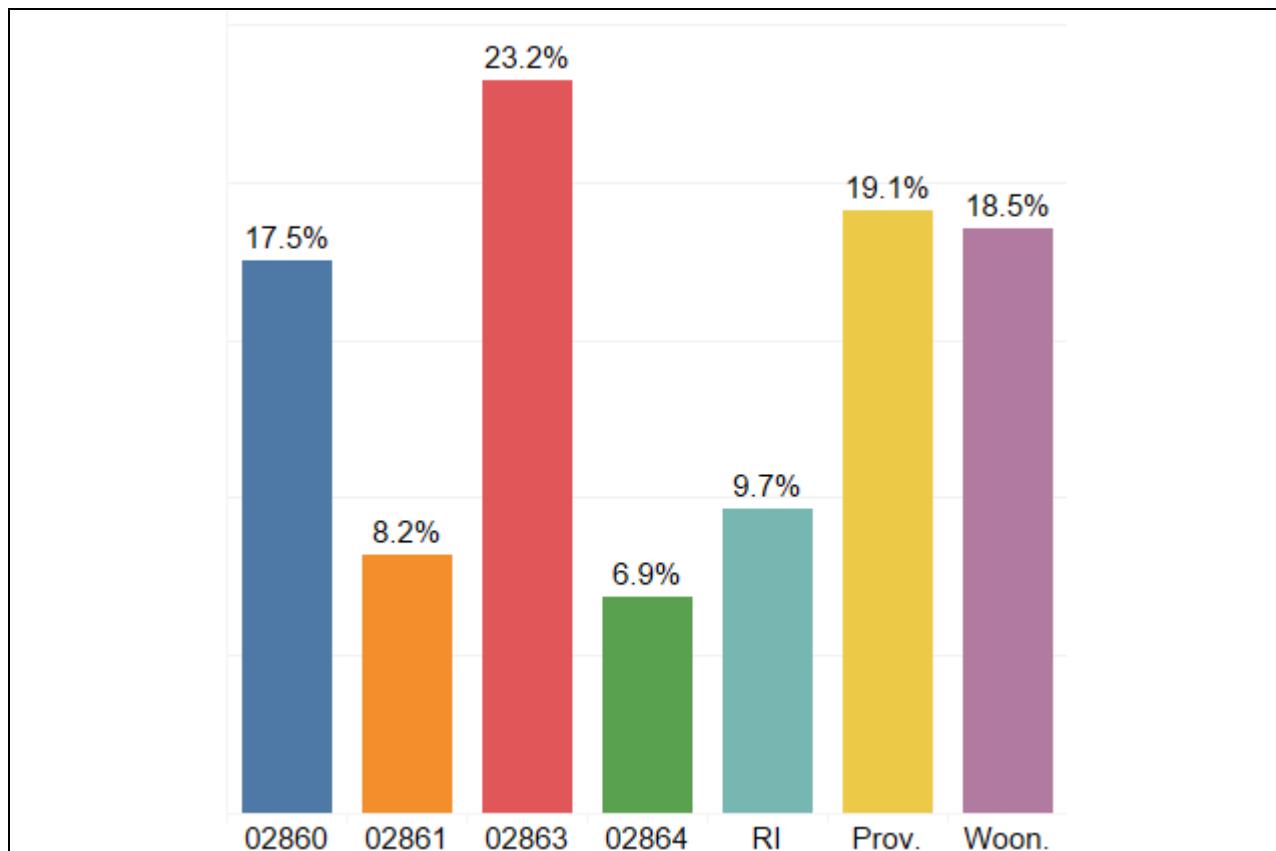
Figure 28 and Figure 29 shows the variation in vehicle ownership within the service area, compared to the state as well as Providence, Woonsocket and Warwick. Central Falls has the greatest percentage of households that do not own a vehicle.

**Figure 28. Percentage of households without a vehicle**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

**Figure 29. Percentage of households without a vehicle**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

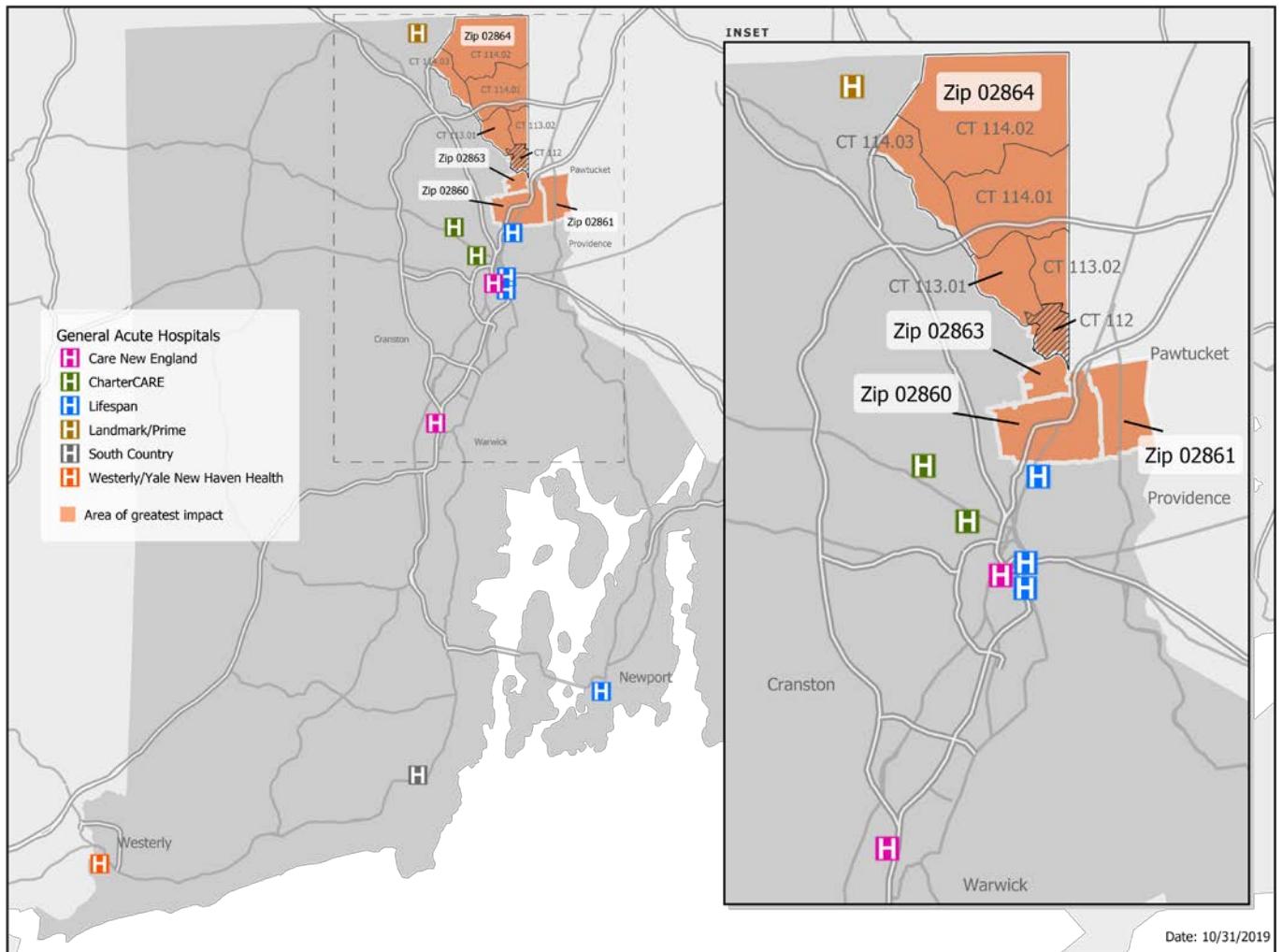
Access to a vehicle is particularly important in the discussion around the MHRI closure since the former hospital was reported to be in “walkable” distance for those using hospital services or those visiting family and friends during hospital stay. While transportation was discussed primarily in terms of access to medical services, lack of transportation is a determinant of whether an individual or family has the ability to access the basic resources that allow them to live productive and fulfilling lives. Access to affordable and reliable transportation allows access to employment, school, healthy foods, recreational facilities, and other community resources.

#### **Expanded assessment of Cumberland (02864) – Census tract 112**

The demographic data above demonstrates a stark difference between 02864-Cumberland and other ZCTAs in the service area. Additionally, some focus groups’ participants and key informant interviewees expressed surprise in hearing that MHRI utilization data showed 02864-Cumberland residents as top utilizers of the former hospital. As a result, JSI did an analysis of American Community Survey data by census tract to see if any differences in data was apparent among neighborhoods in this ZCTA. As the following section demonstrates, census tract 112, which borders 02863 (Central Falls) and experiences demographic characteristics more in line with other ZCTAs in the service area, could be the driver of this perceived phenomenon.

The town of Cumberland (02864) is located in the northeastern portion of Rhode Island and in Providence County and contains six census tracts, Figure 30, with census tract 112 bordering Central Falls (02863).

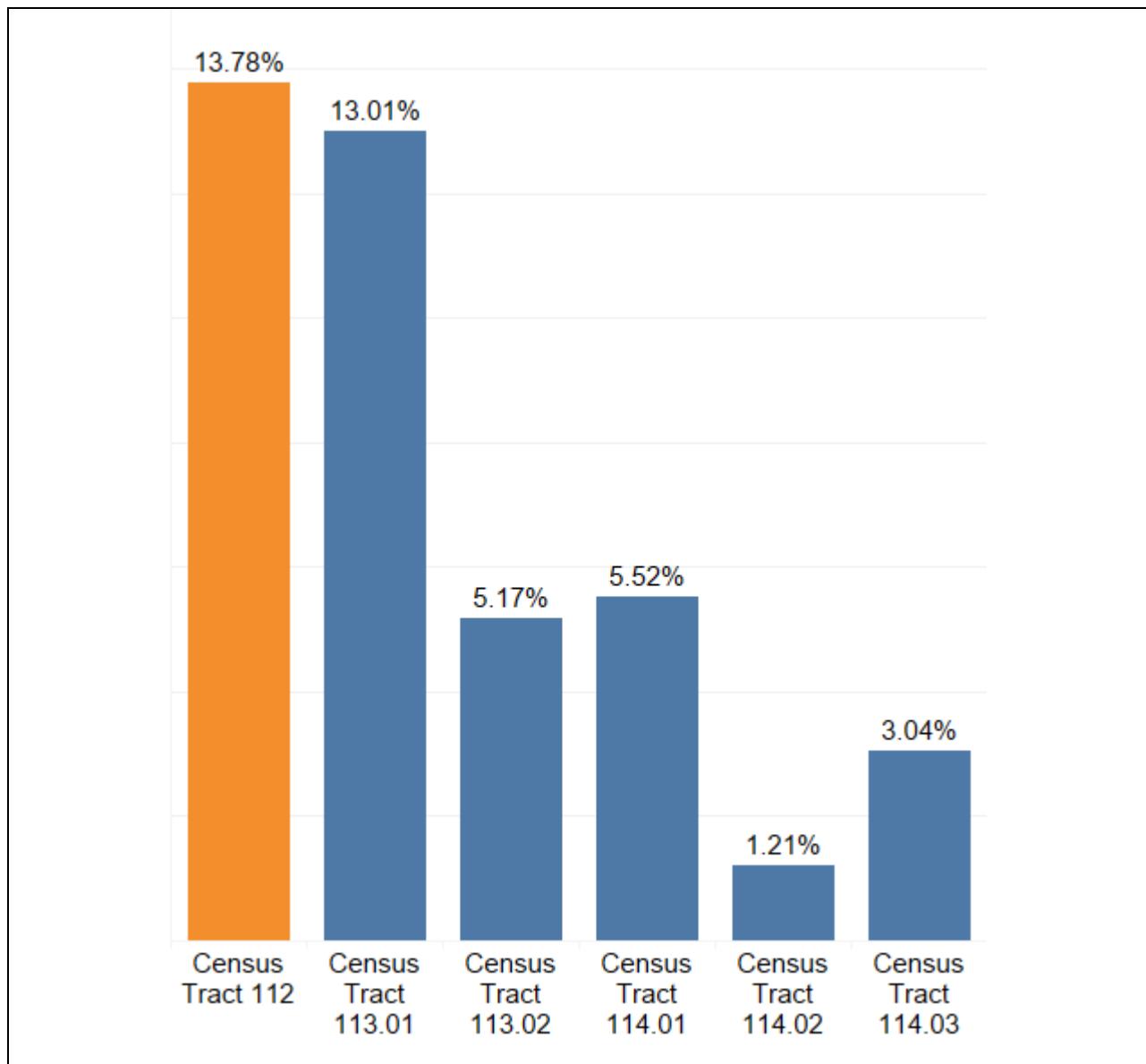
**Figure 30. Impact study service area map**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

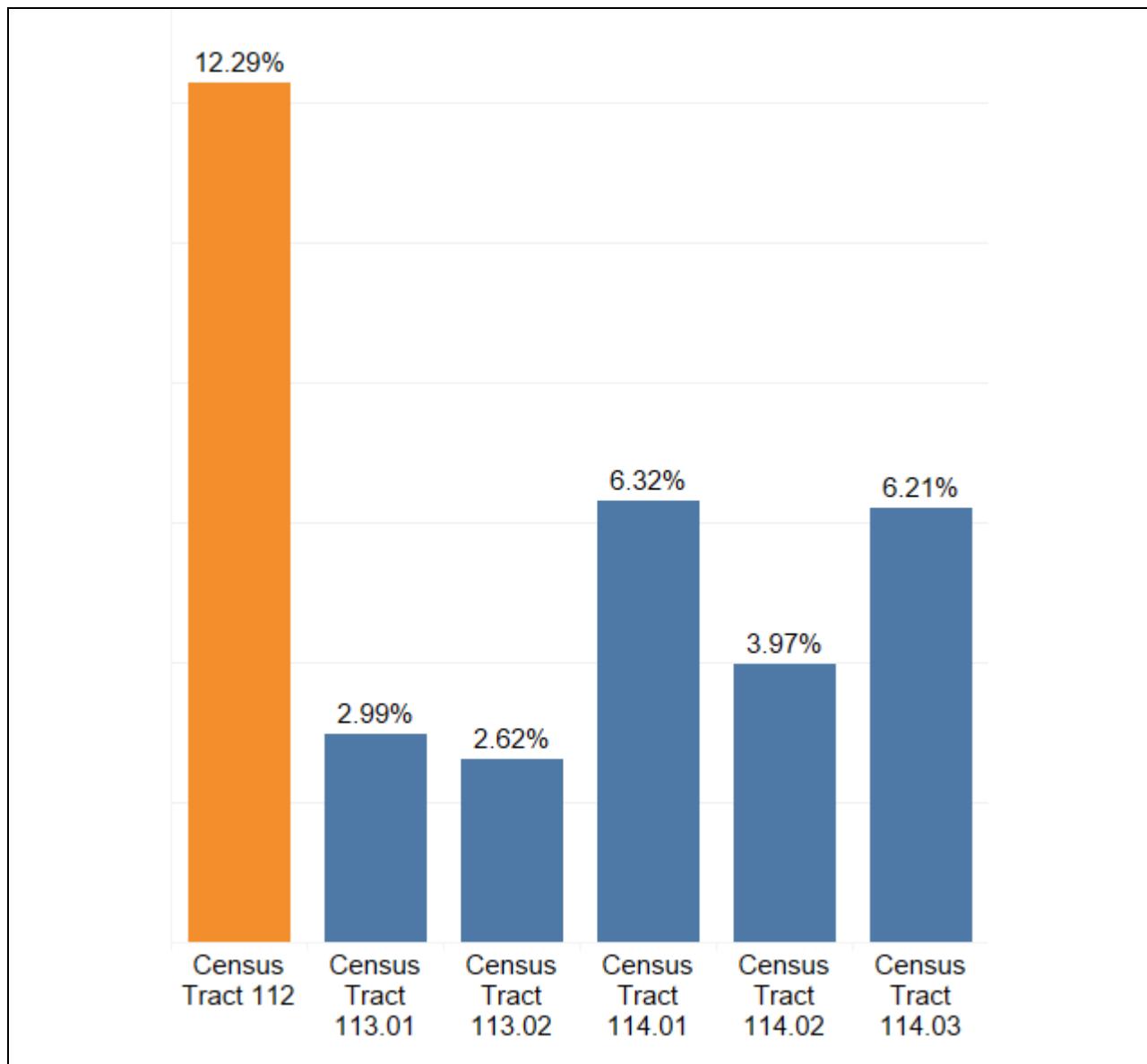
Census tract 112 appears to have a high percentage of residents who identify as Hispanic/Latino at 13.78% with other census tracts at 13.01%, 5.52%, 5.17%, 3.04%, and 1.21%. See Figure 31. It also has a greater minority population (12.29%) compared to other census tracts at 6.32%, 6.21%, 3.97%, 2.99%, and 2.62%. (Refer to Figure 31 and Figure 32).

**Figure 31: Percentage of population who identify as Hispanic/Latino, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

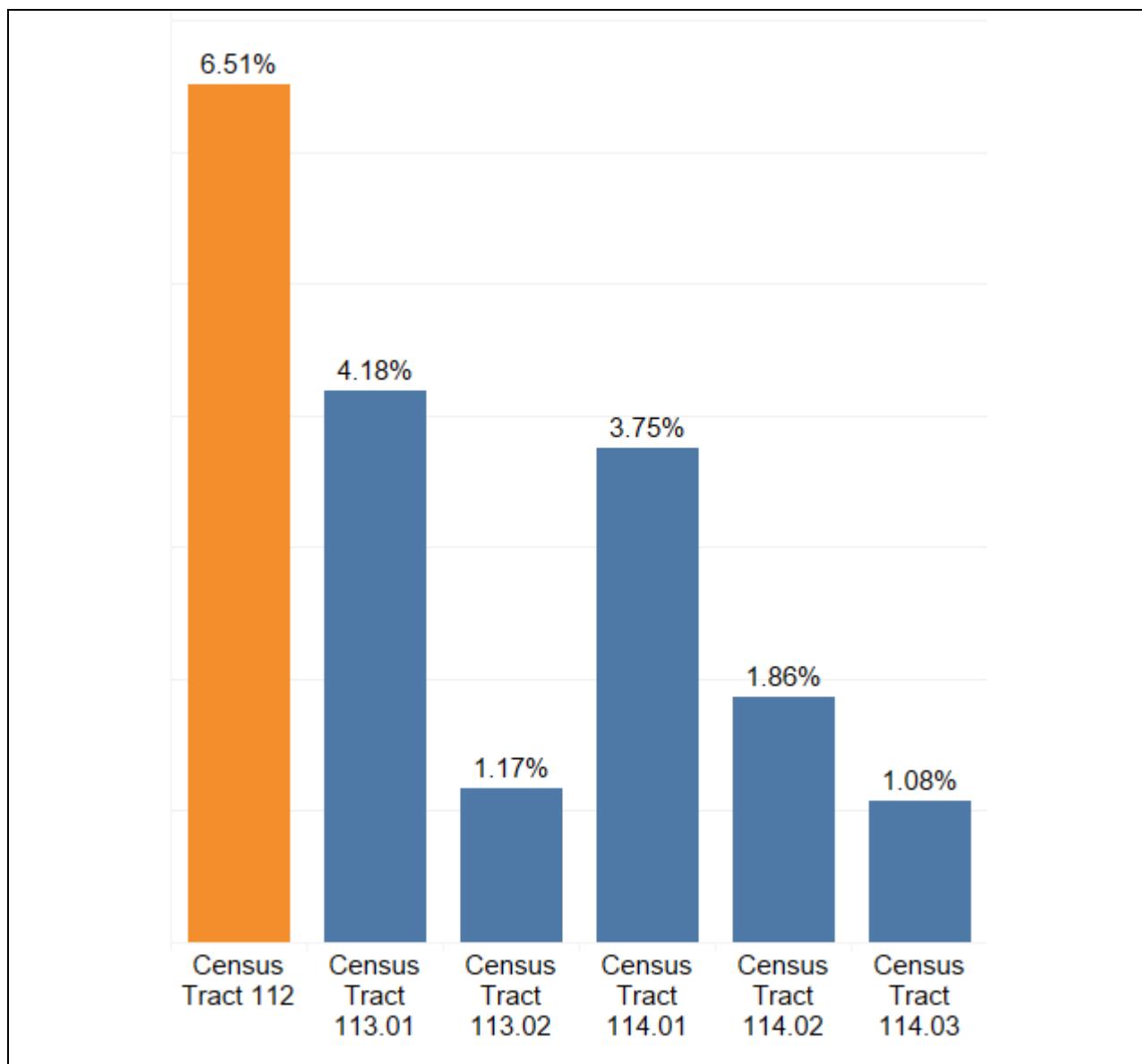
**Figure 32: Percentage of population that are considered a minority race, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

A greater percentage of households in census tract 112 (6.51%) have no household members who speak English well or very well compared to other census tracts at 4.18%, 3.75%, 1.86%, 1.17%, and 1.08%. See Figure 33.

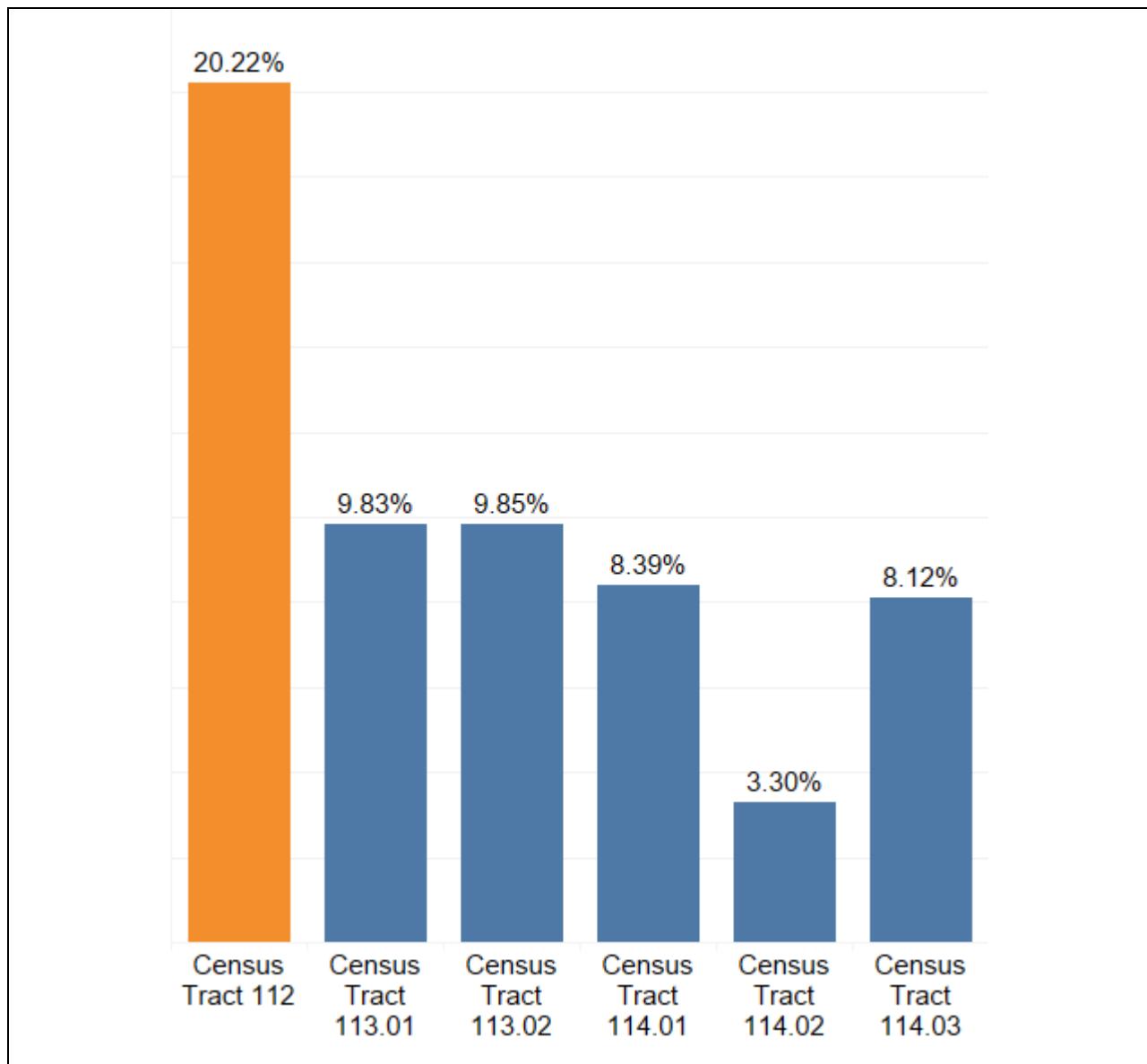
**Figure 33: Percentage of households in which no one speaks English well or very well, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

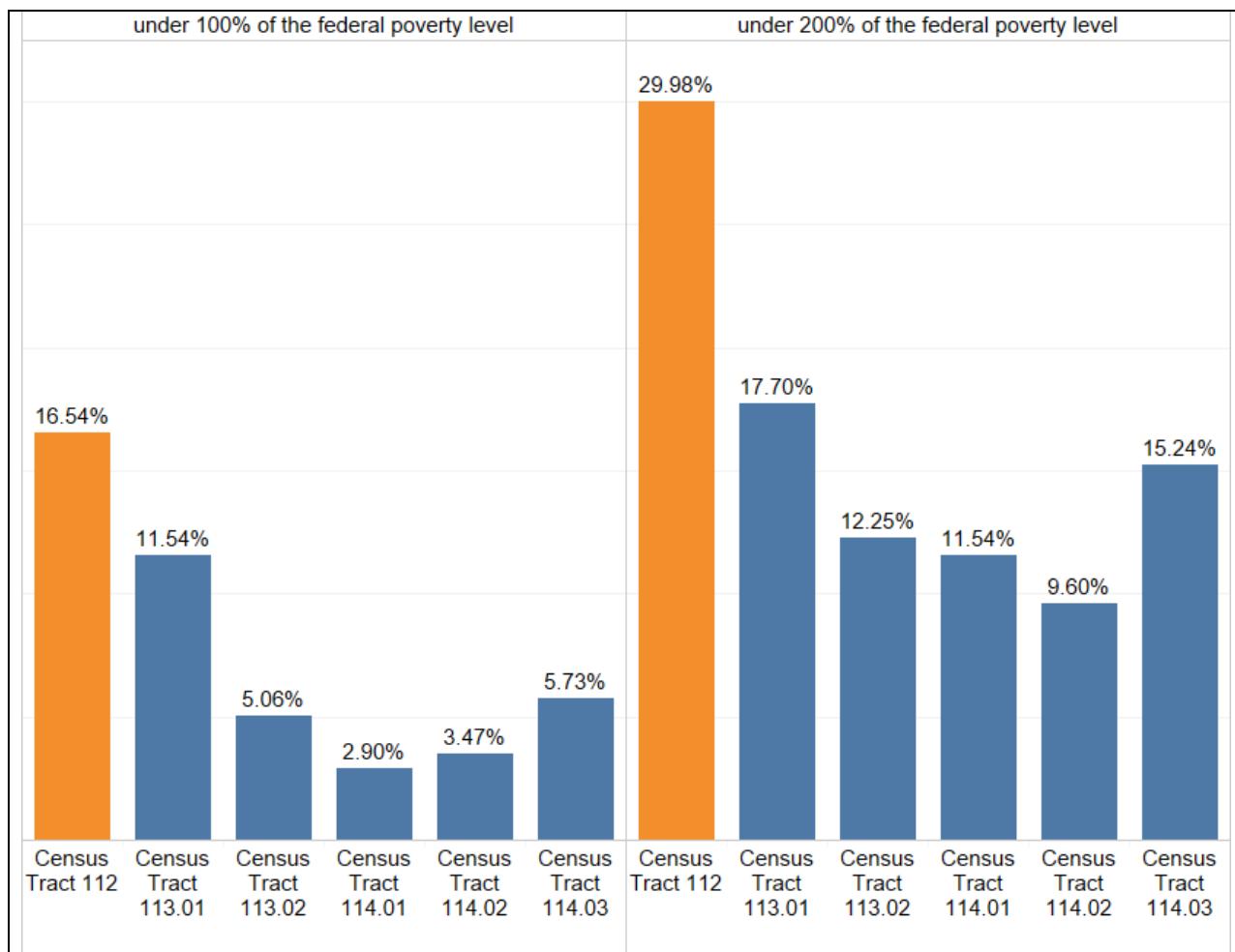
Over one in five (20.22%) residents of the census tract 112 do not have at least a high school diploma compared to other census tracts at 9.89%, 9.85%, 8.39%, 8.12%, and 3.30%. See Figure 34. A high percentage of the census tract 112 population (16.54%) has an income under the federal poverty level (FPL) at 16.54% compared to other census tracts at 11.54%, 5.73%, 5.06%, 3.47%, and 2.90%. See Figure 35. However, census tract 112 had the lowest percentage of the population (0.04%) that is unemployed compared to other census tracts at 6.63%, 3.00%, 2.61%, 1.63%, and 0.19%. See Figure 36.

**Figure 34: Percentage of population with less than a high school diploma, 2017**



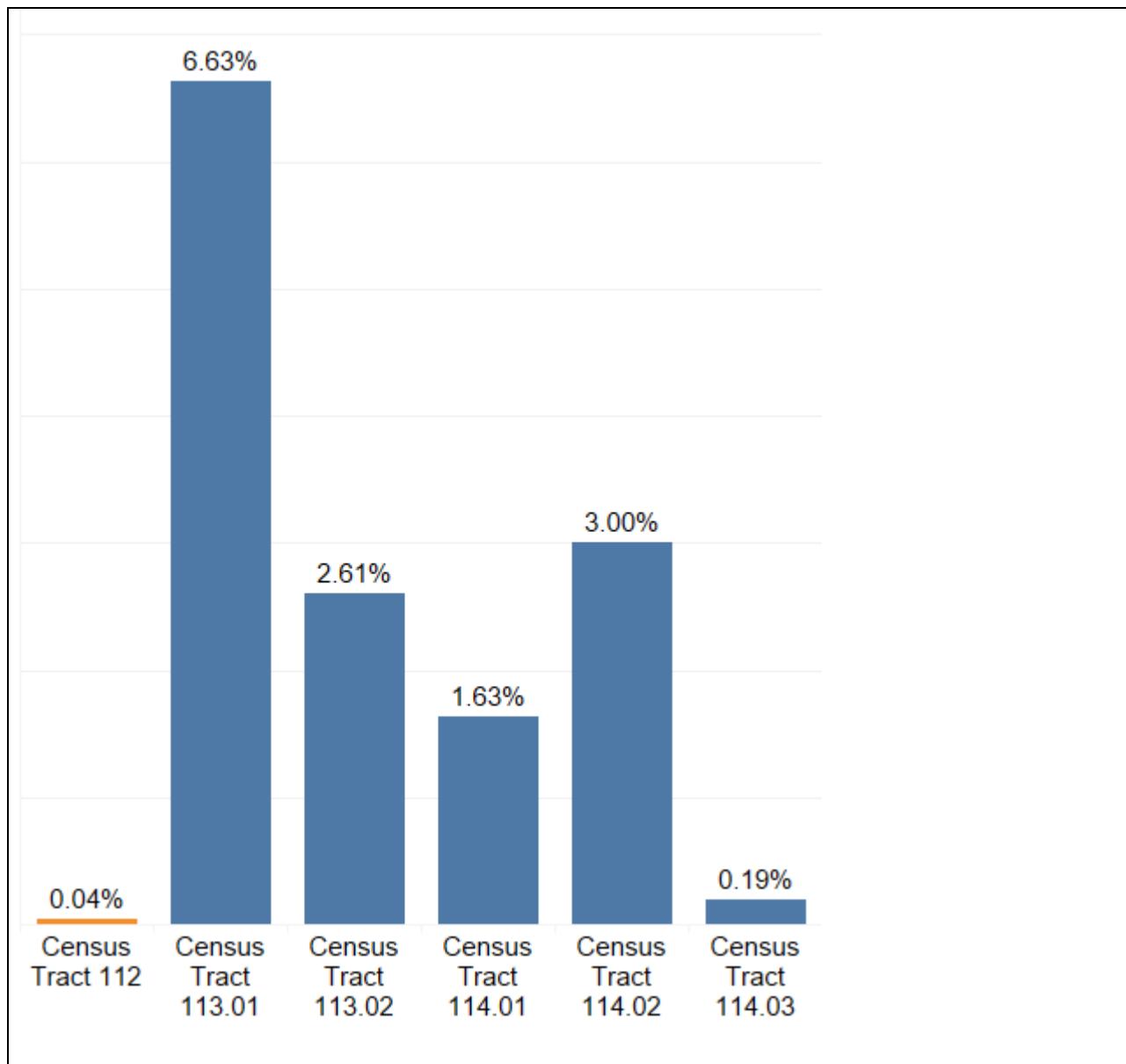
Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

**Figure 35: Percentage of population with incomes below FPL, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

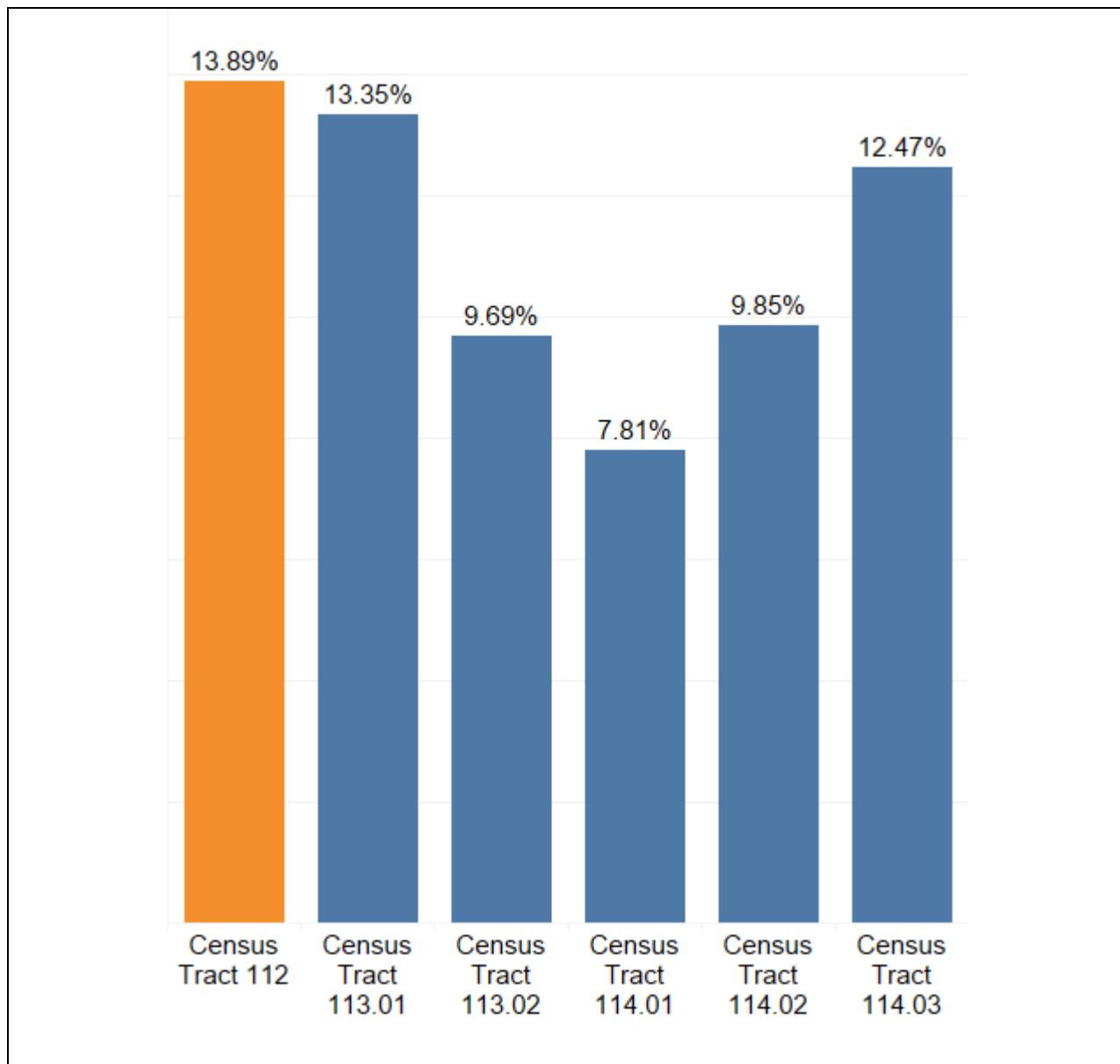
**Figure 36: Percentage of population that is unemployed, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

A greater percentage of the population in census tract 112 (13.89%) has a disability compared to other census tracts at 13.35%, 12.47%, 9.85%, 9.69%, and 7.81%. See Figure 37.

**Figure 37: Percentage of population that has a disability, 2017**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

### **Health status indicators**

#### **500 cities behavioral health risk factor surveillance survey data**

In this section, data are from the 500 Cities Project <sup>16</sup>and will be presented for Pawtucket, with the state as a benchmark (unless otherwise noted), and for the year 2016, unless otherwise noted. Overall, this

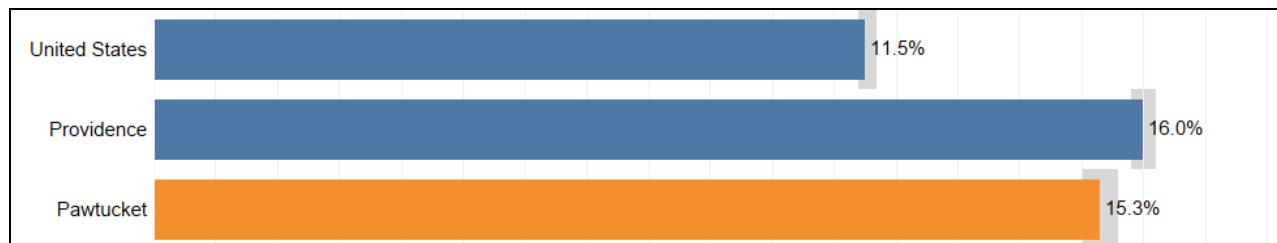
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<sup>16</sup> CDC, the Robert Wood Johnson Foundation, and the CDC Foundation have developed the 500 Cities project to provide select health data estimates for some cities, including Pawtucket, Providence, Cranston, and Warwick in Rhode Island. <https://www.cdc.gov/500cities/index.htm>

data indicates that a greater percentage of the population in Pawtucket experiences chronic health conditions and poorer overall health compared to the state.

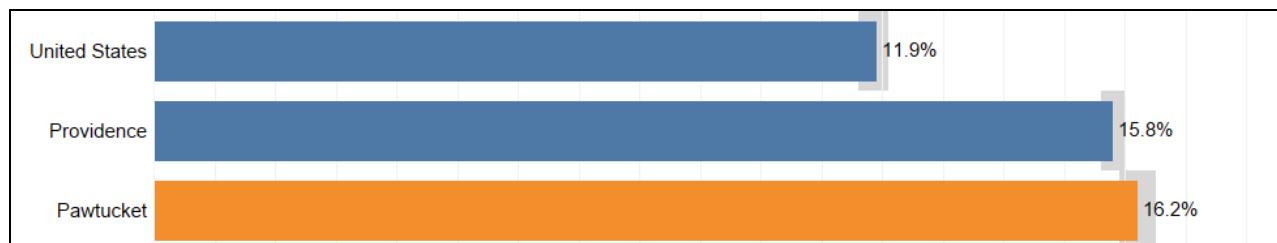
A statistically high percentage of the adult population in Pawtucket (15.3%) reported that their physical health was not good for 14 or more days, which was statistically high compared to the US at 11.5%. See Figure 38. Similarly, the percentage of the adult population in Pawtucket (16.2%) reporting that their mental health was not good for 14 or more days was statistically high compared to the US at 11.9%. The US was used as a benchmark since data for Rhode Island was not available. See Figure 39.

**Figure 38: Percentage of adults reporting physical health not good for 14 or more days, 2016**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

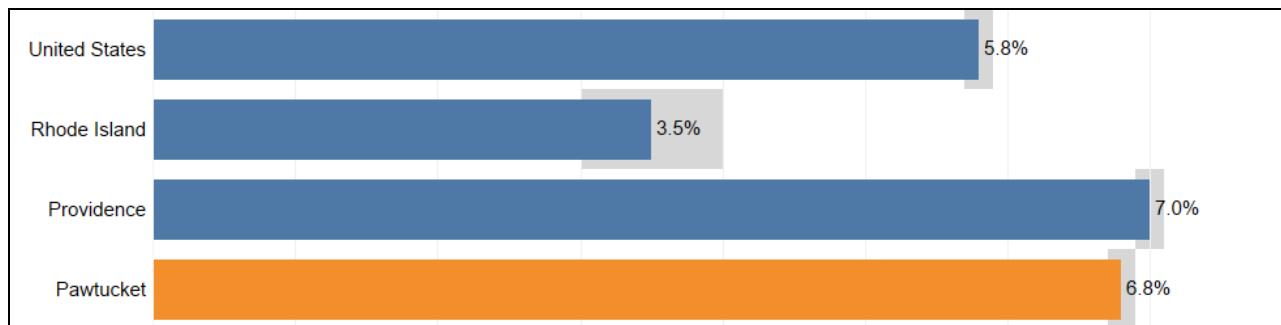
**Figure 39: Percentage of adults reporting mental health not good for 14 or more days, 2016**



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

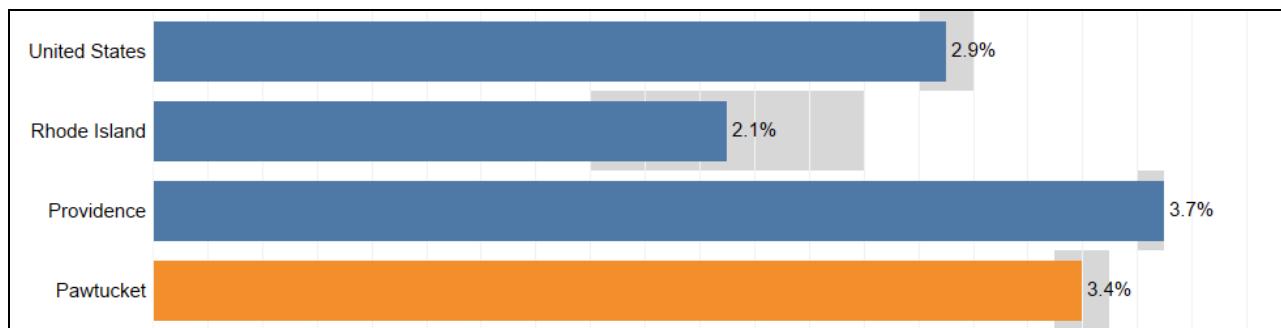
A statistically high percentage of the adult population in Pawtucket experienced coronary heart disease (6.8%), stroke (3.4%), current asthma (12.9%), chronic obstructive pulmonary disease (8.4%), and current diabetes (10.9%), compared to the state at 3.5% for coronary heart disease, 2.1% for stroke, 10.6% for current asthma, 6.3% for chronic obstructive pulmonary disease, and 8.6% for current diabetes. See Figures 40 - 44. Compared to the United States (29.5%), a statistically high percentage of the adult population in Pawtucket (30.7%) are obese. The percentage for Providence (32.3%) was statistically high compared to both the United States and Pawtucket. See Figure 45. A statistically high percentage of adults in Pawtucket (6.3%), compared to the United States and Providence (both 5.9%), have cancer. See Figure 46.

**Figure 40: Percentage of adults with coronary heart disease, 2016**



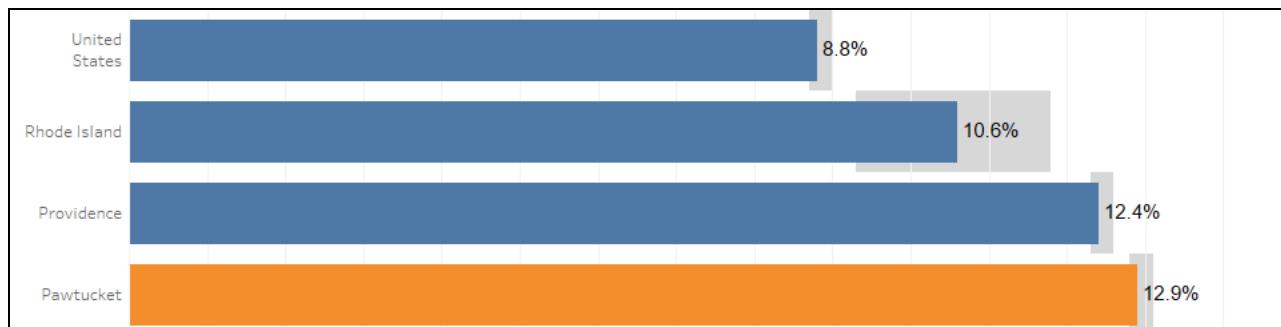
Source: 500 Cities, Behavioral Risk Factor Surveillance System

**Figure 41: Percentage of adults who have experienced a stroke, 2016**



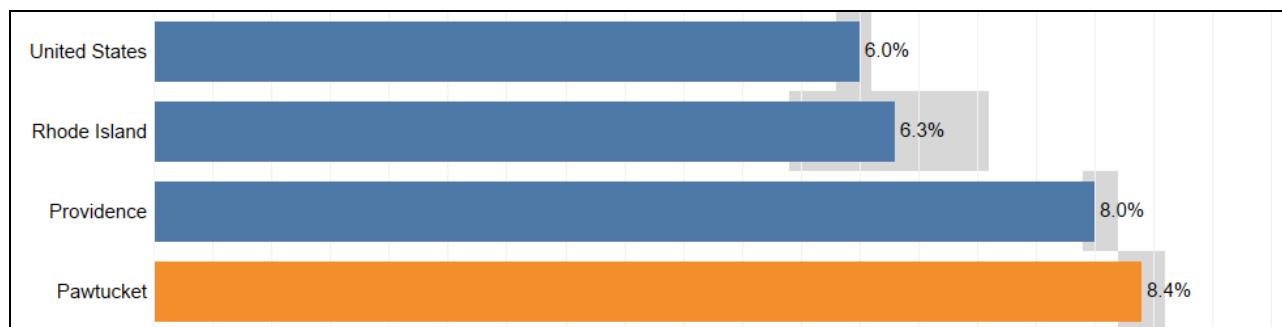
Source: 500 Cities, Behavioral Risk Factor Surveillance System

**Figure 42: Percentage of adults with current asthma, 2016**



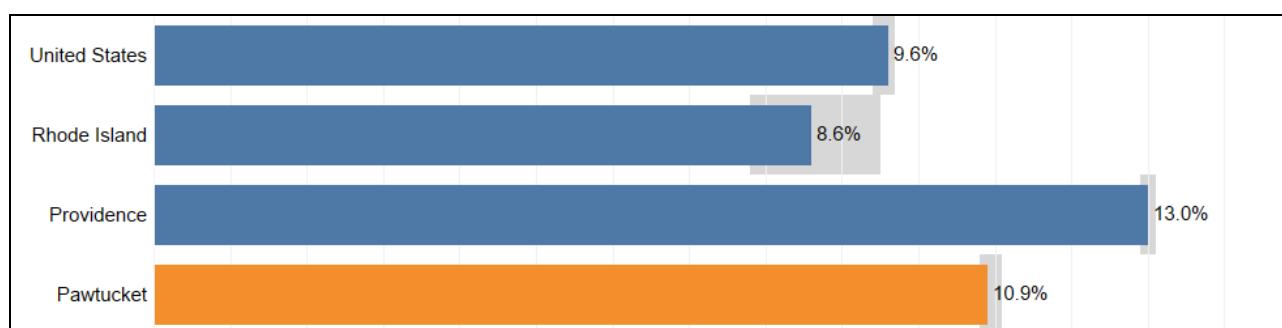
Source: 500 Cities, Behavioral Risk Factor Surveillance System

**Figure 43: Percentage of adults with chronic obstructive pulmonary disease, 2016**



Source: 500 Cities, Behavioral Risk Factor Surveillance System

**Figure 44: Percentage of adults with current diabetes, 2016**



Source: 500 Cities, Behavioral Risk Factor Surveillance System

**Figure 45: Percentage of adults with obesity, 2016**



Source: 500 Cities, Behavioral Risk Factor Surveillance System

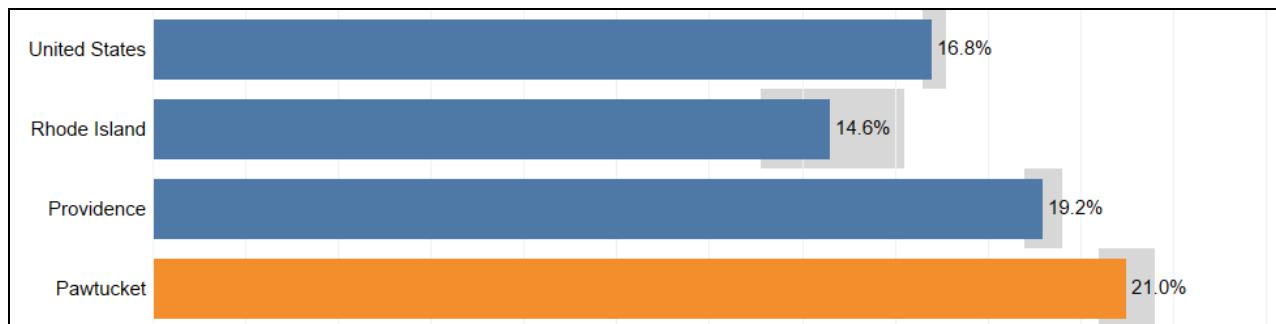
**Figure 46: Percentage of adults with cancer (excluding skin cancer), 2016**



Source: 500 Cities, Behavioral Risk Factor Surveillance System

Compared to the state (14.6%), a statistically high percentage of the adult population in Pawtucket were current smokers (21.0%).

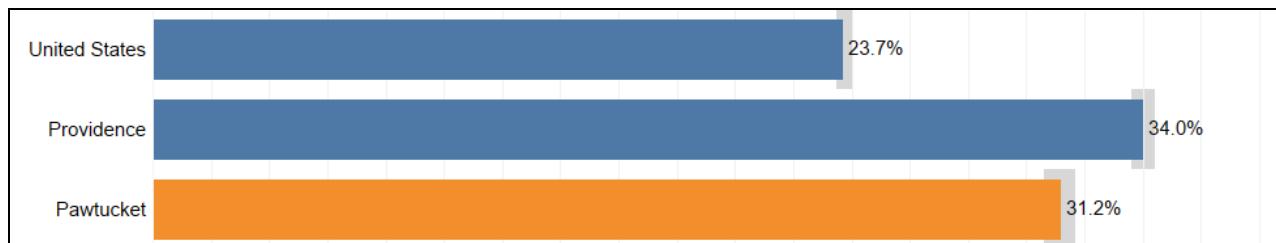
**Figure 47: Percentage of adults currently smoking, 2016**



Source: 500 Cities, Behavioral Risk Factor Surveillance System

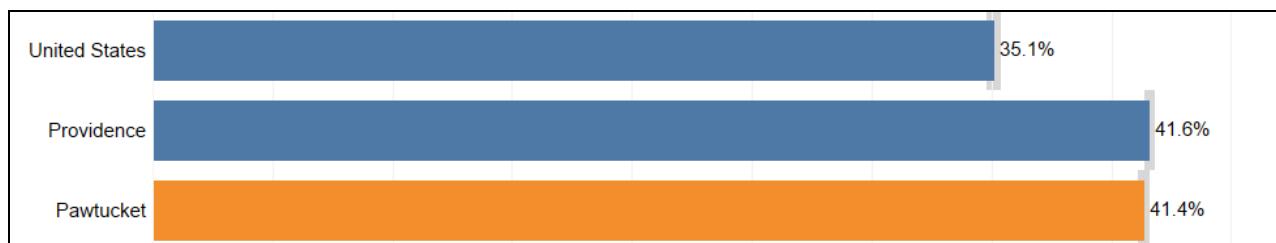
Compared to the US at 23.7%, a statistically high percentage of the Pawtucket population (31.2%) engaged in no leisure-time physical activity. See Figure 48. A statistically high percentage of the Pawtucket population (41.4%) also got less than seven hours of sleep compared to the US (35.1%). See Figure 49. Again, the US was used as a benchmark since data for Rhode Island was not available.

**Figure 48: Percentage of adults reporting no leisure-time physical activity, 2016**



Source: 500 Cities, Behavioral Risk Factor Surveillance System

**Figure 49: Percentage of adults reporting sleeping less than 7 hours a night, 2016**



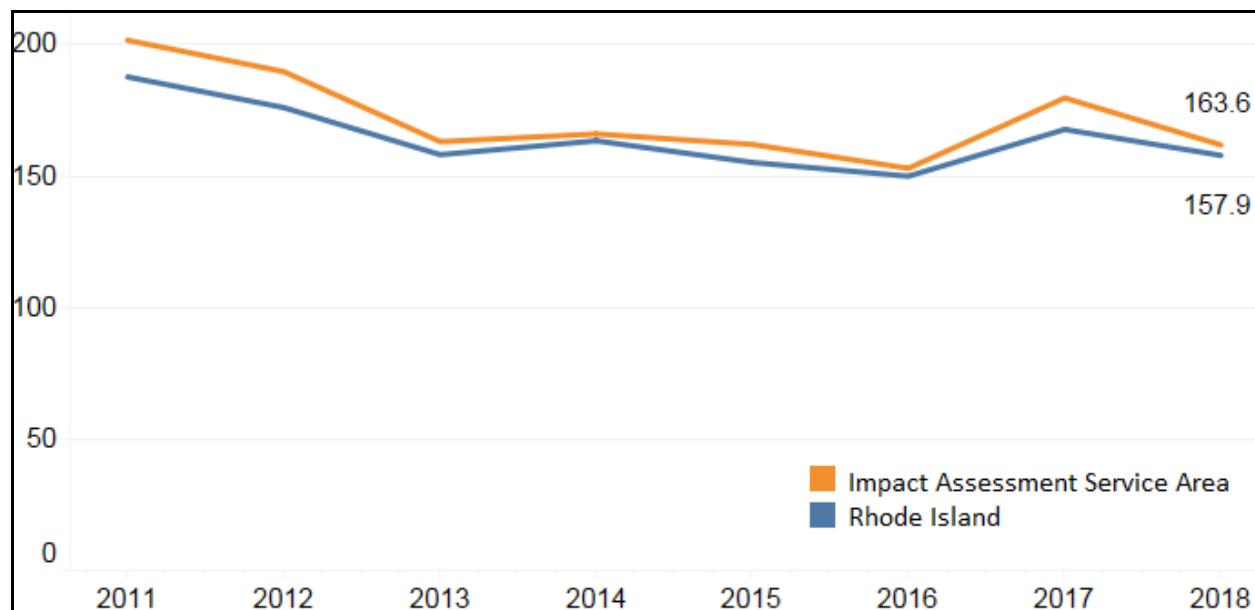
Source: 500 Cities, Behavioral Risk Factor Surveillance System

## Prevention quality indicators data

Prevention Quality Indicators (PQI)<sup>17</sup> are used to measure quality of care for certain conditions, since appropriate access and engagement in services can help prevent related hospital admissions. In this case, lower rates represent better results.

Between 2011 and 2018, the service area has had consistently higher PQI scores compared to the state, as shown in Figure 50. In 2018, the PQI per 10,000 population in the service area was 163.6 compared to the state at 157.9.

**Figure 50: Prevention quality indicators in Rhode Island hospitals. Rate per 10,000, 2011-2018**



Source: Rhode Island Hospital Discharge Data

In observing acute and chronic PQI separately between 2011 and 2018, the service area has had consistently higher chronic PQI scores while in recent years acute PQI scores in the service area have dipped below those in the state. In 2018, the acute PQI per 10,000 population in the service area was 42.01, which was lower than the state at 44.57. In 2018, the

**Chronic PQIs:**  
COPD/Asthma in adults 40 and over | Hypertension | Congestive Heart Failure | Asthma in adults 18-39 | Diabetes Composite (short-term complications, long-term complications, uncontrolled diabetes, lower-extremity amputation)

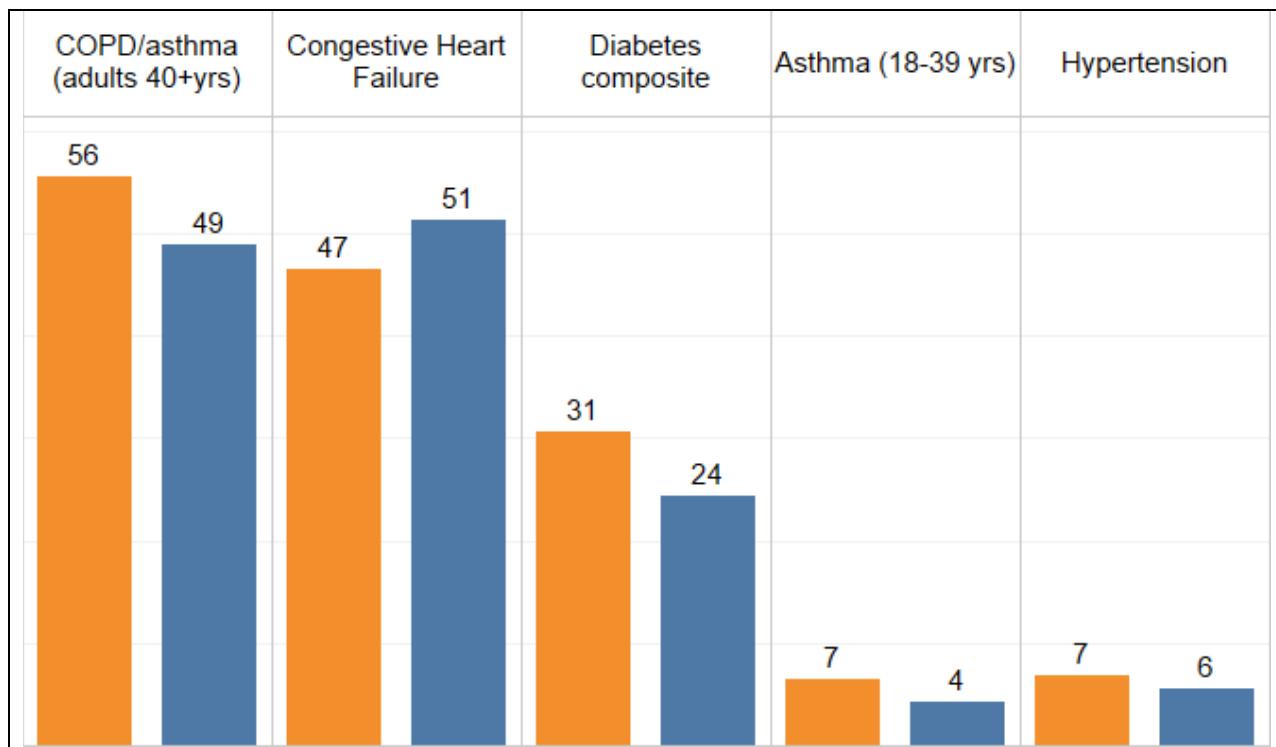
**Acute PQIs:**  
Dehydration | Community-Acquired Pneumonia | Urinary Tract Infection

<sup>17</sup> "PQIs are a set of measures that can be used with hospital inpatient discharge data to identify quality of care for "ambulatory care sensitive conditions." These are conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease. The PQIs are population based and adjusted for covariates."

[https://www.qualityindicators.ahq.gov/modules/pqi\\_overview.aspx](https://www.qualityindicators.ahq.gov/modules/pqi_overview.aspx)

chronic PQI per 10,000 population in the service area was 119.87 compared to the state at 113.32. In the same year, MHRI service area residents had higher PQI scores than the state for all chronic conditions observed except congestive heart failure. See Figure 51.

**Figure 51: Chronic prevention quality indicators (PQI) in Rhode Island hospitals, 2018, rate per 10,000**

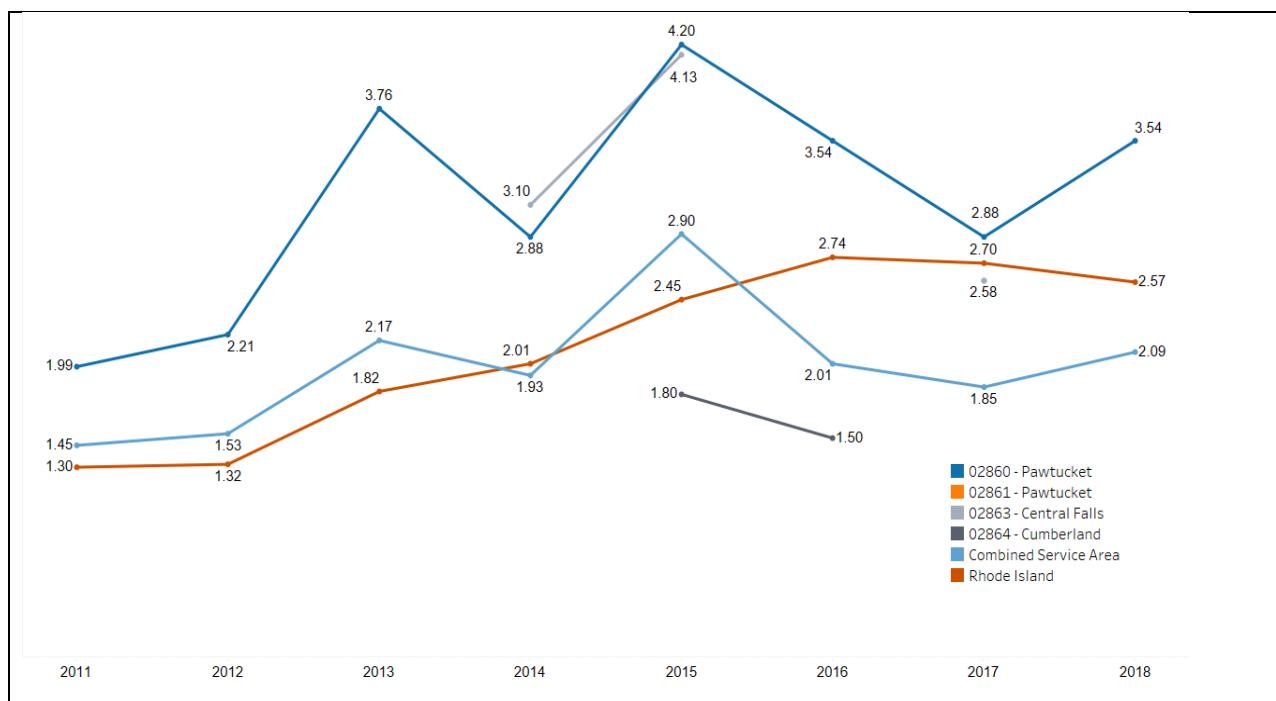


### Opioid related deaths

Between the years of 2011 and 2018, rates of opioid-involved accidental drug overdose deaths were higher among residents of 02860-Pawtucket and 02863-Central Falls for all years where counts are large enough to share publicly without compromising anonymity. See Figure 52<sup>18</sup>. While the rate of opioid-involved accidental drug overdose deaths for the combined service area dipped below the rate for the state for most recent three consecutive years, particular consideration should be given to the particular ZIP codes (02860-Pawtucket and 02863-Central Falls) that consistently trend above the state.

<sup>18</sup> For some years, a count of less than 5 occurred in certain ZIP codes. A rate was not computed and is not shown for those years for confidentiality. For the ZIP code 02861-Pawtucket, no line is show as there was less than 5 occurrences each year from 2011-2018.

**Figure 52: Rates of opioid-involved accidental drug overdose deaths per 10,000 residents of select zip codes, 2011-2018**



Source: Office of State Medical Examiners (OSME), Center for Health Data Analysis (CHDA, Rhode Island Department of Health (RIDOH)

### C. Utilization trends pre- and post-closure

#### *Overview of CNE services pre- and post-closure*

CNE had owned and operated MHRI since 2013. MHRI was a licensed acute care hospital and a teaching affiliate of the Warren Alpert Medical School of Brown University. On November 2, 2017, CNE submitted a written plan to RIDOH to eliminate the ED thus ceased operations as a licensed inpatient hospital. Because of the cessation of MHRI hospital operations, MHRI also proposed to eliminate the provision of primary care services under its license. Under RIDOH's approval, the license to provide primary care services was transferred to Kent Hospital, although primary care services (Family Care Center and Internal Medicine Clinic) remain on the former MHRI campus at 111 Brewster Street, Pawtucket. Further, pediatric services remain at the Pediatric Care Center at 555 Prospect Street, Pawtucket. CNE signed a memorandum of understanding (MOU) with Miriam Hospital (Lifespan) to provide an inpatient-training site for Family Medicine and Internal Medicine residents to be compliant with Centers for Medicare and Medicaid (CMS) graduation medical education requirements. CNE Health System currently owns and operates the following facilities:

- Women & Infants Hospital (Providence)
- Kent Hospital (Warwick)

- Butler Hospital (Providence) – inpatient psychiatric and substance use disorder services, partial hospitalization, and intensive outpatient
- Providence Center – behavioral health and substance use disorders outpatient services, 60 programs operating out of 30 sites across the state including Pawtucket. Services include:
  - Integrated Behavioral Health and Assertive Community Treatment,
  - Crisis Stabilization Unit,
  - Anchor Recovery (peer recovery) Centers
  - *Quitting Time* (intensive outpatient treatment program),
  - *Women's Day and Project Link* programs for women.
- VNA Care of New England – home health services
- Family Care Center and Internal Medicine Clinic (former MHRI campus, Pawtucket), including the newly formed Walk-in Clinic.
- Pediatric Care Center (Pawtucket).

As a condition of elimination of Emergency Department services, CNE expanded operations at the Family Care Center/Internal Medicine Clinic to provide a Walk-in Clinic. According to information provided by CNE to RIDOH, the Walk-in Clinic is providing express care Monday through Friday and CNE has signed a Memorandum of Understanding (MOU) with Blackstone Valley Community Health Center (BVCHC) to facilitate walk-in hours on Saturdays. Both CNE and BVCHC provide services to all patients that present for care regardless of ability to pay. According to CNE, 916 patients that are not registered patients with the Family Care Center/Internal Medicine Clinic were seen in the Walk-in Clinic from January 2018 through April 2019.<sup>19</sup> In the first four months of 2019 (January –April), there were 1793 visits in the Walk-in Clinic, or approximately 450 per month.<sup>20</sup>

**Primary care services** - The Family Care Center/Internal Medicine Clinic continue operations on the former-MHRI campus with relatively no change in hours of operation (extended by one hour until 8pm on Wednesdays) or staffing. At the request of JSI, CNE provided data on the number of primary care visits for patients living with the service area. The data submitted by CNE is shown in the tables below and indicates that the number of primary care visits to service area residents decreased from 2017 to 2018 (post-closure of MHRI), and are projected to decrease further for 2019 (based on 11 months of data).<sup>21</sup>

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<sup>19</sup> Letter from CNE to RIDOH, dated June 20, 2019.

<sup>20</sup> Ibid.

<sup>21</sup> Email response from CNE dated September 19, 2019, and updated per December 9, 2019 request for JSI.

**Figure 53: Family care center encounters pre- and post- closure**

<u>Family Care Center</u>						
	Jan – Dec 2017		Jan – Dec 2018		Jan – Nov 2019	
	Family Medicine resident encounters	Non-resident encounters (MDs, PAs, etc.)	Family Medicine resident encounters	Non-resident encounters (MDs, PAs, etc.)	Family Medicine resident encounters	Non-resident encounters (MDs, PAs, etc.)
02680	<b>4,307</b>	<b>14,510</b>	<b>3,115</b>	<b>15,224</b>	<b>3,977</b>	<b>9,303</b>
02861	<b>2,166</b>	<b>6,225</b>	<b>1,850</b>	<b>6,584</b>	<b>2,080</b>	<b>3,945</b>
02862	<b>50</b>	<b>77</b>	<b>50</b>	<b>98</b>	<b>27</b>	<b>73</b>
02683	<b>1,513</b>	<b>4,986</b>	<b>941</b>	<b>4,999</b>	<b>1,080</b>	<b>3,277</b>
02864	<b>472</b>	<b>1,422</b>	<b>421</b>	<b>1,506</b>	<b>350</b>	<b>924</b>
Totals target area	<b>8,508</b>	<b>27,220</b>	<b>6,377</b>	<b>28,411</b>	<b>7,514</b>	<b>17,522</b>
Totals ALL	<b>11,551</b>	<b>40,559</b>	<b>9,569</b>	<b>46,264</b>	<b>10,524</b>	<b>39,754</b>

**Figure 54: Internal medicine clinic encounters pre- and post- closure**

<u>Internal Medicine Clinic</u>						
	Jan – Dec 2017		Jan – Dec 2018		Jan – Nov 2019	
	Internal Medicine resident encounters	Non-resident encounters (MDs, PAs, etc.)	Internal Medicine resident encounters	Non-resident encounters (MDs, PAs, etc.)	Internal Medicine resident encounters	Non-resident encounters (MDs, PAs, etc.)
02680	<b>623</b>	<b>1,687</b>	<b>531</b>	<b>2,154</b>	<b>250</b>	<b>1,439</b>
02861	<b>358</b>	<b>1,056</b>	<b>318</b>	<b>1,258</b>	<b>122</b>	<b>1,019</b>
02862	<b>0</b>	<b>15</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>
02683	<b>302</b>	<b>856</b>	<b>312</b>	<b>1,058</b>	<b>125</b>	<b>760</b>
02864	<b>52</b>	<b>263</b>	<b>78</b>	<b>367</b>	<b>22</b>	<b>289</b>
Totals target area	<b>1,335</b>	<b>3,877</b>	<b>1,239</b>	<b>4,838</b>	<b>520</b>	<b>3509</b>
Totals ALL	<b>1,651</b>	<b>5,430</b>	<b>1,546</b>	<b>6,883</b>	<b>637</b>	<b>5970</b>

Source: Care New England in response to JSI request for data. See Figure 4 for crossmap from zip codes to municipality.

**Medical and surgical clinic services** - CNE provided an update on Specialty Clinics at the Family Care Center/Internal Medicine Clinic in its letter to RIDOH (refer to footnote 7) and further clarification was provided during a site visit by JSI to the Family Care Center/Internal Medicine Clinic. Below is a summary of changes pre- and post-closure:

- General Surgery – Clinic hours reduced from M-F 8am - 4:30pm to Thursday 8am - 4:30pm.
- Oncology/Hematology – Clinic hours reduced from M-F 8am - 3pm to Thursdays 10am - 5pm. CNE noted that the reduced number of clinic hours is due to provider staffing levels and CNE is actively recruiting providers with goals of restoring clinic schedule.
- Vascular surgery – Specialty clinic added, clinic hours 4 hours on 2<sup>nd</sup> and 4<sup>th</sup> Fridays of the month.

During JSI's site visit, CNE noted that it intends to maintain specialty clinic hours and that a goal is to integrate specialty clinics into the primary care physical space. Currently, specialty clinics are located in the lower level of the facility and have a separate entrance/check-in area.

**Behavioral health (substance use and mental health)** – CNE provided utilization data for services offered through its Providence Center pre-and post-closure (through November 2019) in total and for the service area. Utilization for service area remained consistent pre-and post-closure with the exception of the Anchor Recovery Program. In its December 23, 2019 response, CNE explained that the volume dropped significantly during calendar year 2019 because the program had to move abruptly to a new location that was much less convenient for patients. CNE reported further that the program will be moving from this temporary location back to a permanent and more convenient location in early 2020 and they expect that volumes will rebound after this final move.

CNE noted that the following behavioral health services are also offered on-site at the Family Care Center/Internal Medicine Clinic: 1) open access clinic two days per week; 2) scheduled clinic sessions for adults and children three times per week, and 3) medication management evaluations two afternoons per month.

Two providers at CNE's primary care clinic are approved for medially assisted treatment (MAT) waiver to provide care to patients with opioid use disorders (OUD). As of September 2019, there were an average of eleven patients participating in the MAT program.

**Ancillary services** - The closure of MHRI resulted in a change in ancillary services, in particular, imaging services that were under MHRI's license. Magnetic resonance imaging (MRI) and computerized tomography (CT) are no longer offered onsite; patients are referred to local area providers. Positron emission tomography (PET) is provided at Kent Hospital following closure of MHRI.

#### **Family medicine residency program and internal medicine residency program**

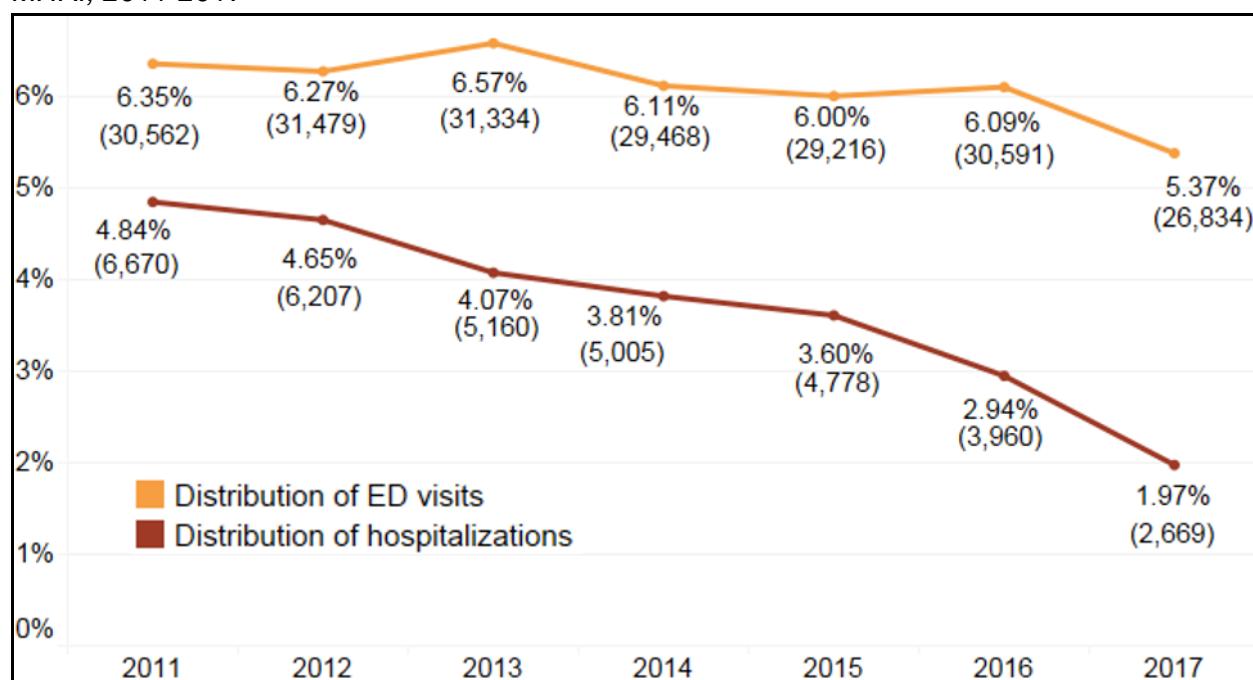
With the elimination of MHRI's license as an acute care facility, 72 graduate medical education (GME) slots were returned to CMS for reallocation. CNE submitted a letter to CMS on October 26, 2018 requesting the MHRI slots (now under Kent Hospital license); CMS responded on May 22, 2019, indicating that CNE was awarded 52 direct medical education (DME) slots. In conversations with JSI and

RIDOH, CNE indicated that it is committed to retaining the residency programs, although more of the internal medicine residents will be located at Kent Hospital.

#### *Utilization of emergency department services*

MHRI's Emergency Department provided approximately 30,000 visits per year from 2011 through 2017 prior to closure in 2018. As shown in Figure 55, the number of emergency visits remained constant even as inpatient services were eliminated, and hospital discharges declined. On December 1, 2017, RIDOH and MHRI entered into a Consent Agreement stating MHRI would cease providing elective surgeries, surgery, and anesthesia service. This likely affected 2017 volume for both ED visits and hospitalizations. If this agreement had not been entered into, the volume and share for 2017 might have been close to the 30,000-visit level.

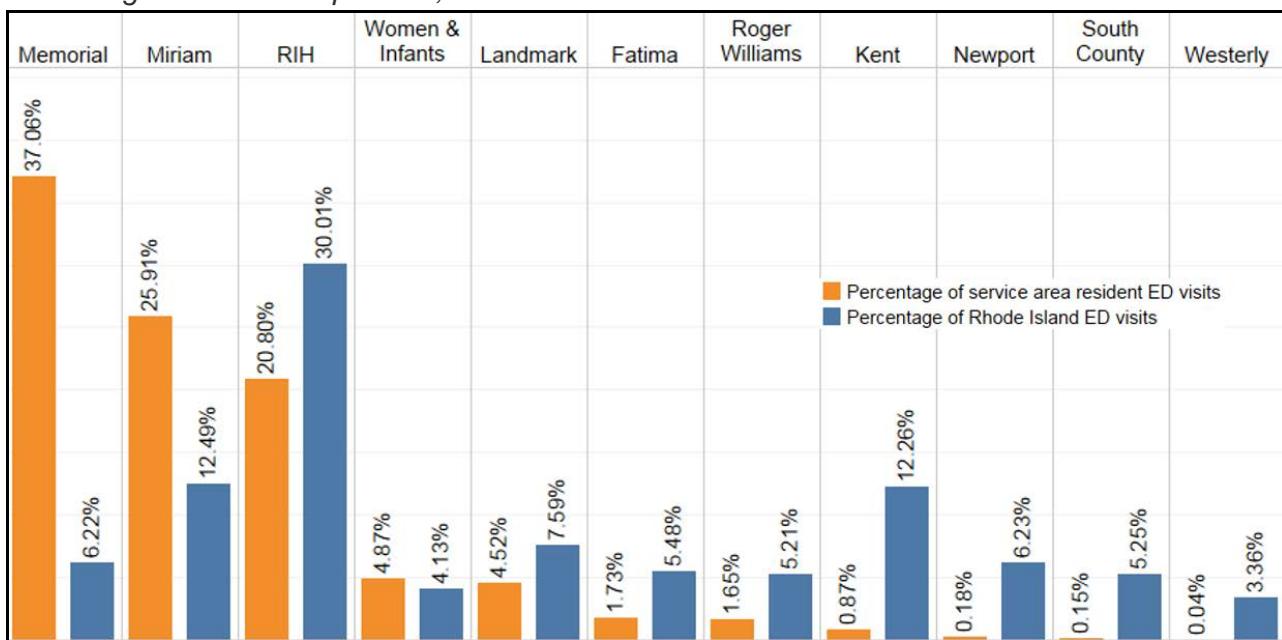
**Figure 55: Distribution of Rhode Island emergency department visits and hospitalizations to MHRI, 2011-2017**



Source: Rhode Island Hospital Discharge Data

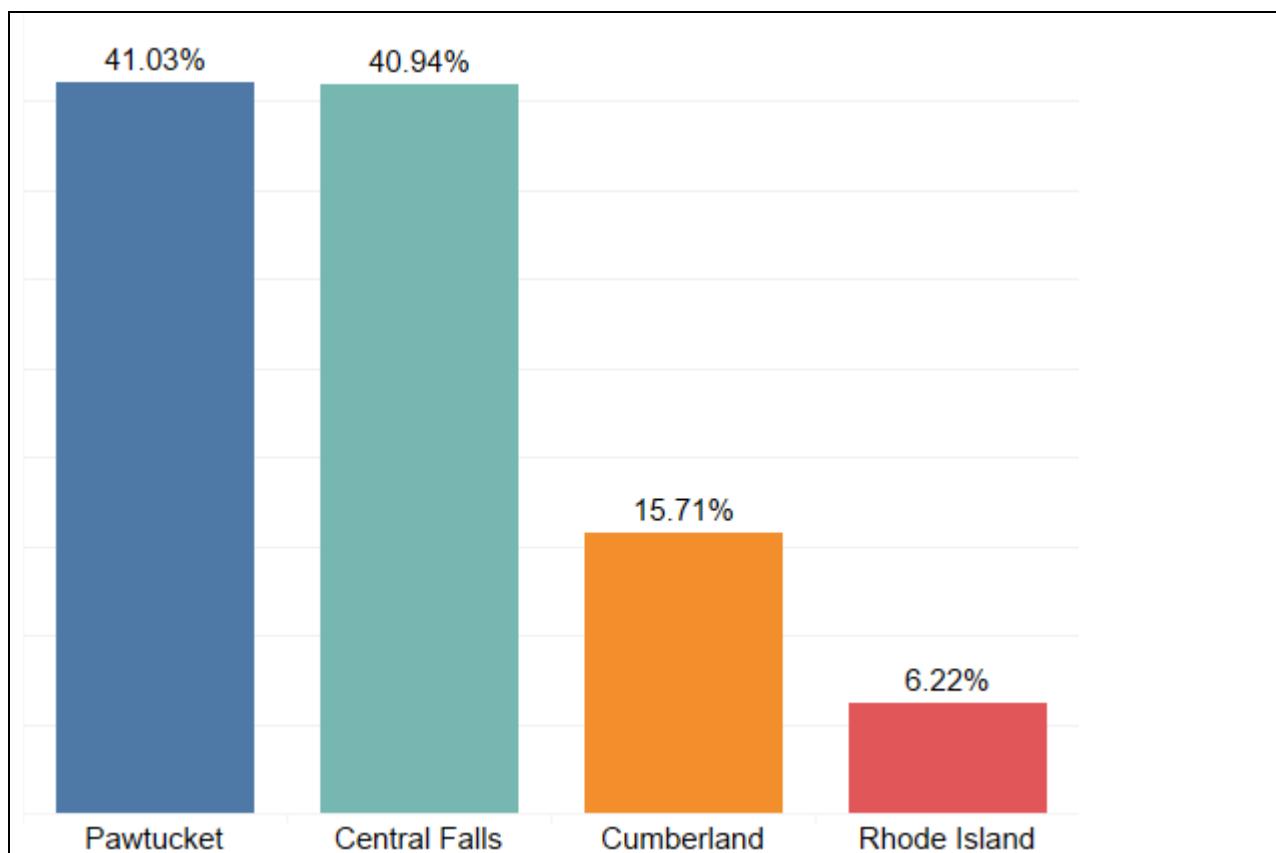
MHRI was a significant provider of emergency care for the service area residents. From 2011-2017, MHRI provided 6.22% of the emergency visits statewide, but 37.06% of the emergency visits by service area residents. Figure 57 shows that Pawtucket and Central Falls residents were particularly dependent upon MHRI for inpatient services.

**Figure 56: Spread of emergency department visits across Rhode Island hospitals for residents of the target area and all patients, 2011-2017**



Source: Rhode Island Hospital Discharge Data

**Figure 57: Percentage of all emergency department visits presenting to Memorial Hospital of Rhode Island by resident area, 2011-2017**

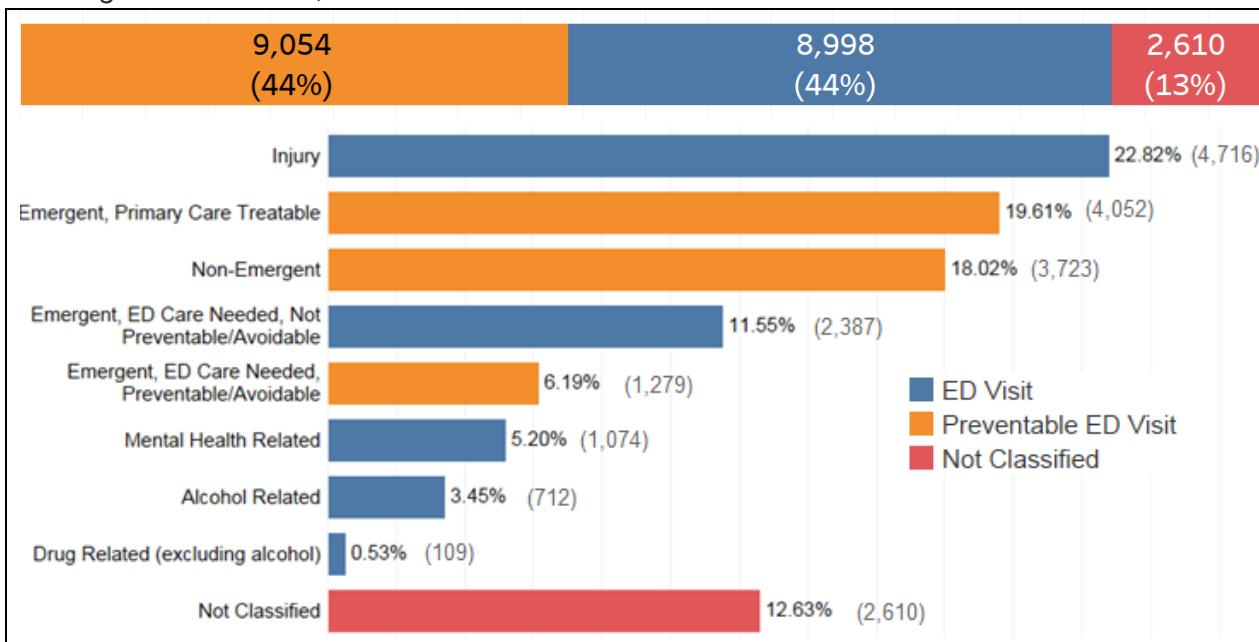


Source: Rhode Island Hospital Discharge Data

A more detailed analysis of MHRI ED visits was conducted to understand the levels of services being provided using an algorithm developed by New York University (NYU). Using this algorithm, the analysis of MHRI ED visits by service area residents in 2017 indicated emergency department visits (classified) for the service area population were evenly split between those that were emergent/urgent and those that were primary care treatable or avoidable (see Figure 58).<sup>22</sup>

<sup>22</sup>Faculty & Research. (n.d.). Retrieved November 3, 2019, from <https://wagner.nyu.edu/faculty/billings/nyued-background>.

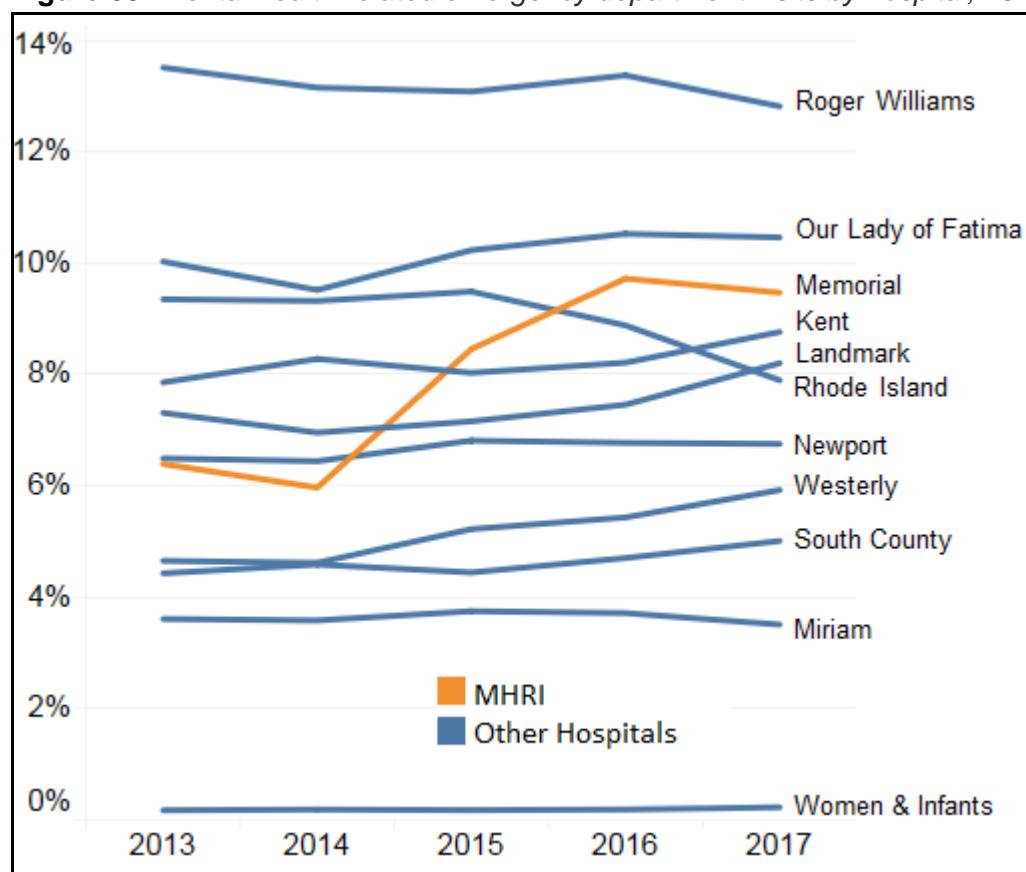
**Figure 58: Memorial Hospital of Rhode Island (MHRI) NYU Algorithm ED Visit Classification for the Target Service Area, 2017**



Source: Emergency Department Visit Database

The analysis of ED visits using the NYU algorithm indicated that 5.20% of the visits were mental health related. An analysis of ED visits across Rhode Island hospitals between 2013 and 2017 showed that MHRI had a significant increase in mental-health related ED visits and in 2017 had the third highest rate (see Figure 59).

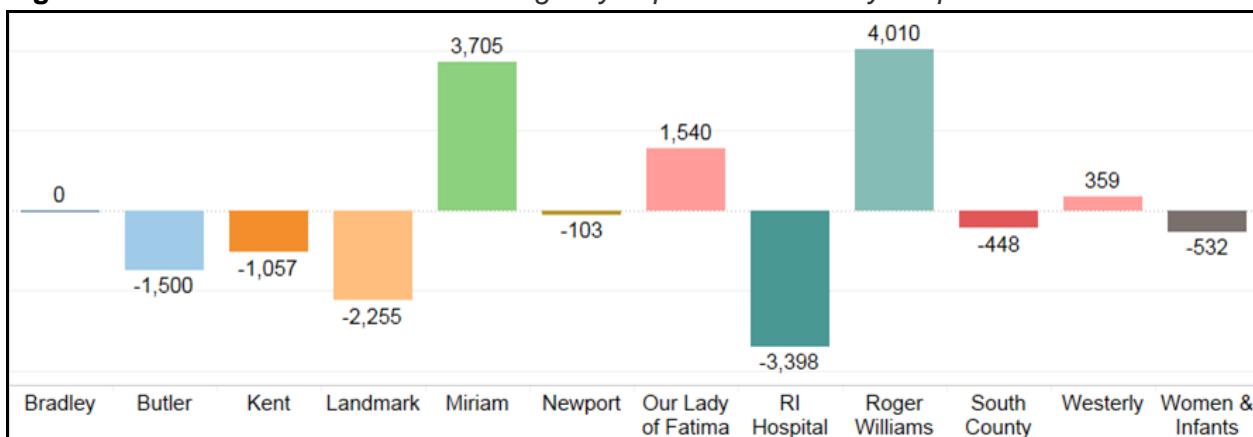
**Figure 59: Mental health-related emergency department visits by hospital, 2013-2017**



Source: Rhode Island Emergency Department Visit Database

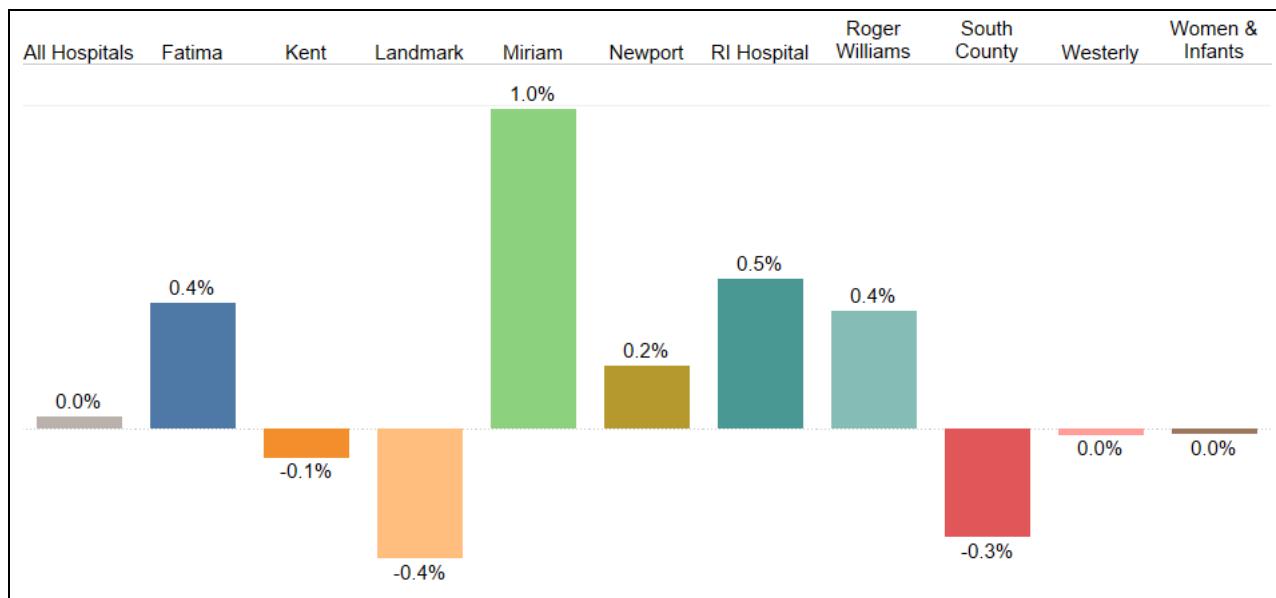
In 2018, Rhode Island experienced a decline in total ED visits, although The Miriam Hospital, Roger Williams Medical Center, and Our Lady of Fatima Hospital had increases in ED volume. As shown in Figure 60, The Miriam Hospital's ED visits increased by 3,705 and Roger William Medical Center's ED visits increased by 4,010. In the year following MHRI closure, The Miriam Hospital had the greatest increase in the number of mental health-related ED visits, from 3.5% to 4.5% (increase of 1% point as shown in Figure 61). The results of the quantitative analysis were consistent with qualitative data analysis findings – longer wait times for emergency services at The Miriam Hospital due to increase in volume as well as increased time needed to serve patients with underlying mental health needs.

**Figure 60: Difference in number of emergency department visits by hospital from 2017 to 2018**



Source: Rhode Island Hospital Discharge Data

**Figure 61: Mental health-related emergency department (ED) visits by hospital, difference in percentage of all ED visits, 2017-2018**



Source: Rhode Island Hospital Discharge Data

**Figure 62: Emergency department visits to Kent Hospital by ZIP code of residence, 2017-2018<sup>23</sup>**

	2017	2018
Target Area	604	804
Outside Target Area	53,094	51,399
Unknown	356	797
<b>Grand Total</b>	<b>54,054</b>	<b>53,000</b>

Source: Rhode Island Hospital Discharge Data

Kent Hospital had an overall decrease in ED visits in 2018, but an increase of 200 from the service area residents (Figure 62). An analysis prepared by RIDOH, shows that The Miriam Hospital experienced even a greater increase of ED visits by service area residents, increasing from 18,996 in 2017 to 26,307 in 2018, or 7,311 increase. Emergency department visits by service area residents in 2018 to The Miriam Hospital were 35.9% Medicaid and 20.7% uninsured (Figure 63).

**Figure 63: Emergency department visits to Lifespan hospitals from service area residents, 2017 to 2018**

EMERGENCY DEPARTMENT VISITS						
2017						
	Private	Medicare	Medicaid	Uninsured	Other	Total
Newport	24 (20.7%)	8 (6.9%)	53 (45.7%)	23 (19.8%)	8 (6.9%)	116
Miriam	3870 (20.4%)	5046 (26.6%)	6544 (34.5%)	3190 (16.8%)	346 (1.8%)	18996
RI Hospital	2964 (20.3%)	1591 (10.9%)	8213 (56.2%)	1545 (10.6%)	301 (2.1%)	14614
Total N	6,858	6,645	14,810	4,758	655	33,726
Total %	20.3%	19.7%	43.9%	14.1%	1.9%	
2018						
	Private	Medicare	Medicaid	Uninsured	Other	Total
Newport	22 (18.2%)	11 (9.1%)	58 (47.9%)	21 (17.4%)	9 (7.4%)	121
Miriam	4596 (17.5%)	6398 (24.3%)	9444 (35.9%)	5448 (20.7%)	421 (1.6%)	26307
RI Hospital	3073 (17.8%)	1739 (10.1%)	9993 (58.0%)	2112 (12.3%)	312 (1.8%)	17229
Total N	7,691	8,148	19,495	7,581	742	43,657
Total %	17.6%	18.7%	44.7%	17.4%	1.7%	
Change from 2017 to 2018						
	Private	Medicare	Medicaid	Uninsured	Other	Total
Newport	-2	3	5	-2	1	5
Miriam	726	1352	2900	2258	75	7311
RI Hospital	109	148	1780	567	11	2615
Total N	833	1503	4685	2823	87	9931

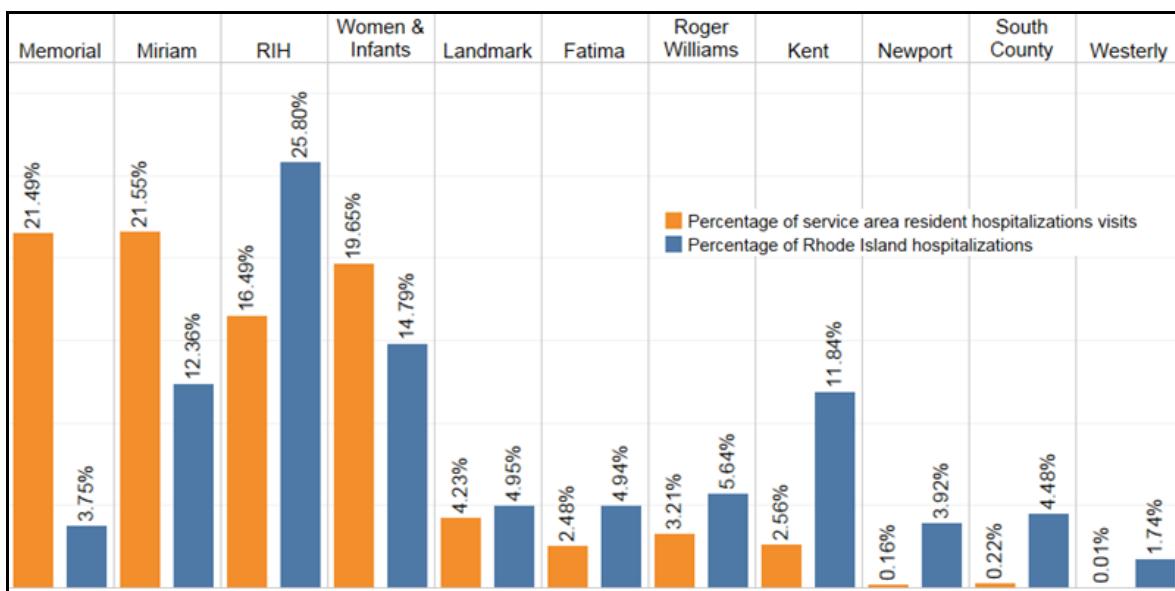
Source: Rhode Island Hospital Discharge Data

<sup>23</sup> Figure 62 shows a decrease of 1,054 ED visits to Kent Hospital from 2017-2018, while Figure 60 shows a decrease of 1,057. This difference can be explained by one of two reasons: 1) the data sets used were pulled at different times, so data may have been updated or cleaned between pull and 2) the query may have used ZIP code from where patient was coming from while another may have used ZIP code from where patient was being discharged to.

### General inpatient services

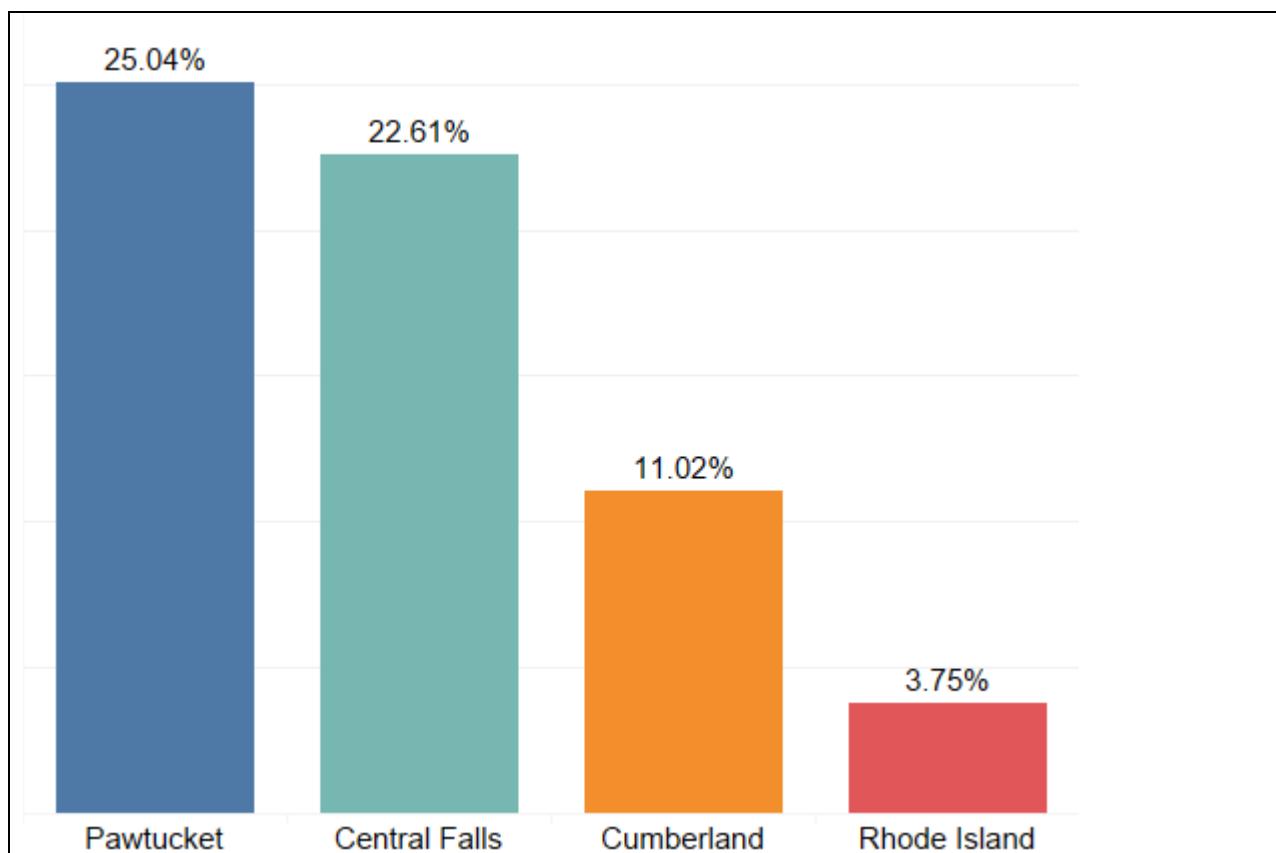
MHRI hospitalizations steadily decreased from 4.84% in 2011 to less than 2% in 2017 (refer to Figure 65). As with emergency services, MHRI was a significant provider of inpatient care for service area residents. Over the seven-year period, MHRI provided 3.75% of hospitalizations statewide, but 21.49% of hospitalizations for the service areas residents (Figure 64). The Miriam Hospital was also a major provider of hospital services for the target community. Consistent with the emergency departments, Pawtucket and Central Falls had the greater reliance on MHRI for ED services compared to Cumberland.

**Figure 64. Spread of hospitalizations across Rhode Island Hospitals for residents of the target area and all patients, 2011-2017**



Source: Rhode Island Hospital Discharge Data

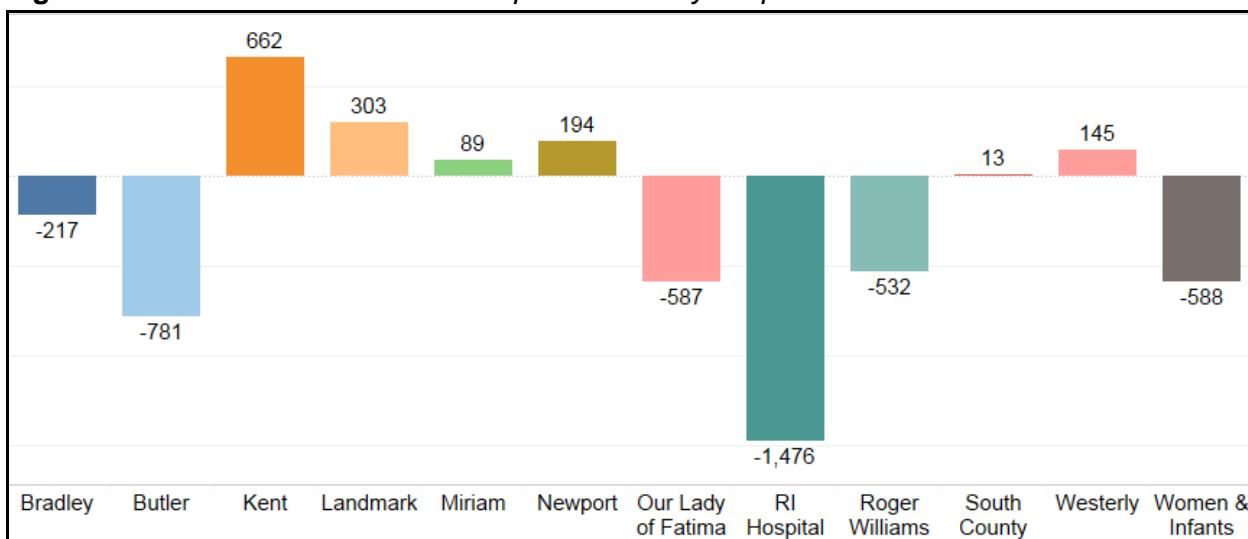
**Figure 65: Percentage of all hospitalizations to Memorial Hospital of Rhode Island by resident area, 2011-2017**



Source: Rhode Island Hospital Discharge Data

In 2018, Rhode Island experienced a 5,444 decrease in the number of hospitalizations, but Westerly Hospital, Landmark Medical Center, and Kent Hospitals had increased volume (Figure 66). Key informant interviews with RIDOH and other key informants indicated that the change in hospitalizations could be the result of various factors, including labor disputes, hospital diversion policies, accountable care organization relationships, etc.

**Figure 66. Difference in number of hospitalizations by hospital from 2017 to 2018**



Source: Rhode Island Hospital Discharge Data

**Figure 67: Hospitalizations to Kent hospital by ZIP code of residence, 2017-2018<sup>24</sup>**

	2017	2018
Target Area	523	503
Outside Target Area	14,036	14,629
Unknown	36	124
<b>Grand Total</b>	<b>14,595</b>	<b>15,256</b>

Source: Rhode Island Hospital Discharge Data

CNE leadership noted that the increase in volume at Kent Hospital was not related to MHRI closure and this was confirmed by an analysis of Rhode Island Discharge Data; the number of hospitalizations to Kent Hospital by service areas residents decreased from 523 in 2017 to 503 in 2018 (Figure 67). Conversely, The Miriam Hospital had a significant increase in the number of hospitalizations from service area residents; hospitalizations increased from 4,086 in 2017 to 5,107 in 2018, or a 1,021 increase. For service area hospitalizations in 2018, 20.7% were Medicaid and 17.2% were uninsured (Figure 68).

<sup>24</sup> Figure 67 shows an increase of 661 hospitalizations to Kent Hospital from 2017-2018, while Figure 66 shows an increase of 662. This difference can be explained by one of two reasons: 1) the data sets used were pulled at different times, so data may have been updated or cleaned between pull and 2) the query may have used ZIP code from where patient was coming from while another may have used ZIP code from where patient was being discharged to.

**Figure 68: Hospitalizations to Lifespan hospitals from service area residents, 2017 to 2018**

INPATIENT HOSPITALIZATIONS						
2017						
	Private	Medicare	Medicaid	Uninsured	Other	Total
Newport	3 (10.7%)	10 (35.7%)	15 (53.6%)	0 (0%)	0 (0%)	28
Miriam	636 (15.6%)	2116 (51.8%)	691 (16.9%)	594 (14.5%)	49 (1.2%)	4086
RI Hospital	576 (19.2%)	922 (30.7%)	1108 (36.9%)	352 (11.7%)	49 (1.6%)	3007
Total N	1,215	3,048	1,814	946	98	7,121
Total %	17.1%	42.8%	25.5%	13.3%	1.4%	
2018						
	Private	Medicare	Medicaid	Uninsured	Other	Total
Newport	7 (8.3%)	17 (20.2%)	47 (56.0%)	12 (14.3%)	1 (1.2%)	84
Miriam	710 (13.9%)	2404 (47.1%)	1055 (20.7%)	877 (17.2%)	61 (1.2%)	5107
RI Hospital	598 (18.0%)	1063 (32.0%)	1191 (35.8%)	422 (12.7%)	50 (1.5%)	3324
Total N	1,315	3,484	2,293	1,311	112	8,515
Total %	15.4%	40.9%	26.9%	15.4%	1.3%	
Change from 2017 to 2018						
	Private	Medicare	Medicaid	Uninsured	Other	Total
Newport	4	7	32	12	1	56
Miriam	74	288	364	283	12	1021
RI Hospital	22	141	83	70	1	317
Total N	100	436	479	365	14	1394

Source: Rhode Island Hospital Discharge Data

### *Emergency Medical Services (EMS)*

An analysis of EMS NEMSIS data for Pawtucket, Central Falls, and Cumberland (service area) provided information about changes in volume and mean/medium trip times. Selected indicators for the analysis included:

- Volume (trips)
- Time Intervals (mean, median, 10% percentile, 90th percentile)
  - Time In Minutes - Notification To Arrival On Scene
  - Time In Minutes - Arrival On Scene To Arrival At Patient
  - Time In Minutes - Arrival At Patient To Left Scene
  - Time In Minutes - Arrival At Destination To Back In Service
  - Time In Minutes - Notification To Arrival At Destination
  - Total Time In Minutes - Notification To Back In Service
- Number of trips by agency by geographic area

Data are based upon location of incident and the analysis was conducted for the combined service area, by zip code, and by municipality. Detailed statistical reports for 2017 and 2018 are included in Appendix D. The number of EMS trips remained consistent from 2017 to 2018, with the largest increase in Central Falls. Mean time intervals for Notification (call for ambulance) to Arrival at Destination

(hospital emergency department or location of treatment) and Notification to Back in Service (ambulance station) indicated modest increases in all towns from 2017 to 2018. The results, however, may have been affected by the decision in 2017 to not allow EMS transports of patients with certain conditions to MHRI. As noted earlier, comparable NEMSIS data was not available for 2016. RIDOH plans to update the EMS analysis for 2019 to continue to monitor any impact of the closure of MHRI as well as the impact of the added EMS vehicle placed into service by the city of Pawtucket post MHRI closure.

## **IV. Long-term impact assessment**

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### **A. Impacted service area population**

As outlined above, the impacted service area population was determined through the foundational research (refer to figures 2 and 3). The service area was defined using MHRI patient origin data and through the key informant interviews, for example, as noted in the previous section, several key informants were surprised that Cumberland was included in the service area given the demographics (e.g., generally higher income), further investigation revealed a census tract within Cumberland that is adjacent to Central Falls and whose population has similar demographics. In general, the service area population is lower income, more likely to be Latino or foreign born, less likely to have health insurance, and less likely to have private transportation. From a health status perspective, the service area population is more likely to suffer from chronic condition, such as diabetes or heart disease.

The service area population relied on MHRI for health care services, including inpatient, emergency services, hospital outpatient services (laboratory, infusion therapy, radiology) as well as primary care through the Family Medicine Center and Internal Medicine Clinic located on the MHRI campus (111 Brewster Street, Pawtucket). Focus group participants and key informants spoke of MHRI as a “one-stop shopping” for services and a place where they felt welcome. There were differences of opinion on the quality of services provided at MHRI (inpatient services) and the patient experience, but there was consensus that MHRI provided a locus of health care services for the service area and the closing of the hospital has affected access to services. Findings regarding access to health care services by the service area population are presented below. The findings are derived from a combination of foundational, qualitative, and quantitative research. In general, findings from the qualitative research are those that were consistent across key informant interviews and focus groups. While maintaining confidentiality, it is noted if responses were from focus groups and from segments of the key informants, for example, from the medical community.

### **B. Access to care**

#### *Access to healthcare services*

##### **General impact**

Findings from quantitative and qualitative research suggest that MHRI served as a community hospital for the residents of Pawtucket, Central Falls, Cumberland (in particular those living in census tract 112) and to a lesser extent Lincoln, East Providence, North Providence, Attleboro (MA), Seekonk (MA), and Providence (refer to Figures 1 and 2). On average, over the period of study (2011 – 2017), MHRI

represented 3.7% of the inpatient admissions for the state but 21.5% for the defined service area. MHRI provided 6.1% of the emergency visits for the state, but 37.1% for the service area. MHRI also provided outpatient services on the hospital campus (e.g., imaging, infusion therapy), several of which have been relocated to the Kent Hospital campus or are no longer provided directly by CNE, for example, MRI services. Primary and specialty medical services continue to be provided on the campus at the Family Care Center and Internal Medicine Clinic, although there have been some revisions to the number of specialty clinic sessions. MHRI was located within the community, within walking distance for many residents. MHRI represented a hub of the health care services for residents of Pawtucket, Central Falls, and Cumberland, in particular those with limited resources and low English proficiency. The closure of MHRI has had an impact on access to services, not necessarily eliminating access, but requiring changes in how residents access services. The impact could be long-term, affecting both access to services and health status.

It should also be noted that the closure of MHRI resulted in the loss of a teaching site for the Family Medicine and Internal Medicine Residency Programs. CNE has clearly stated its commitment to retaining the residency program. Nevertheless, maintaining the residency programs, in particular the family medicine residency program will require special considerations, for example, CNE maintaining its agreement with The Miriam Hospital to serve as a training site. Family medicine residents provide primary care services to service areas residents and the program provides a pipeline for family medicine physicians.

### **Inpatient - general medical/surgical**

At the time of closure, according to the “reverse CON” application submitted by CNE, MHRI had an average daily census of 27.2 for the fourth quarter of 2017 (9.3% occupancy based on 294 licensed beds).<sup>25</sup> There was general agreement among key informants that the closure of MHRI has been happening over several years – there were reduced admissions and occupancy rates as service lines were eliminated and shifted to other hospitals with CNE’s system. The shift of services to other hospitals was often done in support of patient safety where maintaining quality requires a certain volume of services. As with any hospital-based system, the hospital served is part of a health care “eco-system” so that as services were eliminated, medical and surgical specialty practices associated with those services would move practice from MHRI campus to other locations and patients would follow. This gradual decline mitigated the impact of closure, as related to inpatient services, but as noted earlier, MHRI served a greater percentage of service area residents.

A study conducted by the Lewin Group (Lewin) in 2012-2013 was cited by several key informants as relevant to the decision to support the closure of MHRI inpatient services.<sup>26</sup> JSI obtained a copy of the final report and reviewed the findings as part of our foundational research (note that JSI did not conduct an informational interview with the Lewin Group regarding the study). In the study, Lewin conducted a

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<sup>25</sup> MHRI letter to RIDOH dated November 22, 2017.

<sup>26</sup> Rhode Island Coordinated Health Planning Project, prepared by the Lewin Group, February 21, 2013

gap analysis focused on assessing the current health care system's inpatient capacity, utilization, distribution of services, and the resulting impact on costs. Inpatient bed need for the state was projected based upon various scenarios, e.g., population growth. Using their Bed Need Model, Lewin's highest range projection scenario would result in a shortage of 64 beds. However, all other projection scenarios resulted in an estimated surplus of beds ranging from 79 to 338. For their analysis, Lewin used the Dartmouth Atlas of Health Care that designates the entire state of Rhode Island as a single Hospital Referral Region, which means, "people will travel across the state for significant procedures and particularly to Providence". Interviews with key informants indicated that while this assumption is consistent with model used for projecting bed need, it does not necessarily reflect the reality for Rhode Island. Although communities within the state are in close proximity geographically, they are different culturally and linguistically. This is evident in the demographic data presented earlier in this report, for example, the greater percentage of Spanish-speaking households in the service area. Culturally, key informants and focus groups participants noted that going from Pawtucket to Warwick (location of Kent Hospital) is like "going to a different universe." Focus group participants noted that they were concerned about being transported to Kent Hospital for emergency services because they would be "stuck" at Kent with no way to get home. Transportation is a barrier to access services even though the distance in miles is not far. CNE has made efforts to get patients from the service area to receive services at Kent Hospital but there are limiting factors both structural (distance, language barriers) and cultural (welcoming).

### **Obstetrical inpatient services (labor and delivery)**

Obstetrical services for the service area had largely shifted to CNE's Woman & Infants Hospital prior to closure of MHRI, reducing the overall impact at the time of closure. CNE closed the obstetrical unit at MHRI in 2016 and transferred services to Women & Infants Hospital.

CNE informed JSI/RIDOH that it has hired a Chief Diversity Officer who will explore how CNE delivers and improves care in an equitable fashion. The initial focus of this initiative is at Women & Infants Hospital. This effort should mitigate any impact of closure related to labor and delivery services and allow for coordinated care for pregnant women within the service area.

### **Emergent/urgent care**

An immediate system-wide impact after closure was the increased wait time and emergency department volume at area hospitals, in particular The Miriam Hospital (as noted earlier in this report). Several key informants and focus group participants noted noticeably longer wait times for emergency department services. Access to emergency care was hindered, not only from higher volume but also from the greater needs of population that had been served by MHRI Emergency Department (ED), i.e., those with more complex social needs, language barriers, etc. These factors contributed to the longer time needed to treat a patient within the emergency department.

As noted earlier, MHRI's ED provided on average 30,000 visits per year. MHRI's ED provided 3.7% of total ED visits in the state, but 21.5% for the services area (refer to Figure 55). While inpatient

admissions declined over the period of analysis (2011 through 2017), MHRI ED visits remained constant over that same period (refer to Figure 56).

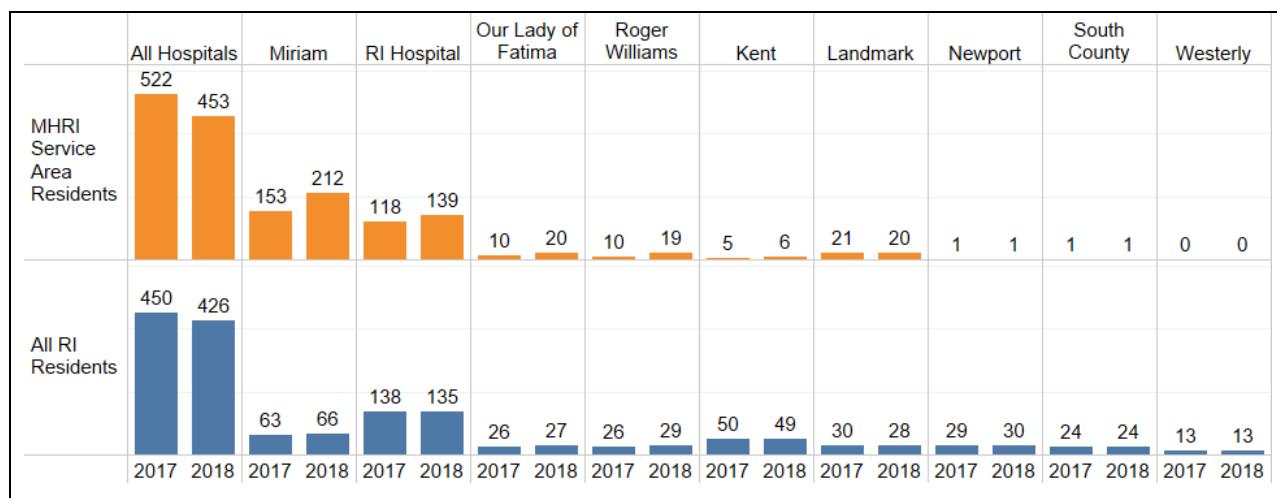
The closure of MHRI's ED required that patients seeking emergency care go elsewhere for these services. The quantitative analysis indicated that a significant number of patients shifted to The Miriam Hospital, the acute care facility in closest proximity to MHRI (refer to Figure 59).

Increased wait times and greater ED volume at other hospitals nearby, particularly at The Miriam (the closest hospital for many residents within MHRI's service area) was discussed by multiple key informants, as well as a number of community members from focus groups. Informants also discussed increased rescue runs to Miriam and Rhode Island Hospital (RIH). Consequently, increased number of hospital diversions, as a being major impact and result of the closure, although this could not be fully substantiated as there were other potentially contributing factors, for example, changes in hospital diversion policies. Focus group participants and key informants did speak of community members calling an ambulance in an effort to be seen more quickly within the ED, as well as long waiting lines and patients leaving without being seen. An analysis of EMS data pre- and post-closure indicated an increase in the number of EMS trips for Central Falls but no increase for Pawtucket and a decrease in Cumberland; hence, it is not clear if these were isolated events, rather than a trend.

JSI was not able to obtain Massachusetts' hospital discharge data for this study, but was able to conduct a key informant interview with Sturdy Memorial Hospital (located in Attleboro) and it was noted that it did not see a notable impact on their emergency room, but do see well over 40,000 ED visits per year. Sturdy Memorial did note a greater than expected number of visits in their recently opened (2017) urgent care center.

Figure 69 demonstrates that ED utilization rates declined in 2018 statewide and with the service area. Within the service area population, the ED utilization rate went from 522.5 per 1000 prior to closure to 453.1 per 1000 post-closure. The ED utilization rate statewide went from 450.4 per 1000 prior to the closure to 426.2 per 1000 post-closure. Figure 69 also demonstrates that MHRI service area residents were higher utilizers of the ED in both 2017 and 2018 across all hospitals. The difference in rate of ED visits of MHRI service area residents and all Rhode Island decreased between 2017-2018.

**Figure 69: Emergency department visits to Rhode Island hospitals for Memorial Hospital of Rhode Island service area residents and all Rhode Island residents, rate per 1000, 2017-2018<sup>27</sup>**



Source: Rhode Island Hospital Discharge Data

Although it is not possible to determine the specific cause of the decline in ED utilization within the service area, qualitative research provided some indications, some of which present potential barriers to access:

- **Target area population is forgoing emergency services when needed.** Several key informants talked about the over-crowding in The Miriam Hospital's emergency department and hearing about individuals leaving the ED without receiving services. Focus group participants talked about individuals not wanting to be transported to Kent Hospital for care because they would have difficulty getting back home given the distance and family/friend not having transportation.
- **Target area population is going out of state for non-emergent services.** According to data provided through a key informant interview, Sturdy Memorial Hospital (Attleboro, MA) saw a greater number of patients from Rhode Island in their recently opened urgent care center, following the closure of MHRI.
- **Target area population is using the walk-in clinic instead of the ED for services** - As a condition of closure CNE opened a Walk-in Clinic (aka Express Care) within Family Care Center/Internal Medicine Clinic facility that provides same day appointments for patients needing immediate, but not urgent/emergent care. The Walk-in Clinic provides extended hours but does not provide

<sup>27</sup>Butler Hospital, Bradley Hospital, and Women and Infants Hospital are hidden from this chart, meaning they do not represent their own columns. The decision was made to hide these columns, because these hospitals primarily serve segments of the population (i.e. – patients with severe mental health challenges or women of child-bearing age). Since these hospitals were hidden from the chart (as opposed to excluded), they are still represented in the "All Hospitals" column. Some data missing from Landmark Hospital.

emergent/urgent-level care. Patients that arrive at the Walk-in Clinic requiring a higher level of care are transported to an emergency department at the nearest inpatient facility. Although the exact numbers of patients that required transport from the Walk-in Clinic was not obtained, such occurrences were noted in the qualitative research.

Given that the number of primary care visits at the Family Care Center/Internal Medicine Clinic for service area residents actually declined in 2018 and 2019, it does not appear that greater use of primary care services is contributing to the decline in ED utilization.

### **Outpatient specialty services**

MHRI provided both hospital-based ambulatory services (infusion therapy, imaging) and medical/surgical specialty services on the MHRI campus. Qualitative research indicated that the closure of the hospital-based ambulatory services did affect access to these services for the target area population. Concerns about closure were documented in the public hearings and were born out in the key informant interviews and focus groups. In accordance with RIDOH conditions of closure, CNE has provided transportation to health care services no longer provided on the MHRI campus; transportation support was assured through June 30, 2019. CNE also honored patients' requests to receive inpatient services from another inpatient facility if they did not want to be admitted to Kent Hospital, but doing so would likely require that the patient shift care to a specialty provider with admitting privileges at the selected facility. Patients would have access, but would likely require changes in their care team.

Another area of concern expressed by key informants and focus group participants was the loss of medical and surgical specialties on the MHRI campus. As noted above, several specialty practices had already relocated to other locations as inpatient services were reduced or eliminated. CNE did retain medical and specialty services on the former MHRI campus within the primary care building. CNE noted in interviews that the organization is committed to maintaining these services. CNE provided a schedule of specialty clinics pre- and post-closure.

During JSI's site visit to the Family Care Center/Internal Medicine Clinic, CNE noted that reduction in hours for general surgery was based upon demand for services, and hours would be expanded to meet demand if needed. Several key informants and focus group participants were not aware that specialty services were available on campus, thinking services were limited to primary care. As noted earlier, specialty services are accessed through a separate entrance in the lower parking area and, therefore, not directly visible from the Family Care Center/Primary Care Clinic/Walk-in Clinic entrance. During JSI's site visit, the clinic administrator noted that CNE is considering a redesign of the facility that would more fully integrate specialty services with primary care.

### **Imaging services**

As noted previously, MRI, CT and PET are no longer provided in the former MHRI campus. These services were under MHRI license; hence, the closure of the hospital meant that these services could no longer be provided. Patients needing MRI and CT are referred to providers in the area. PET is now provided at Kent Hospital. Service area population face barriers due to transportation as well as potential financial barriers for those that are uninsured or have large deductibles.

## **Primary care (family medicine and internal medicine)**

The Family Care Center and Internal Medicine Clinic continue to operate on the MHRI campus. There was no interruption in services from the closure of the inpatient facility, although there did seem to be some confusion within the community despite efforts by CNE to publicize that the Family Care Center and Internal Medicine Clinic would remain open.

The Family Care Center/Internal Medicine Clinic is the training site for CNE's residents and residents provided 24% of primary care visits to service area residents in 2017 and 18% in 2018 (computed based upon data provided by CNE in Figures 53 and 54). MHRI served as the inpatient-training site and with the closure of the inpatient facility, CNE had to re-apply to the Centers for Medicare and Medicaid (CMS) to retain the residency slots. The CMS-supported residency slots reduced from 72 to 52. CNE entered into an agreement with The Miriam Hospital to serve as the inpatient training location, allowing the residency program to comply with CMS regulations and remain at the Family Care Center. One key informant noted a positive outcome in that family medicine residents are being introduced at other hospitals that are appreciating the benefits of working with family medicine-trained providers. MHRI was seen as being a "family medicine friendly" hospital.

The need for primary care services within the target area was a common theme across key informant interviews and focus groups. As noted above, the data also suggest that access to primary care services could improve health outcomes as well as reduce hospitalizations related to chronic illnesses and reduce emergency department visits.

## **Mental Health (MH) and Substance Use (SU) care and treatment**

Multiple key informants reported mental health and substance use treatment as a major need in the community. Key informants stated that MHRI had historically served a large segment of the population experiencing alcohol and substance use issues. Several key informants spoke of The Miriam Hospital's struggles to serve the influx of patients with behavioral health needs, because of lack of mental health beds as well as lack of experience serving patients with those needs. The increased number of patients with behavioral health needs "crippled" The Miriam Hospital's emergency department by disrupting the flow of patients through the ED, requiring greater time and creating a backlog. Roger Williams and Rhode Island Hospital were also reported to be seeing a greater number of patients with behavioral health needs. The quantitative analysis of ED visits by service areas population revealed that 5.2% were mental health-related and another 3.45% were alcohol-related, although these percentages are likely understated due to limitations in claims data and reporting.

BVCHC's Health Station in Central Falls which opened in 2018 offers individual and group therapy with plans (as of September 30, 2019) to expand services to include diabetic counseling, post-partum depression, and recovery coaches.<sup>28</sup> CNE and BVCHC are in different accountable care organizations (ACOs) for Rhode Island Medicaid; therefore, some CNE primary care patients may not have access to BVCHC behavioral health providers.

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<sup>28</sup> <http://www.bvchc.org/services/behavioral-health>

### *Access to enabling and support services*

A common theme throughout the qualitative research (primary and review of prior community hearings) was the recognition of MHRI as a place where members of the community felt welcome and received “good” care. Key informants and focus group participants expressed that MHRI created a sense of familiarity, comfort, and welcome. There was a trust in the care that service area residents do not have with the other hospitals. Service area residents had a relationship with MHRI that was multi-generational. MHRI was a place where residents could walk for services they needed, including emergency services. There was not always consensus on the quality of services and the appreciation that a low-occupancy, community hospital may not be financially viable, or that the hospital should stay open to provide jobs. Nevertheless, MHRI was the hub of health care services for Pawtucket, Central Falls, and certain neighborhoods within Cumberland. Therefore, the closure of MHRI would likely require changes in how the community members accessed health care services. Community health workers (CHW) participating in focus groups and key informant interviews reported that clients who were using services at MHRI (notably persons with limited English, women, seniors, persons who walked to the hospital) may be experiencing greater challenges to regaining access to services after MHRI’s closure.

Members of the senior focus group in Pawtucket confirmed that their community has changed, and MHRI provided a “safe space” for individuals who may be vulnerable. “Another plus, Memorial, because it served mainly Central Falls and Pawtucket people, so many non-English speaking people, they had the help there with interpreting, very easy access for people who are kind of scared to go elsewhere; of being understood.”

### **Language/health literacy**

As documented in the demographic analysis, the population that was served by MHRI includes large numbers that have low English language proficiency. Central Falls has a high percentage of Spanish-speaking persons and persons identifying as Hispanic. Language barrier is compounded with low health literacy given the lower educational levels within the service area population. Having culturally and linguistically sensitive services was reported as a need for the community and a strength of MHRI’s staff.

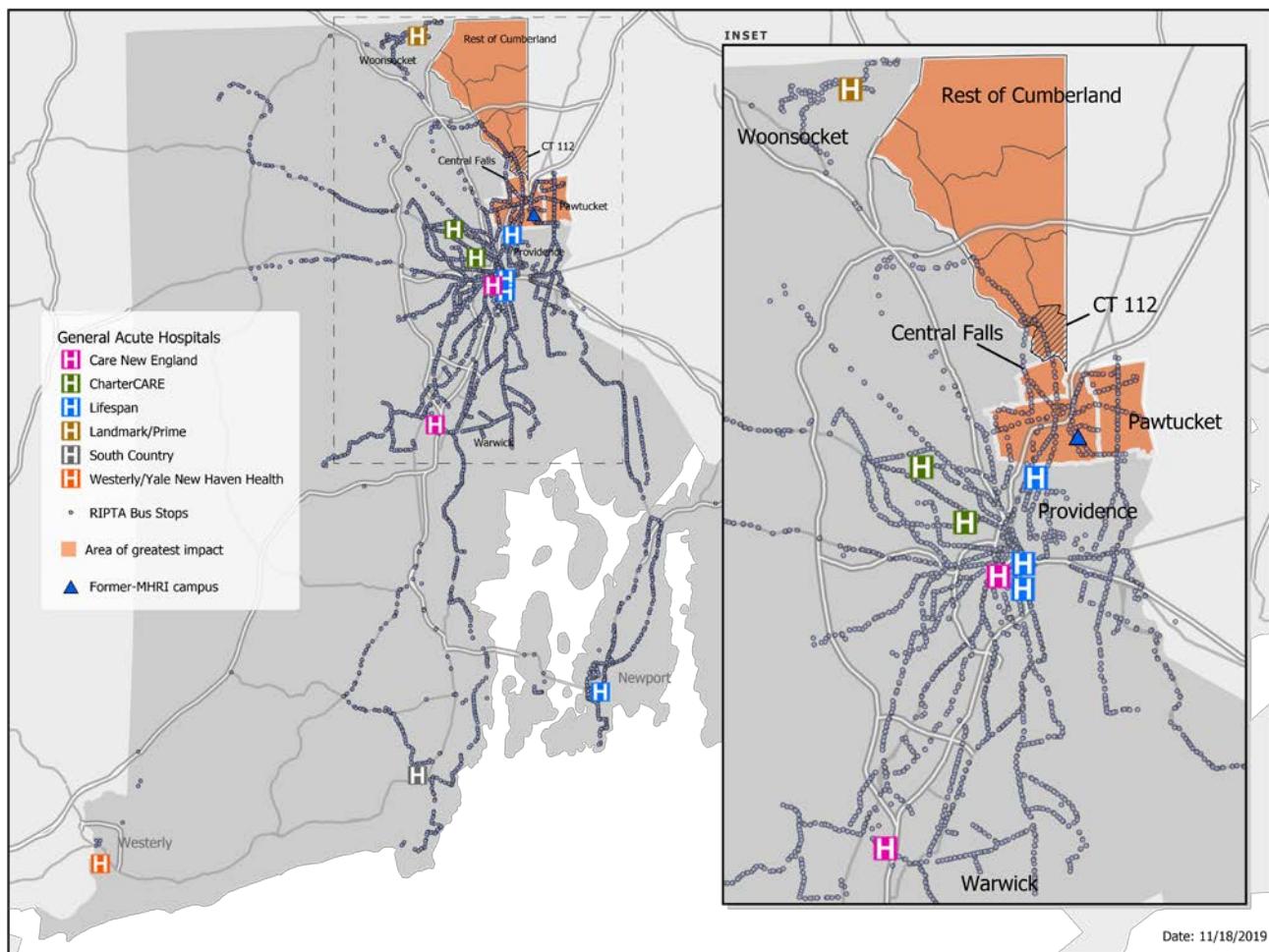
Health literacy and health education, particularly regarding topics such as health insurance, appropriate use of health care services, and prevention, were seen as a need in the community. Several key informants associated with hospitals and emergency services discussed the use of emergency department by the community for ambulatory sensitive conditions (i.e., those that could be avoided through prevention and primary care). This was supported by the data that show higher PQI scores for the target community. Key informants also noted that community health workers could help to improve health literacy and support navigation of health care services. Key informants indicated that the need for community health workers increased with the closure of MHRI emergency department, as MHRI staff would serve this role effectively. One CHW described how one client she serves, who speaks primarily Spanish and does not have her own transportation, only ever went to MHRI for care. Once it closed, she reported this client underwent much stress trying to determine where to go for care.

## **Transportation/walkability**

MHRI was described as a very accessible (i.e., walkable, easy parking) and familiar hospital among focus group participants and key informants. Several community members describing walking to the hospital, taking a bus or a short car ride to get there. MHRI was located on a major bus line. In contrast, travel to other hospitals, including The Miriam Hospital, which would be the one closest to the service area, was described as more difficult to access and less convenient. Several key informants, including those within the medical community, talked of patients putting off care due to travel difficulties. Some community members described their own situations where they delayed their care due to travel requirements or inconvenience. The ability for residents to walk to MHRI was mentioned often from key informant interviews and focus groups. Kent Hospital is the closest acute care hospital within the CNE system. Although not a long distance (less than 20 miles or 25 minutes by car), it is time consuming to get to by public transportation (bus). A relatively large percentage of households within the target area do not own cars, requiring that patients to rely on friends or public transportation to get to services. Also noted was that the distance and transportation barriers made it difficult for family members to visit patients during their hospital stay. CHWs reported that former MHRI clients they serve who would in the past have walked to the hospital now take Uber or Rhode Island's non-emergency medical transport (NEMT) to access health care services, or have disengaged from care and would rather not go elsewhere due to travel, inconveniences or unfamiliarity.

Reliance on public transportation to utilize hospitals and other health care providers could negatively affect access to care for this population. Figure 70 provides a map showing the public transportation (bus lines) connecting the service area to other areas where hospital services are located, including Kent Hospital in Warwick.

**Figure 70. Rhode Island hospitals and public transportation bus lines**



### Case managers/community health workers embedded in MHRI ED

ED services support those with chronic conditions as well as urgent and emergent care within walking distance. Findings from focus groups with residents and community health workers serving the community indicated that community health workers provided a valuable service to residents in helping them navigate the health care system. Emergency department staff (not necessarily CHWs) provided this support as well – staff were able to speak the patient's language and offer cultural sensitivity to immigrant, low-income populations.

### C. Economic impact

The study focused on the health needs and access to service for the impacted community and on the providers, but when asked about “other” factors, key informants most often noted the economic impact. While the majority of the interviewees expressed concern over economic impact, there was differences on perspective. The closure of MHRI was compounded by other events with negative economic impact, in particular, the decision to move the minor league baseball team (PawSox) to

Worcester. In addition, the recognition that a hospital should not remain open for providing employment, if services could be provided elsewhere and the hospital is not financially viable.

The optics of a vacant and shuttered building were also noted as having a negative impact on the perception of the community.

### **Workforce and employment**

Qualitative research found that there is concern on impacts related to workforce and employment. The reduced number of family medicine residency slots could potentially have an impact on primary care recruitment and retention within the state. The family medicine residency program was seen as attracting residents to the state and as a feeder program for area primary care practices and community health centers. With the number of residency slots decreased (for both internal medicine and family medicine), practices and CHCs will likely face even stiffer competition for recruitment of primary care providers.

Closure of the hospital resulted in lost jobs for those directly employed by MHRI and not able to be placed within the CNE system. At the time of closure, MHRI employed 590 individuals equating to 520.4 FTEs.<sup>29</sup> According to information provided to RIDOH, CNE had transferred approximately 100 MHRI staff to other positions within the CNE system, as of April 2018. Information provided by CNE did not include how many of those not placed lived in the service area. Qualitatively, key informants told of knowing or hearing about MHRI employees being most impacted were those that were “older” because they also lost their health insurance and faced a greater difficulty in finding new employment. Key informants also noted the impact on businesses within the community that were impacted by MHRI’s closure, e.g., eating establishments that served hospital employees and visitors. The loss of jobs in an area that is already economically depressed could have a compounded effect.

### **Linking economic social determinants to health to health status**

Key informant interviews commonly indicated link between social and economic conditions and health, i.e., social determinants of health. The demographic analysis clearly shows that the service area population is at risk for poorer health given the various social determinants of health, e.g., lower income and lower education. Access to affordable housing was also noted as a health need within the community, consistent with current research linking secure housing to health status, but not specifically related to closure of the hospital. Economic and other SDOH indicators were included in suggested metrics for ongoing measurement of long-term impact. Key informants recognized the connection between economic social determinants of health and suggested tracking indicators, such as poverty, unemployment, prevalence of chronic conditions/chronic conditions related death rate, etc.

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<sup>29</sup> Care New England letter to request approval to eliminate emergency department and certain other services, dated November 2, 2017.

## V. Conclusions and plan for mitigating strategies

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### **Key Conclusions on the Long-term Impact on Community and Health Care Providers**

The following conclusions are drawn from the synthesis of the findings from the foundational research, from key informant interviews and focus groups, analysis of utilization of health care services pre- and post-closure, and the health needs assessment for the service area population. Data used to inform the conclusions are both quantitative and qualitative, both of which are important for the assessment. JSI used quantitative analysis to confirm qualitative research findings where such data was available.

Overall, research findings from qualitative research and quantitative research were consistent, bringing strength to the conclusions. The long-term impact is focused on the impact to the community served by MHRI and health care provider organizations that serve the community. The key conclusions are numbered and outlined below.

#### **A. Conclusions**

- 8. The closure of MHRI removed a “nucleus” of health care services for communities with high healthcare need. Although inpatient utilization had declined over the years, residents continued to use emergency services, hospital outpatient services, and ancillary services located on the MHRI campus.**

Quantitative and qualitative data showed that MHRI was an important provider to the community. Nearly one-quarter of hospital admissions of the service area residents were at MHRI between 2011 and 2017, even as MHRI’s inpatient services lines were being closed. Nearly 40 percent of emergency room visits of the service area residents were at MHRI during that same period. Service area residents also relied on hospital outpatient services, including infusion therapy, and imaging. The closure of the hospital eliminated access to these outpatient services to the service area residents.

As noted from the research, at the time of closure, MHRI’s average daily census had dropped to 27. MHRI’s obstetrical unit was closed in 2016, and services transferred to CNE’s Women & Infants Hospital. The Lewin study had concluded that Rhode Island had an excess of inpatient beds based upon projected utilization rates. Key informant interviews supported the conclusion that there are currently sufficient number of medical/surgical and obstetrical beds across the state, but noted that the closure of MHRI removed inpatient beds from a concentrated area with a vulnerable community. With the closure, residents need to travel farther to access health care services and/or change their provider, both of which could have an impact on continuity of care and health outcomes. Key informant interviews indicated that service area residents are also reluctant to use CNE’s Kent Hospital (located in Warwick) for inpatient services or emergency services given the distance and cultural differences. The number of hospitalizations to Kent Hospital by service area residents decreased from 523 in 2017 to 503 in 2018.

- 9. The closure of MHRI emergency department reduced access to emergent/urgent care services for service area residents.**

As noted in the data analysis, the number of MHRI emergency room visits remained consistent even as the inpatient service units were downsized or eliminated. MHRI provided on average 30,000 emergency department visits per year, although not all of the visits required emergency level care. As shown in

Figure 57, an analysis of emergency room visits to MHRI by service area residents indicated that 44% were classified emergent/urgent; 22.82% were injury related and 11.55% were emergency care related, not avoidable. After the closure, residents had to seek emergency services from other providers.

Quantitative data indicated that the greatest impact was on The Miriam Hospital, which saw an increase of 7,311 emergency room visits by service area residents in 2018. Qualitative research found that service area residents experienced long wait times at The Miriam Hospital for emergency services or left before being seen. Qualitative research also indicated that residents might be traveling out of state for services (Sturdy Memorial was specifically noted although there may be others) and/or to private urgent care centers within the state. CNE also noted the Walk-in Clinic (Express Care) was not set up to provide emergent/urgent care level services, requiring patients, arriving to the Walk-in Clinic with serious conditions, be transported by ambulance to the nearest hospital for care.

**10. The closure of MHRI emergency department reduced access to primary care services for the service area population and demonstrated the need for enhanced primary care within the service area.**

As noted above, a significant percentage of emergency room visits to MHRI by service area residents were primary care-treatable, non-emergent, or emergent but preventable/avoidable. Essentially, MHRI's emergency room was serving as resident's primary care provider. The analysis of emergency room visits to MHRI by service area residents indicated that 44% (or about half of those classified) were classified as "preventable," meaning that the services could have been provided within a primary care setting or prevented through enhanced access to primary care services. Patients from the service area, which used MHRI's emergency department for essentially primary care services, now must seek services elsewhere. Data provided by CNE indicated that the number of primary care services from service area residents to the Family Care Center / Internal Medicine Clinic had decreased following the closing, rather than increased.

The need for access to primary care was reflected in the analysis of MHRI emergency room visits as well as PQI rates for service area population, which indicated higher chronic-disease related admissions.

**11. The closure of MHRI Emergency Department reduced access to emergency mental health and substance use services for service area population.**

As shown in data, the percentage of mental-health related emergency department visits for MHRI increased from 6.4% in 2013 to 9.5% in 2017, the third highest in the state. In the year following MHRI's closure, The Miriam Hospital saw the greatest increase in mental-health related visits, increasing from 3.5% to 4.5%. These findings are supported by the qualitative research which indicated that the long wait times for emergency services at The Miriam Hospital was due to an increase in the number of emergency department visits from service area resident combined with patients presenting with underlying mental health and substance use issues. These patients required more time and resources, resulting in a greater number requiring admission. Hospitalizations of service area residents to The Miriam Hospital did increase in 2018 by 1,021 (4,086 in 2017 to 5,107 in 2018) which could have driven in part by a greater percentage of ED patients being admitted.

**12. The closure of MHRI eliminated a teaching facility for Family Medicine Residents and Internal Medicine Residents, leading to reduced number of resident slots allocated by Centers for Medicare and Medicaid (CMS) to CNE. The immediate impact reduced primary care capacity within the Family Care Center/Internal Medicine Clinic, but there is the potential for a greater long-term impact, should the residency program be further cutback or eliminated. Currently, the family medicine residents' training is conducted via a memorandum of understanding between CNE and The Miriam Hospital. Internal medicine residents have mostly been shifted to the Kent Hospital campus. The impacts related to a reduction in the residency programs are two-fold:**

- a) **Access to primary care for service area residents** – As shown in data provided by CNE, the residency programs provide approximately 20% of primary care visits for service area residents. CNE has stated its commitment to maintain primary care capacity at the Family Care Center / Internal Medicine Clinic using a combination of residents and attending physicians.
- b) **Pipeline for primary care providers for Rhode Island** - Qualitative research stressed the importance of the residency program to provide a pipeline for primary care providers to remain in the community. Family medicine residency was considered very important to community health centers (such as BVCHC) that rely on family-centered care. Several key stakeholders noted the importance of the residency program, especially given the stakeholder's concerns of the overall shortage of primary care providers within the state.

**13. Due to the impact of the closure, the mitigating strategies must take into consideration the findings from the health needs assessment.**

- a) The service area population – Those who were the users of MHRI services, and therefore most affected by the closure, include residents of Pawtucket, Central Falls, and parts of Cumberland (census tract 112).
- b) The service area population faces greater challenges to access health care services due to social determinants of health that include a greater incidence of being uninsured or publicly insured, living in poverty, being non-white or non-English speaking, and not having private transportation.
- c) The service area population needs access to affordable, linguistically and culturally appropriate care and greater levels of support from community health workers, patient navigators, and/or care managers, etc. Qualitative research indicated that MHRI emergency department staff would serve as “de facto” community health workers for patients, for example, help with transportation and social services.
- d) The service area population experiences higher rates of chronic disease, requiring their need for increased and seamless access to affordable, integrated and coordinated care.

- e) While the residents of Pawtucket, Central Falls, and Cumberland-census tract 112 share similar health needs and social determinants of health, they also have their unique cultures, which should be recognized and respected, as efforts are made to mitigate the impacts of the closure.

**14. The health care needs of the community also affected the hospitals that now serve this population, or a greater percentage of this population. The service area population is more likely to be living in poverty, and more likely to have public insurance or be uninsured, resulting in shifts in payer mix for area providers now serving this population.**

The overall conclusion is that the closure of MHRI will have long-term impacts on the community and other area providers in the absence of strategies to mitigate those impacts. The following section lays out recommended strategies, informed by the research, as well as health care industry practices, to improve access and health outcomes.

## **B. Recommendations**

The following recommended strategies are focused on mitigating the long-term impacts of MHRI Closure and Primary Care License Transfer. JSI recommends that these strategies be implemented through a state-led collaborative effort that would bring together key stakeholders, including but not necessarily limited to CNE, RIDOH, major health care providers serving the impacted community, elected officials, insurers, other state agencies, community leaders, the local HEZ, community-based organizations, and philanthropic organizations. Due to the interconnectedness of health care, including the health care market, the needs of the service area residents will be best served through a collaborative approach to address the long-term impact of the MHRI closure.

**5. Provide access to affordable emergent/urgent care that is linked to primary care within the service area.**

- a. The following are options for creating new emergent/urgent capacity within the service area community:
  - i. Restore urgent care services on the former-MHRI site or other location(s) that are convenient and accessible to the service area population.
  - ii. Better utilize urgent care services provided by BVCHC Health Station in Central Falls.
  - iii. Access urgent care through Sturdy Memorial Urgent Care Center or other area providers that accept public insurance and provide continuity of care with primary care providers.
- b. RIDOH support establishing regulations that allow for reimbursement of emergent/urgent care and EMS transport services to non-hospital locations such as the BVCHC Health Station, former-MHRI campus, and other locations, that are convenient and accessible to the service area population.

- c. Embed LCSWs or other trained staff in area hospitals that serve the service area population to support the needs of patients presenting with underlying mental health conditions. These staff would provide assessment and referral services.

**6. Expand access to affordable, integrated primary care within the service area.**

- a. As with urgent care, there are multiple options for expanding primary care which include:
  - i. BVCHC Health Station, providing primary care integrated with behavioral health
  - ii. New Access Point federally funded community health center in Pawtucket (subject to section 330 funding and Health Resources and Services Administration (HRSA) approvals.
  - iii. CNE Family Care Center / Internal Medicine Clinic, provides integration through LCSW and referral to Providence Center and Butler Hospital
- b. Support continuation of the residency programs, in particular the family medicine residency program within the state.
- c. Increase the use of community health workers within primary care practices.

**7. Enhance access to affordable substance use disorder/opioid use disorder (SUD/OUD) services for service area residents, with specific focus on zip code 02860-Pawtucket which had a higher rate of opioid death compared to the state and other zip codes within the service area.**

- a. Access for these services exist within the community, including:
  - i. BVCHC MAT/SUD services in Central Falls
  - ii. CNE Family Care Center/ Internal Medicine Clinic offers MAT services and referral to Providence Center and Butler Hospital.

**8. RIDOH monitor long-term impact through defined measures. RIDOH would take the lead on this action item, continuing monitoring established as part of its approval to CNE.**

- a. Develop monitoring plan.
- b. Track metrics, benchmarks, and goals to include:
  - o Access to primary care, emergent/urgent care, inpatient services
  - o Health status/chronic disease management
  - o Social determinants of health, including economic indicators such as employment, poverty and health insurance status

RIDOH will continue to monitor the long-term impact of the closure and use this information to continue to refine strategies adopted to mitigate negative impacts and strengthen the health of the service area population. Recommended measures are included in Appendix F and are based on findings from key informant interviews and known industry standards.

### **Proposed Action Items for CNE**

The following action items are those that are specific to CNE, although as noted above, it is expected that CNE would also be included in multi-sector initiative to address the long-term impact.

- 17. Maintain and promote a health care campus at 111 Brewster Street, Pawtucket (former MHRI campus) or other community-supported location that maintains access to affordable primary care and specialty services for the service area population.**
- 18. Maintain the Walk-in Clinic (Express Care) on the former MHRI campus or other community supported location and continue to ensure walk-in coverage as defined in the conditions of approval, working in collaboration with local health centers as needed.**
- 19. Maintain commitment to charity care for services provided within the service area.**
- 20. Maintain arrangement with The Miriam Hospital to retain the Family Medicine/Internal Medicine Residency Program in Pawtucket. Work to maintain at least current number of residency slots (53).**
- 21. Maintain at least current level of access to primary care with complement of family medicine residents and internal medicine residents, physicians, physician assistants, and advance practice nurses.**
- 22. Maintain integration of primary care and behavioral health, with LCSW on staff at Family Care Center/Internal Medicine Clinic.**
- 23. Continue to offer MAT services at the Family Care Center/Internal Medicine Clinic supported by behavioral health counselors, recovery coaches, and other support services provided through CNE's Providence Center programs.**
- 24. Enhance specialty medical and surgical clinics on the former-MHRI campus (or other community-supported location) with hours of operation to support need/demand for services. Promote availability of specialty services within the community – both to the general population and medical community.**

- 25. Implement culturally appropriate and evidence-based strategies to engage patients in prevention and care management. For example, use community health workers or faith-based organizations to actively engage service area population in preventive care and learning how to better manage their chronic conditions through awareness and education and building confidence in their ability to self-manage.**
- 26. Assess the needs of Family Care Center/Internal Medicine Clinic and Walk-in Clinic patients that are experiencing a change in providers and give support as needed to navigate change and support patients in returning to CNE primary care practice post hospitalization and recovery. Employ existing or new staff (counselors, community health workers, and/or patient navigators) to meet this need.**
- 27. Continue to offer transportation for patients residing within the service area that require care at Kent Hospital and need transportation support. Provide transportation for the caregiver to accompany patient, if indicated.**
- 28. Strengthen cultural competency and awareness training for new hires and existing staff throughout the CNE Health System (including but not limited to Women & Infants Hospital and Kent Hospital), taking into consideration the demographics of the service area population.**
- 29. Strengthen hiring practices for the Family Care Center and Internal Medicine Clinic that support hiring qualified candidates that are from the community or reflect the community. Hiring staff from the community will also support investment in workforce development for local community members in health service positions, reducing impact of social determinant of health by supporting employment within the service area population. CNE's efforts in this area should be enhanced by its hiring of a Chief Diversity Officer who will be focused on diversity of staff within CNE as well as improving patient care delivery.**
- 30. Work in collaboration with RIDOH/Health Equity Institute/HEZ to take advantage of their knowledge and engagement with the community.**
- 31. Address impact of social determinants of health on health outcomes and status for the service area population through CNE's community benefits activities.**

  - a. Collaborate with RIDOH/Health Equity Institute/HEZ to complete their next Community Health Needs Assessment and develop their Community Health Improvement Plan, and include the following in there CHNA/CHIP**

- b. Include in the impacted service area (Pawtucket, Central Falls, and Cumberland census tract 112) in CNE's designated Community Benefits Service Area
- c. Include in the Community Health Improvement Plan, CNE-sponsored programs to address for this focus area/population:
  - Transportation (including to medical visits, social services, community events);
  - Workforce development (including, cultural competency training, skills development for service area population);
  - Housing security; and
  - Patient engagement around health promotion (healthy eating, substance use prevention, mental health and medical screening, etc.).

**32. Provide information to RIDOH to support monitoring of the impact of the MHRI closure and meet with RIDOH at least semi-annually to review progress on action items and metrics.**

## **VI. List of appendices**

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- A. Steering Committee Members
- B. Utilization Databook
- C. Demographic/Social Determinants of Health Databook
- D. EMS Data Analysis
- E. Qualitative Research
  - a. Key informant Interview list
  - b. Focus group composition, dates, location, and # of participants
  - c. Key informant interview guides
    - i. General guide
    - ii. HEZ group interview guide
    - iii. CNE guide
  - d. Focus group moderator's guide (community)
- F. Monitoring Measures

## Appendix A

### Steering Committee Members

## **JSI-RIDOH Steering Committee Members – Memorial Hospital Closure**

### **RIDOH**

Sandra Powell	Associate Director of Health Policy, Information and Communications Division
Michael Dexter	Chief, Center for Health Systems Policy and Regulations
Morgan Enroth	Health Policy Analyst
Deborah Garneau	Health Equity Institute Director
Christopher Ausura	Health Equity Zone Project Manager
Mia Patriarca	Health Equity Institute Project Officer
Samara Viner-Brown	Chief, Center for Health Data and Analysis
Ellen Amore	KIDSNET Manager
Fernanda Lopes	Chief, Office of Health Systems Development

### **JSI**

Ann Keehn	Project Director
Amy Black	Senior Technical Advisor
Angelique Higgins	Lead Data Analyst
Paddy DiPadova	Senior Consultant Qualitative Research
Peteria Chan	Research Support
Krystal Garcia	Focus Group Moderator (Spanish-language)
Steve Schaffer	GIS Specialist

## Appendix B

### Utilization Databook

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# MHRI Closure Impact Assessment

UTILIZATION DATA SLIDES

FEBRUARY 2020

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# Target Area Determination

JSI used MHRI utilization data from 2011 to 2017, provided by the Rhode Island Department of Health's (RIDOH) Center for Health Data and Analysis (CHDA), to determine the service area at the ZIP code level. JSI, with input from the MHRI Closure Impact Assessment Steering Committee, defined the service area to include communities served by the former MHRI. Figures on slides 7 and 8 show that four ZIP codes of patient residence rose to the top: 02860 (Pawtucket), 02861 (Pawtucket), 02863 (Central Falls), and 02864 (Cumberland).



# Target Area Determination Cont.

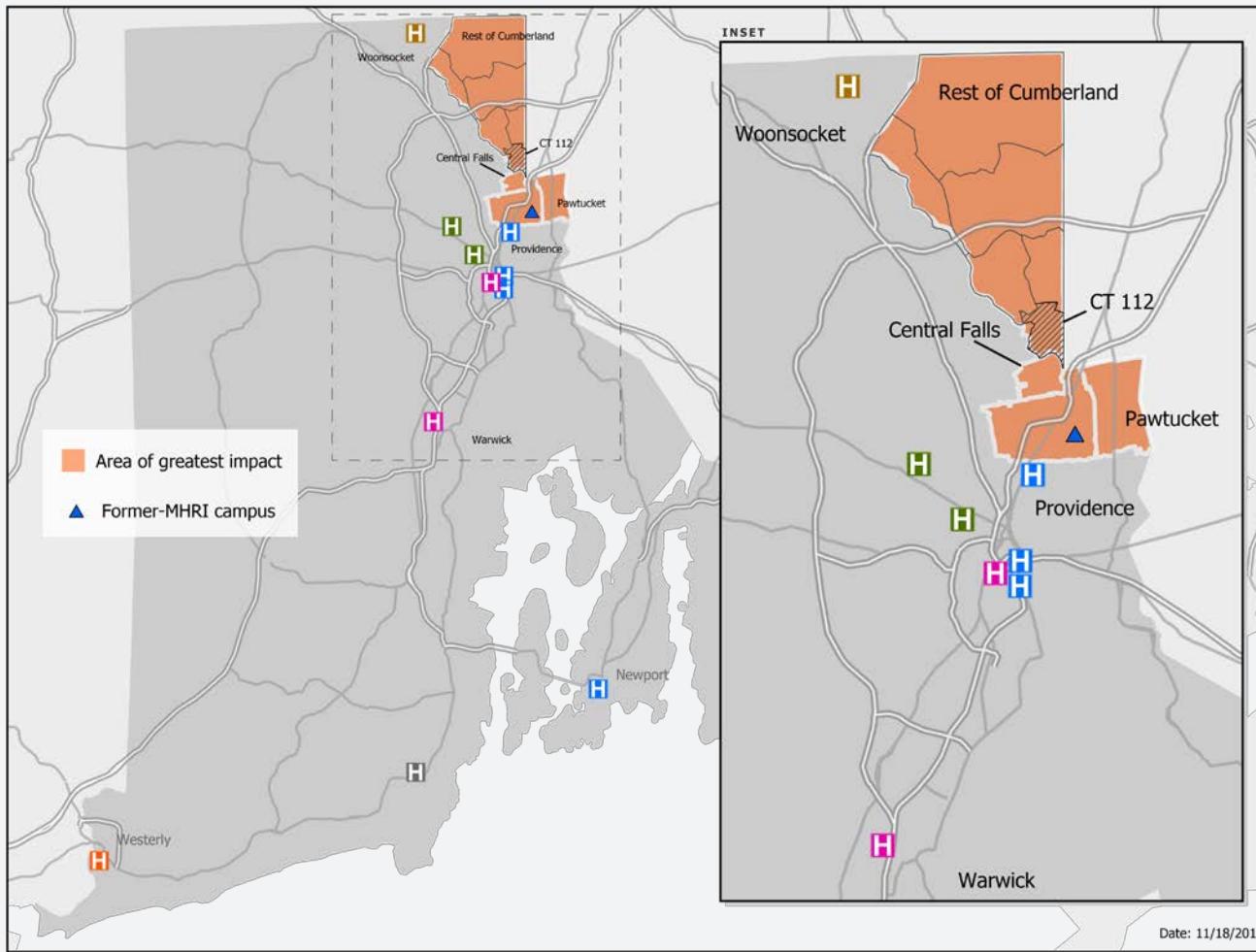
The Steering Committee chose to include ZIP code 02862 (Pawtucket) in the service area, though residents of this ZIP code made up a small percentage of MHRI utilization, for several reasons, including:

- MHRI was located in the city of Pawtucket, leading the Steering Committee to conclude that all ZIP codes in the city should be included in analysis.
- As it represents the mostly commercial downtown area of Pawtucket, the ZIP code 02862 has a tiny population, which would mean that even if every resident utilized MHRI, the ZIP code may not appear among the top utilizing ZIP codes.

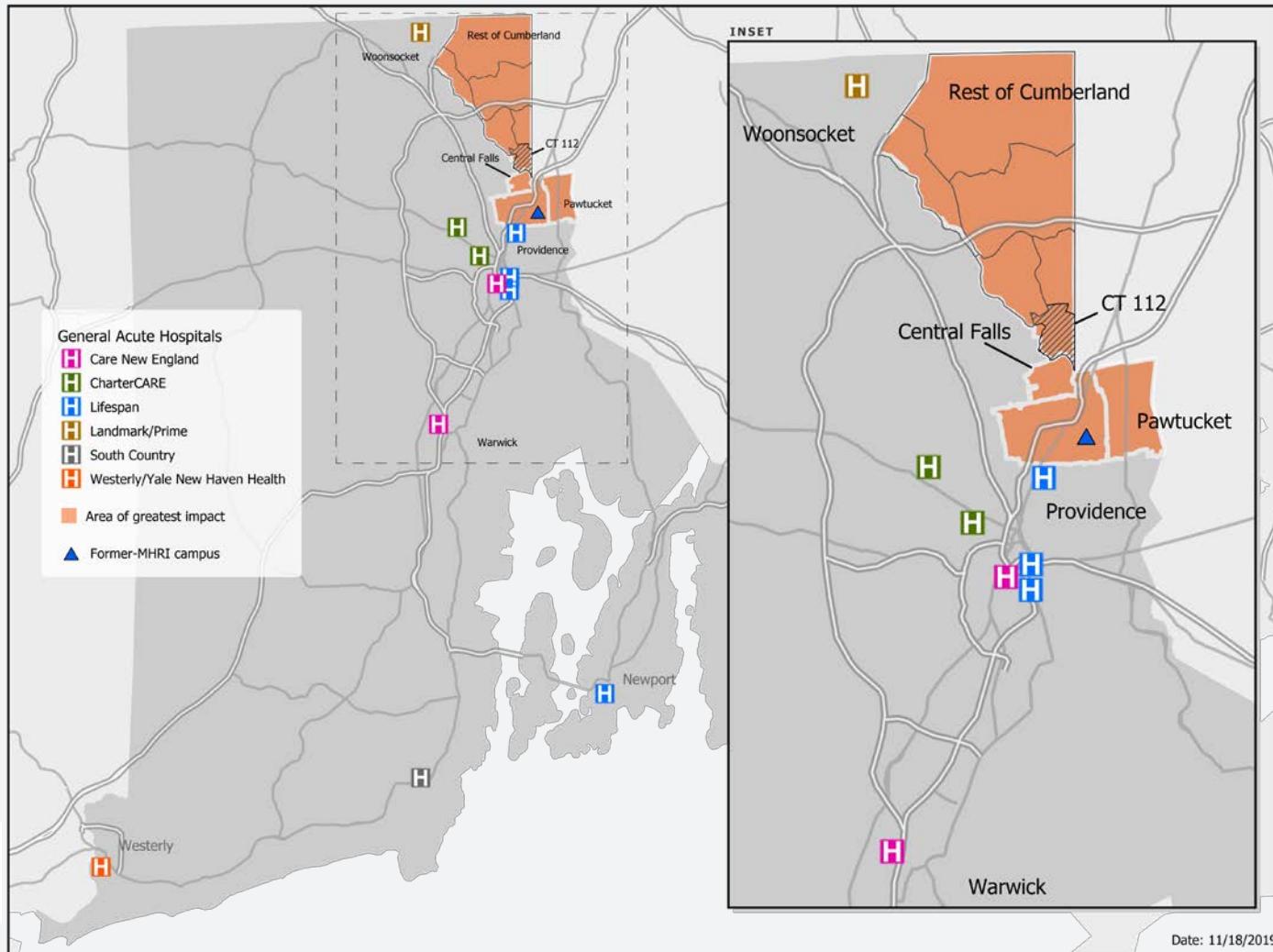
For the purposes of these slides, the target service area is defined as follows:

ZIP Codes	City
02860	Pawtucket
02861	Pawtucket
02862	Pawtucket
02863	Central Falls
02864	Cumberland

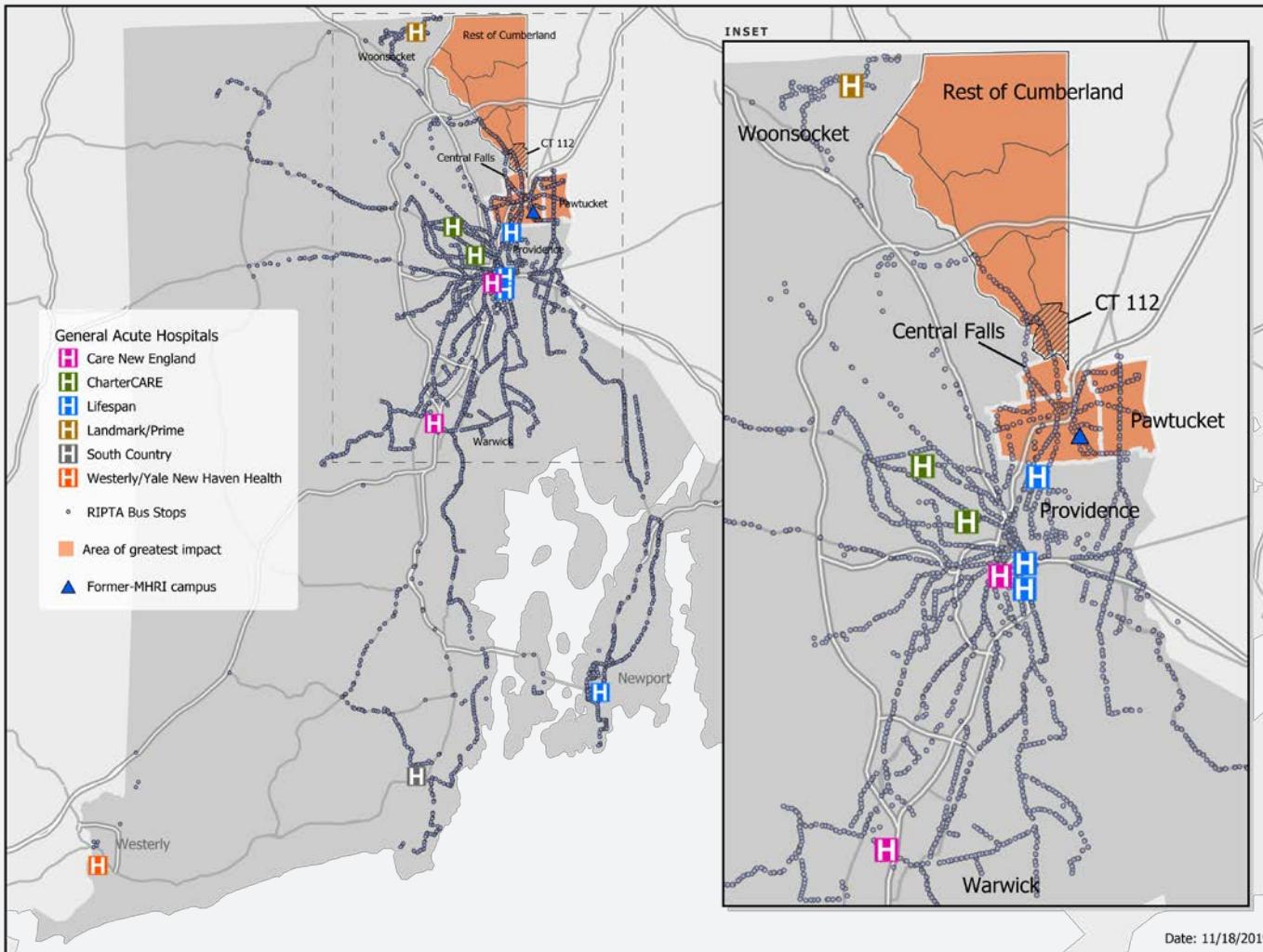
# Map of Target Area



# Map of Target Area and Rhode Island Hospitals



# Map of Target Area, Rhode Island Hospitals, and Bus Stops



# Most patients hospitalized at MHRI were residents of 02860, 02861, 02863, and 02864.

Spread of Memorial Hospital of Rhode Island Hospitalizations by ZIP Code and Year, 2011-2017

Source: *Rhode Island Hospital Discharge Data*

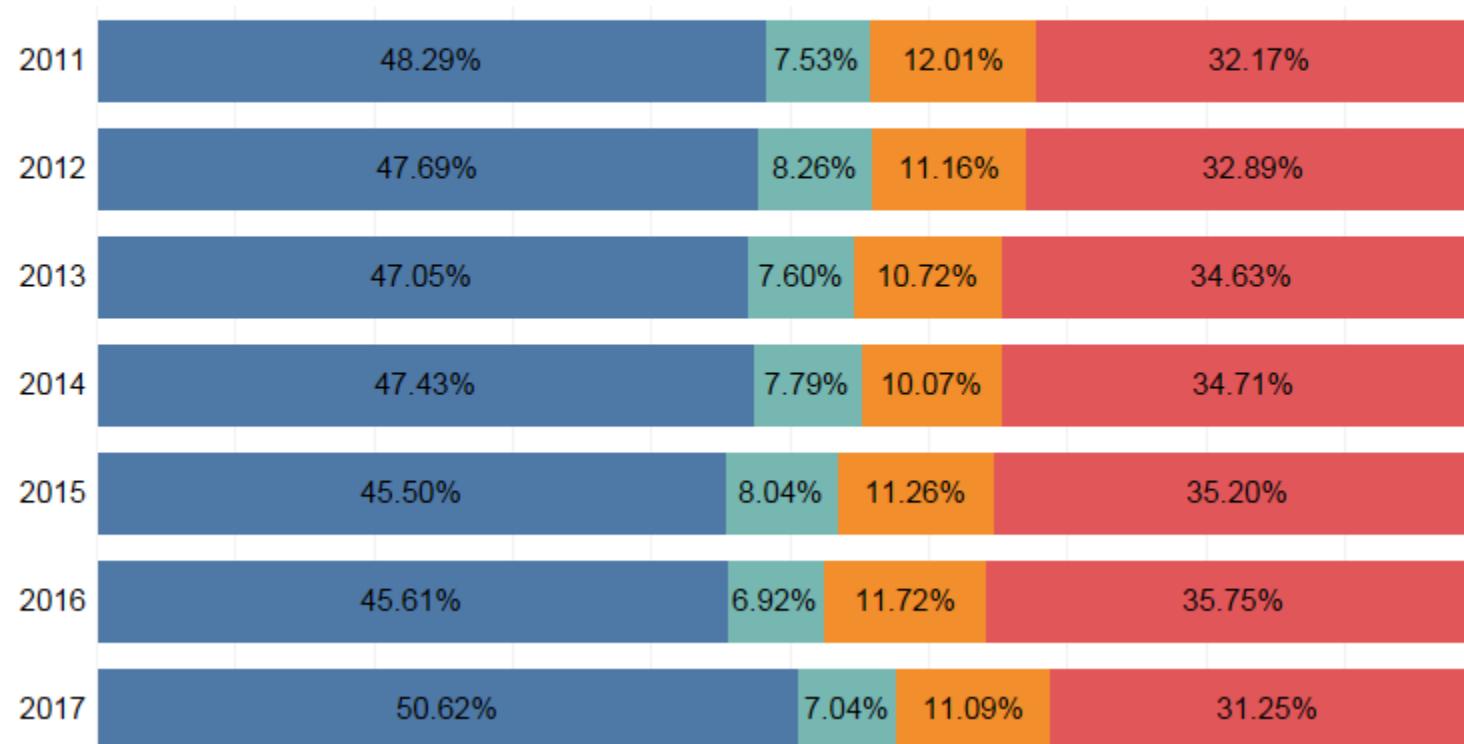
	2011 n=6,670	2012 n=6,207	2013 n=5,160	2014 n=5,005	2015 n=4,778	2016 n=3,960	2017 n=2,669
Pawtucket - 02860	29.34%	28.34%	28.00%	29.37%	27.94%	27.83%	29.49%
Pawtucket - 02861	18.88%	19.14%	18.99%	19.00%	17.43%	17.75%	20.87%
Central Falls - 02863	12.01%	11.16%	10.72%	10.07%	11.26%	11.72%	11.09%
Cumberland - 02864	7.53%	8.26%	7.60%	7.79%	8.04%	6.92%	7.04%
Lincoln - 02865	2.47%	2.45%	1.98%	1.76%	2.57%	2.17%	2.14%
Attleboro, MA - 02703	1.95%	1.24%	1.86%	1.88%	1.90%	1.89%	2.02%
East Providence - 02916	2.38%	2.82%	2.05%	1.94%	1.72%	1.87%	1.80%
East Providence - 02914	2.74%	2.79%	2.46%	2.66%	2.93%	2.65%	1.80%
North Providence - 02904	1.66%	1.79%	2.25%	2.62%	1.90%	1.54%	1.69%
Seekonk, MA - 02771	1.95%	1.77%	1.76%	1.70%	1.13%	2.07%	1.50%
Pawtucket - 02862	0.07%	0.21%	0.06%	0.06%	0.13%	0.03%	0.26%
All Others	19.01%	20.03%	22.27%	21.16%	23.04%	23.56%	20.31%



# Most patients hospitalized at MHRI come from Pawtucket, Central Falls, and Cumberland.

Spread of Memorial Hospital of Rhode Island Hospitalizations by ZIP Code Per Year, 2011-2017

Source: *Rhode Island Hospital Discharge Data*



# Residents of 02860, 02861, 02863, and 02864 make up the majority of MHRI ED visits.

Spread of Memorial Hospital of Rhode Island Emergency Department Visits by ZIP Code Per Year, 2011-2017

Source: *Rhode Island Hospital Discharge Data*

	2011 n=30,562	2012 n=31,479	2013 n=31,334	2014 n=29,468	2015 n=29,216	2016 n=30,591	2017 n=26,834
Pawtucket - 02860	37.09%	37.38%	37.29%	37.76%	37.73%	37.49%	39.19%
Central Falls - 02863	15.63%	15.76%	15.89%	16.02%	17.25%	17.64%	17.72%
Pawtucket - 02861	17.21%	17.50%	17.68%	17.32%	16.75%	16.53%	15.86%
Cumberland - 02864	5.74%	5.43%	5.52%	5.22%	4.93%	4.30%	4.05%
East Providence - 02914	2.26%	2.06%	2.20%	2.21%	2.12%	1.96%	1.88%
East Providence - 02916	1.86%	1.93%	1.87%	1.97%	1.81%	1.65%	1.66%
North Providence - 02904	1.65%	1.51%	1.61%	1.71%	1.62%	1.58%	1.62%
Providence - 02909	1.09%	1.17%	1.09%	1.12%	1.00%	1.20%	1.23%
Lincoln - 02865	1.97%	1.71%	1.78%	1.54%	1.49%	1.26%	1.17%
Attleboro, MA - 02703	1.38%	1.24%	1.21%	1.13%	1.19%	1.02%	1.01%
Pawtucket - 02862	0.20%	0.20%	0.11%	0.15%	0.12%	0.10%	0.15%
All Others	13.91%	14.11%	13.74%	13.84%	13.99%	15.27%	14.44%



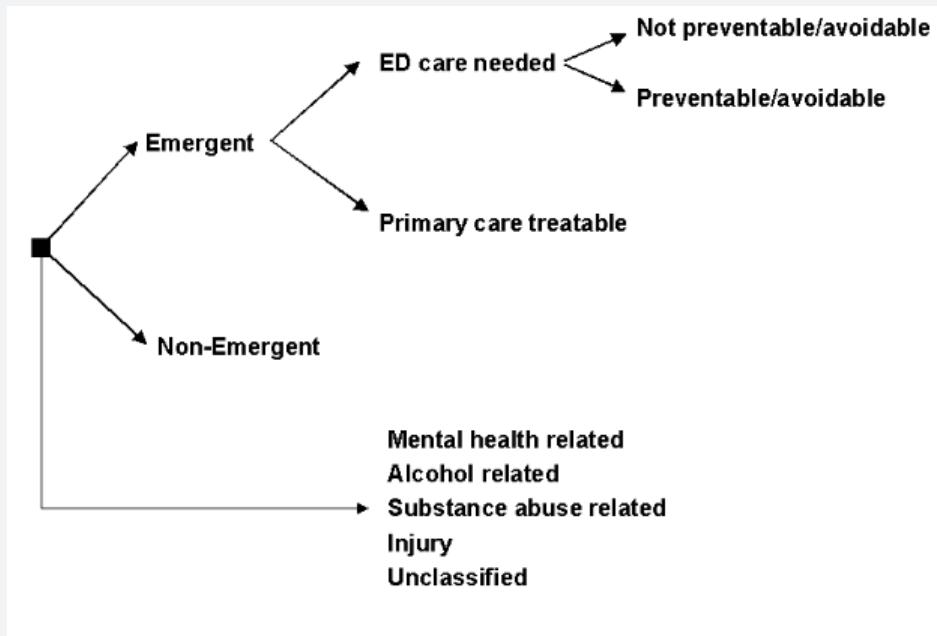
# Residents of Pawtucket, Central Falls, and Cumberland make up the majority of MHRI ED visits.

Spread of Memorial Hospital of Rhode Island Emergency Department Visits by ZIP Code Per Year, 2011-2017

Source: *Rhode Island Hospital Discharge Data*



# NYU Algorithm Introduction



**Non-emergent** – Data was used to determine that care was not needed within 12 hours

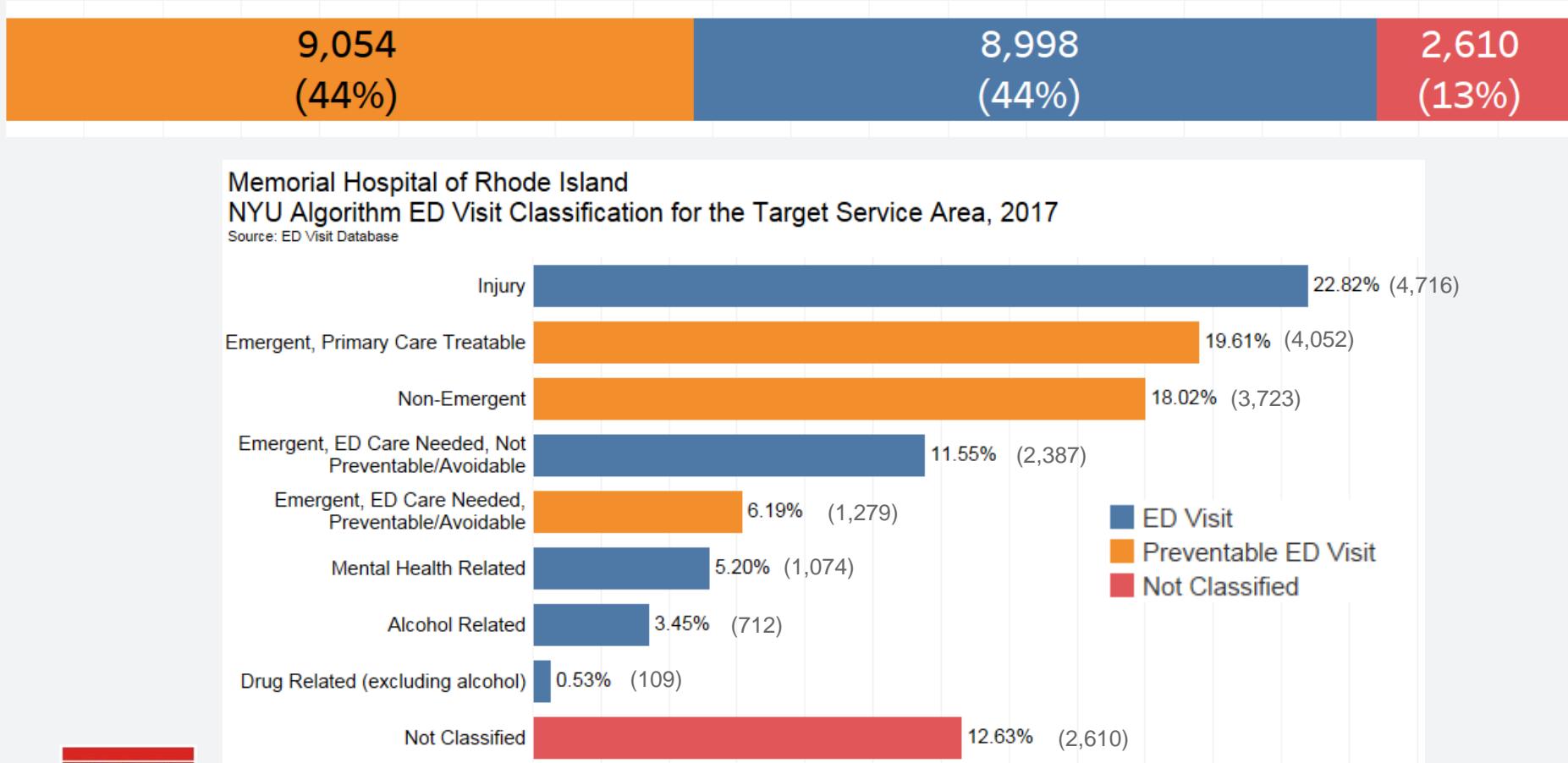
**Emergent/Primary Care Treatable** – Data was used to determine care was needed within 12 hours, but could have been provided in a primary care setting

**Emergent - ED Care Needed - Preventable/Avoidable** – Data was used to determine that ED care was necessary but if appropriate care had been received outside the ED, the patient may not have required ED treatment

**Emergent - ED Care Needed - Not Preventable/Avoidable** – Data was used to determine that ED care was required



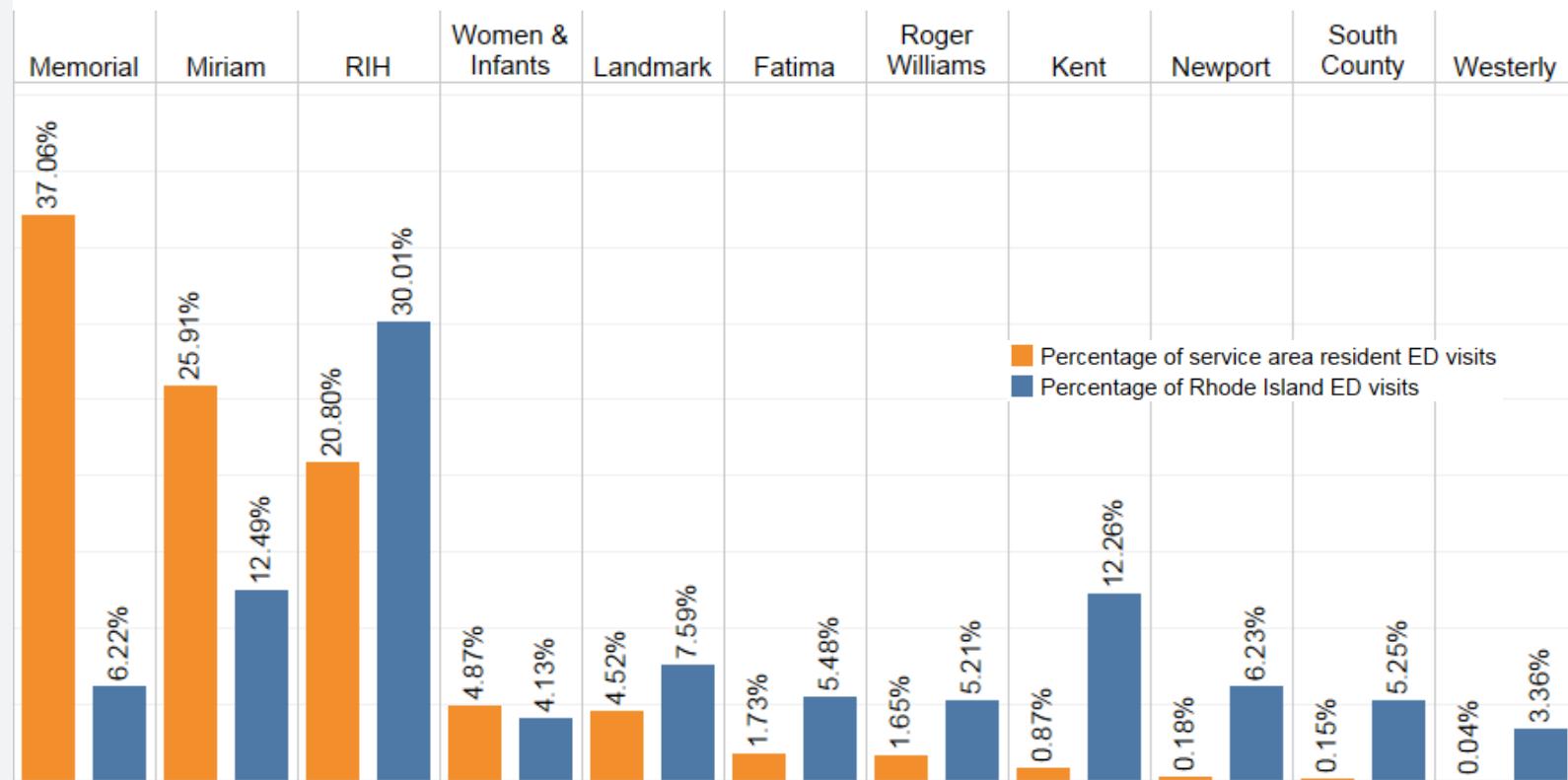
In 2017, MHRI emergency department visits (classified) for the service area population were evenly split between those that were emergent/urgent and those that were primary care treatable or avoidable.



# While 6% of Rhode Island ED visits were to MHRI, the hospital shouldered 37% of service area resident ED visits.

Spread of emergency department visits across Rhode Island hospitals for residents of the target area and all patients, 2011-2017

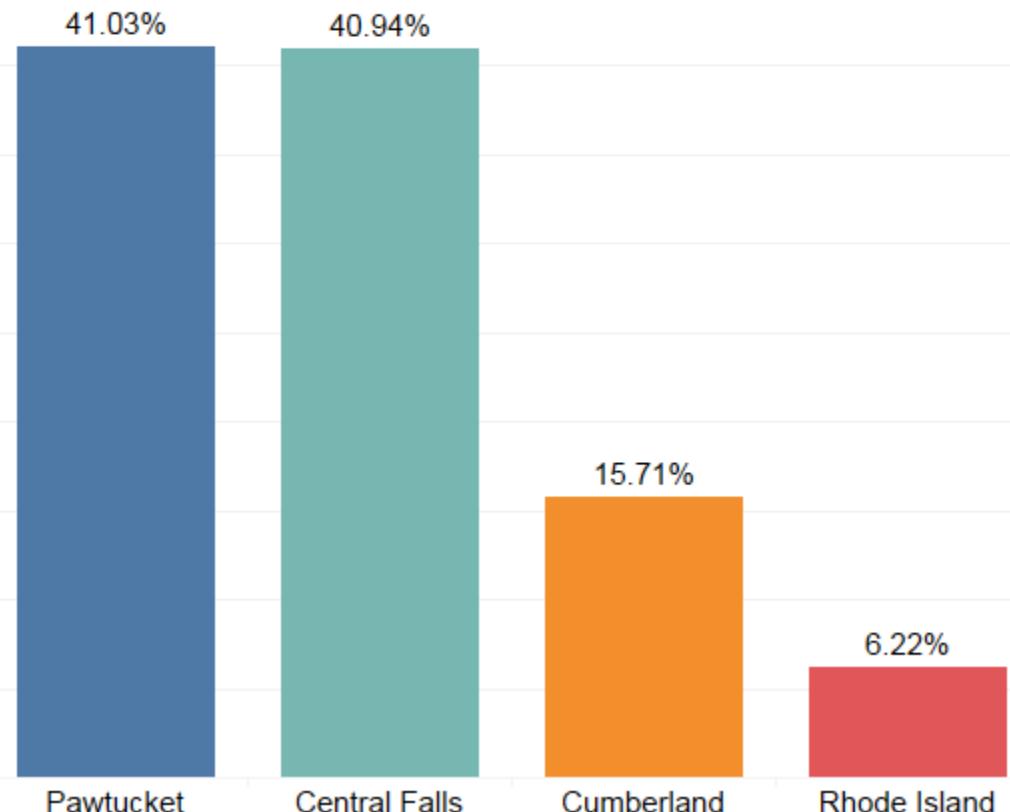
Source: Rhode Island Hospital Discharge Data



# About 41% of all Pawtucket and Central Falls resident ED visits from 2011-2017 were to MHRI.

Percentage of all emergency department visits presenting to Memorial Hospital of Rhode Island, by resident area, 2011-2017

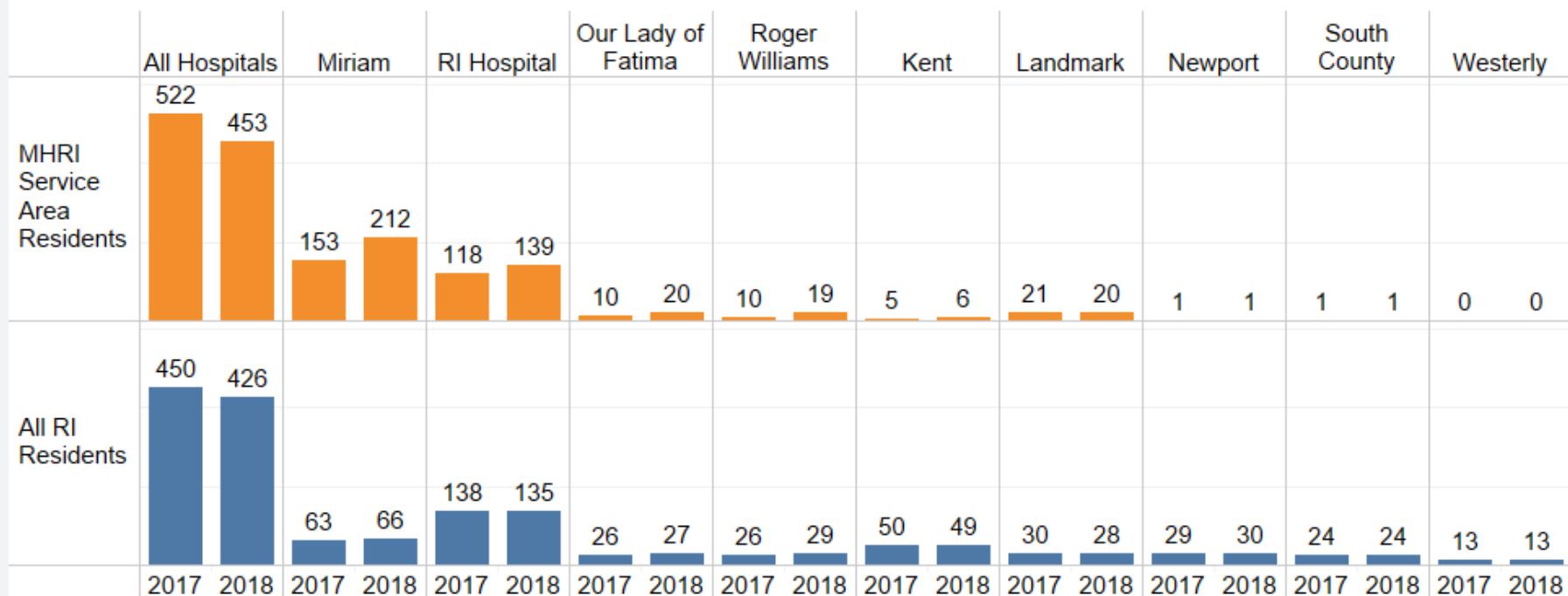
Source: *Rhode Island Hospital Discharge Data*



While the overall rate of ED visits involving MHRI service area residents to hospitals in the state decreased between 2017-2018, the rate of ED visits involving MHRI service area residents for individual hospitals Miriam, RIH, Fatima, and Roger Williams, increased from 2017-2018.

ED visits to select hospitals for MHRI service area residents and all RI residents, rate per 1000

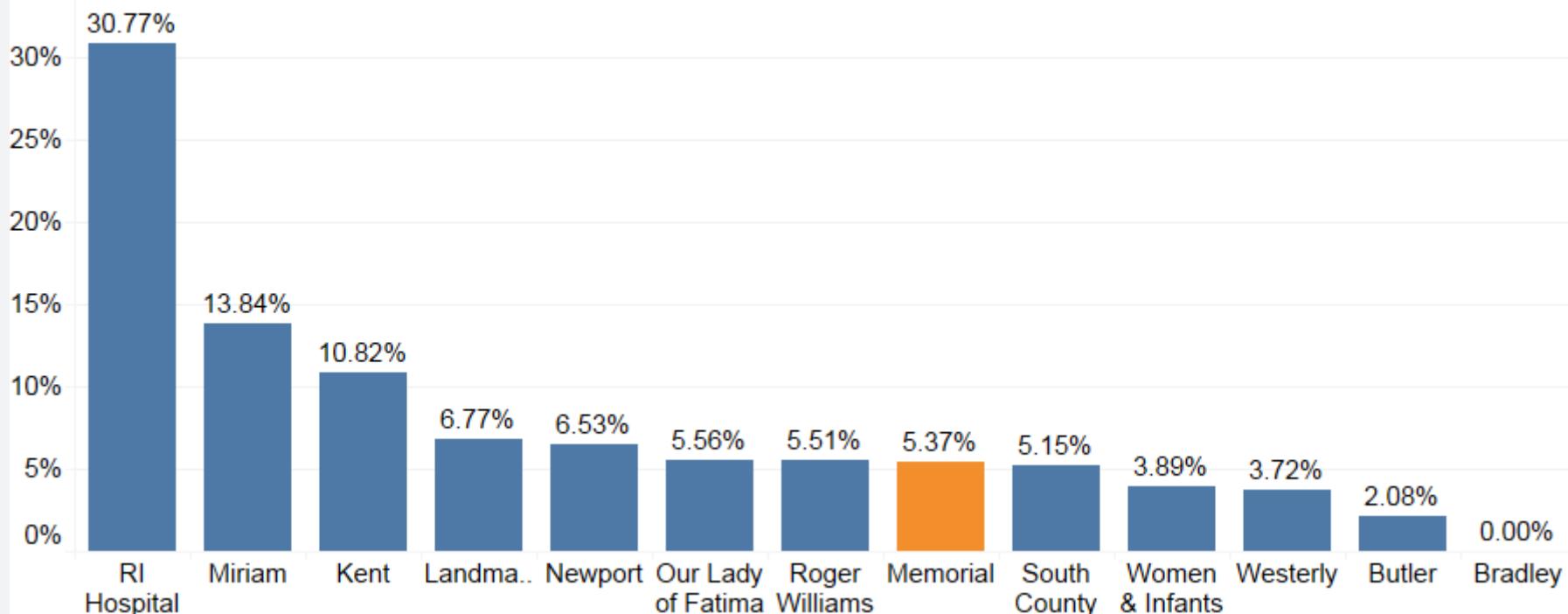
Source: RI Hospital Discharge Data 2011-2018



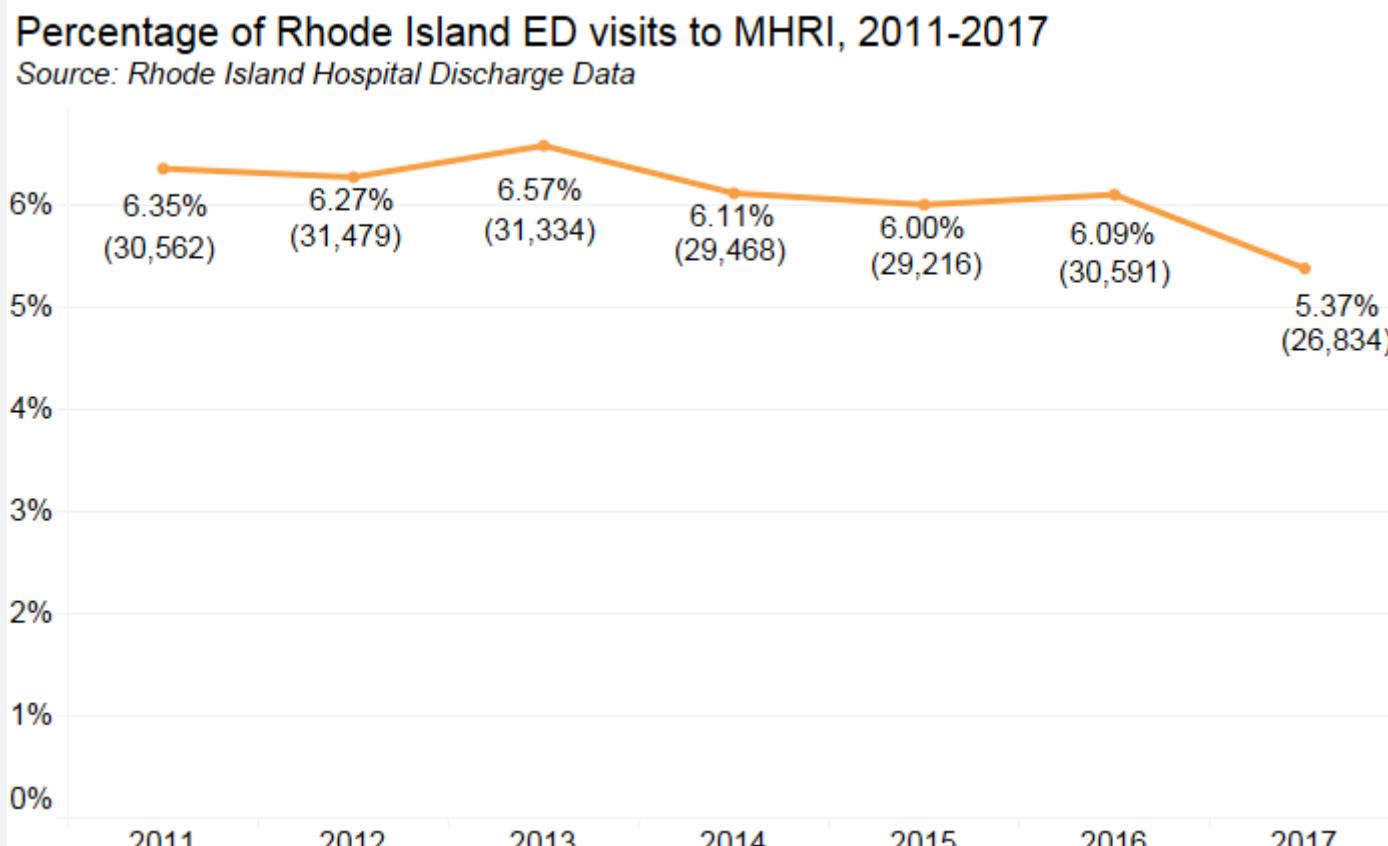
# In 2017, MHRI saw 5% of the ED visits in the state.

Distribution of ED visits among Rhode Island hospitals, 2017

Source: *Rhode Island Hospital Discharge Data*



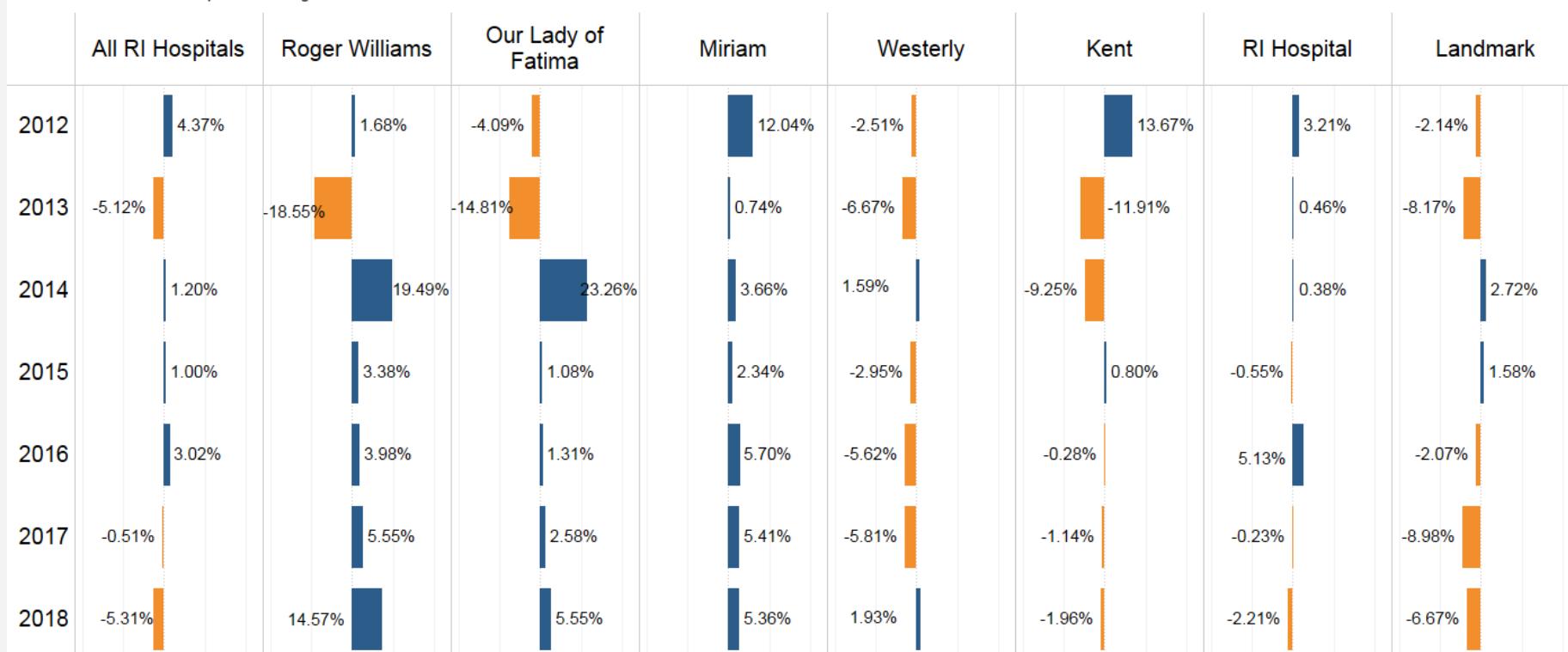
# MHRI experienced a small decline in its share of the state's ED visits since 2011.



Overall, the state experienced a decrease in ED visits in 2018. Roger Williams, Fatima, Miriam, and Westerly Hospitals experienced an increase.

Percent change in ED volume by select hospitals from 2011-2018

Source: Rhode Island Hospital Discharge Data

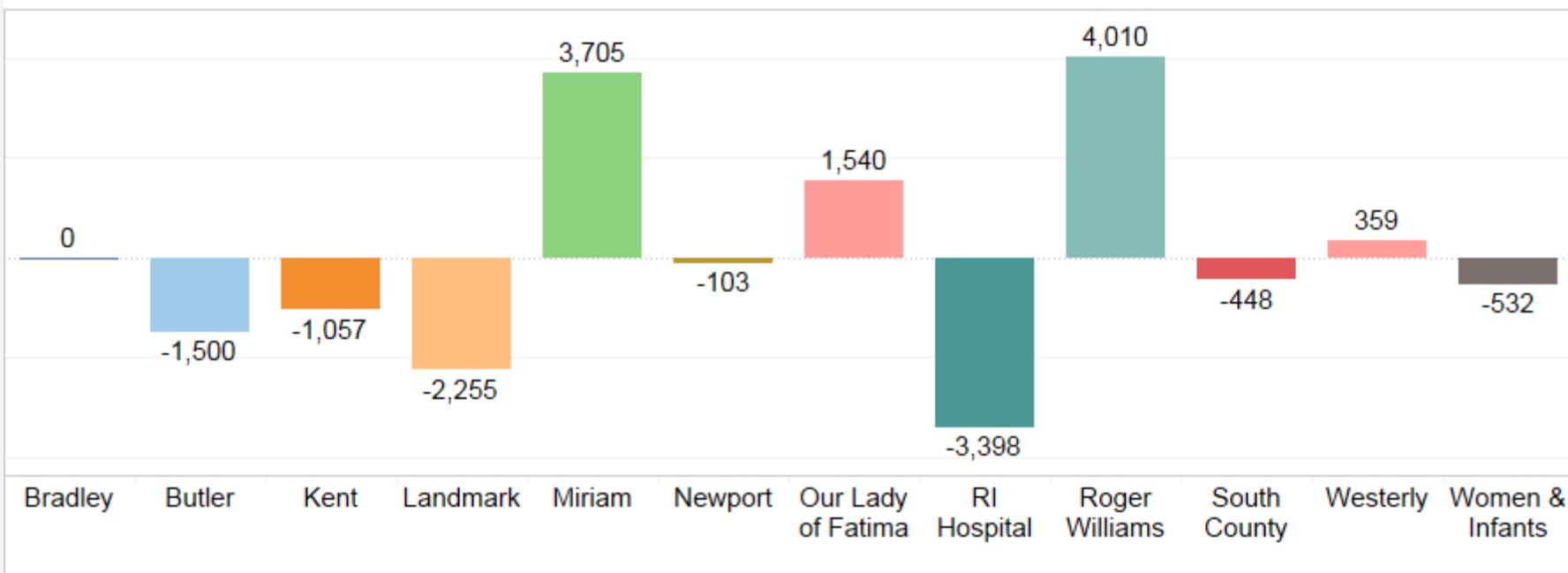


■ Increase in volume from previous years  
 ■ Decrease in volume from previous years

Roger Williams, Miriam, and Fatima hospitals saw the largest increases in ED visit volume following the closure.

**Difference in Number of ED Visits by Hospital from 2017 to 2018**

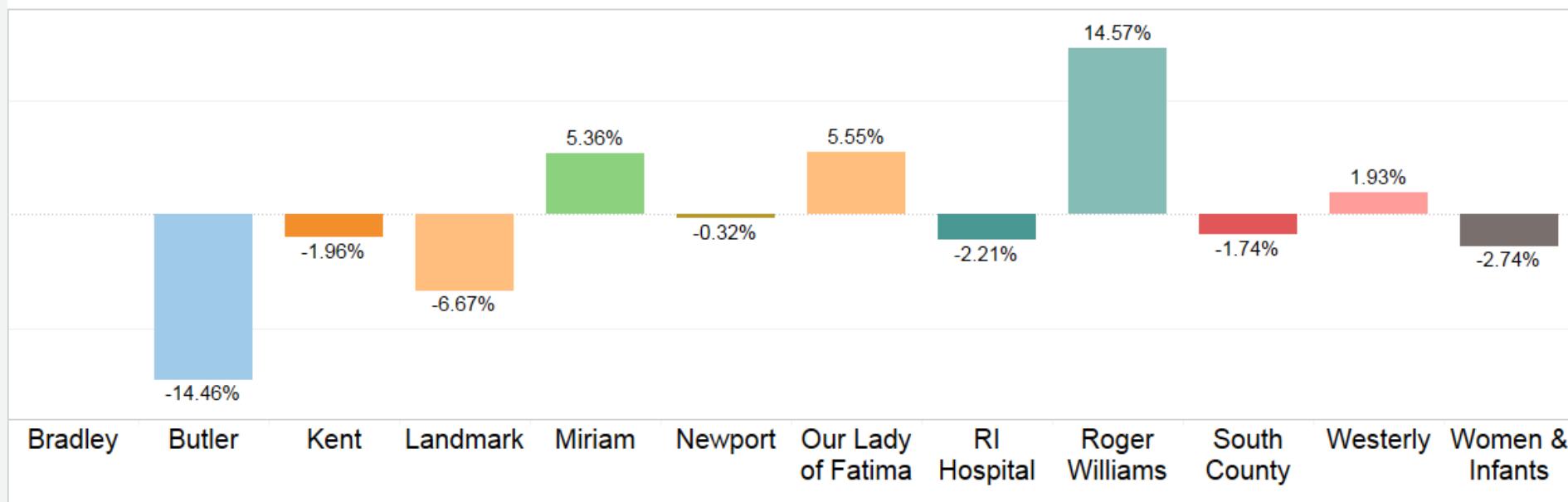
*Source: Rhode Island Hospital Discharge Data*



Taking into account volume at the individual hospitals, Roger Williams, Fatima, and Miriam Hospitals, respectively, saw the greatest increases.

Percent change in ED volume by hospital from 2017-2018

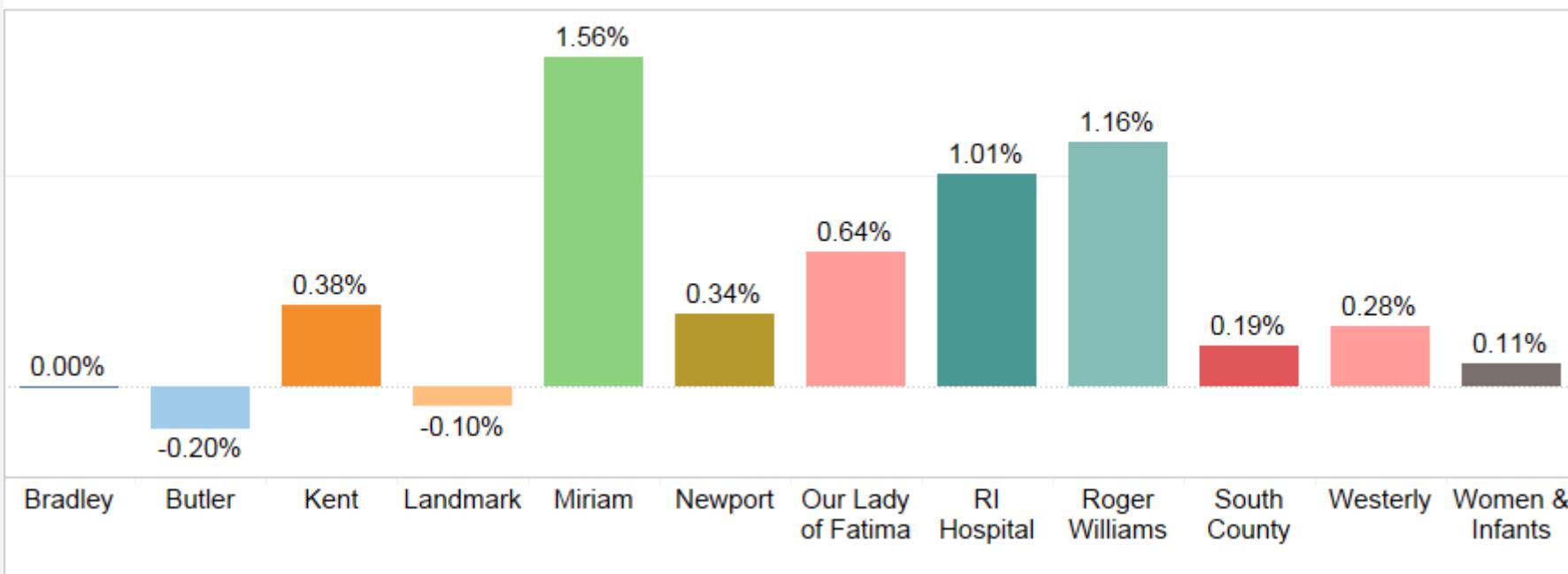
Source: Rhode Island Hospital Discharge Data



In 2018, most hospitals experienced some increase in their *share* of the state's ED volume, compared to the previous year, which is expected since the closure of MHRI resulted in a reduction in the number of hospitals overall.

Difference in distribution of ED visits by hospital from 2017 to 2018

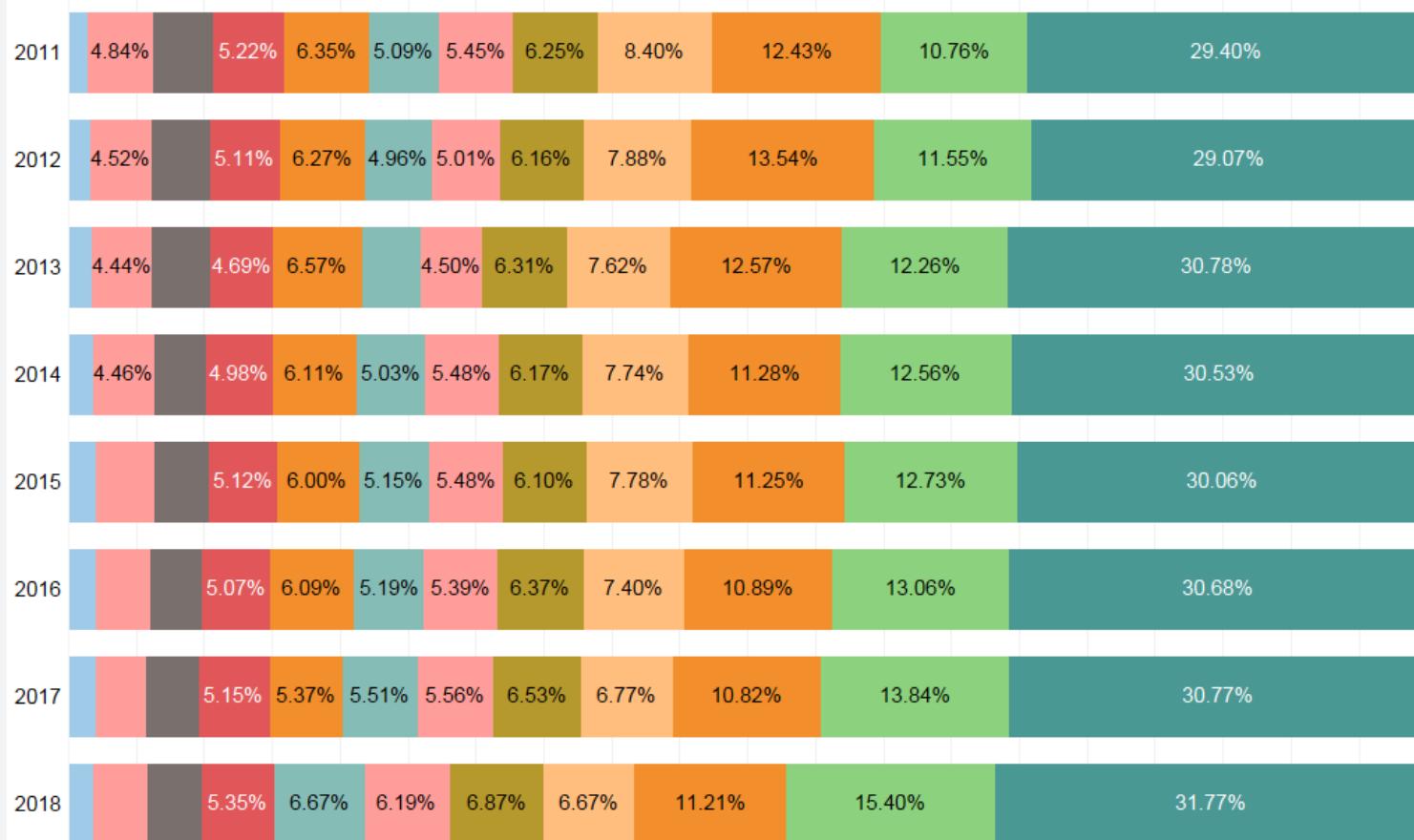
Source: *Rhode Island Hospital Discharge Data*



Overall, the state experienced a decrease in ED visits in 2018. However, with the reduction in the number of hospitals in the state, most hospitals experienced an increase in their share of the state's ED visits.

Distribution of ED visits to Rhode Island hospitals, 2011-2017

Source: Rhode Island Hospital Discharge Data



\*\*Some data is missing for Bradley Hospital and Landmark Hospital from the Rhode Island Hospital Discharge dataset provided to JSI.

Kent Hospital saw an increase of 200 emergency department visits that involved patients residing in MHRI's former service area.

#### Emergency Department Visits to Kent Hospital by ZIP Code of Residence, 2017-2018

Source: *Rhode Island Hospital Discharge Data*

	2017	2018
Target Area	604	804
Unknown	356	797
Outside Target Area	53,094	51,399
Grand Total	54,054	53,000

#### Percent of Total Emergency Department Visits to Kent Hospital by ZIP Code of Residence, 2017-2018

Source: *Rhode Island Hospital Discharge Data*

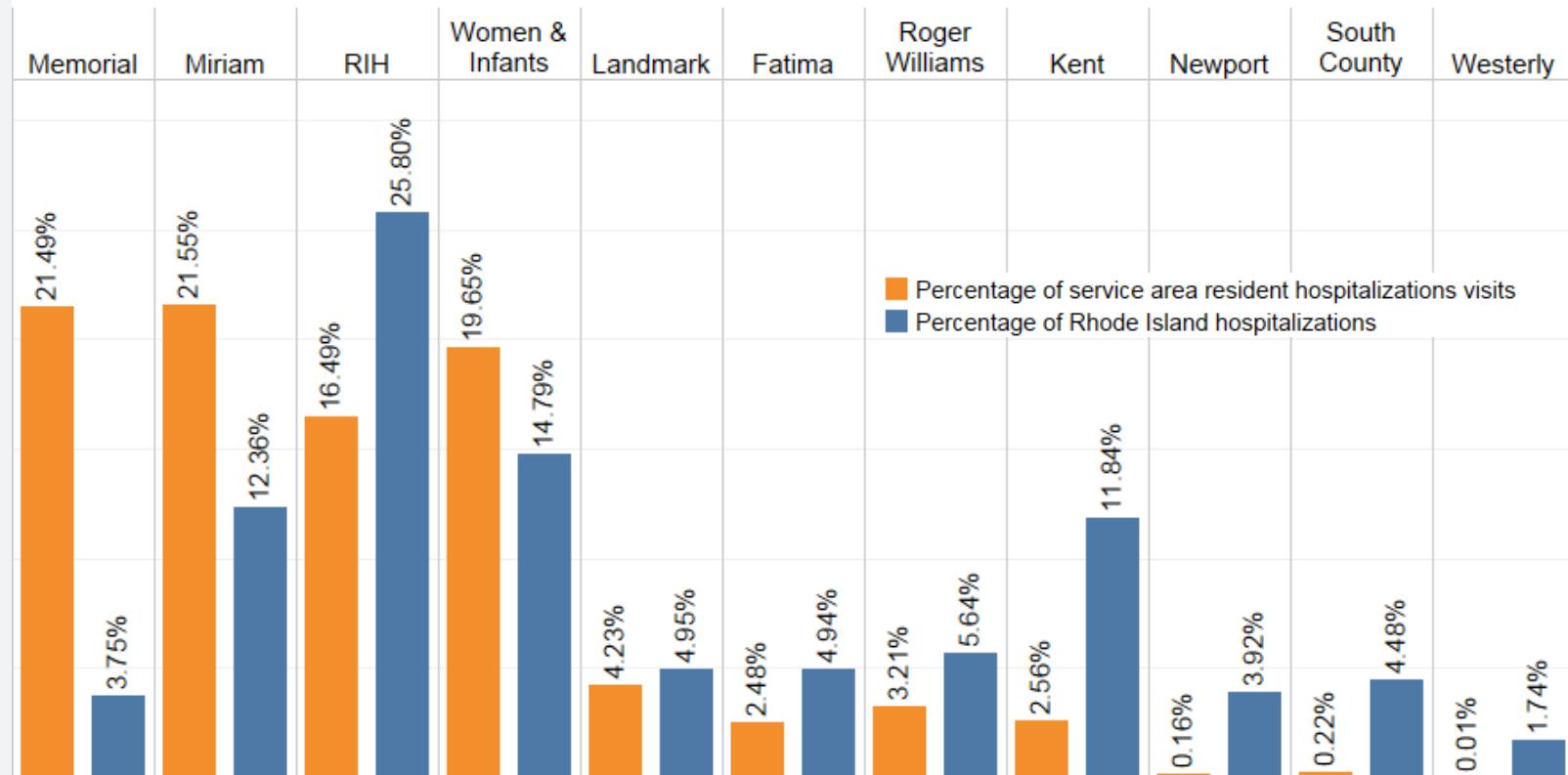
	2017	2018
Target Area	1.12%	1.52%
Outside Target Area	98.22%	96.98%
Unknown	0.66%	1.50%
Grand Total	100.00%	100.00%



While 4% of Rhode Island hospitalizations were to MHRI, the hospital shouldered 21% of service area resident hospitalizations.

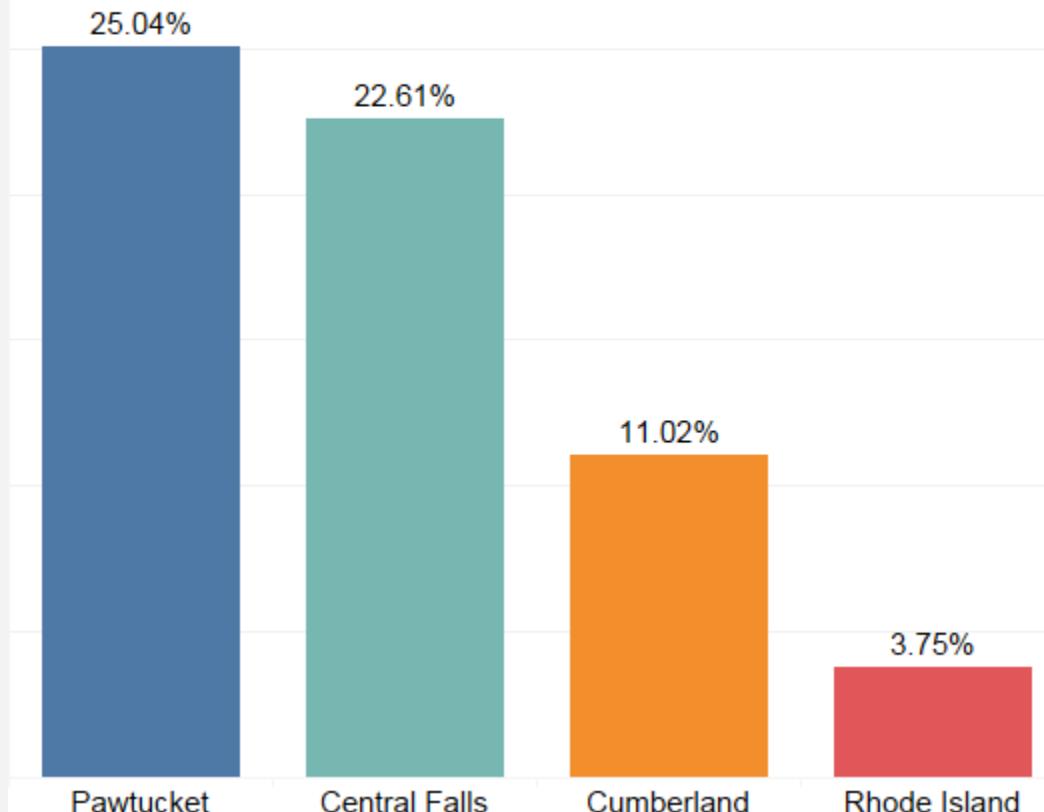
Spread of hospitalizations across Rhode Island hospitals for residents of the target area and all patients, 2011-2017

Source: Rhode Island Hospital Discharge Data



Over a quarter of all Pawtucket resident hospitalizations and almost a quarter of Central Falls resident hospitalizations from 2011-2017 were to MHRI.

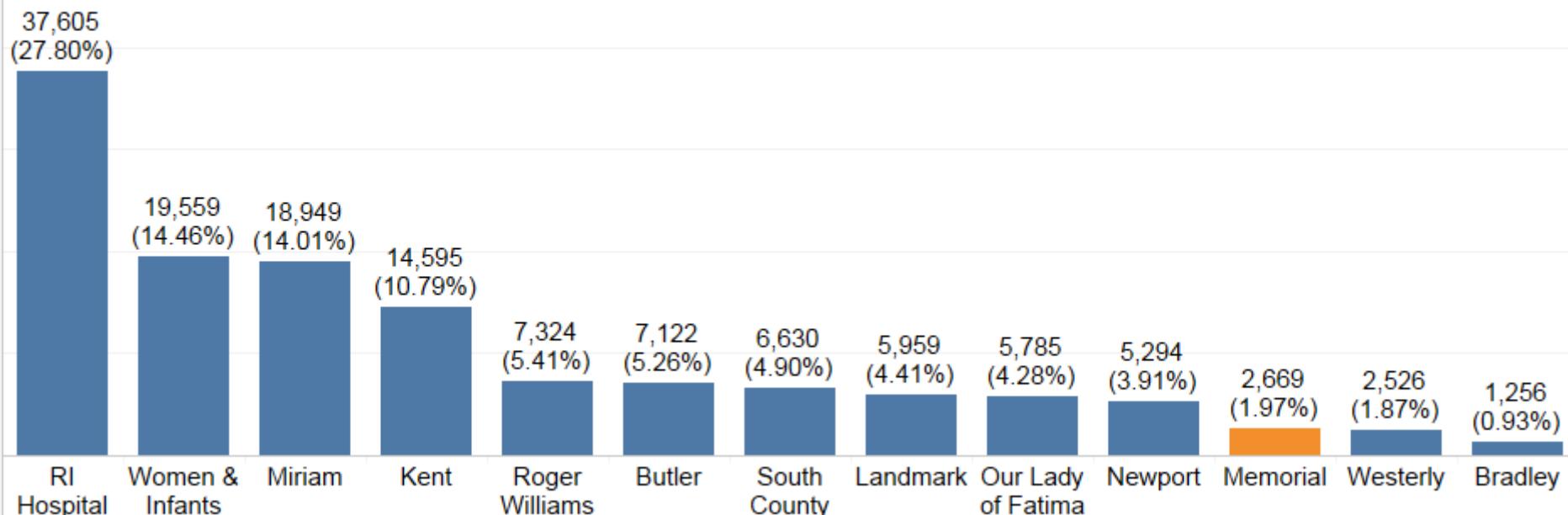
Percentage of all hospitalizations to Memorial Hospital of Rhode Island, by resident area, 2011-2017  
Source: *Rhode Island Hospital Discharge Data*



# In 2017, MHRI saw 2% of the hospitalizations in the state.

Distribution of hospitalizations among Rhode Island hospitals, 2017

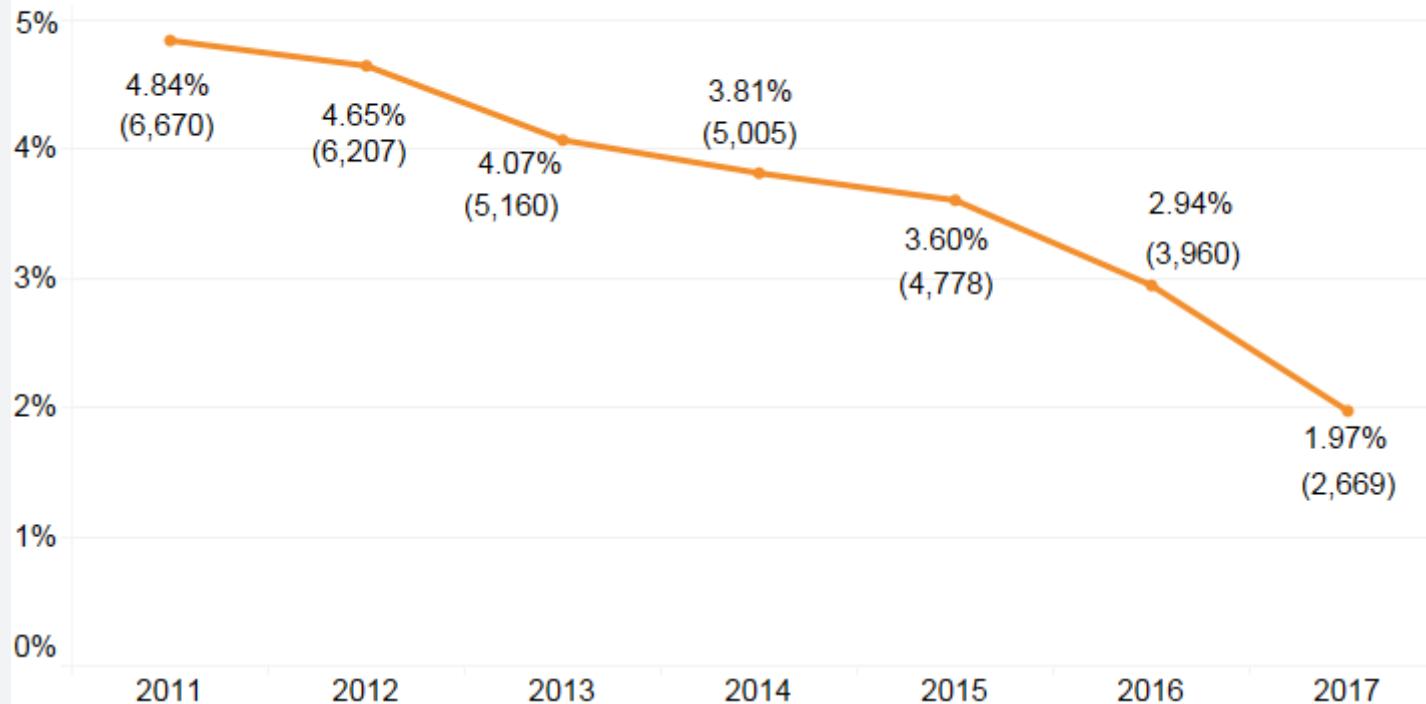
Source: *Rhode Island Hospital Discharge Data*



MHRI experienced a consistent decline in its share of the state's hospitalizations between 2011 and its closure.

### Distribution of hospitalizations to MHRI, 2011-2017

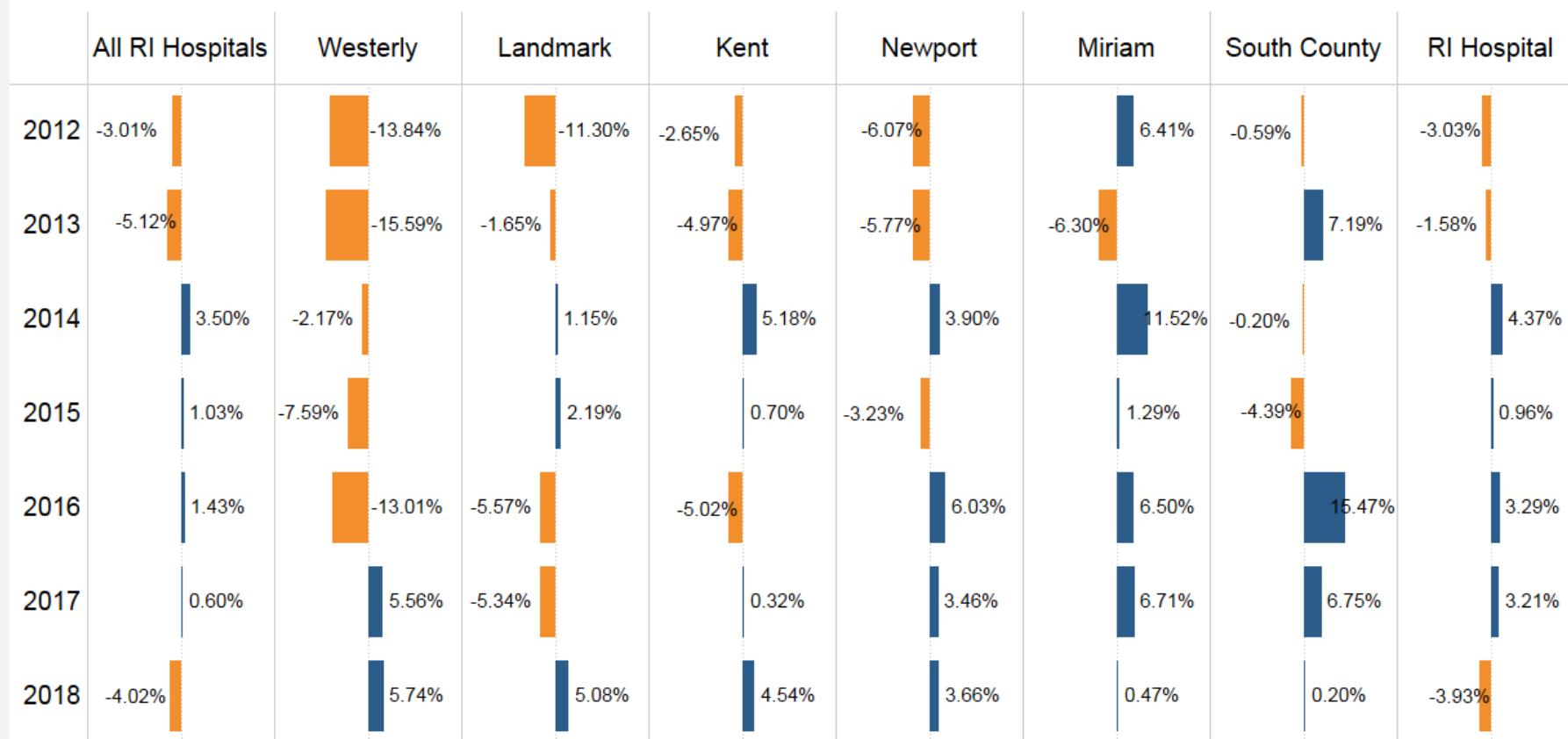
Source: *Rhode Island Hospital Discharge Data*



Overall, the state experienced a decrease in hospitalizations in 2018. Westerly, Landmark, Kent, and Newport Hospitals experienced the greatest increases in hospitalizations.

#### Percent change in hospital volume by select hospitals from 2011-2018

Source: Rhode Island Hospital Discharge Data

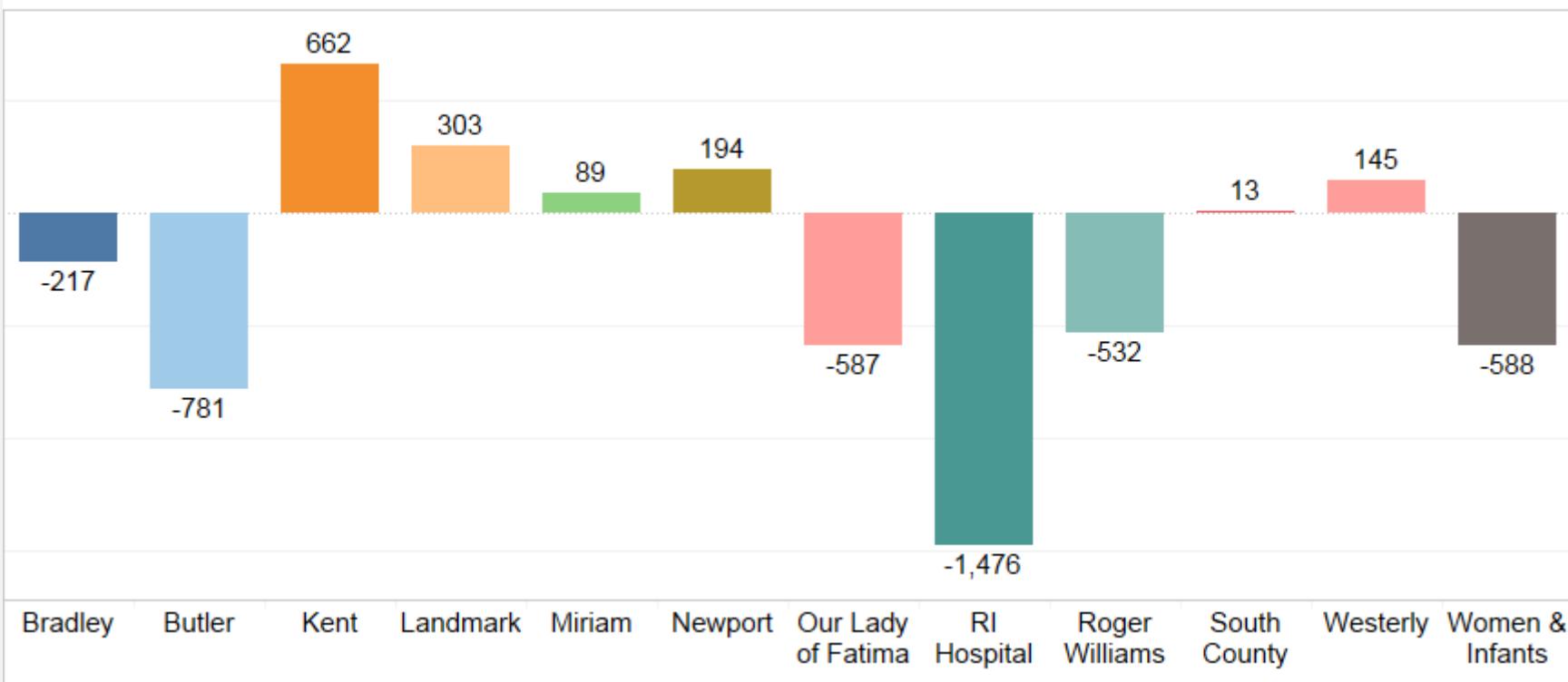


■ Increase in volume from previous years  
 ■ Decrease in volume from previous years

# Kent, Landmark, and Newport hospitals saw the greatest increases in number of hospitalizations between 2017 and 2018.

Difference in number of hospitalizations by hospital from 2017 to 2018

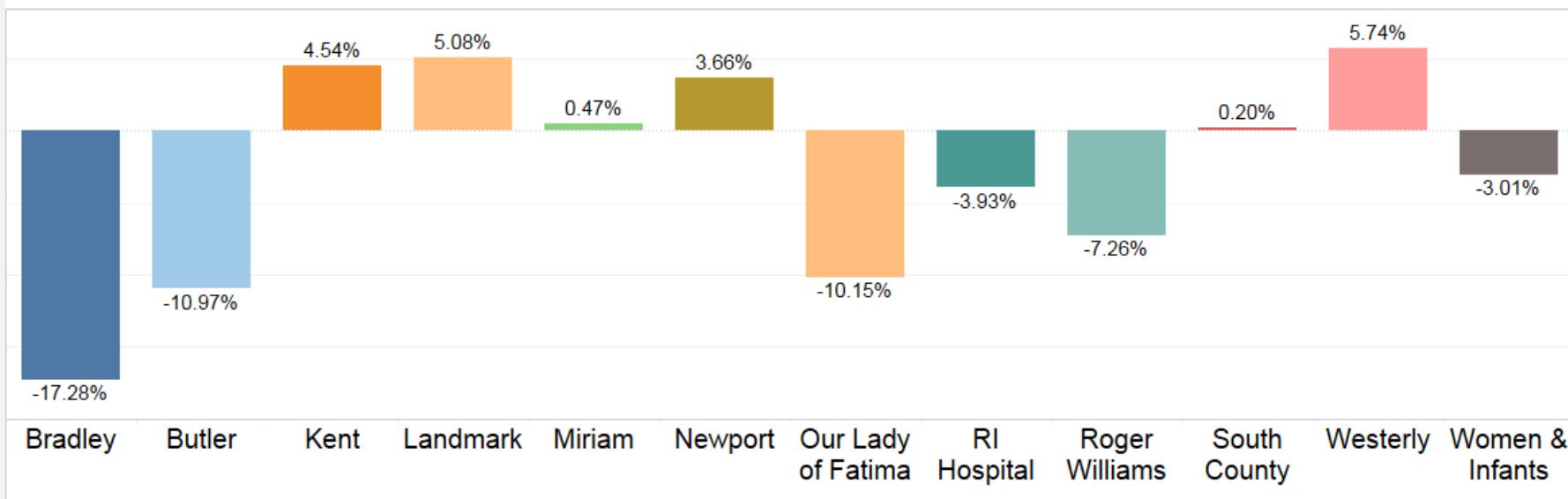
Source: Rhode Island Hospital Discharge Data



Taking into account volume at the individual hospitals, Westerly, Landmark, Kent, and Newport hospitals, respectively, saw the greatest volume increases.

#### Percent change in hospitalizations by hospital from 2017-2018

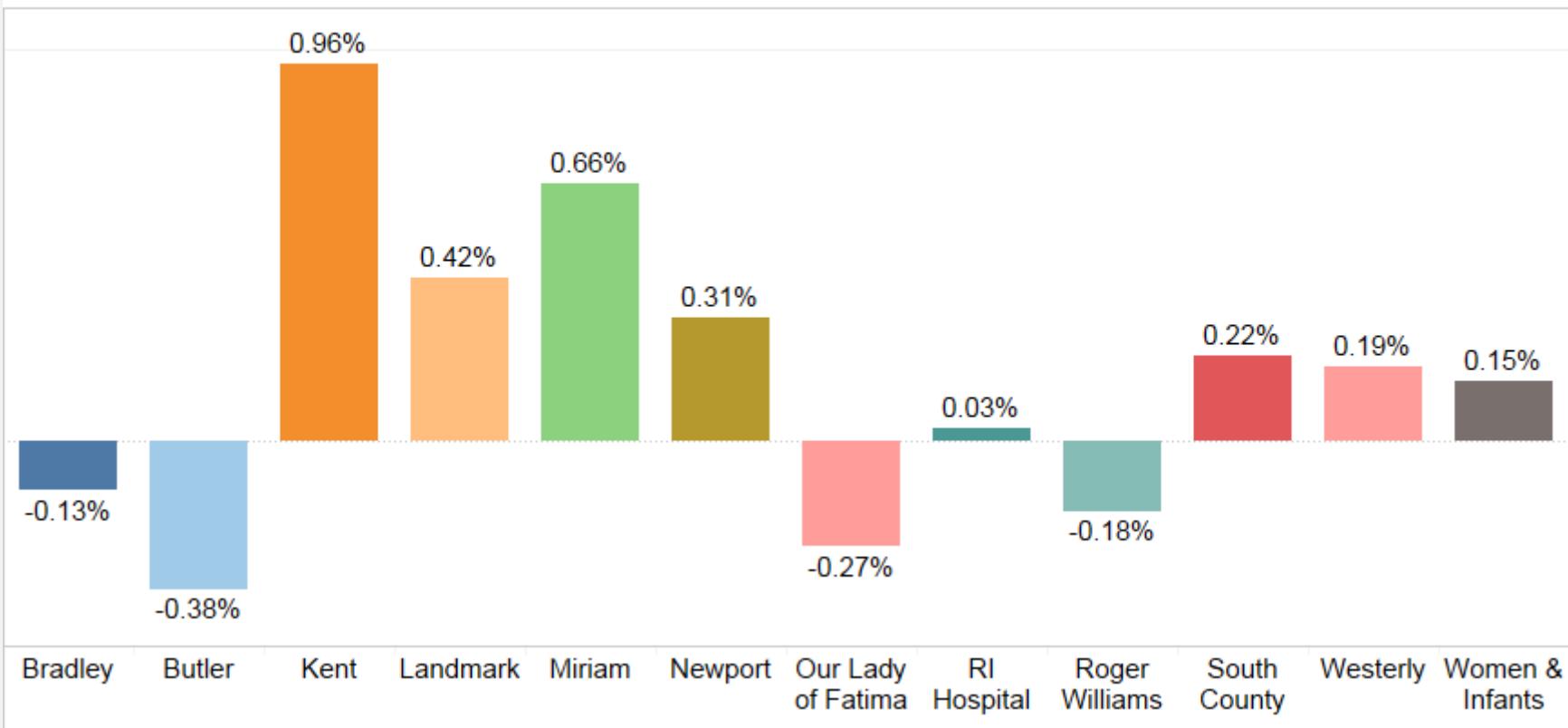
Source: Rhode Island Hospital Discharge Data



In 2018, most hospitals experienced some increase in their share of the state's hospitalizations, compared to the previous year, which is expected since the closure of MHRI resulted in a reduction in the number of hospitals overall.

#### Difference in distribution of hospitalizations by hospital from 2017 to 2018

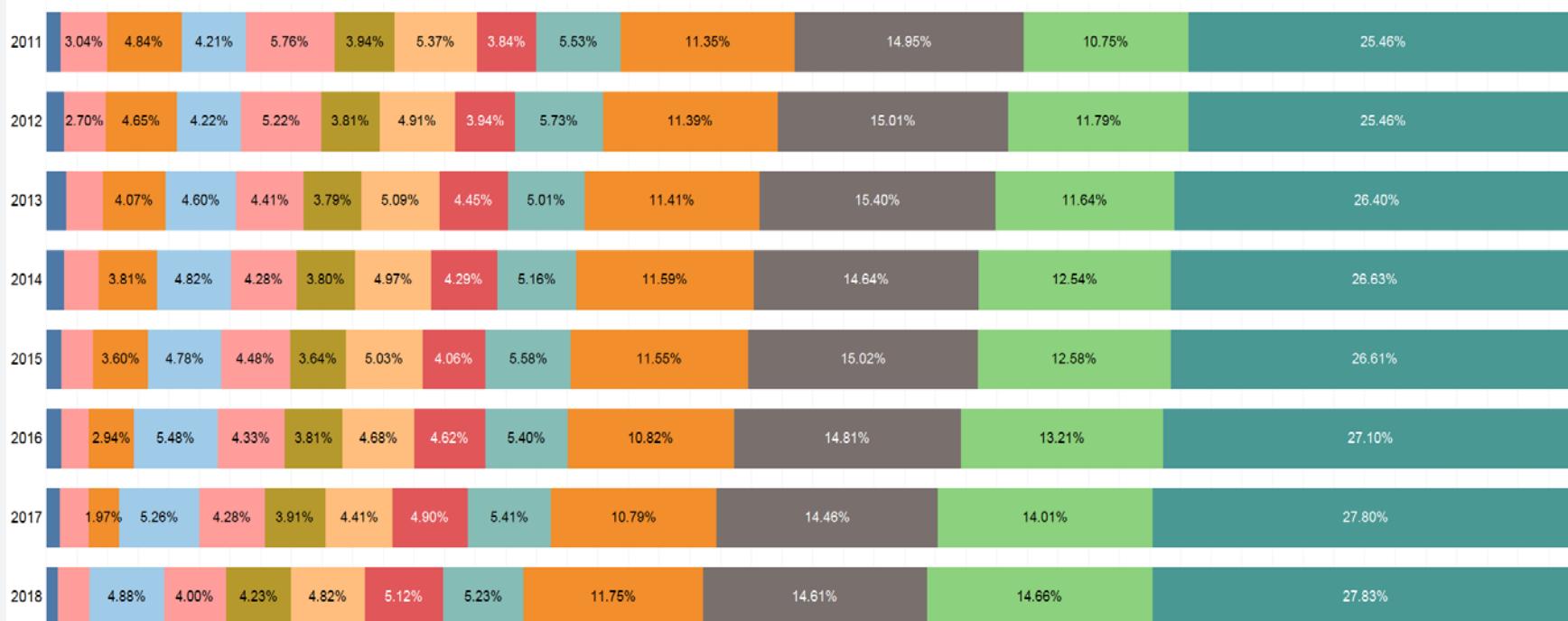
Source: Rhode Island Hospital Discharge Data



Overall, the state experienced a decrease in hospitalizations in 2018. However, with the reduction in the number of hospitals in the state, many hospitals experienced an increase in their share of the state's hospitalizations. Kent saw the largest percentage point increase at nearly 1%, from 10.79% in 2017 to 11.75% in 2018.

Distribution of Hospitalizations to Rhode Island Hospitals, 2011-2017

Source: Rhode Island Hospital Discharge Data



Bradley	Women & Infants	Roger Williams	Landmark	RI Hospital
Butler	South County	Our Lady of Fatima	Kent	
Westerly	Memorial	Newport	Miriam	

Kent Hospital saw a decrease of 20 hospitalizations that involved patients residing in MHRI's former service area.

#### Hospitalizations to Kent Hospital by ZIP Code of Residence, 2017-2018

Source: *Rhode Island Hospital Discharge Data*

	2017	2018
Target Area	523	503
Unknown	36	124
Outside Target Area	14,036	14,629
Grand Total	14,595	15,256

#### Percent of Total Hospitalizations to Kent Hospital by ZIP Code of Residence, 2017-2018

Source: *Rhode Island Hospital Discharge Data*

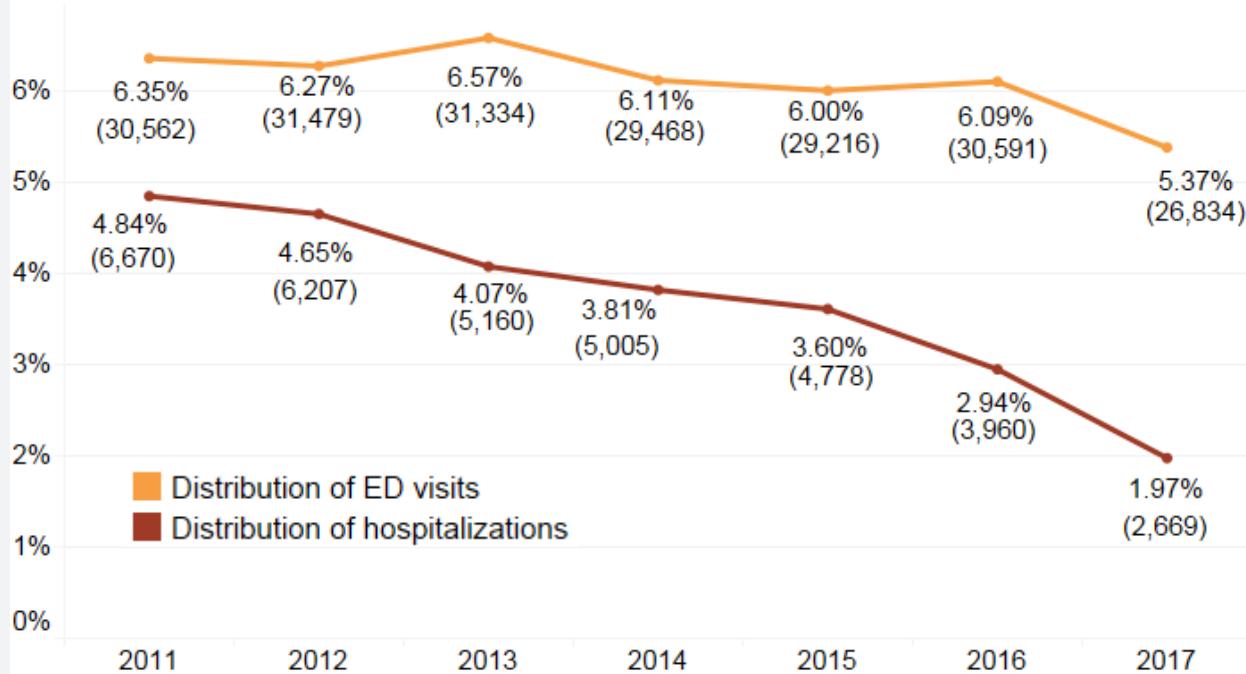
	2017	2018
Target Area	3.58%	3.30%
Outside Target Area	96.17%	95.89%
Unknown	0.25%	0.81%
Grand Total	100.00%	100.00%



# While Hospitalizations at MHRI declined consistently since 2011, ED volume and share remained relatively consistent.

## Distribution of RI ED Visits and Hospitalizations to MHRI, 2011-2017

Source: Rhode Island Hospital Discharge Data



On December 1, 2017, RIDOH and MHRI entered into a Consent Agreement stating MHRI would cease providing elective surgeries, surgery, and anesthesia service. This likely impacted 2017 volume for both ED visits and hospitalizations. If this agreement had not been entered into, volume and share in 2017 might have been as follows:

### ED Visits

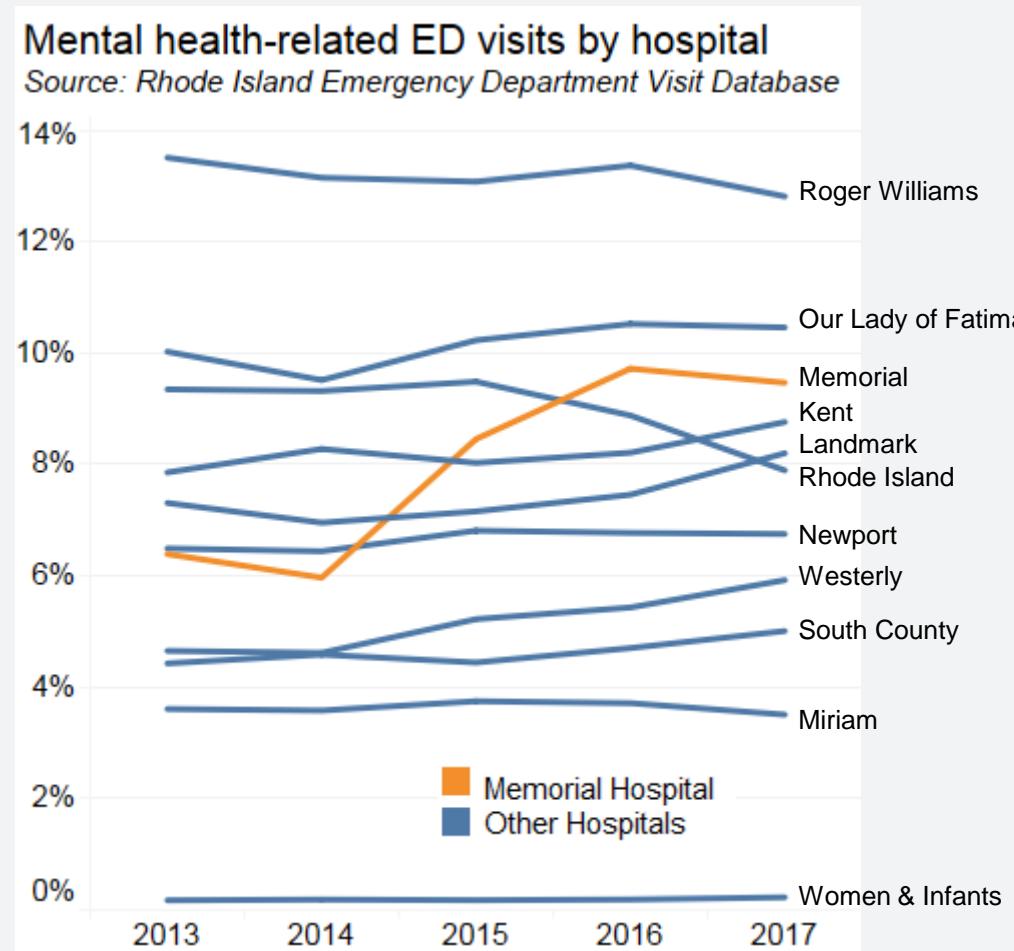
- 29,204
- 5.85% of all RI ED visits

### Hospitalizations

- 3,127
- 2.31% of all RI hospitalizations



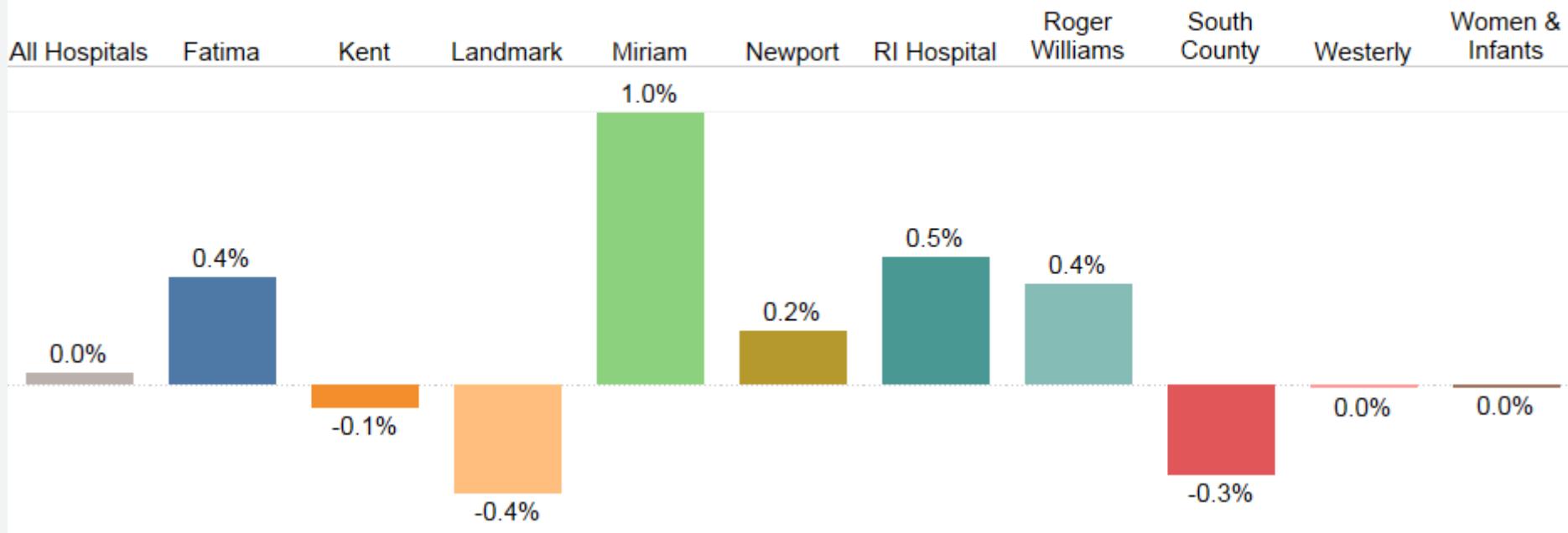
In the years leading up to its closure, MHRI experienced a greater distribution of mental health-related ED visits, compared to other hospitals in the state.



In the year following the closure of MHRI, Miriam Hospital saw the greatest increase in mental health-related ED visits, from 3.5% to 4.5% of all ED visits.

Mental health-related ED visits by hospital, difference in percentage of all ED visits from 2017-2018

Source: Rhode Island Emergency Department Visit Database

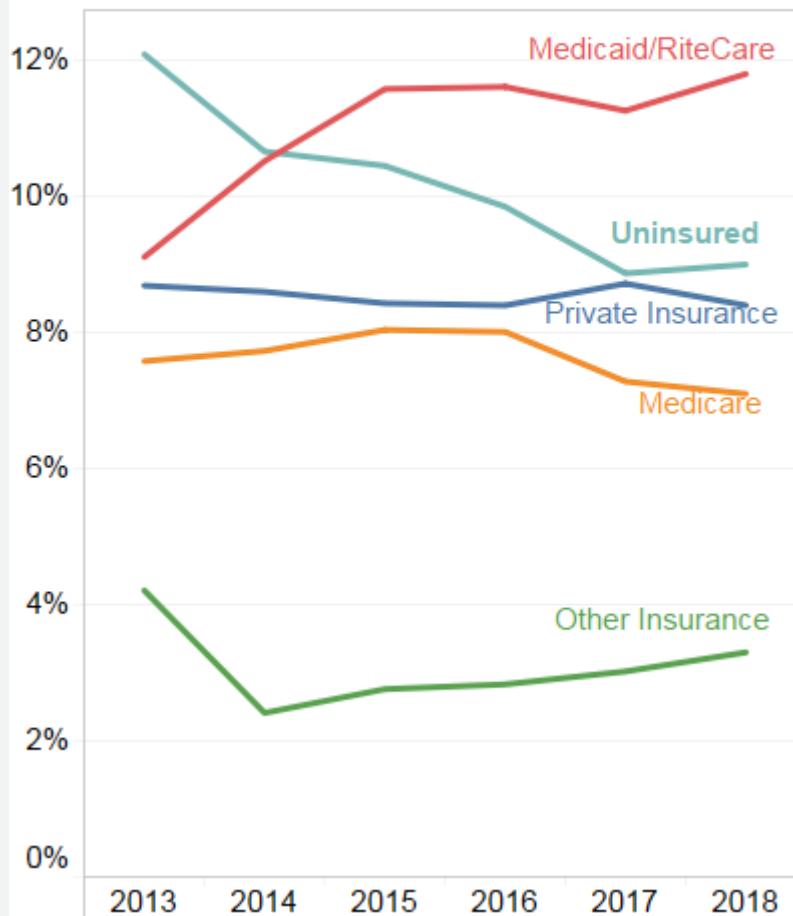


\*\*Bradley and Butler are hidden in this visual, but not excluded from the data. The data provided to JSI included the following footnote: There appears to be a problem with missing data from Kent, Women and Infants, and Memorial Hospital in years 2014-2017 and with Landmark in quarter 1 of 2018.

Of those who were treated in RI EDs for a mental health-related conditions, the most common insurance type was Medicaid, followed by uninsured.

Percentage of mental health-related ED visits by insurance status

Source: Rhode Island Emergency Department Visit Database



VISITS TO LIFESPAN HOSPITALS FROM PATIENTS RESIDING IN MEMORIAL HOSPITAL SERVICE AREA (ZIP CODES: '02860', '02861', '02862', '02863', '02864')

EMERGENCY DEPT VISITS		
	2017	2018
Newport	116	121
Miriam	18,996	26,307
RI Hospital	14,614	17,229
Total	33,726	43,657

Notes: change in # of visits statistically significant for Miriam, Rhode Island Hospital, and Lifespan total

INPATIENT HOSPITALIZATIONS		
	2017	2018
Newport	28	84
Miriam	4,086	5,107
RI Hospital	3,007	3,324
Total	7,121	8,515

Notes: change in # of admissions statistically significant for Newport, Miriam, Rhode Island Hospital, and Lifespan total

DISTRIBUTION OF PAYERS AMONG VISITS TO LIFESPAN HOSPITALS - ALL PATIENTS - 2017-2018

	2017						2018						Change from 2017 to 2018					
	Private	Medicare	Medicaid	Uninsured	Other	Total	Private	Medicare	Medicaid	Uninsured	Other	Total	Private	Medicare	Medicaid	Uninsured	Other	Total
	Newport	8379 (25.7%)	8138 (25.0%)	9545 (29.3%)	3136 (9.6%)	3395 (10.4%)	32,593	7743 (23.8%)	8044 (24.8%)	9270 (28.5%)	4019 (12.4%)	3414 (10.5%)	32,490	-636	-94	-275	883	19
Miriam	18,077 (26.2%)	23,556 (34.1%)	17,379 (25.2%)	8,762 (12.7%)	1,329 (1.9%)	69,103	17,072 (23.5%)	23,238 (31.9%)	19,071 (26.2%)	12,032 (16.5%)	1,395 (1.9%)	72,808	-1,005	-318	1,692	3,270	66	3,705
RI Hospital	36,547 (23.8%)	26,563 (17.3%)	69,140 (45.0%)	17,433 (11.4%)	3,970 (2.6%)	153,653	34,697 (23.1%)	24,654 (16.4%)	67,185 (44.7%)	20,090 (13.4%)	3,629 (2.4%)	150,255	-1,850	-1,909	-1,955	2657	-341	-3,398
Total N	63,003	58,257	96,064	29,331	8,694	255,349	59,512	55,936	95,526	36,141	8,438	255,553	-3491	-2,321	-538	6810	-256	204
Total %	24.7%	22.8%	37.6%	11.5%	3.4%		23.3%	21.9%	37.4%	14.1%	3.3%							

Notes: "Other" insurance includes CHAMPUS, Workers Compensation, and those coded as "other"

When looking at the total patient population to Lifespan hospitals, the only statistically significant increase from 2017 to 2018 was in ED visits and inpatient admissions from uninsured patients. ED and inpatient visits with Private insurance, Medicare, and overall # of inpatient visits significantly decreased.

DISTRIBUTION OF PAYERS AMONG VISITS TO LIFESPAN HOSPITALS - FROM PATIENTS RESIDING IN MEMORIAL HOSPITAL SERVICE AREA

(ZIP CODES: '02860', '02861', '02862', '02863', '02864'), 2017-2018

	2017						2018						Change from 2017 to 2018					
	Private	Medicare	Medicaid	Uninsured	Other	Total	Private	Medicare	Medicaid	Uninsured	Other	Total	Private	Medicare	Medicaid	Uninsured	Other	Total
	Newport	24 (20.7%)	8 (6.9%)	53 (45.7%)	23 (19.8%)	8 (6.9%)	116	22 (18.2%)	11 (9.1%)	58 (47.9%)	21 (17.4%)	9 (7.4%)	121	-2	3	5	-2	1
Miriam	3870 (20.4%)	5,046 (26.6%)	6,544 (34.5%)	3,190 (16.8%)	346 (1.8%)	18,996	4,596 (17.5%)	6,398 (24.3%)	9,444 (35.9%)	5,448 (20.7%)	421 (1.6%)	26,307	726	1,352	2,900	2,258	75	7,311
RI Hospital	2,964 (20.3%)	1,591 (10.9%)	8,213 (56.20%)	1,545 (10.6%)	301 (2.1%)	14,614	3,073 (17.8%)	1,739 (10.1%)	9,993 (58.0%)	2,112 (12.3%)	312 (1.8%)	17,229	109	148	1,780	567	11	2,615
Total N	6,858	6,645	14,810	4,758	655	33,726	7,691	8,148	19,495	7,581	742	43,657	833	1,503	4,685	2,823	87	9,931
Total %	20.3%	19.7%	43.9%	14.1%	1.9%		17.6%	18.7%	44.7%	17.4%	1.7%							

	2017						2018						Change from 2017 to 2018					
	Private	Medicare	Medicaid	Uninsured	Other	Total	Private	Medicare	Medicaid	Uninsured	Other	Total	Private	Medicare	Medicaid	Uninsured	Other	Total
	Newport	3 (10.7%)	10 (35.7%)	15 (53.6%)	0 (0%)	0 (0%)	28	7 (8.3%)	17 (20.2%)	47 (56.0%)	12 (14.3%)	1 (1.2%)	84	4	7	32	12	1
Miriam	636 (15.6%)	2,116 (51.8%)	691 (16.9%)	594 (14.5%)	49 (1.2%)	4,086	710 (13.9%)	2,404 (47.1%)	1,055 (20.7%)	877 (17.2%)	61 (1.2%)	5,107	74	288	364	283	12	1,021
RI Hospital	576 (19.2%)	922 (30.7%)	1,108 (36.9%)	352 (11.7%)	49 (1.6%)	3,007	598 (18.0%)	1,063 (32.0%)	1,191 (35.8%)	422 (12.7%)	50 (1.5%)	3,324	22	141	83	70	1	317
Total N	1,215	3,048	1,814	946	98	7,121	1,315	3,484	2,293	1,311	112	8,515	100	436	479	365	14	1,394
Total %	17.1%	42.8%	25.5%	13.3%	1.4%		15.4%	40.9%	26.9%	15.4%	1.3%							

Notes: "Other" insurance includes CHAMPUS, Workers Compensation, and those coded as "other"

When including only those in the defined Memorial Hospital service area, visits for all insurance types to Lifespan increased significantly with the exception of inpatient admissions for patients of "other" insurance type.

# Appendix C

## Demographic/ Social Determinants of Health Databook

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# MHRI Closure Impact Assessment

DEMOGRAPHIC/ SOCIAL DETERMINANTS OF HEALTH DATA SLIDES  
FEBRUARY 2020

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# Target Area Determination

JSI used MHRI utilization data from 2011 to 2017, provided by the Rhode Island Department of Health's (RIDOH) Center for Health Data and Analysis (CHDA), to determine the service area at the ZIP code level. JSI, with input from the MHRI Closure Impact Assessment Steering Committee, defined the service area to include communities served by the former MHRI. Figures on slides 7 and 8 show that four ZIP codes of patient residence rose to the top: 02860 (Pawtucket), 02861 (Pawtucket), 02863 (Central Falls), and 02864 (Cumberland).



# Target Area Determination Cont.

The Steering Committee chose to include ZIP code 02862 (Pawtucket) in the service area, though residents of this ZIP code made up a small percentage of MHRI utilization, for several reasons, including:

- MHRI was located in the city of Pawtucket, leading the Steering Committee to conclude that all ZIP codes in the city should be included in analysis.
- As it represents the mostly commercial downtown area of Pawtucket, the ZIP code 02862 has a tiny population, which would mean that even if every resident utilized MHRI, the ZIP code may not appear among the top utilizing ZIP codes.

For the purposes of these slides, the target service area is defined as follows:

ZIP Codes	City
02860	Pawtucket
02861	Pawtucket
02862	Pawtucket
02863	Central Falls
02864	Cumberland

# Demographic Data Orientation

## ZIP Codes versus ZIP Code Tabulation Areas

In the first part of this section, data from the American Community Survey (ACS) will be presented to demonstrate demographic characteristics of Memorial Hospital of Rhode Island's (MHRI) former service area. Rather than zip codes, the ACS uses Zip Code Tabulation Areas (ZCTA) which often align with zip codes. In the case of the MHRI service area, ZCTAs and zip codes do not completely align since the 02862 zip code is rolled up into the 02860 ZCTA.

Throughout this presentation, the table below represents the target area.

Zip Codes	ZCTAs
02860	02860*
02861	02861
02862	02863
02863	02864
02864	



# Demographic Data Orientation Cont.

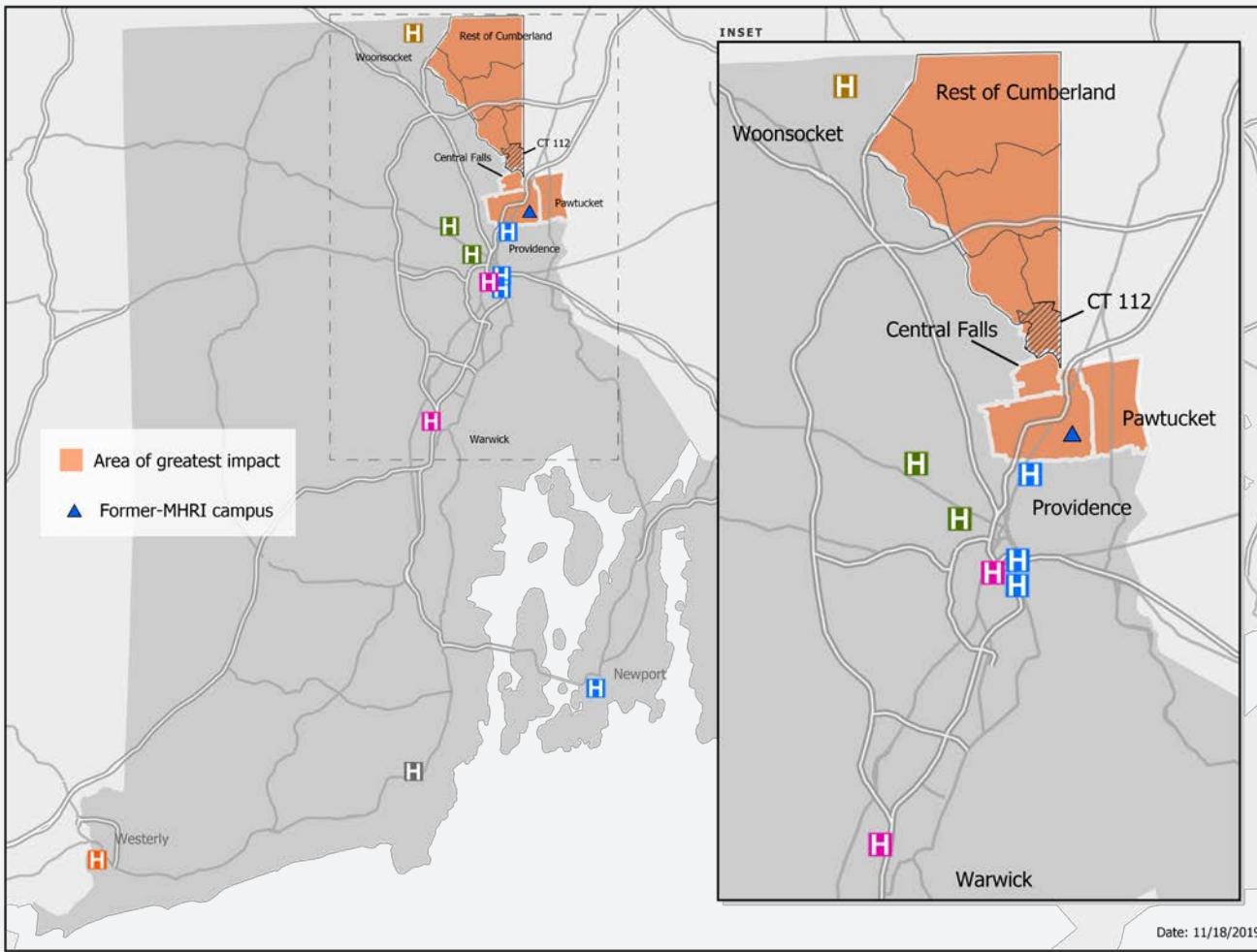
## Comparison Locations

In addition to data for the MHRI service area, data for the state of Rhode Island and the cities of Providence and Woonsocket will be presented for comparison.

Providence and Woonsocket were included for comparison, because they, along with the cities of Pawtucket and Central Falls, make up Rhode Island's core cities. Core cities are cities where greater than 15% of children live in poverty.



# Map of Target Area



# Most patients hospitalized at MHRI come from 02860, 02861, 02863, and 02864.

## Spread of Memorial Hospital of Rhode Island Hospitalizations by ZIP Code and Year, 2011-2017

Source: *Rhode Island Hospital Discharge Data*

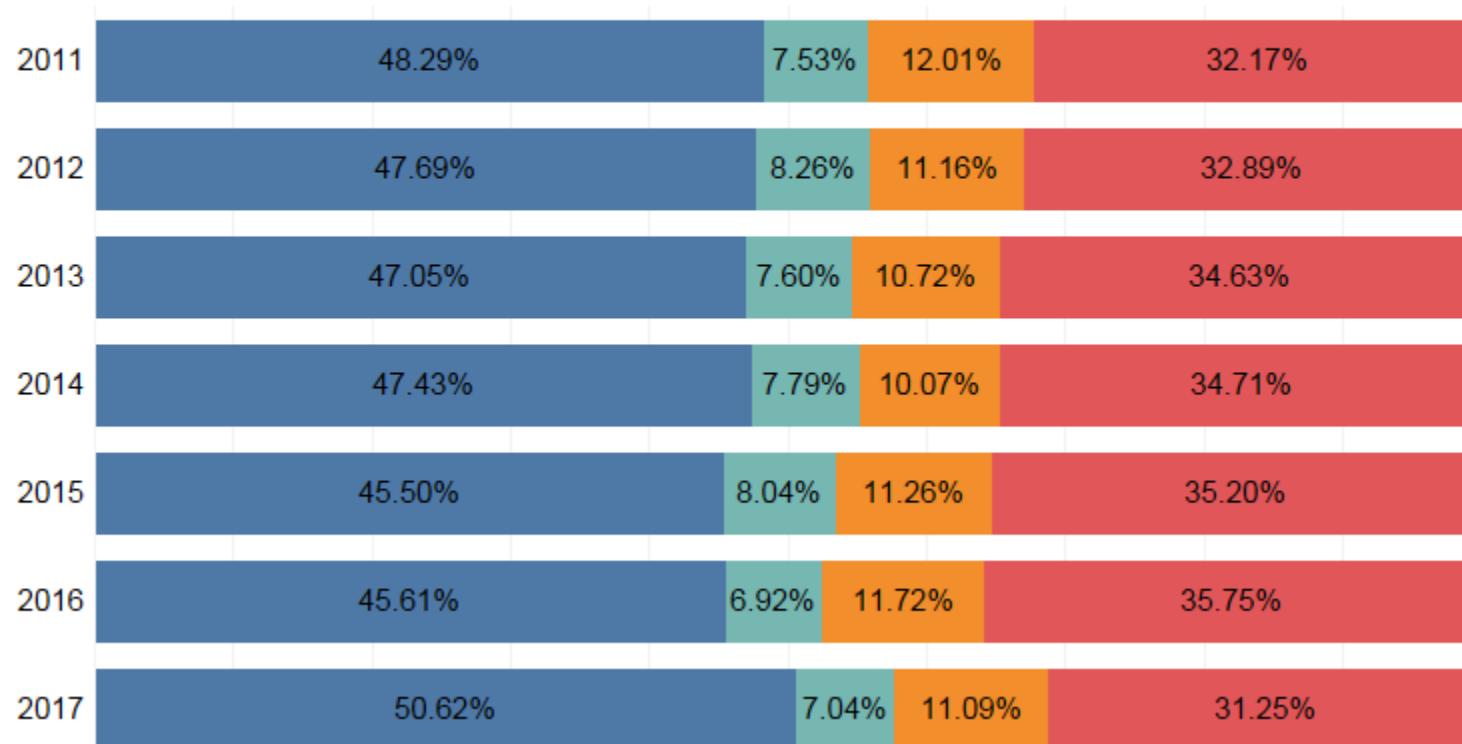
	2011 n=6,670	2012 n=6,207	2013 n=5,160	2014 n=5,005	2015 n=4,778	2016 n=3,960	2017 n=2,669
Pawtucket - 02860	29.34%	28.34%	28.00%	29.37%	27.94%	27.83%	29.49%
Pawtucket - 02861	18.88%	19.14%	18.99%	19.00%	17.43%	17.75%	20.87%
Central Falls - 02863	12.01%	11.16%	10.72%	10.07%	11.26%	11.72%	11.09%
Cumberland - 02864	7.53%	8.26%	7.60%	7.79%	8.04%	6.92%	7.04%
Lincoln - 02865	2.47%	2.45%	1.98%	1.76%	2.57%	2.17%	2.14%
Attleboro, MA - 02703	1.95%	1.24%	1.86%	1.88%	1.90%	1.89%	2.02%
East Providence - 02916	2.38%	2.82%	2.05%	1.94%	1.72%	1.87%	1.80%
East Providence - 02914	2.74%	2.79%	2.46%	2.66%	2.93%	2.65%	1.80%
North Providence - 02904	1.66%	1.79%	2.25%	2.62%	1.90%	1.54%	1.69%
Seekonk, MA - 02771	1.95%	1.77%	1.76%	1.70%	1.13%	2.07%	1.50%
Pawtucket - 02862	0.07%	0.21%	0.06%	0.06%	0.13%	0.03%	0.26%
All Others	19.01%	20.03%	22.27%	21.16%	23.04%	23.56%	20.31%



# Most patients hospitalized at MHRI come from Pawtucket, Central Falls, and Cumberland.

Spread of Memorial Hospital of Rhode Island Hospitalizations by ZIP Code Per Year, 2011-2017

Source: *Rhode Island Hospital Discharge Data*



# Residents of 02860, 02861, 02863, and 02864 make up the majority of MHRI ED visits.

Spread of Memorial Hospital of Rhode Island Emergency Department Visits by ZIP Code Per Year, 2011-2017

Source: *Rhode Island Hospital Discharge Data*

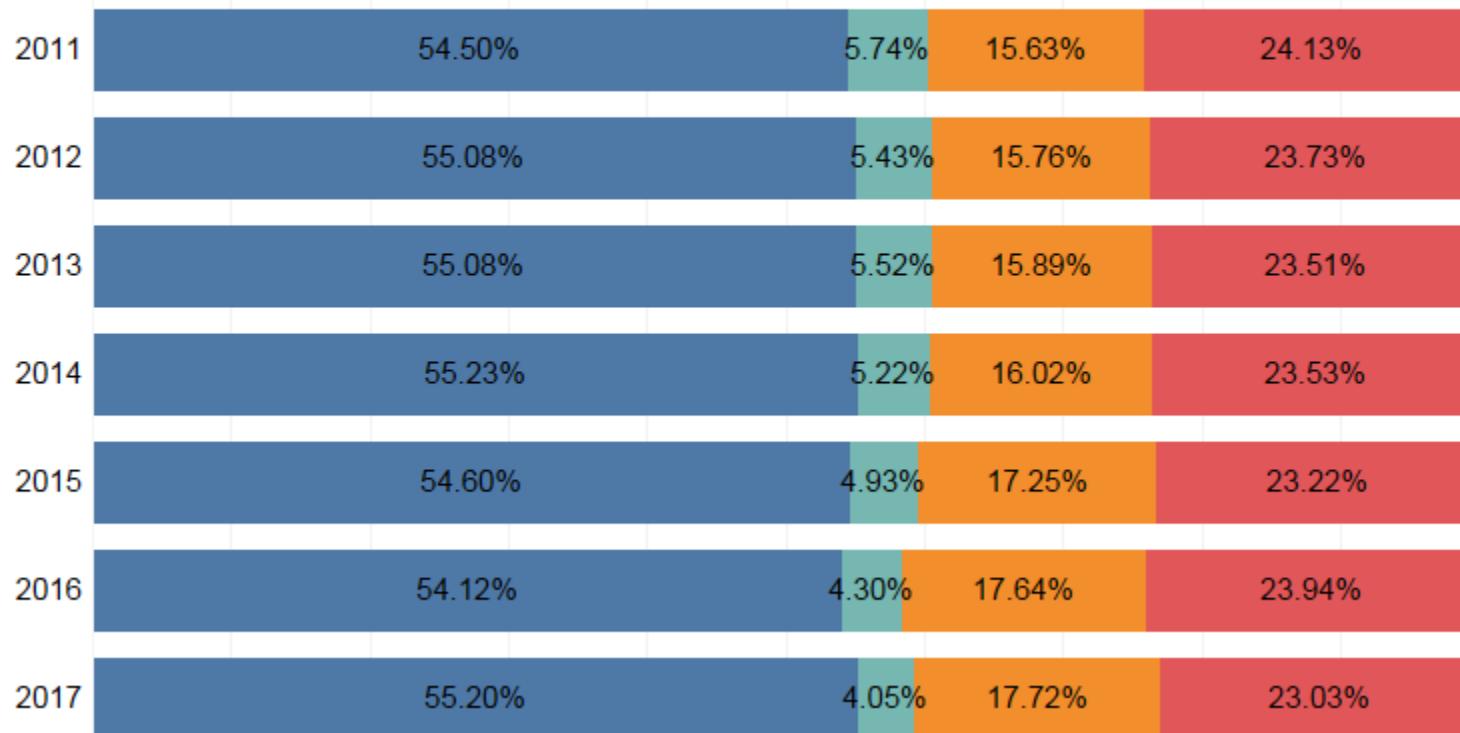
	2011 n=30,562	2012 n=31,479	2013 n=31,334	2014 n=29,468	2015 n=29,216	2016 n=30,591	2017 n=26,834
Pawtucket - 02860	37.09%	37.38%	37.29%	37.76%	37.73%	37.49%	39.19%
Central Falls - 02863	15.63%	15.76%	15.89%	16.02%	17.25%	17.64%	17.72%
Pawtucket - 02861	17.21%	17.50%	17.68%	17.32%	16.75%	16.53%	15.86%
Cumberland - 02864	5.74%	5.43%	5.52%	5.22%	4.93%	4.30%	4.05%
East Providence - 02914	2.26%	2.06%	2.20%	2.21%	2.12%	1.96%	1.88%
East Providence - 02916	1.86%	1.93%	1.87%	1.97%	1.81%	1.65%	1.66%
North Providence - 02904	1.65%	1.51%	1.61%	1.71%	1.62%	1.58%	1.62%
Providence - 02909	1.09%	1.17%	1.09%	1.12%	1.00%	1.20%	1.23%
Lincoln - 02865	1.97%	1.71%	1.78%	1.54%	1.49%	1.26%	1.17%
Attleboro, MA - 02703	1.38%	1.24%	1.21%	1.13%	1.19%	1.02%	1.01%
Pawtucket - 02862	0.20%	0.20%	0.11%	0.15%	0.12%	0.10%	0.15%
All Others	13.91%	14.11%	13.74%	13.84%	13.99%	15.27%	14.44%



# Residents of Pawtucket, Central Falls, and Cumberland make up the majority of MHRI ED visits.

Spread of Memorial Hospital of Rhode Island Emergency Department Visits by ZIP Code Per Year, 2011-2017

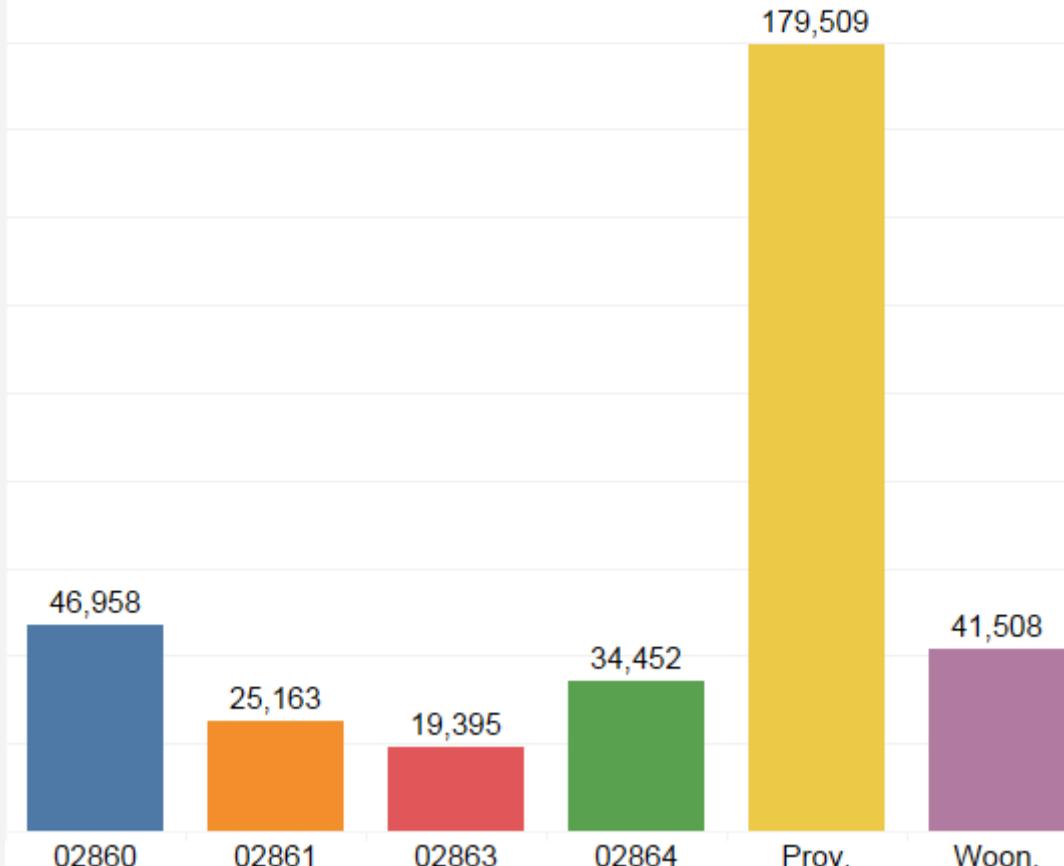
Source: *Rhode Island Hospital Discharge Data*



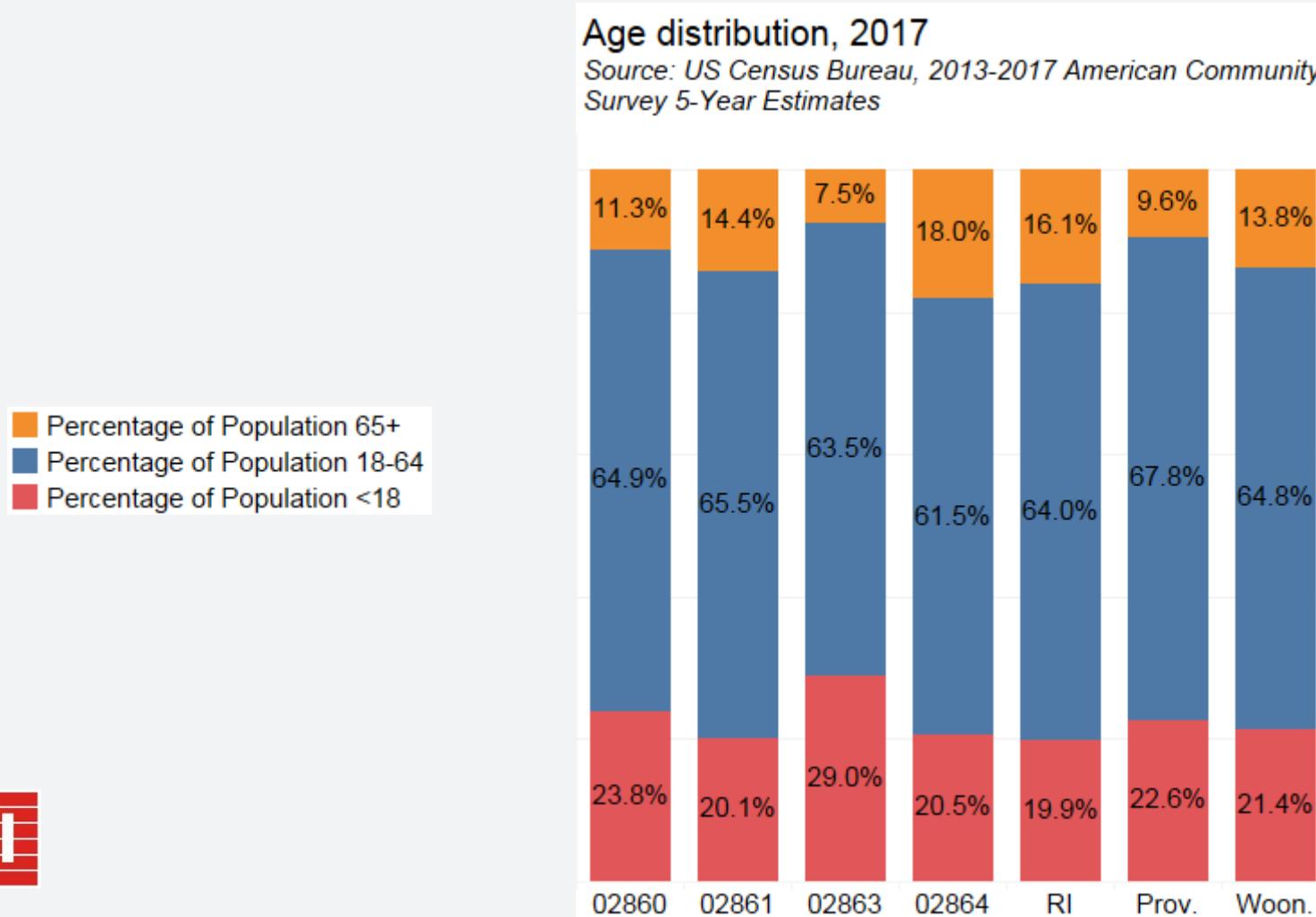
# The total population for the state of Rhode Island was 1,056, 138 in 2017.

## Population, 2017

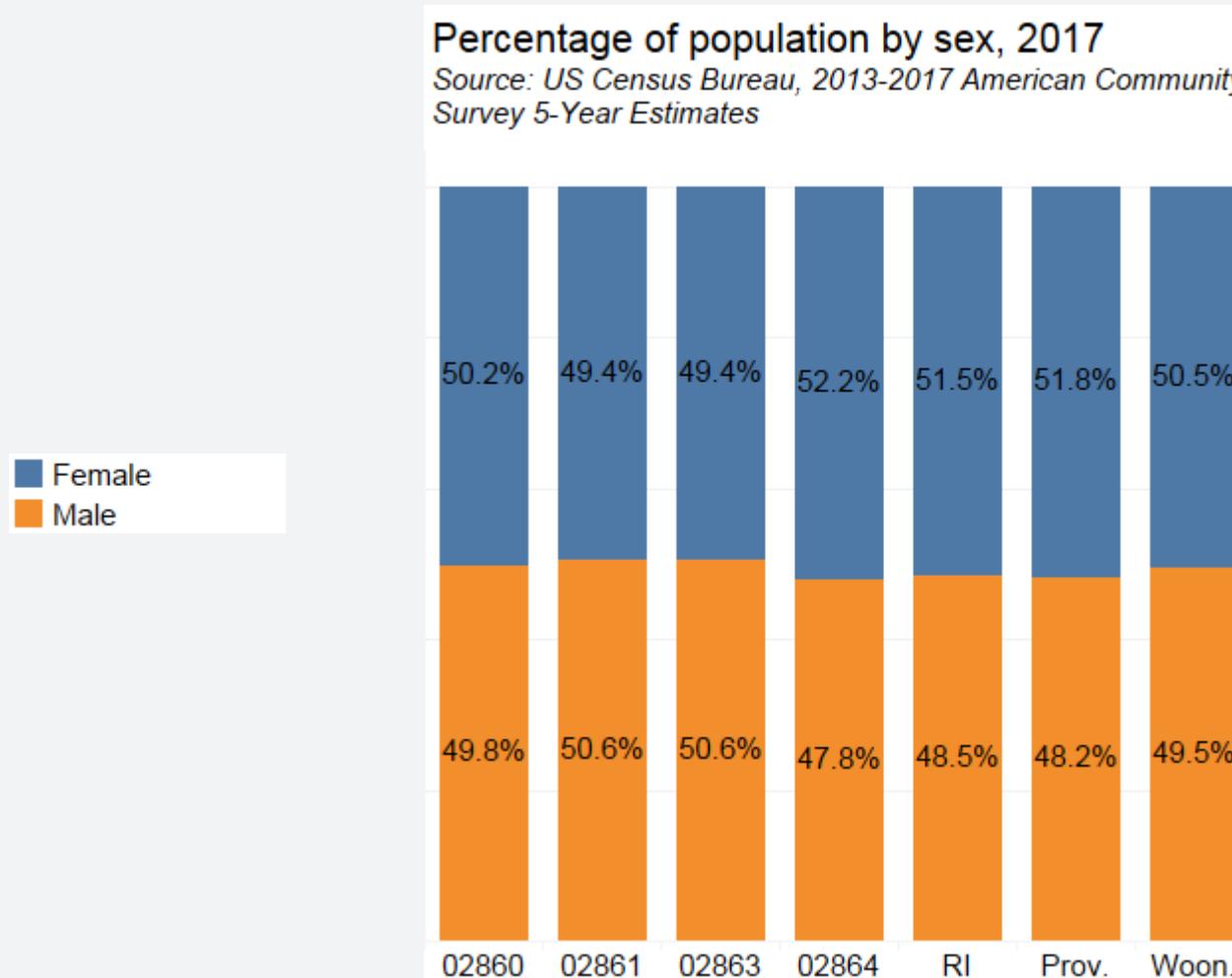
Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



Residents in 02860, 02861, and 02863 appear to be slightly younger than in the state.



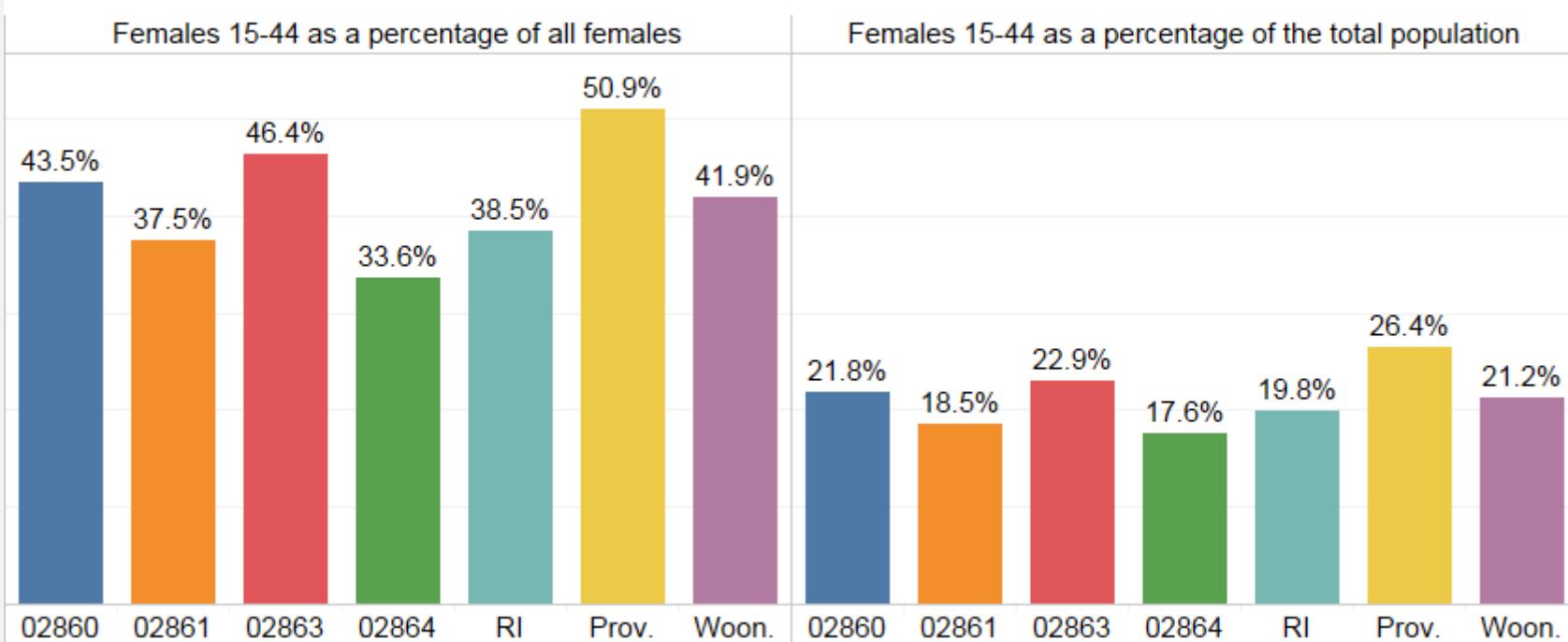
# Reported sex did not appear different across locations.



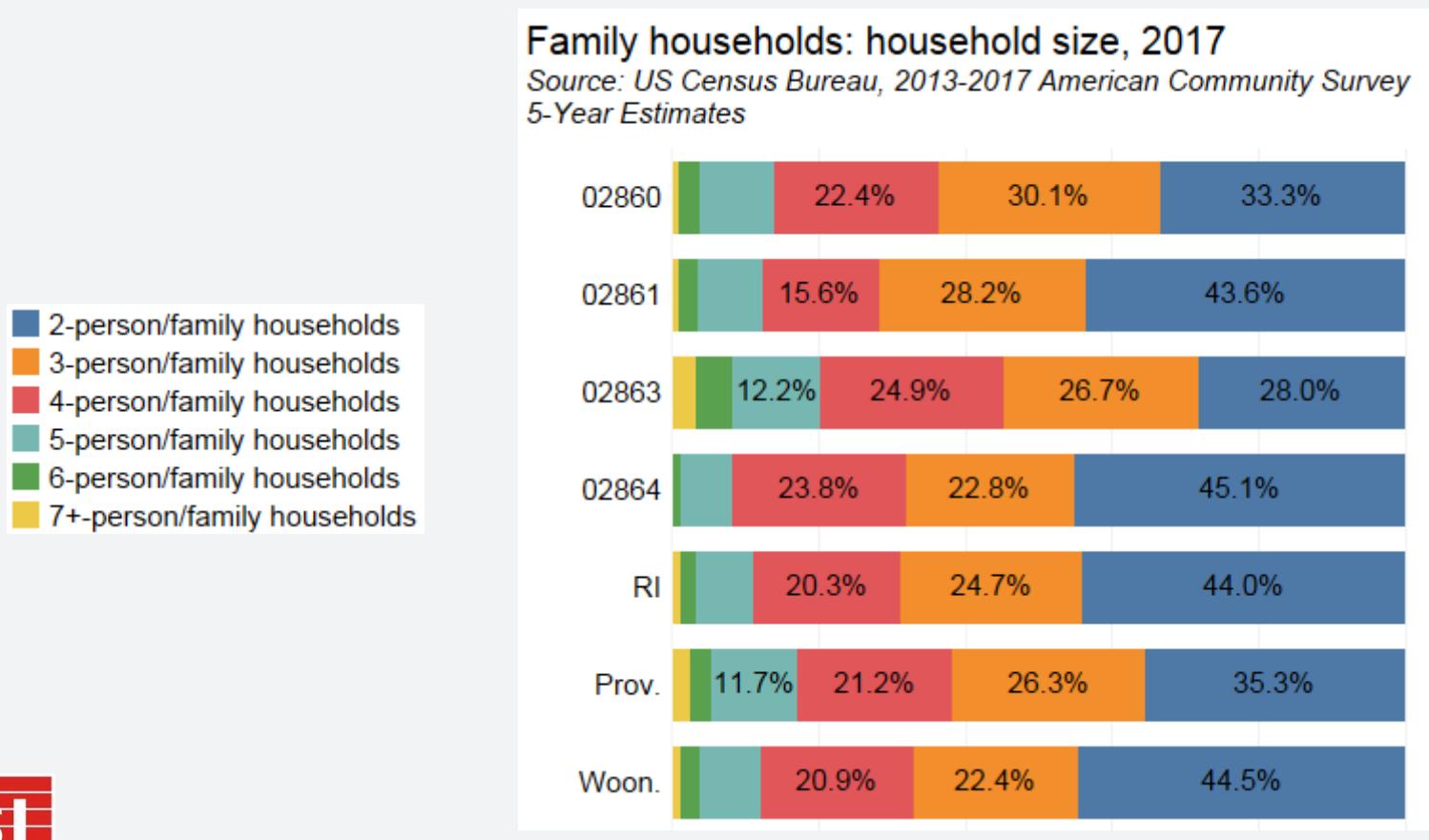
There appear to be a greater percentage of women of childbearing age in 02860 & 02863 compare to the state.

### Percentage of women of childbearing Age, 2017

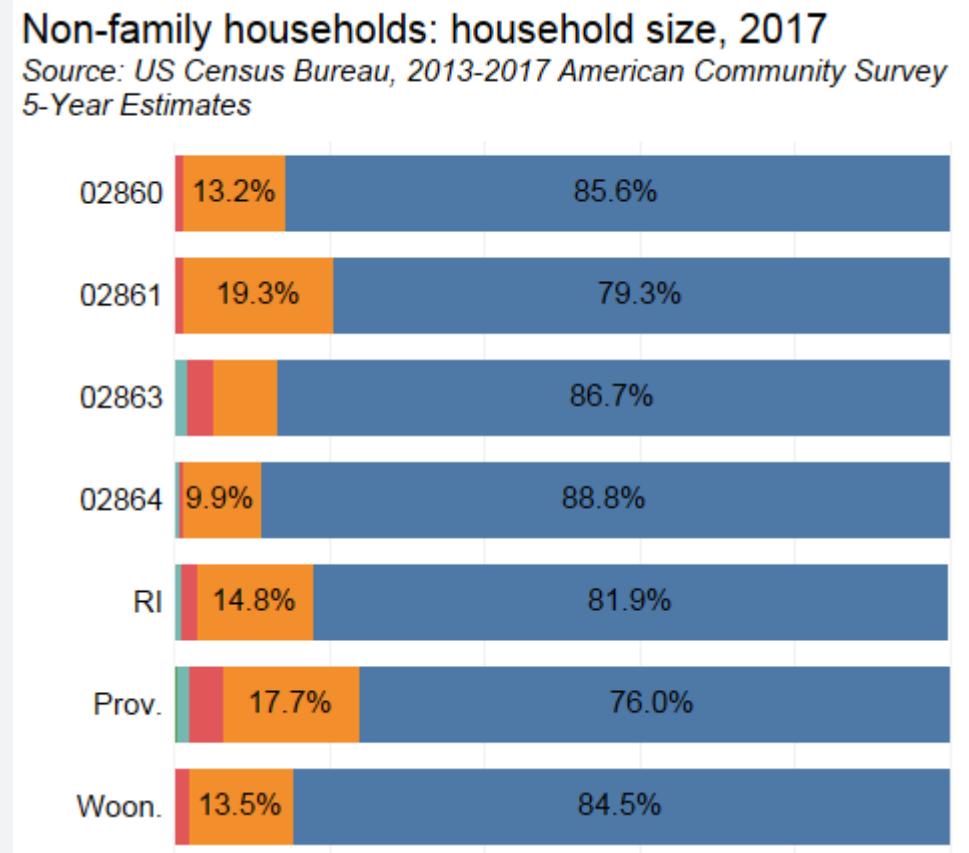
Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



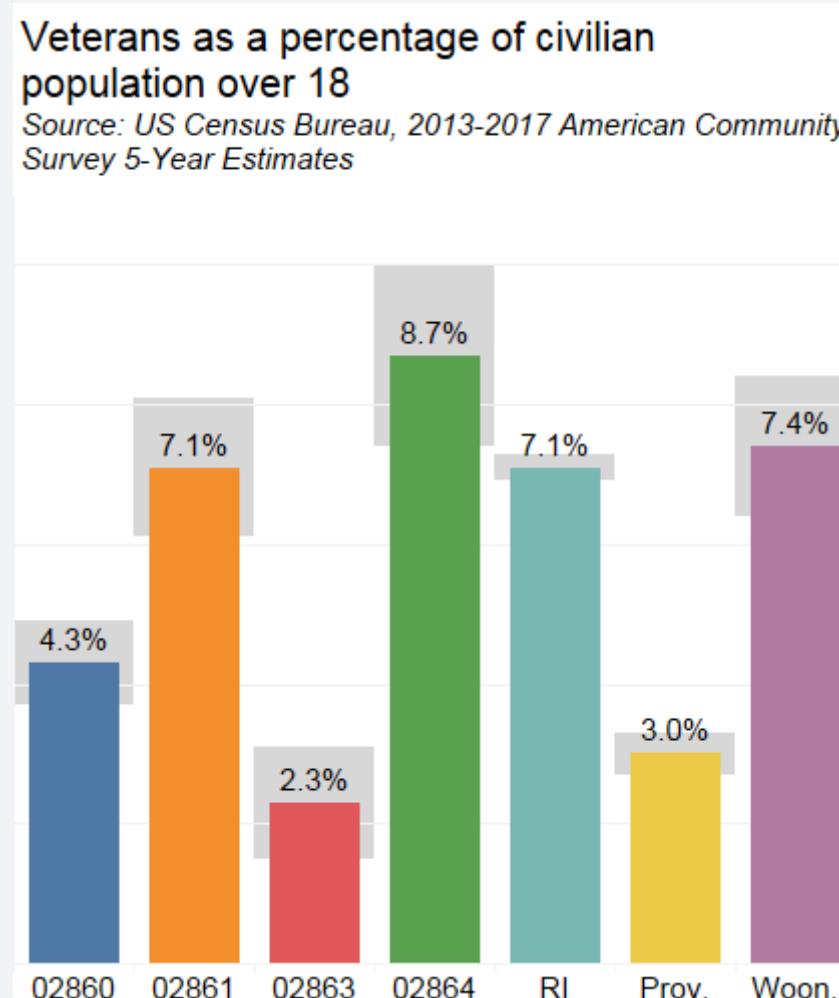
# Family households appear to be larger in 02860 and 02863, compared to the state.



# Across the state, non-family households appear to be largely 1- and 2-person households.



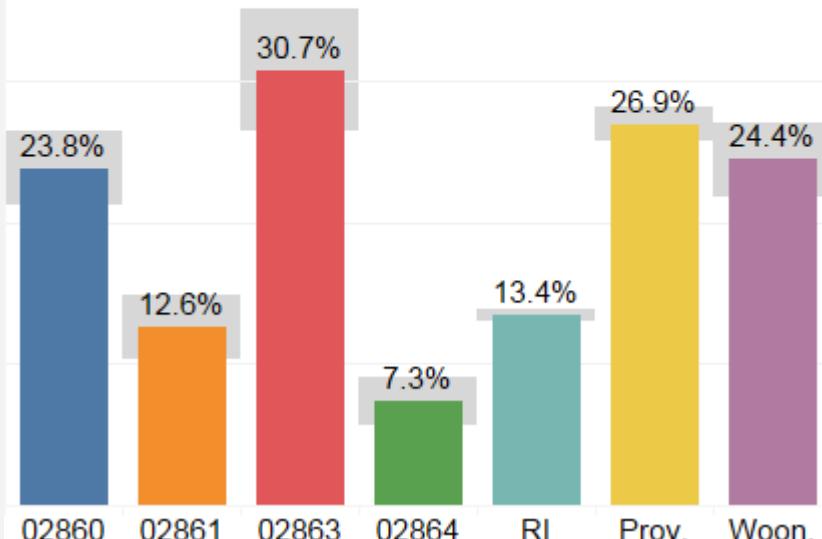
A greater percentage of residents in 02864 and a lower percentage of residents in 02860 and 02863 are veterans compared to the state.



# Compared to the state, more people in 02860 & 02863 are living in poverty.

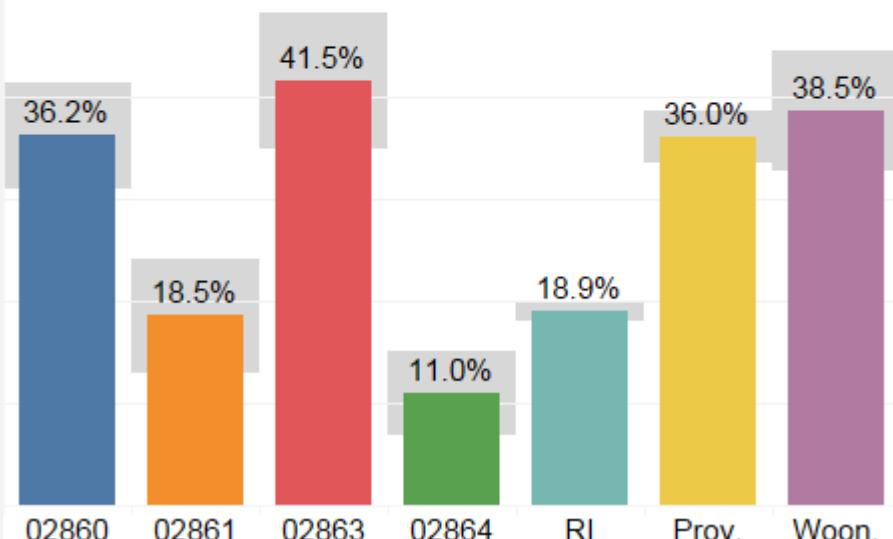
Percentage of population whose income in the past 12 months is below the poverty level, 2017

Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

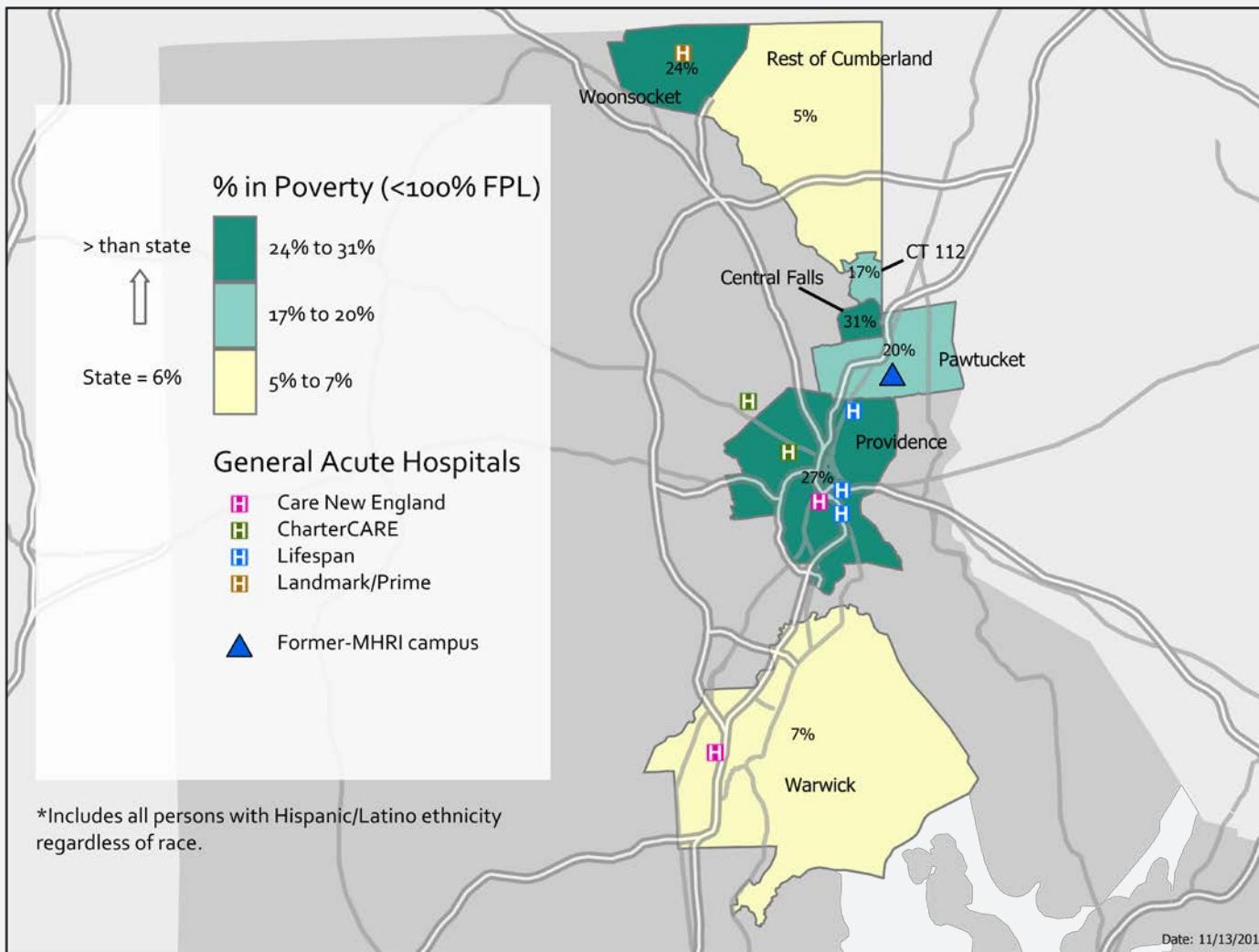


Percent of population under 18 whose family's income in the past 12 months is below the poverty level, 2017

Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

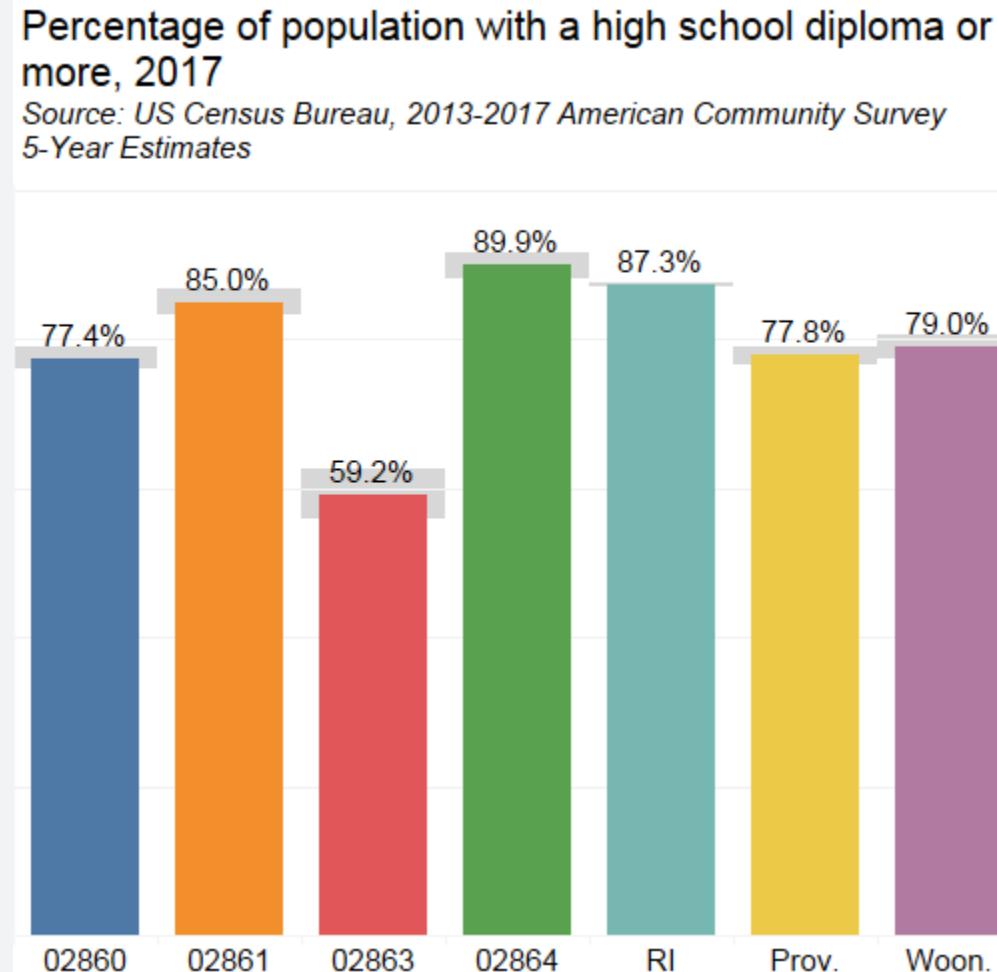


# Compared to the state, more people in Pawtucket and Central Falls are living in poverty.

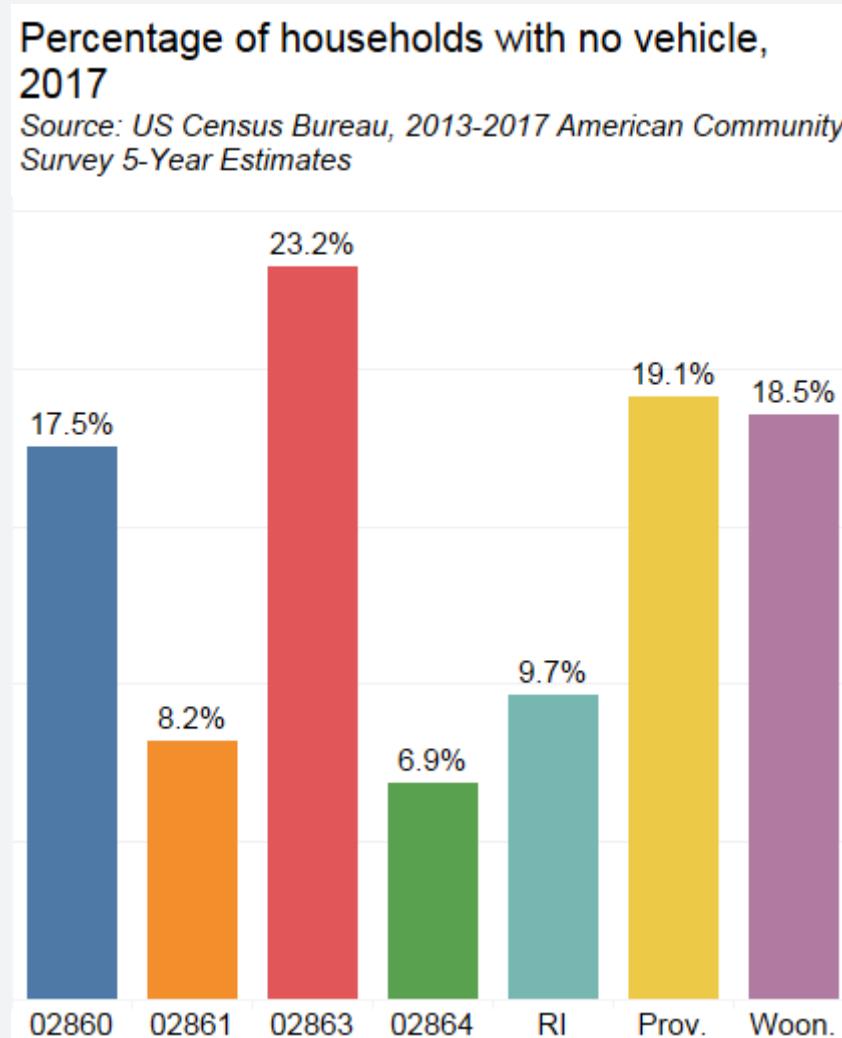


Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates. This is the same data represented in the chart titled "Percentage of population whose income in the past 12 months is below the poverty level, 2017." Data here is represented in a mapped format.

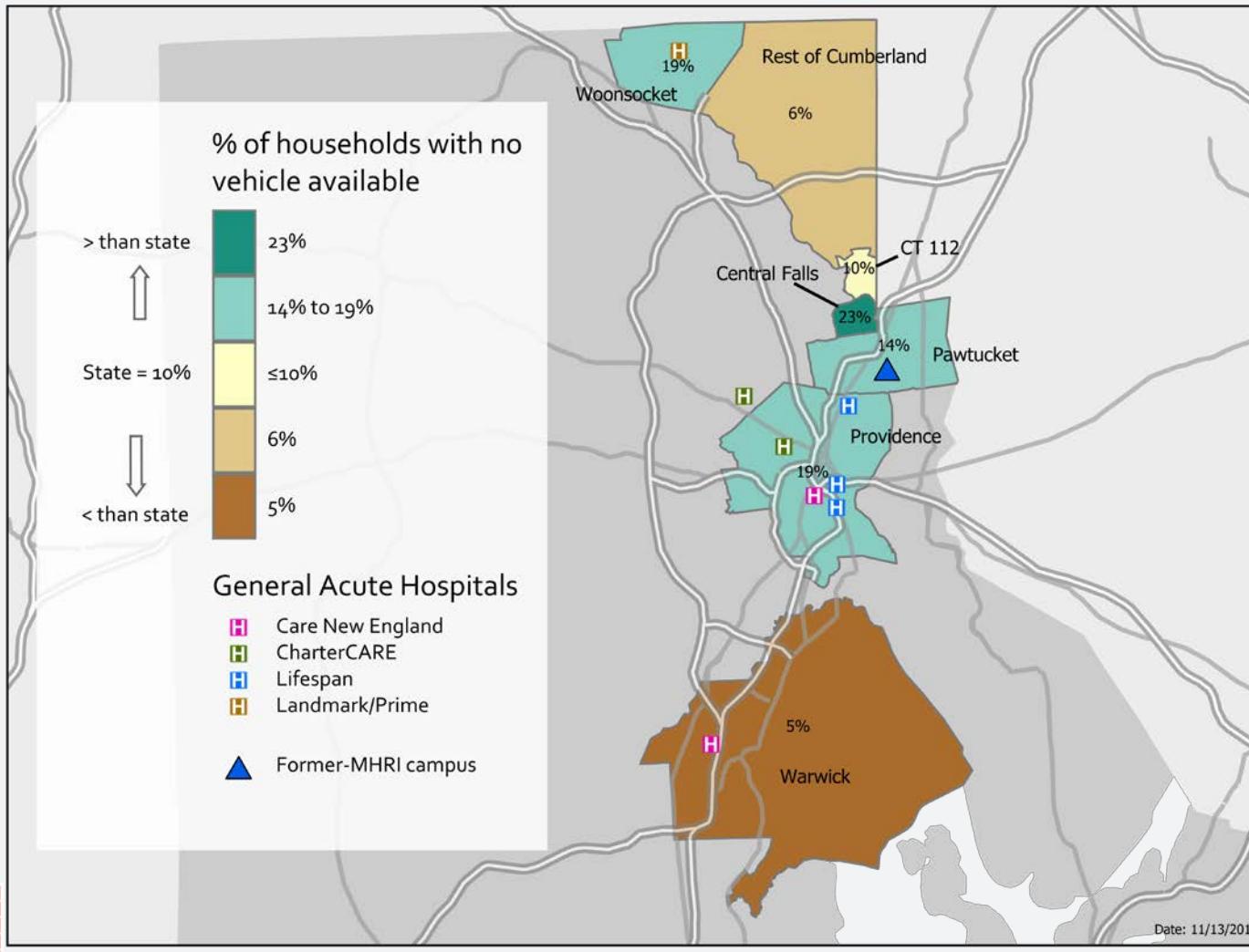
In the target area outside 02864, high school graduation rates are lower than in the state.



In 02860 and 02863, less households appear to have access to a vehicle.

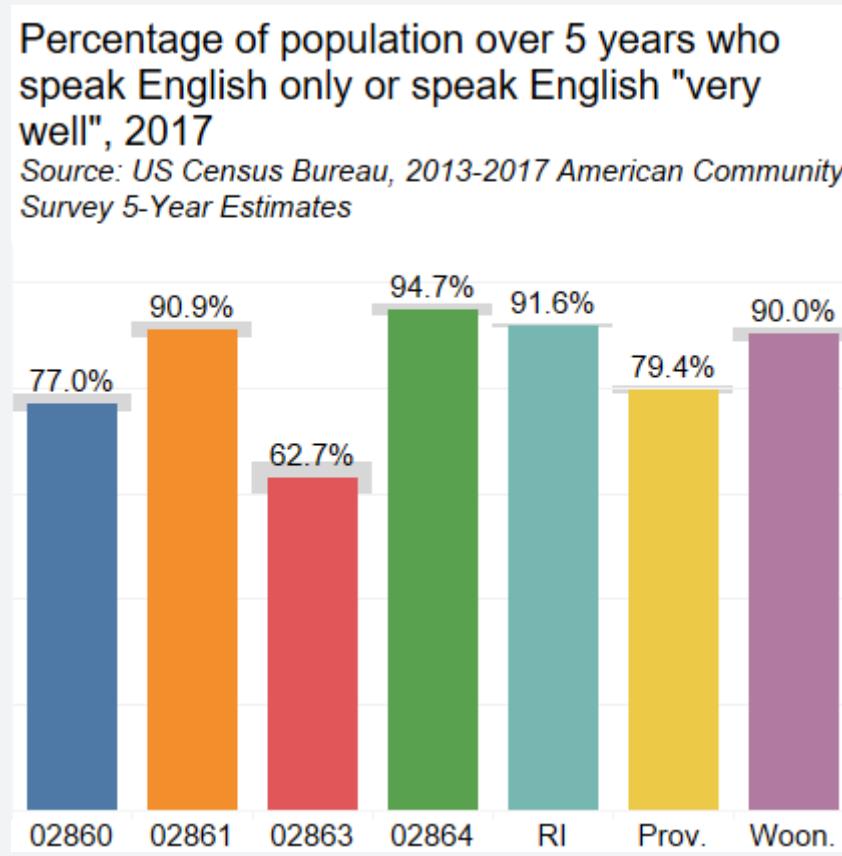


# In Pawtucket and Central Falls, less households appear to have access to a vehicle, compared to the state.



Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates. This is the same data represented in the chart titled "Percentage of households with no vehicle, 2017." Data here is represented in a mapped format.

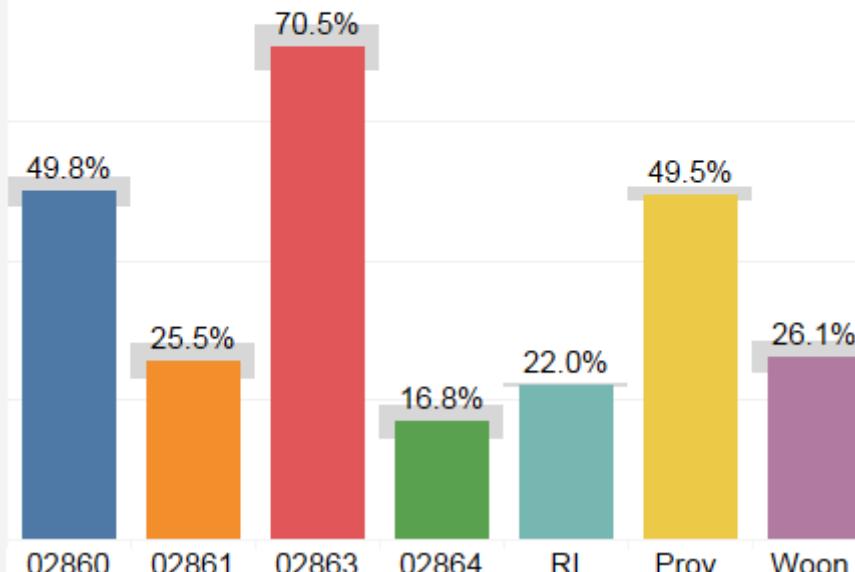
# A smaller percentage of 02860 & 02863 residents speak only English or speak English “very well”.



# Outside of 02864, more people in the target area speak a language other than English at home.

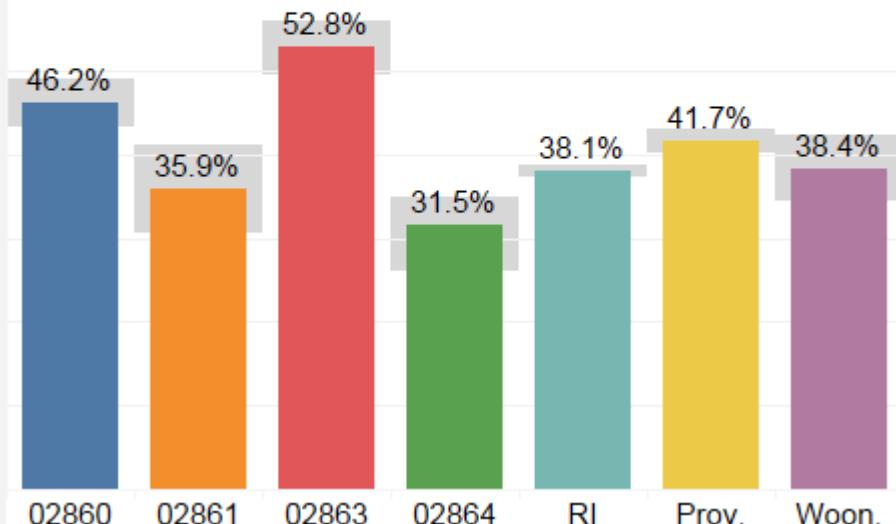
Percentage of population over 5 years speaking a language other than English at home, 2017

Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



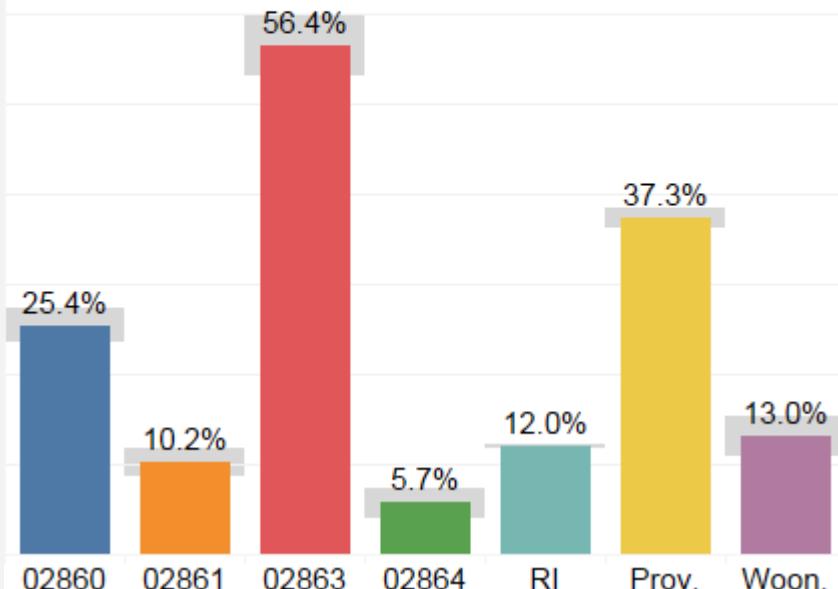
Of those who speak another language at home, the percentage of population over 5 years that speak English less than "very well", 2017

Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

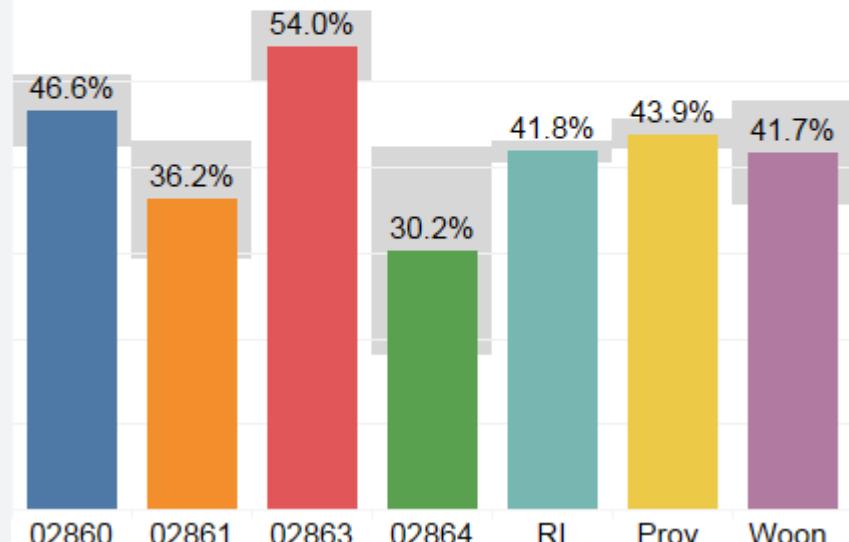


# Compared to the state, more people in 02860 & 02863 speak Spanish at home.

Percentage of population over 5 years speaking Spanish at home, 2017  
Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

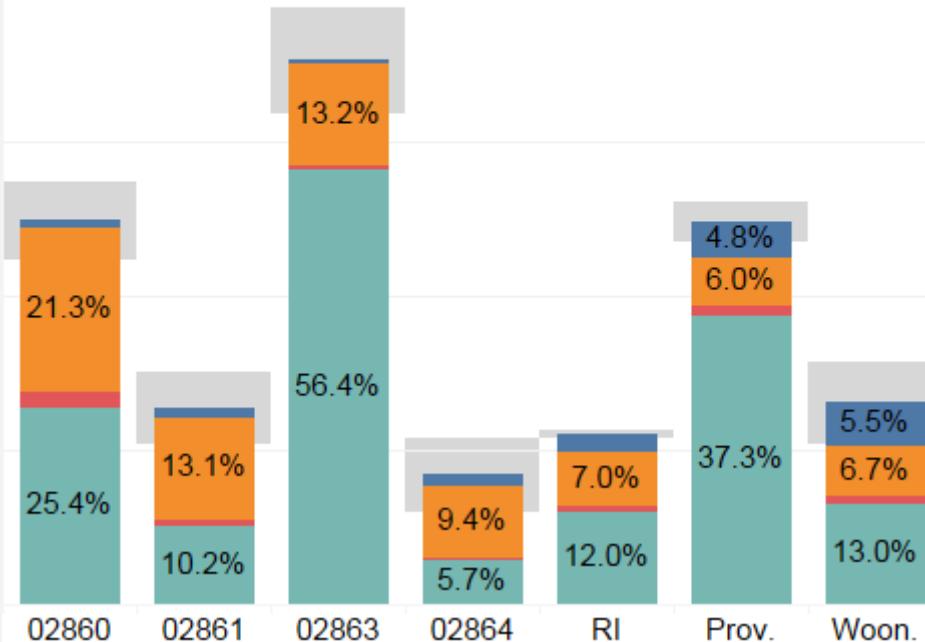


Of those who speak Spanish at home, the percentage of population over 5 years that speak English less than "very well", 2017  
Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



# Compared to the state, more people in 02860 & 02863 speak languages other than English at home.

Percentage of population over 5 speaking languages other than English at home, 2017  
Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



- 22.0% of the Rhode Island population
- 49.8% of the 02860 population
- 25.5% of the 02861 population
- 70.5% of the 02863 population
- 16.8% of the 02864 population
- 49.5% of the Providence population
- 26.1% of the Woonsocket population

...speak a language other than English at home

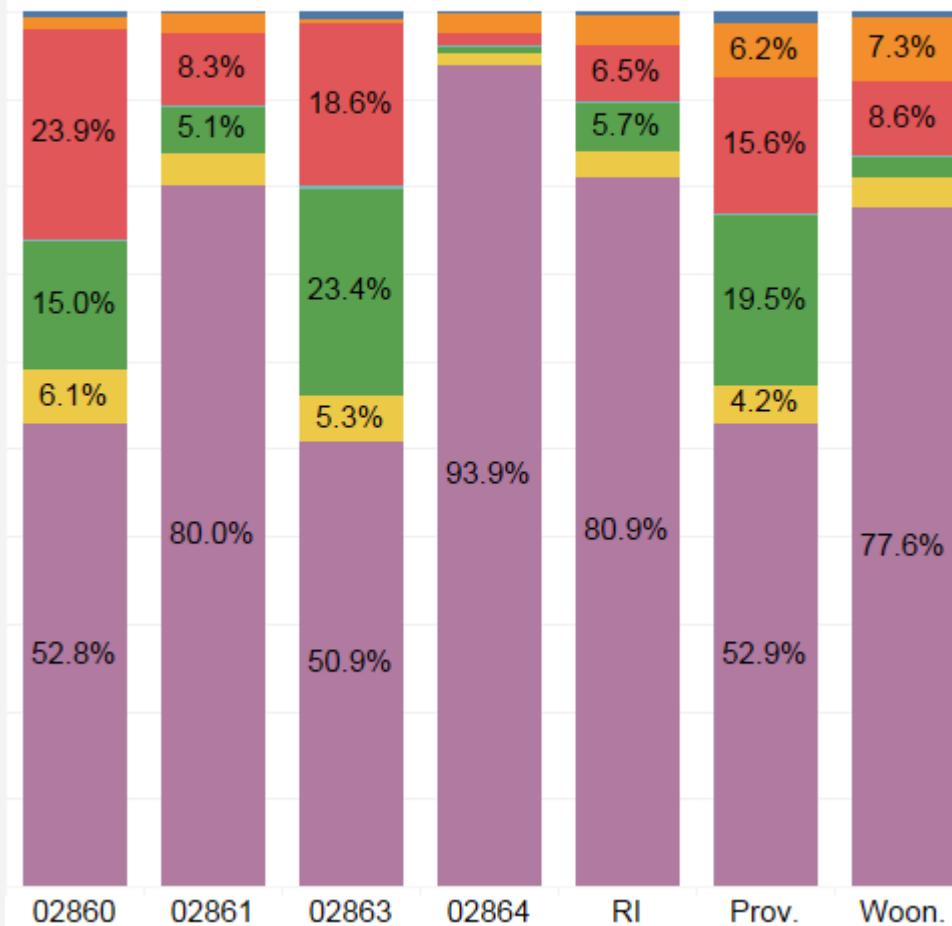
- Speak Asian and Pacific Island languages at home
- Speak other Indo-European languages at home
- Speak other languages at home
- Speak Spanish at home



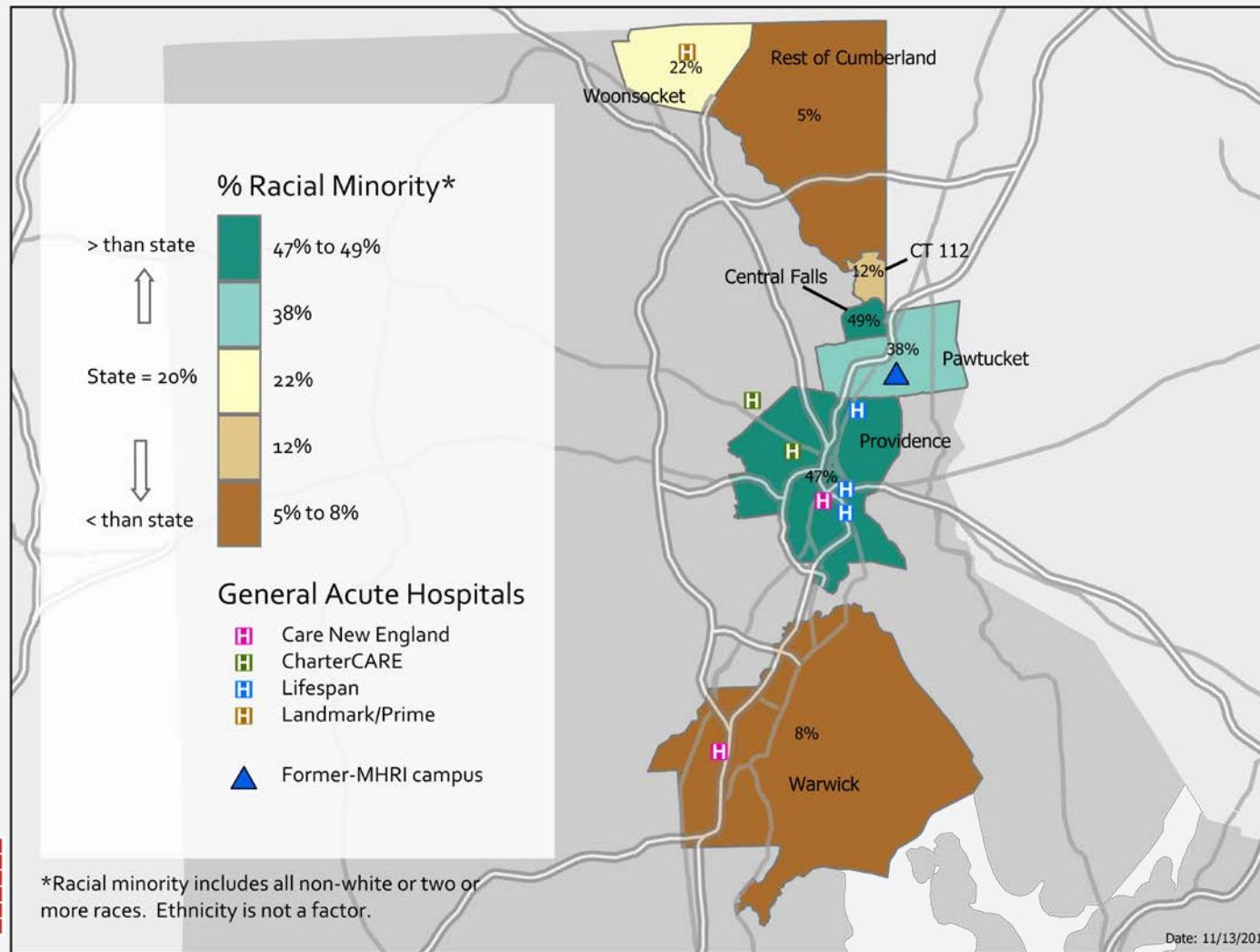
In 02860 and 02863, more people appear to identify as a race other than white, compared to the state.

### Race distribution by residence location, 2017

Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



# Compared to the state, more people in Pawtucket and Central Falls, more people appear to identify as a race other than white.

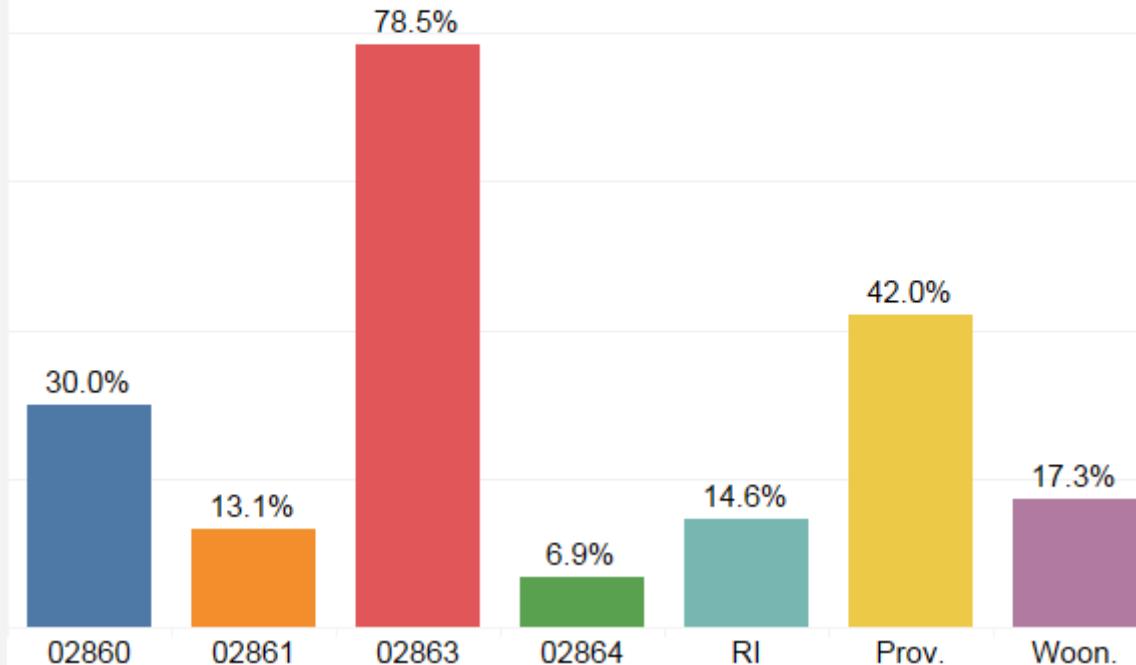


Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates. This is the same data represented in the chart titled "Race distribution by residence location, 2017." Data here is represented in a mapped format.

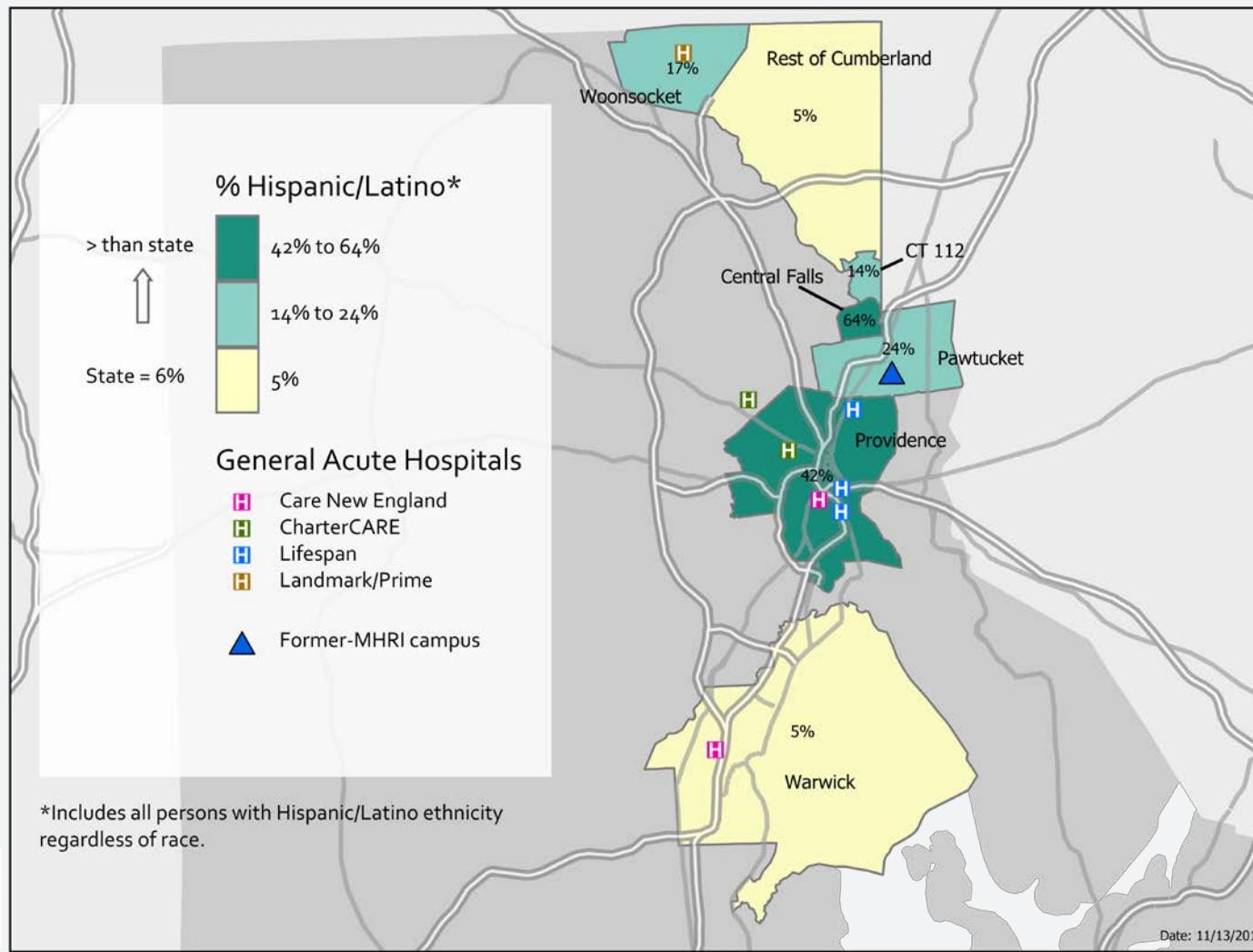
More people appear to identify as Hispanic/Latino in 02860 & 02863 compared to the state.

Percentage of population that identifies as Hispanic/Latino, 2017

Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



# More people appear to identify as Hispanic/Latino in Pawtucket and Central Falls, compared to the state.

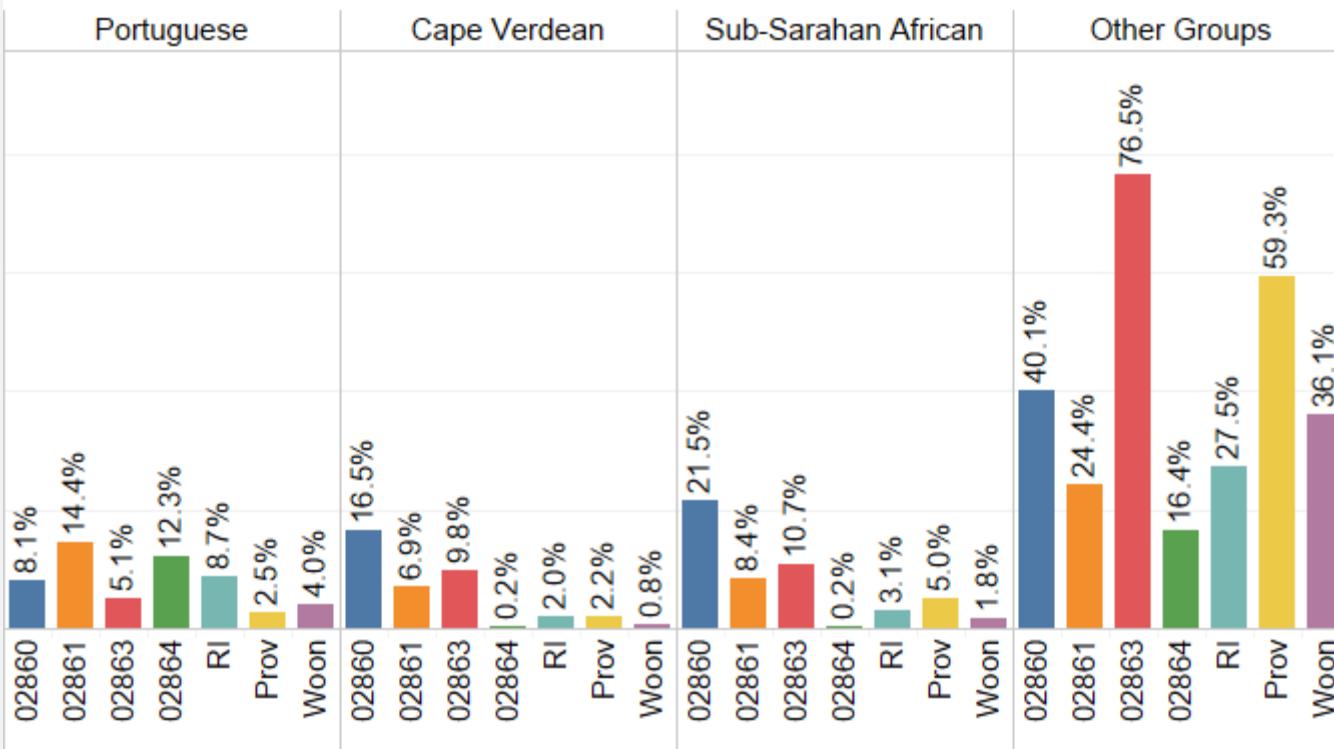


Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates. This is the same data represented in the chart titled "Percentage of population that identifies as Hispanic/Latino, 2017." Data here is represented in a mapped format.

# A greater percentage of 02860 residents reported Cape Verdean or Sub-Saharan African ancestry.

Percentage of population who reported selected ancestry, 2017

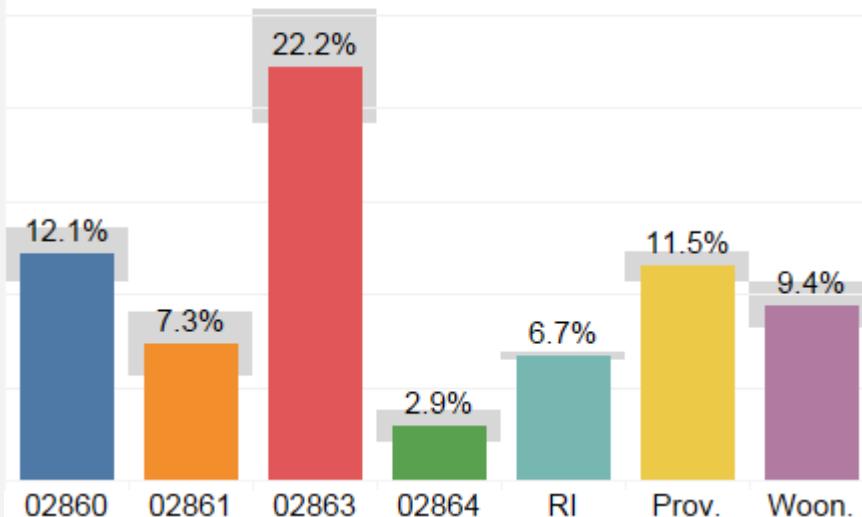
Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



In 02860, 02861, and 02863, a greater percentage of people have no health coverage or are publicly insured.

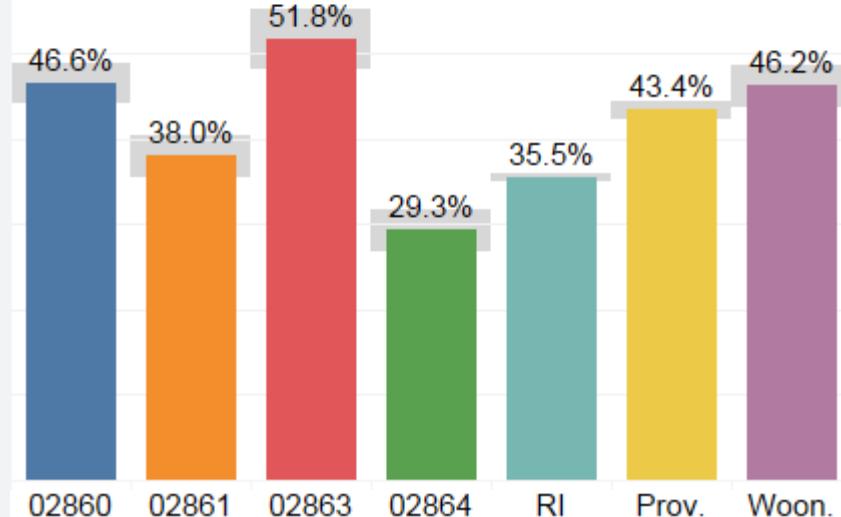
### Percentage of population with no health insurance coverage, 2017

Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



### Percentage of population with public health insurance coverage, 2017

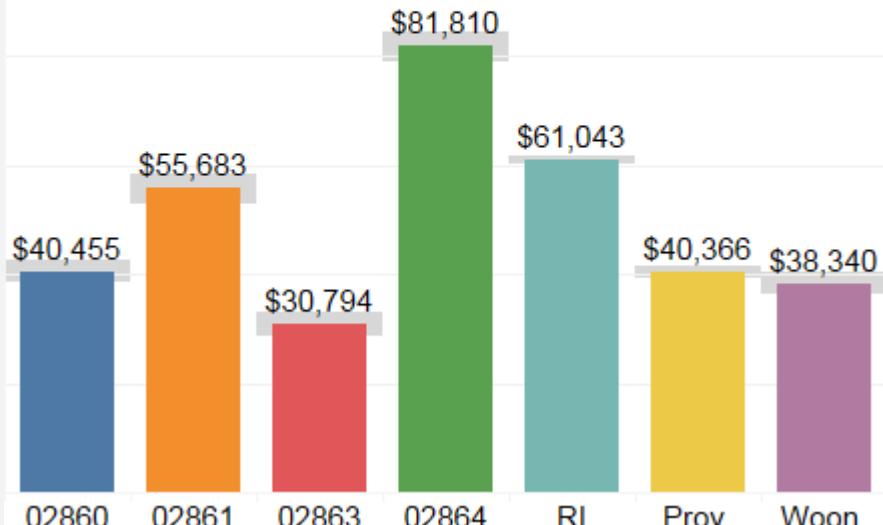
Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



The target area has a lower median household income and a greater unemployment rate, compared to the state.

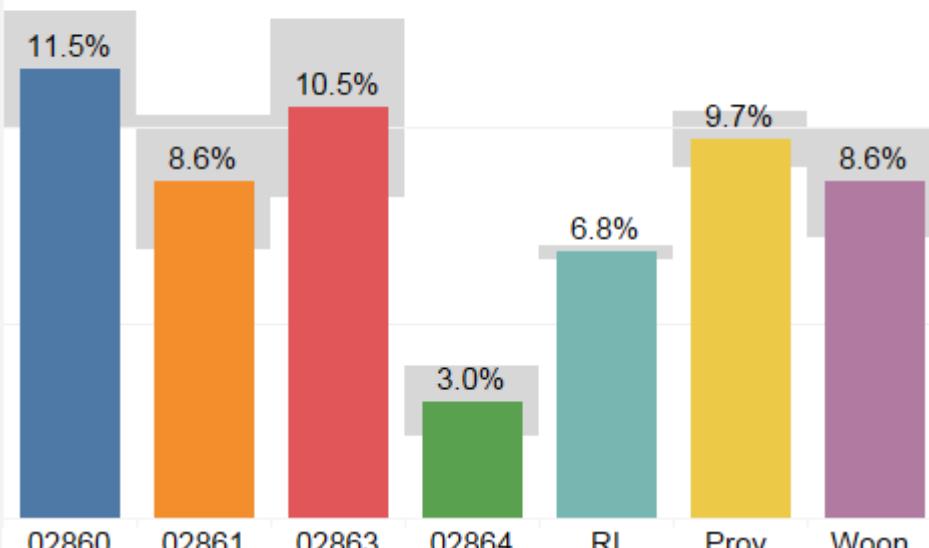
Median household income in the past 12 months (in 2017 inflation-adjusted dollars), 2017

Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



Unemployment rate for population 16+, 2017

Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



# 500 Cities Project Data Orientation

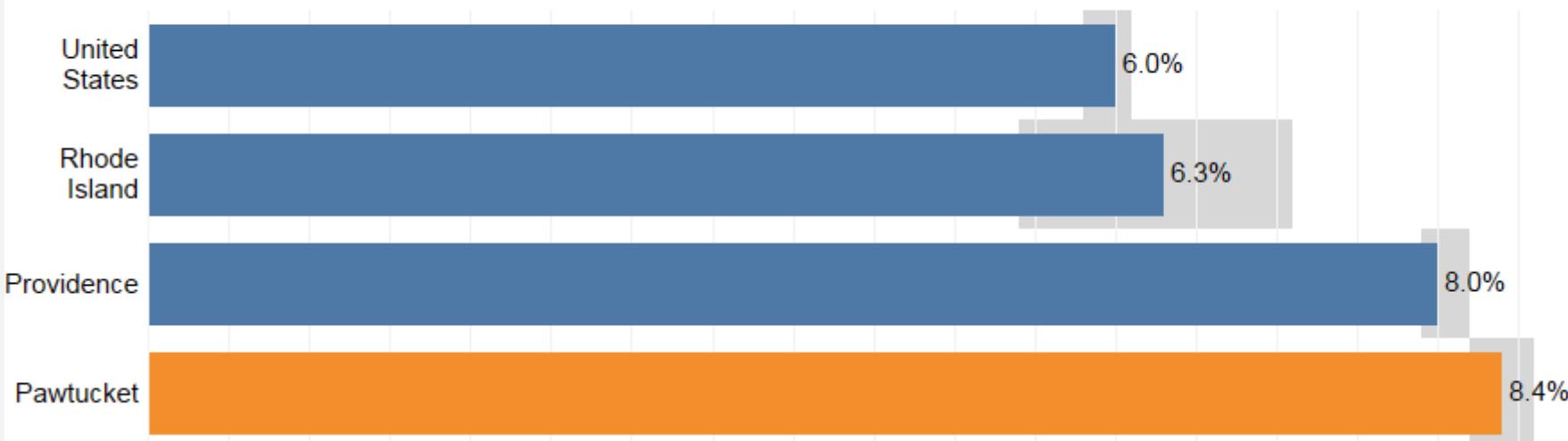
In this section, data from the Behavioral Risk Factor Surveillance System (BRFSS) are presented. These data are not available at the ZCTA level, but they are available for 500 cities throughout the nation as part of the Centers for Disease Control and Prevention (CDC), the Robert Wood Johnson Foundation, and the CDC Foundation's 500 Cities Project. As Pawtucket and Providence are part of this project, BRFSS data for these cities will be presented as available.



Compared to the US, RI, and Providence, a greater percentage of Pawtucket residents have COPD.

Percentage of adults with chronic obstructive pulmonary disease, 2016

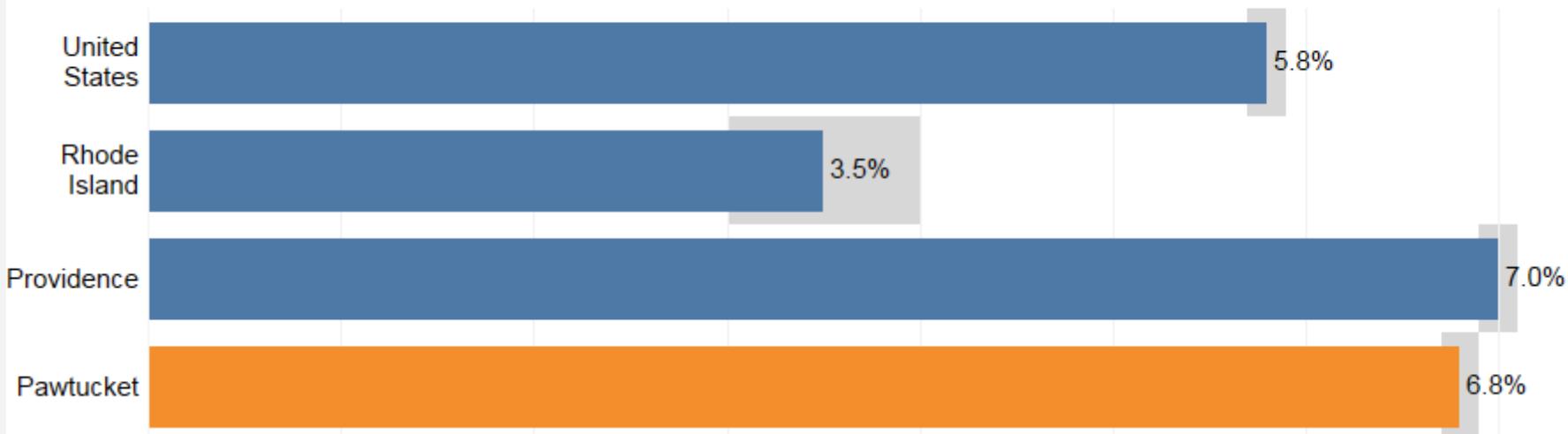
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US and RI, a greater percentage of Pawtucket residents have coronary heart disease.

Percentage of adults with coronary heart disease, 2016

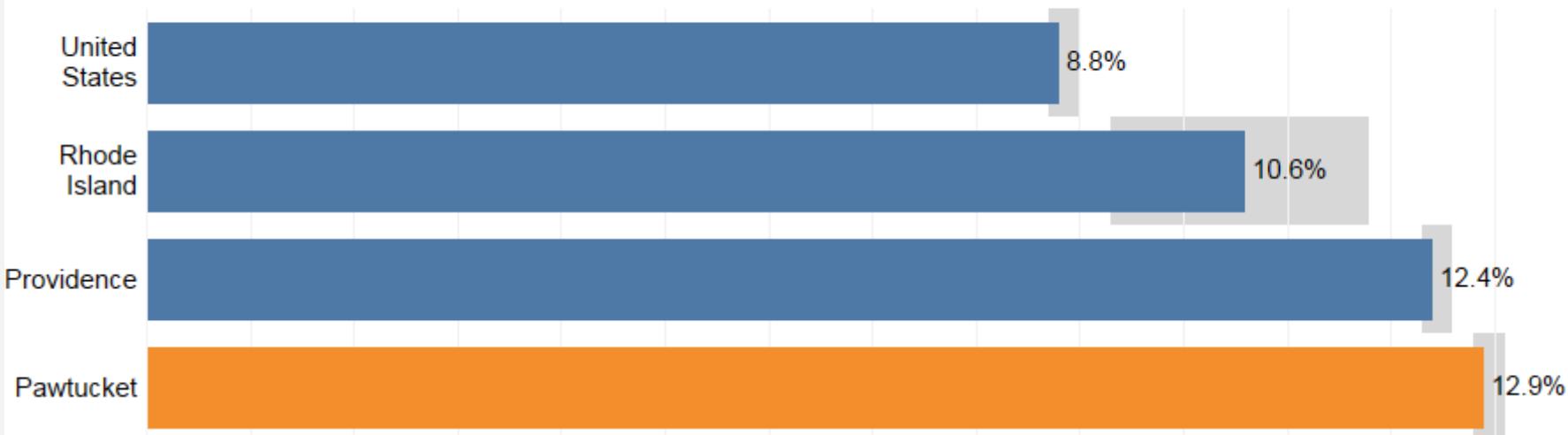
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US, RI, and Providence, a greater percentage of Pawtucket residents have asthma.

Percentage of adults with current asthma, 2016

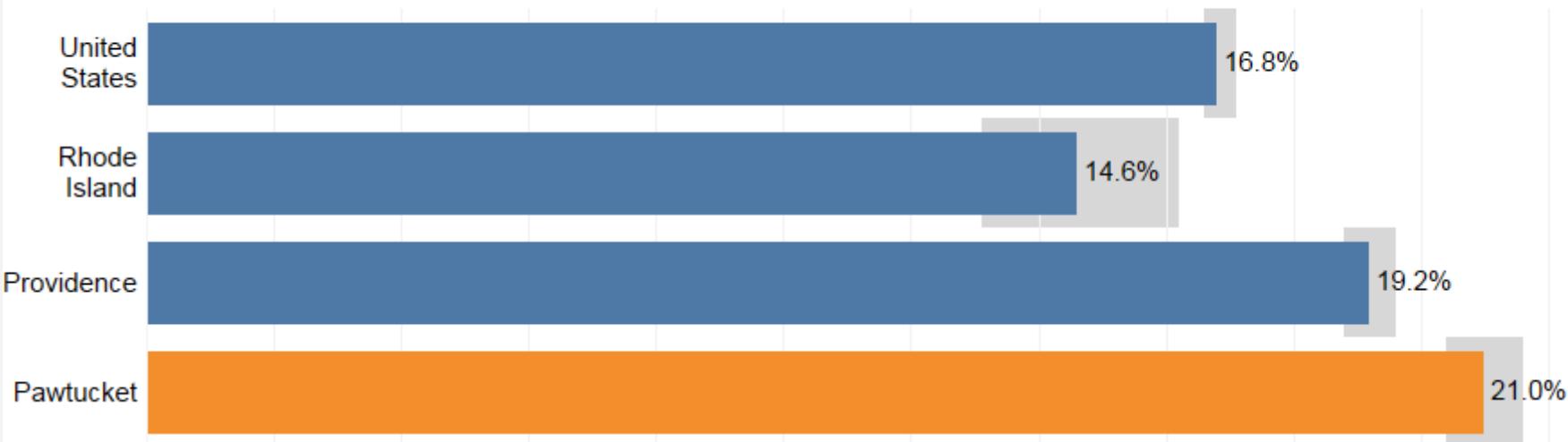
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US, RI, and Providence, a greater percentage of Pawtucket residents smoke.

Percentage of adults currently smoking, 2016

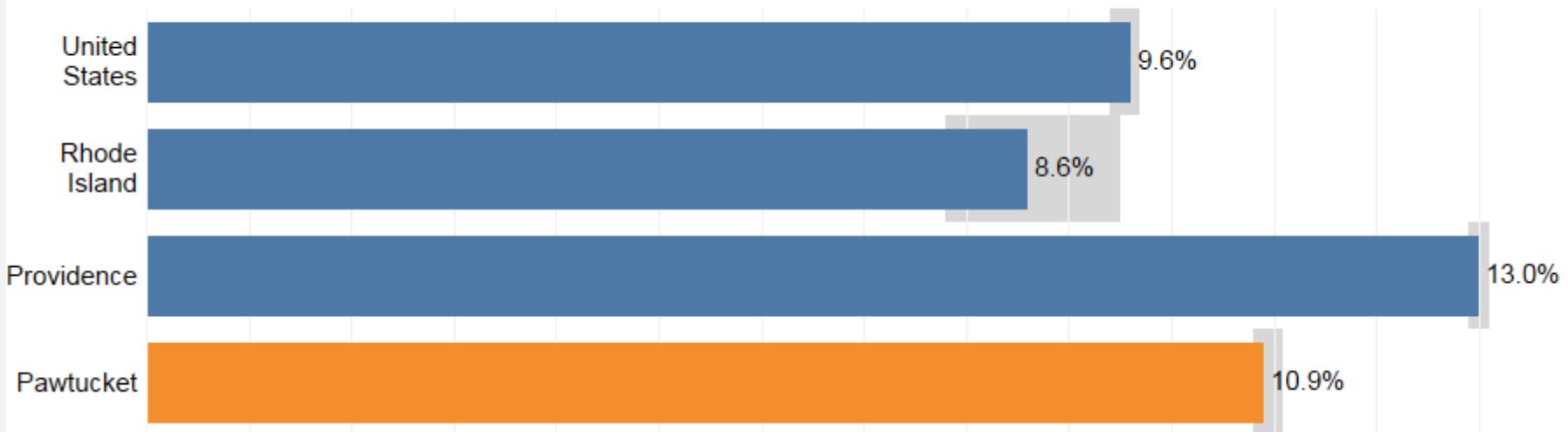
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US and RI, a greater percentage of Pawtucket residents are diagnosed with diabetes.

**Percentage of adults with current diabetes, 2016**

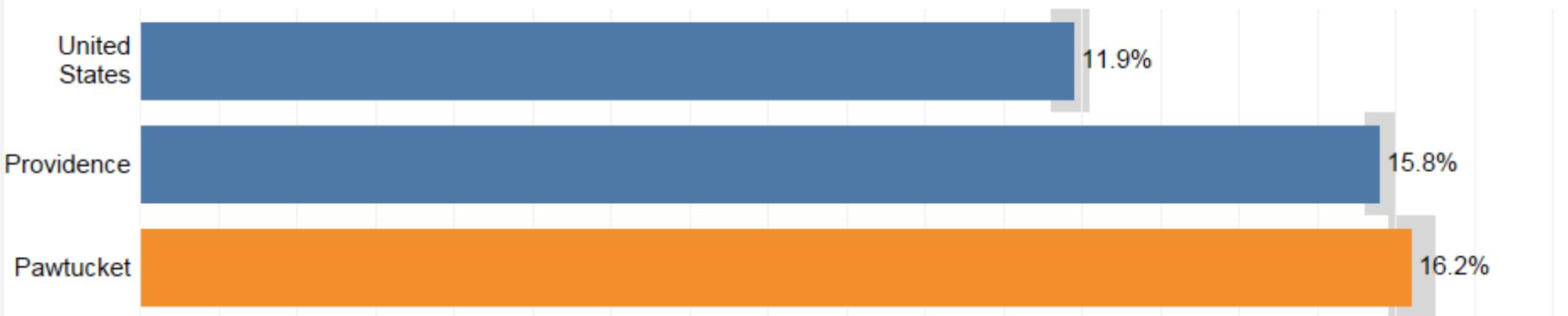
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US, a greater percentage of Pawtucket residents report poor mental health for at least 14 days.

Percentage of adults reporting mental health not good for 14 or more days, 2016

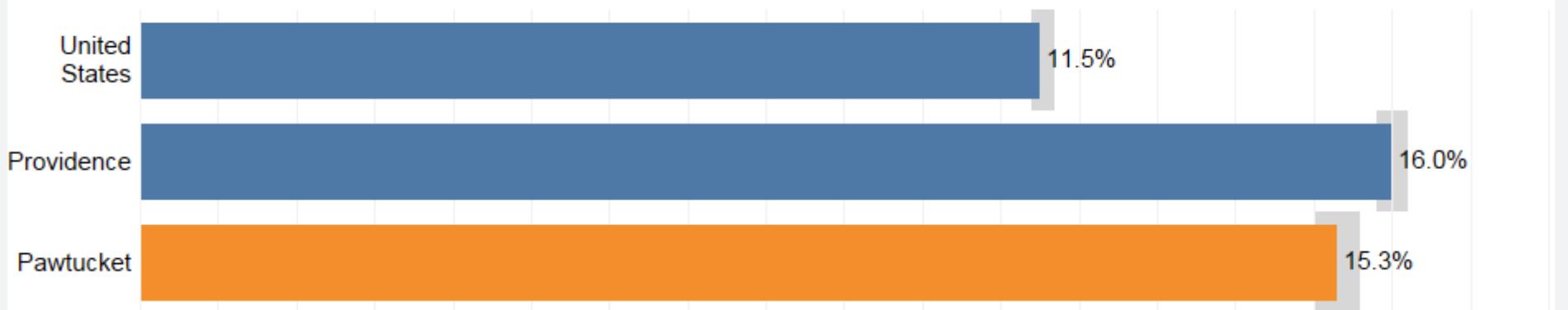
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US, a greater percentage of Pawtucket residents report poor physical health for at least 14 days.

Percentage of adults reporting physical health not good for 14 or more days, 2016

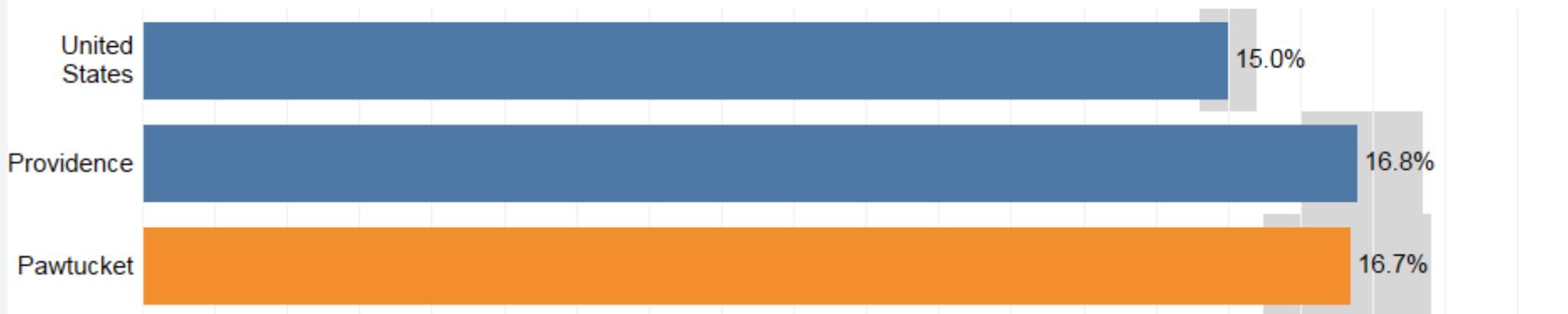
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US, a greater percentage of Pawtucket residents over 65 have lost all their teeth.

Percentage of adults 65+ with all teeth lost, 2016

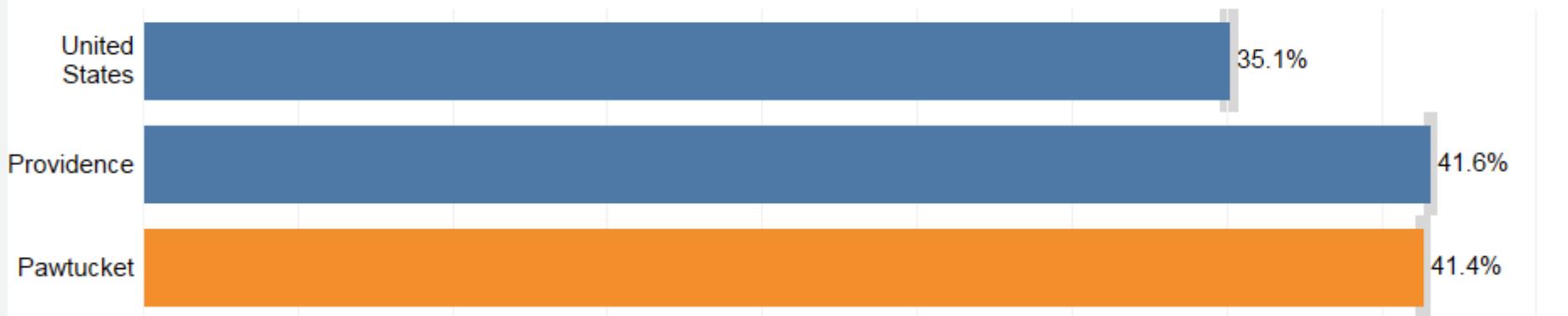
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US, a greater percentage of Pawtucket residents sleep less than 7 hours a night.

Percentage of adults reporting sleeping less than 7 hours among, 2016

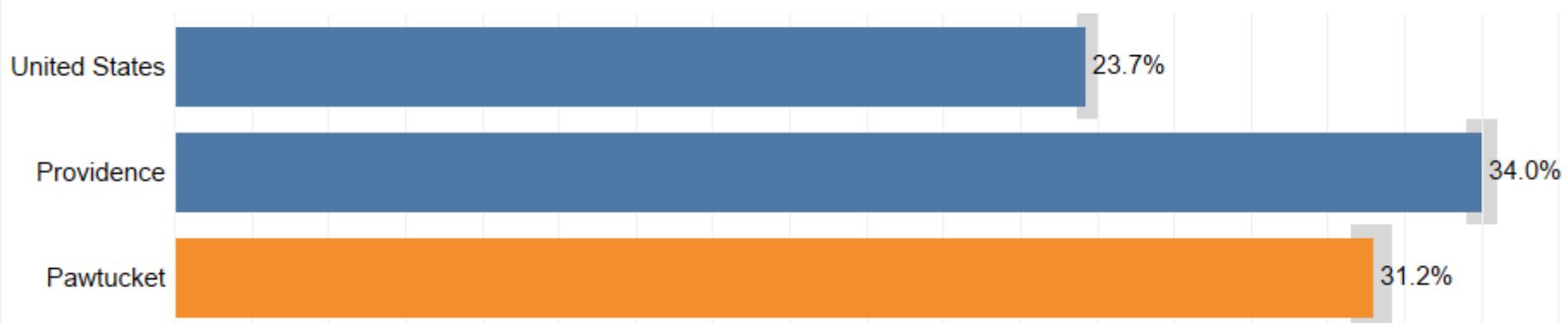
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US, a greater percentage of Pawtucket residents report no leisure-time physical activity.

Percentage of adults reporting no leisure-time physical activity, 2016

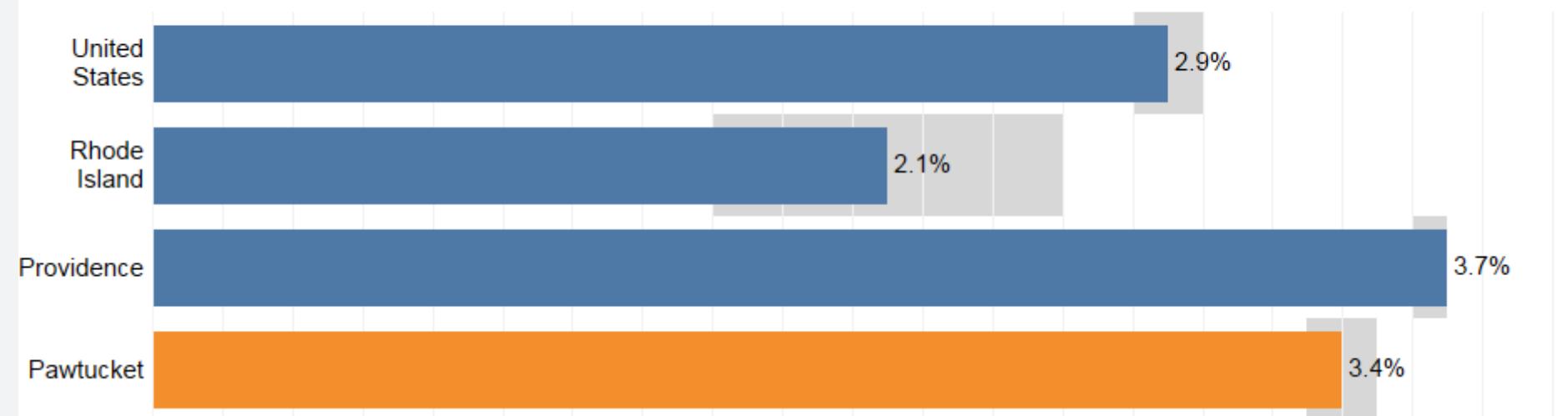
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US and RI, a greater percentage of Pawtucket residents have had a stroke.

Percentage of adults who have experienced a stroke, 2016

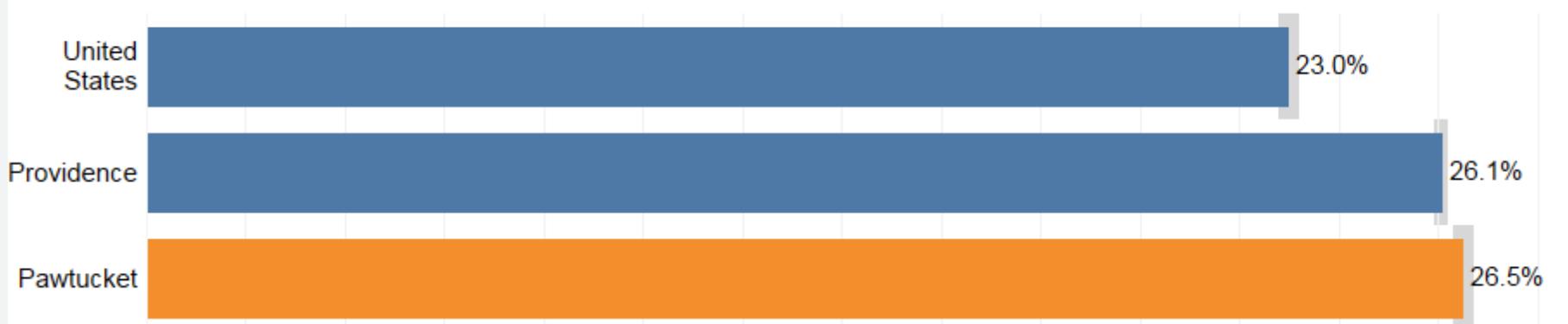
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US and Providence, a greater percentage of Pawtucket residents have arthritis.

Percentage of adults with arthritis, 2016

Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to Providence, a greater percentage of Pawtucket adults binge drink.

Percentage of adults who binge drink, 2016

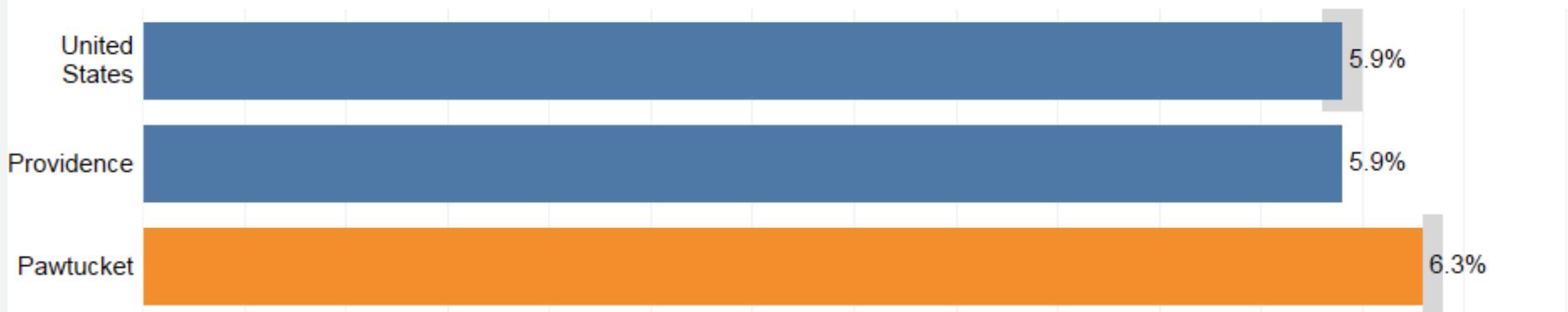
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US and Providence, a greater percentage of Pawtucket adults have had cancer.

Percentage of adults with cancer (excluding skin cancer), 2016

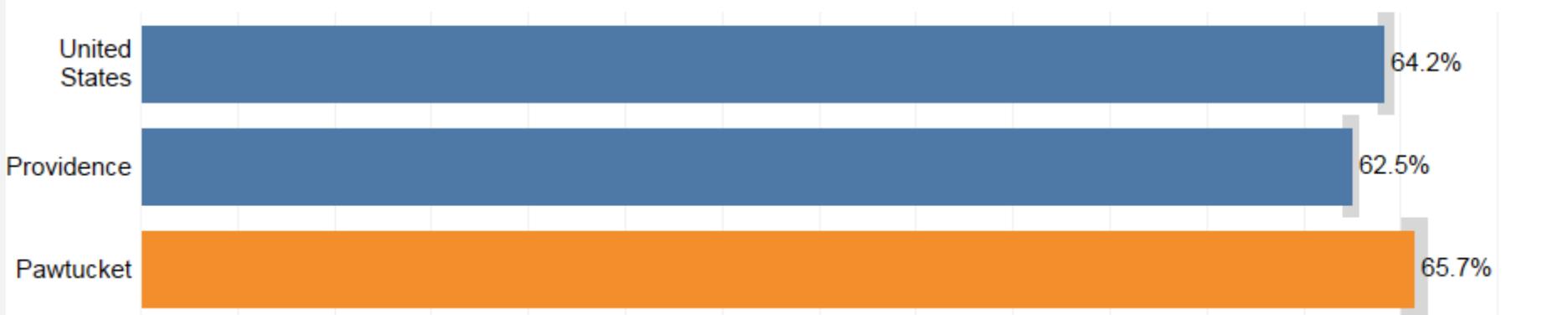
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US and Providence, a greater percentage of Pawtucket residents aged 50-75 have had select preventive screening.

Percentage of adults aged 50-75 who have had a fecal occult blood test, sigmoidoscopy, or colonoscopy, 2016

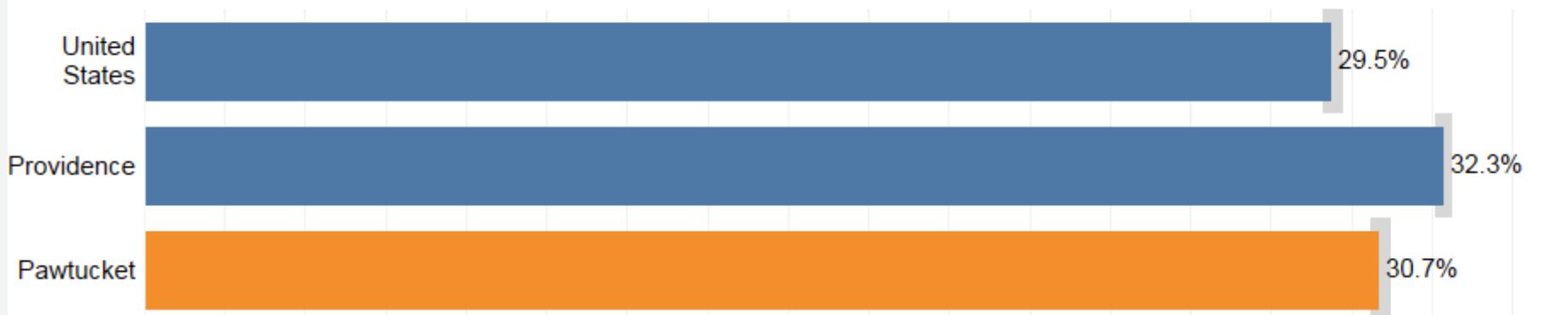
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US, a greater percentage of adults in Pawtucket are obese.

Percentage of adults with obesity, 2016

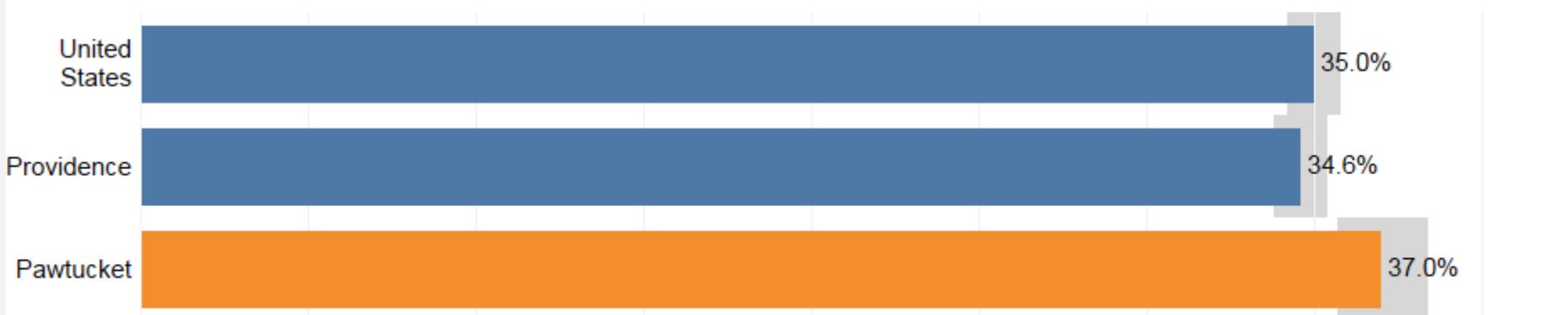
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to Providence, a greater percentage of Pawtucket male residents over 65 are up to date on a core set of clinical preventive services.

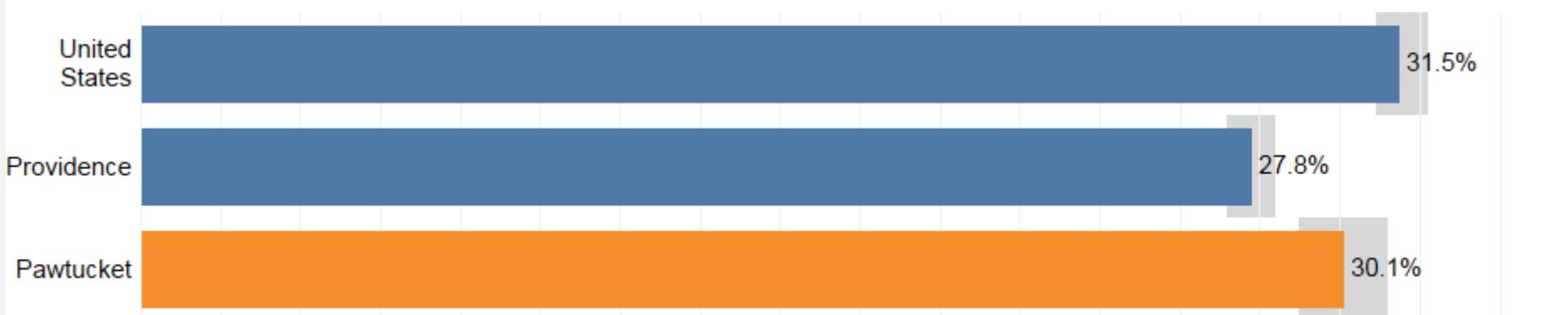
Percentage of adult men 65 or older who are up to date on a core set of clinical preventive services: Flu shot past year, PPV shot ever, colorectal cancer screening, 2016

Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to Providence, a greater percentage of Pawtucket female residents over 65 are up to date on a core set of clinical preventive services.

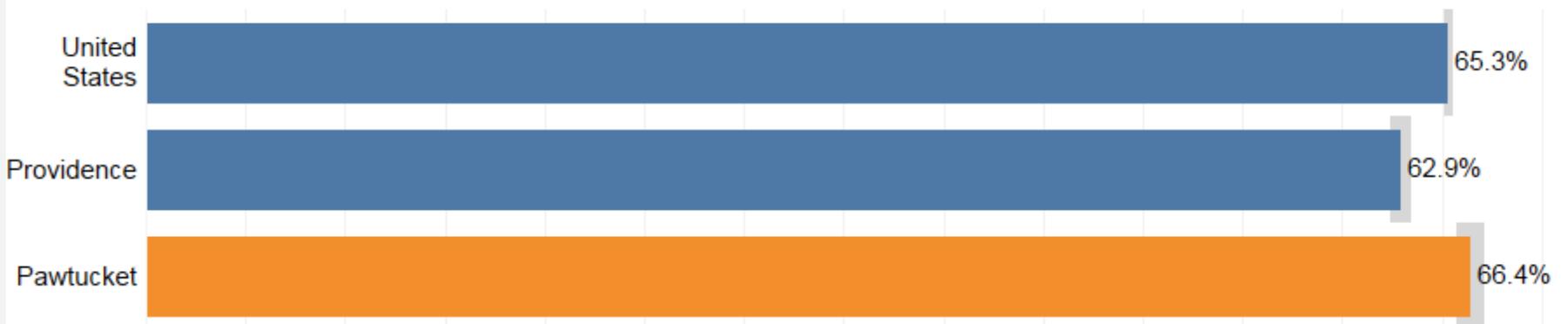
Percentage of women aged 65 or older who are up to date on a core set of clinical preventive services:  
Flu shot past year, PPV shot ever, colorectal cancer screening, and mammogram past 2 years, 2016  
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



Compared to the US and Providence, a greater percentage of Pawtucket residents are making visits to a dentist.

Percentage of adults making visits to a dentist or dental clinic, 2016

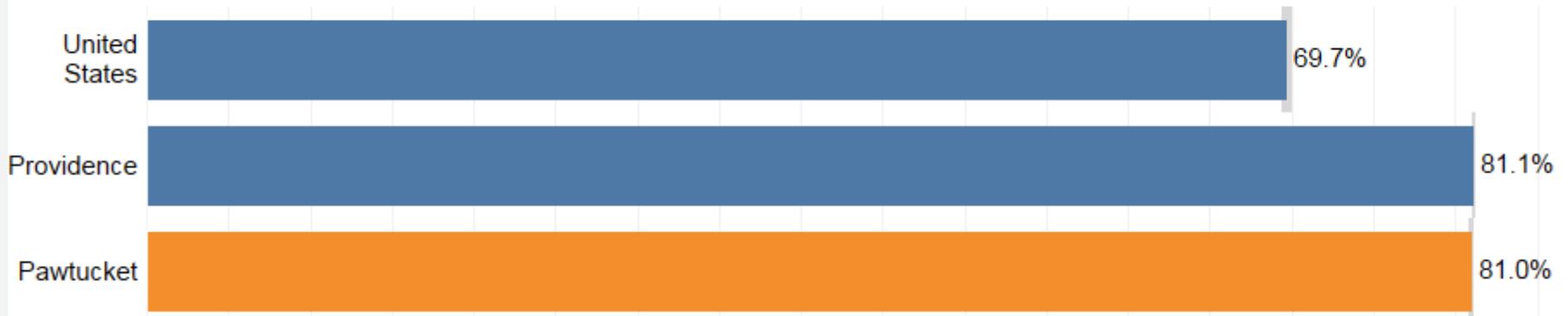
Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



The percentage of adults who have had a routine checkup in the past year is similar in Providence and Pawtucket.

Percentage of adults who have had a routine checkup in the past year, 2016

Source(s): 500 Cities, Behavioral Risk Factor Surveillance System



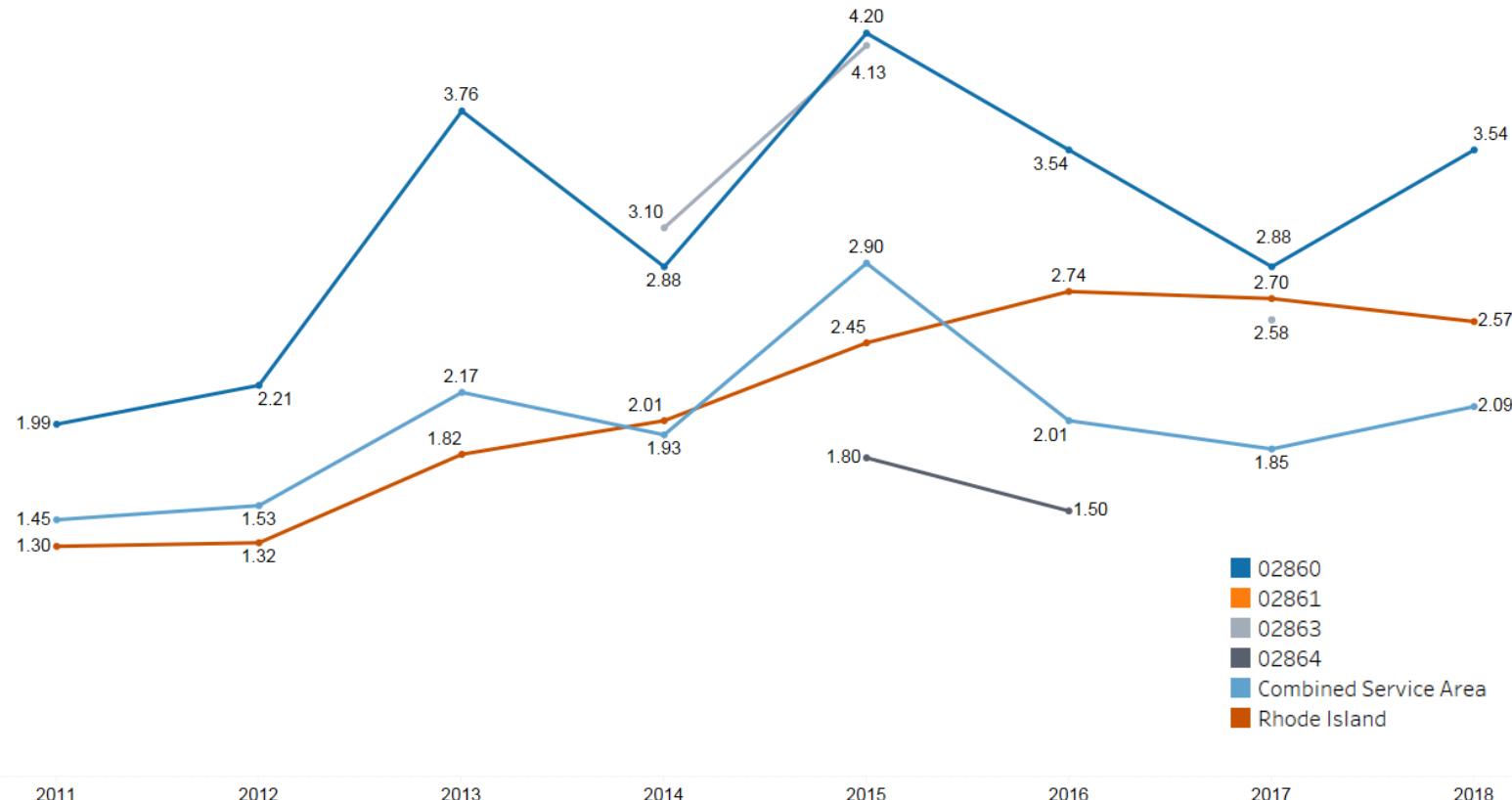
# State Unintentional Drug Overdose Reporting System

The Office of the State Medical Examiner (OSME) and RIDOH collaborate around the State Unintentional Drug Overdose Reporting System (SUDORS). The purpose of this data collection and reporting effort to track drug overdoses and affect treatment and rehabilitation of people who use drugs. The following data slide displays SUDORS data.



# The rate of accidental drug overdose deaths is greatest for residents of 02860 and for residents of 02863.

Rates of Opioid-Involved Accidental Drug Overdose Deaths per 10,000 Residents of Select ZIP Codes, 2011 to 2018  
Source: Office of State Medical Examiners (OSME), Center for Health Data and Analysis (CHDA), Rhode Island Department of Health (RIDOH)

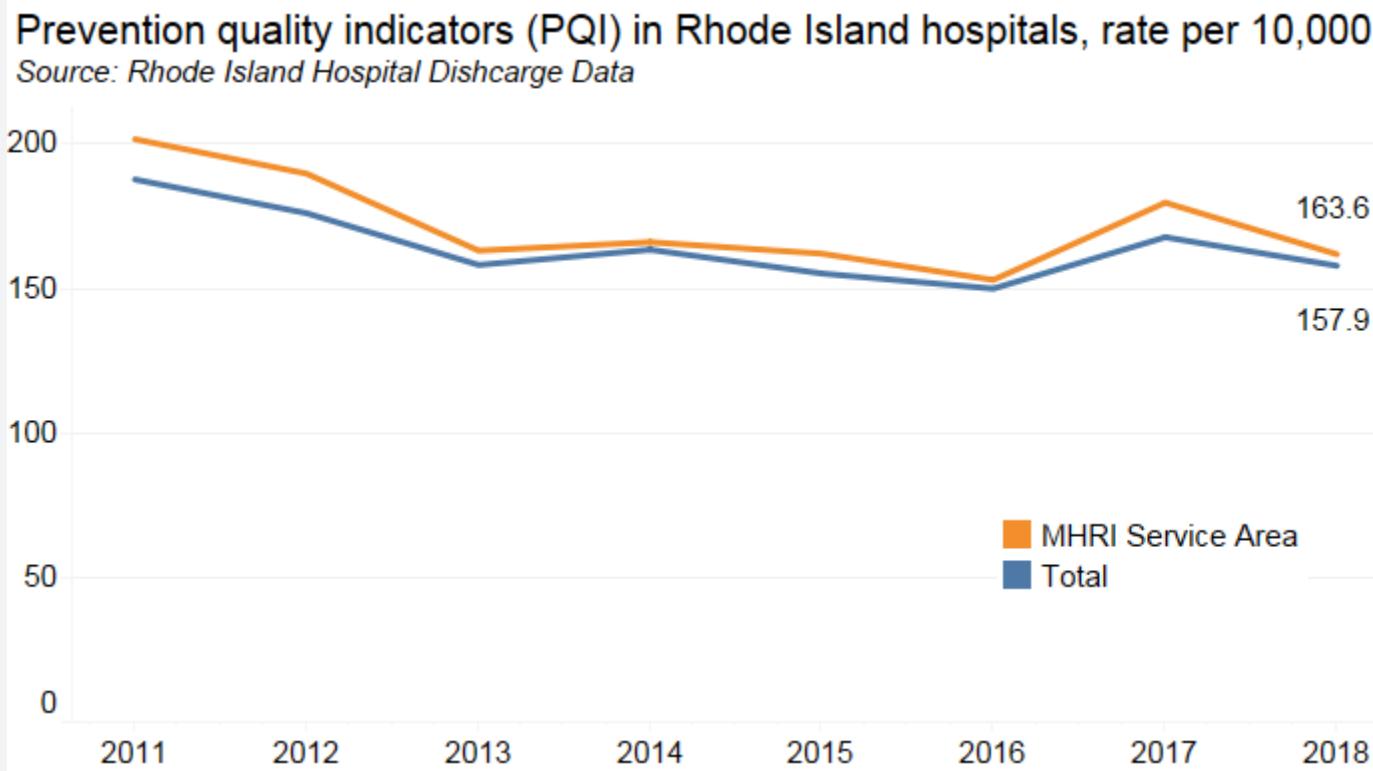


# Prevention Quality Indicators Data

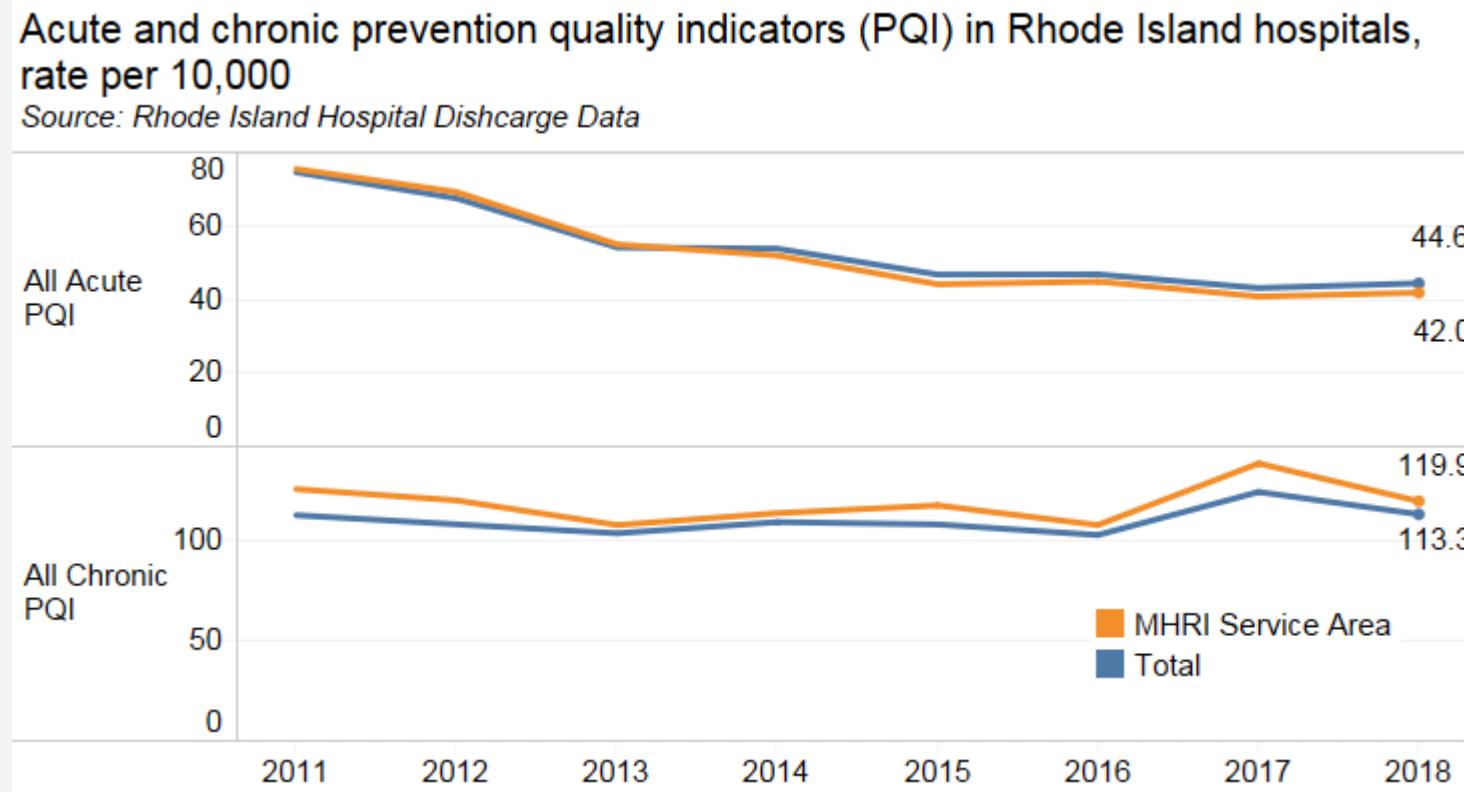
Prevention Quality Indicators (PQI) are used to measure quality of care for certain conditions, since appropriate access and engagement in services can help prevent hospital admissions. In this case, lower rates represent better results. The following 3 slides show select PQI scores for the service area and for Rhode Island.



Overall, the MHRI service area does poorer than the state for PQIs.



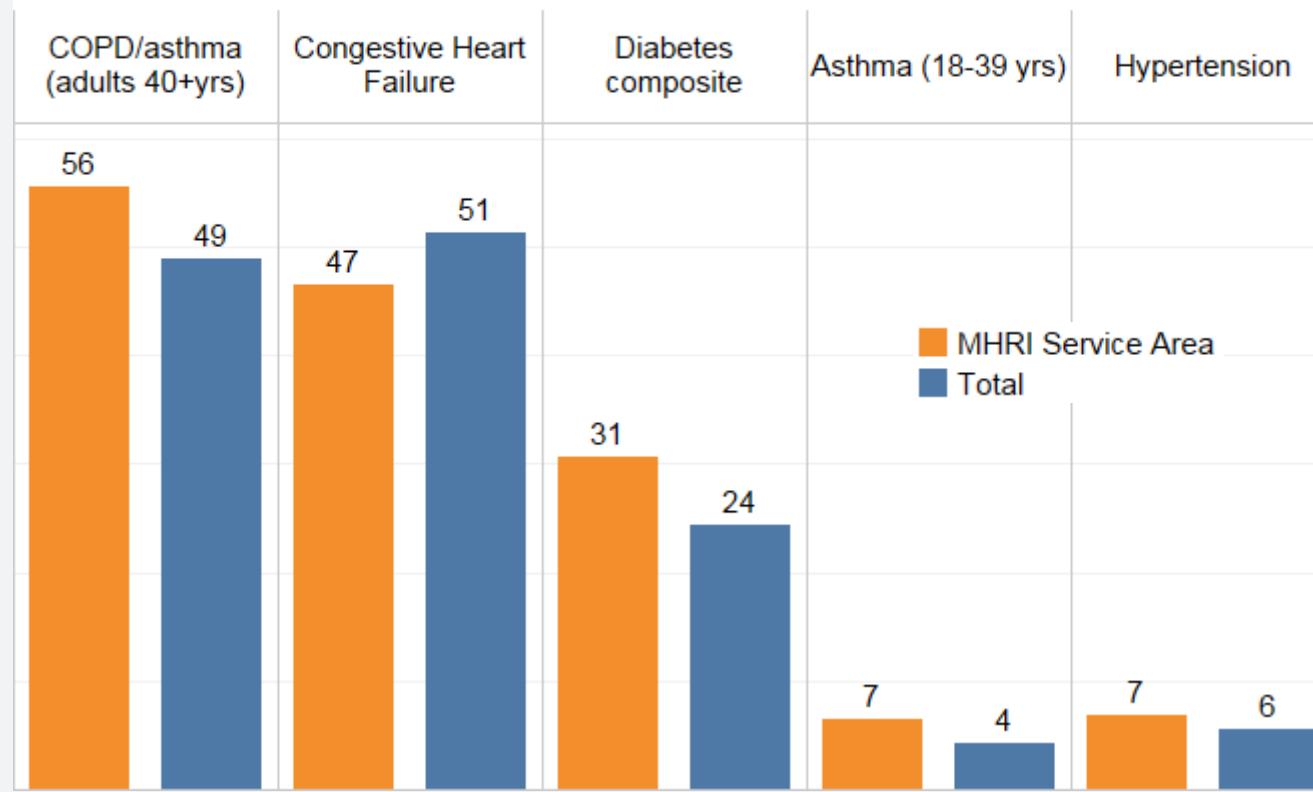
MHRI service area does slightly better than the state for acute PQIs, but worse than the state for chronic PQIs.



# MHRI service area residents have poorer PQI scores than the state for all chronic conditions except Congestive Heart Failure.

Chronic prevention quality indicators (PQI) in Rhode Island hospitals, 2018, rate per 10,000

Source: *Rhode Island Hospital Discharge Data*



# Cumberland (02864) Context

## The Circumstances

The demographic data in previous slides demonstrate a stark difference between 02864 and other ZCTAs in the target area. Additionally, some focus group participants and key informant interviewees expressed surprise in hearing that MHRI utilization data showed 02864 residents as top utilizers of the former hospital.

## The (Possible) Explanation

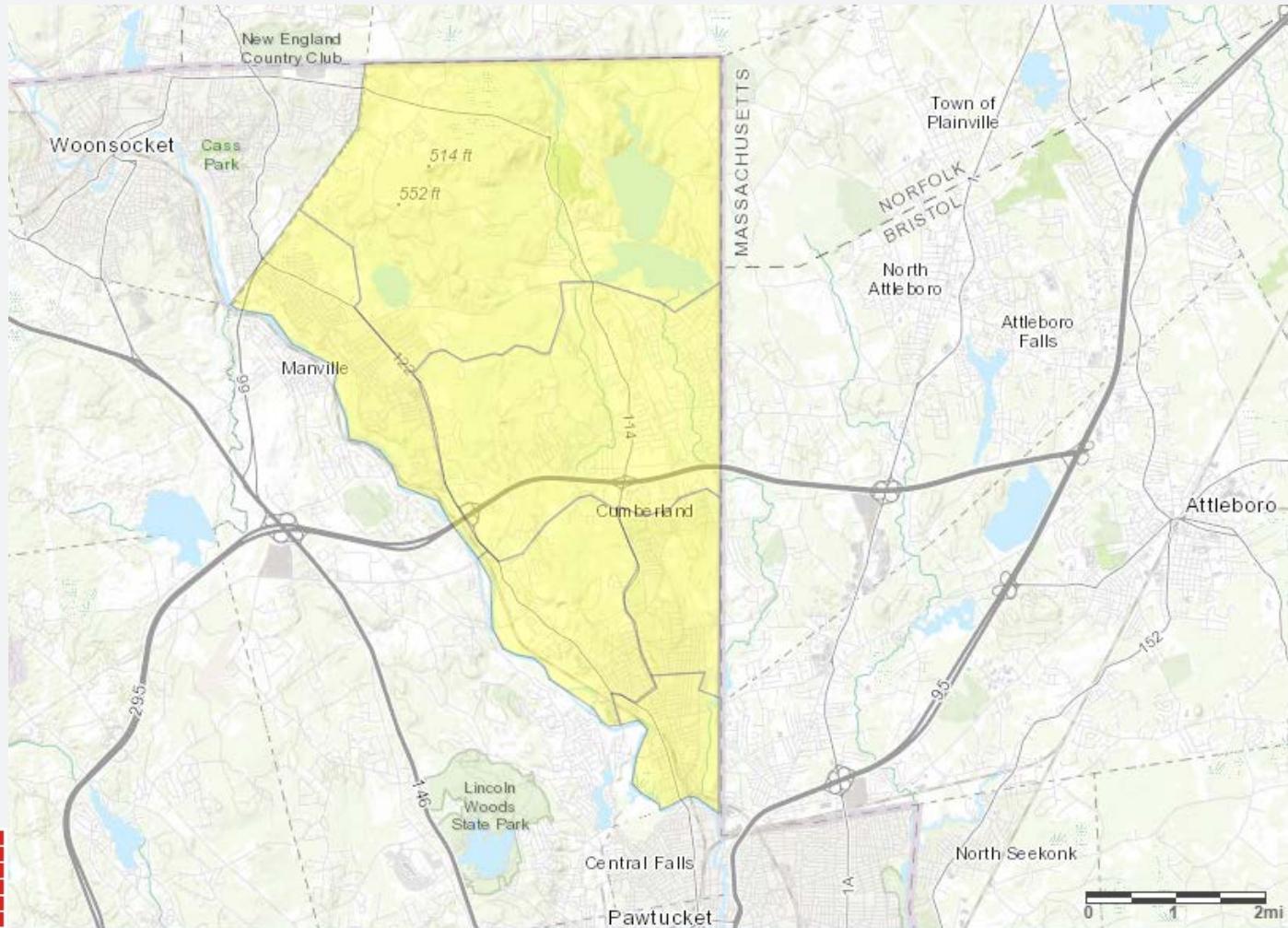
As the following slides demonstrate, a particular neighborhood in Cumberland, that borders Central Falls and experiences demographic characteristics more in line with other top MHRI service areas, could be the driver of this perceived phenomenon



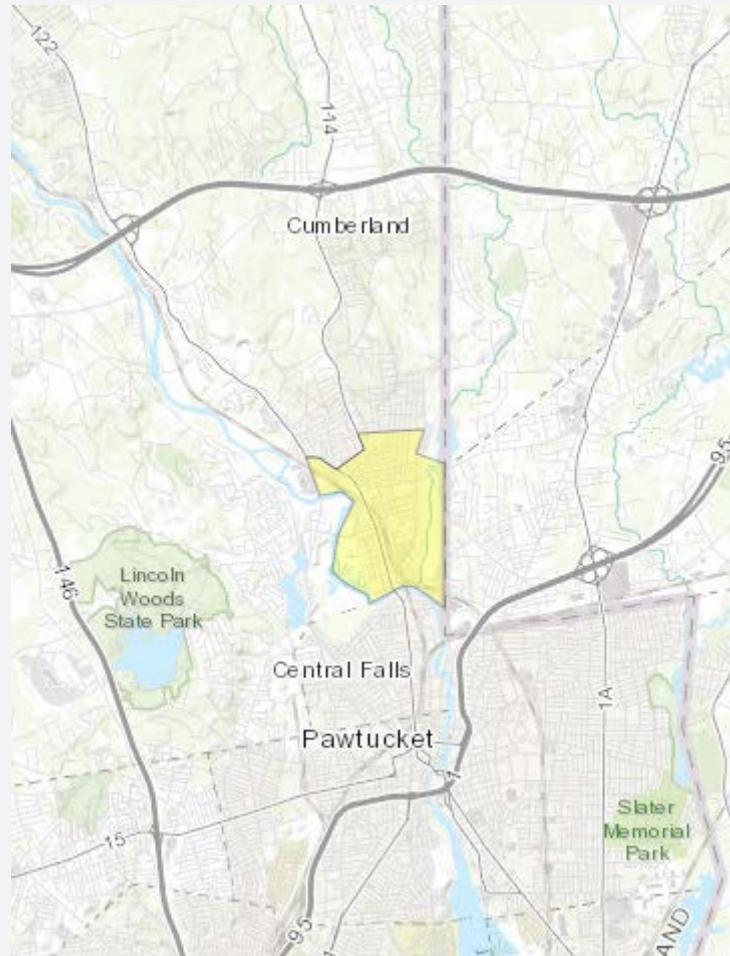
Cumberland is located in the north eastern portion of Rhode Island and in Providence County.



Cumberland contains six census tracts, displayed in yellow below.



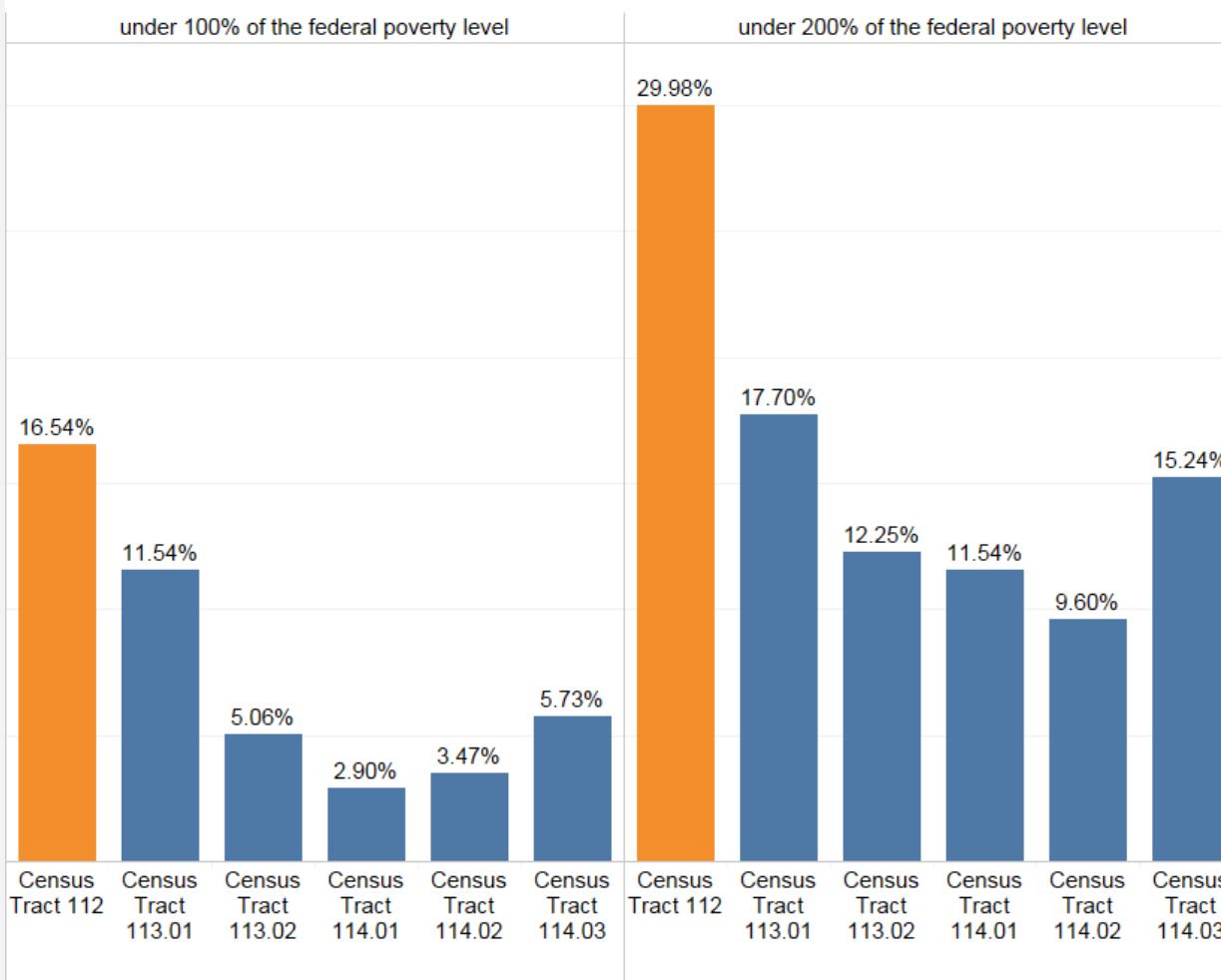
# Cumberland's census tract 112 borders Central Falls.



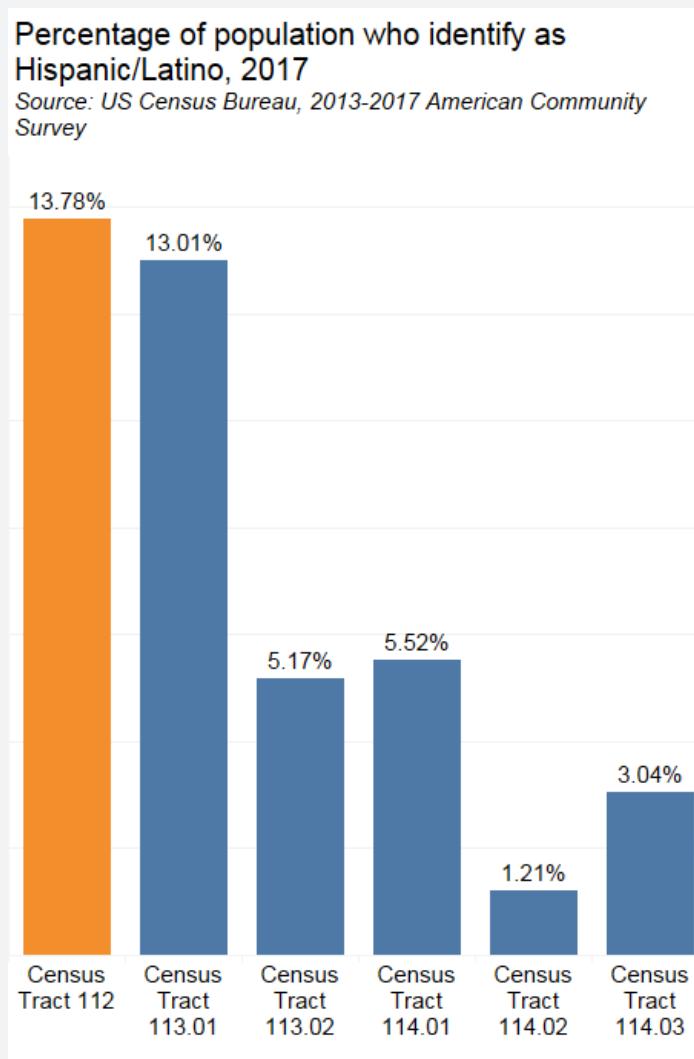
# The population in census tract 112 experiences more poverty than other tracts in Cumberland.

Percentage of population with an income..., 2017

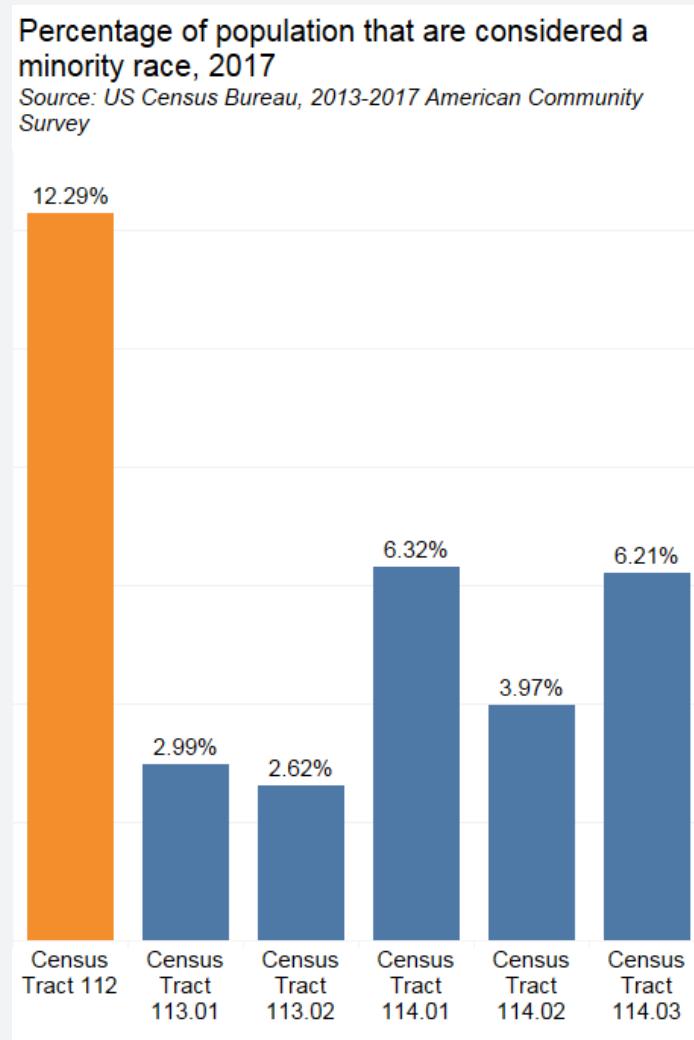
Source: US Census Bureau, 2013-2017 American Community Survey



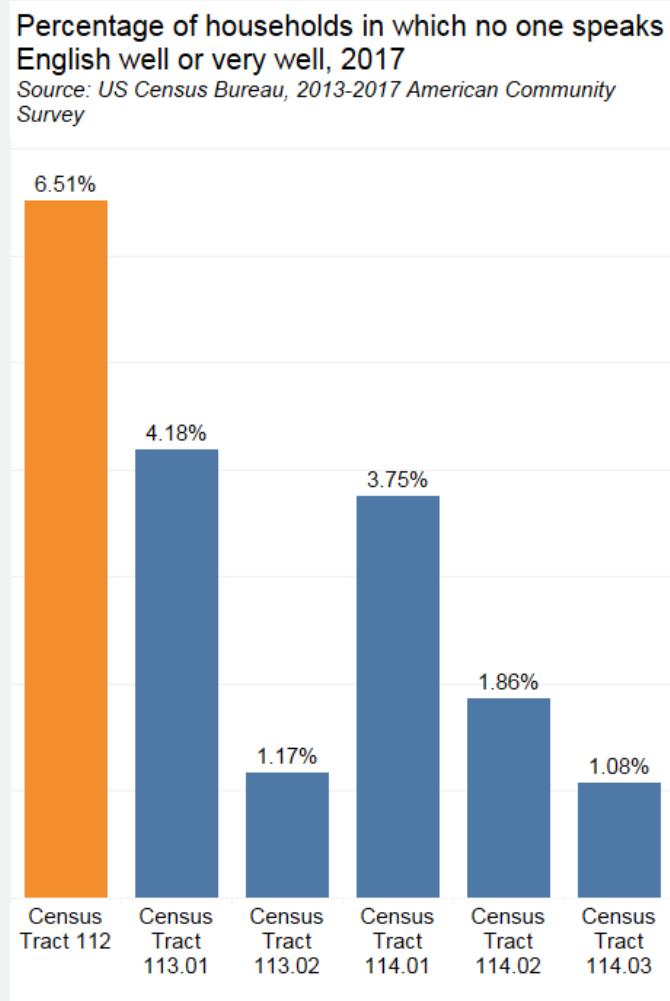
# More people in census tract 112 identify as Hispanic/Latino than in other tracts in Cumberland.



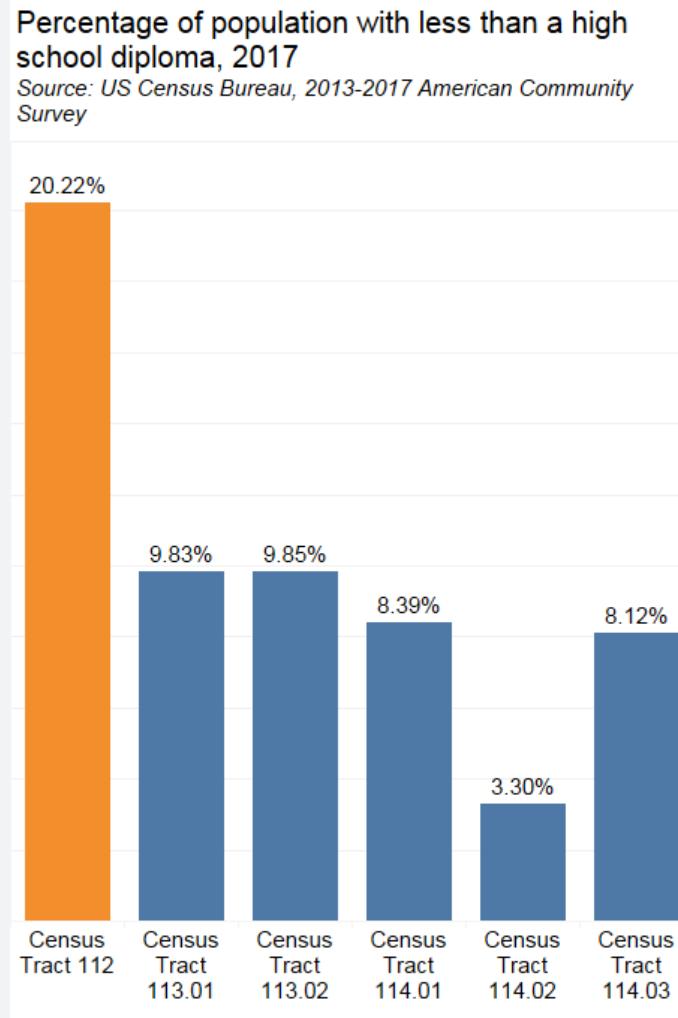
# Census tract 112 has a greater minority population than other tracts in Cumberland.



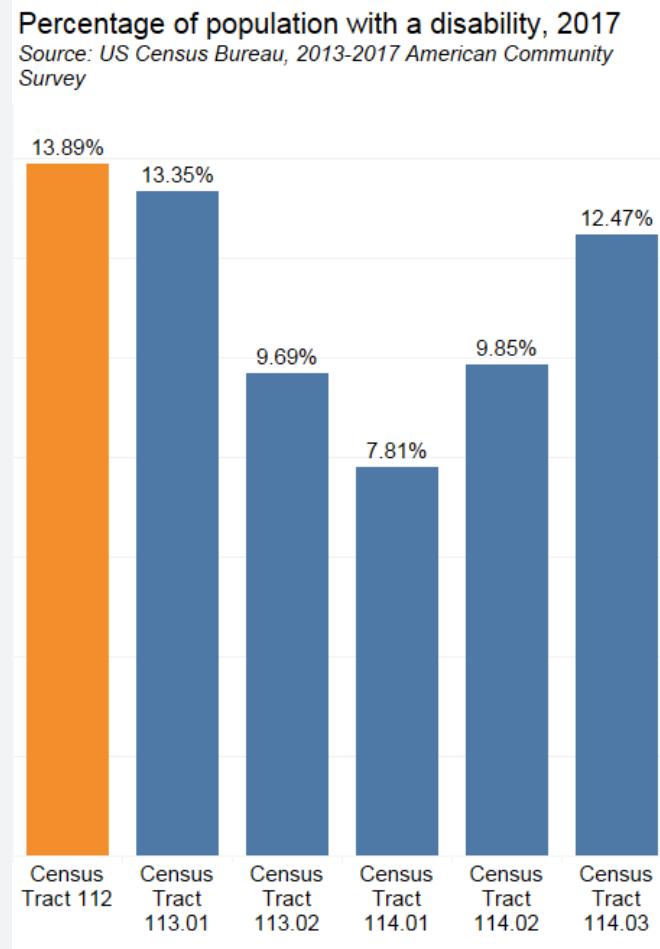
# Census tract 112 has more linguistically isolated households than other tracts in Cumberland.



A greater percentage of the population in census tract 112 does not have at least a high school diploma compared to other tracts in Cumberland.



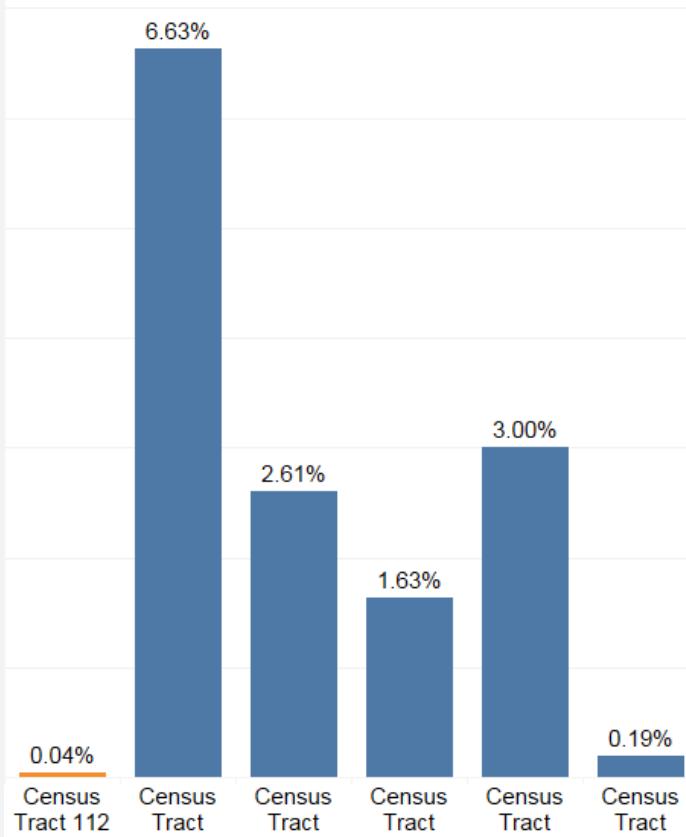
A greater percentage of the population in census tract 112 has a disability compared to other tracts in Cumberland.



Census tract 112 has the lowest percentage of the population that is unemployed compared to other tracts in Cumberland.

Percentage of population that is unemployed,  
2017

Source: US Census Bureau, 2013-2017 American Community Survey



## Appendix D

# Emergency Medical Services (EMS) National EMS Information System (NEMSIS) Data Analysis

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**The FREQ Procedure**

Patient Disposition Exclusion				
PtDispExcl	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	544	1.63	544	1.63
No	32733	98.37	33277	100.00

Svc_Area	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Pawtucket	17897	53.78	17897	53.78
Central Falls	5012	15.06	22909	68.84
Cumberland	10368	31.16	33277	100.00

Agency Name (dAgency.03)				
AgencyName	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Central Coventry Fire Department	2	0.01	2	0.01
Central Falls Fire Department	4259	12.80	4261	12.80
Cumberland EMS	6497	19.52	10758	32.33
Cumberland Fire District	3748	11.26	14506	43.59
East Providence Fire Department	29	0.09	14535	43.68
Harrisville Fire Department	4	0.01	14539	43.69
Jamestown Fire Department	1	0.00	14540	43.69
Johnston Fire Department	1	0.00	14541	43.70
LifePACT	1	0.00	14542	43.70
Lime Rock Fire Department	4	0.01	14546	43.71
Lincoln Rescue	884	2.66	15430	46.37
Manville Fire Department	1	0.00	15431	46.37
Middletown Fire Department	5	0.02	15436	46.39
North Kingstown Fire Department	1	0.00	15437	46.39
North Providence Fire Department	103	0.31	15540	46.70
North Smithfield FD	5	0.02	15545	46.71
Pawtucket Fire Department	17564	52.78	33109	99.50
Professional Ambulance	71	0.21	33180	99.71
Providence Fire Department	65	0.20	33245	99.90
Rhode Island School of Design	1	0.00	33246	99.91
Smithfield Fire Department	1	0.00	33247	99.91

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**The FREQ Procedure**

Agency Name (dAgency.03)				
AgencyName	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Warren Fire Department	2	0.01	33249	99.92
West Warwick Fire Department	1	0.00	33250	99.92
Woonsocket Fire Department	27	0.08	33277	100.00

Frequency  
Col Pct

Table of AgencyName by Svc_Area				
AgencyName(Agency Name (dAgency.03))	Svc_Area			
	Pawtucket	Central Falls	Cumberland	Total
Central Coventry Fire Department	2 0.01	0 0.00	0 0.00	2
Central Falls Fire Department	269 1.50	3927 78.35	63 0.61	4259
Cumberland EMS	33 0.18	321 6.40	6143 59.25	6497
Cumberland Fire District	0 0.00	4 0.08	3744 36.11	3748
East Providence Fire Department	29 0.16	0 0.00	0 0.00	29
Harrisville Fire Department	4 0.02	0 0.00	0 0.00	4
Jamestown Fire Department	0 0.00	0 0.00	1 0.01	1
Johnston Fire Department	0 0.00	0 0.00	1 0.01	1
LifePACT	1 0.01	0 0.00	0 0.00	1
Lime Rock Fire Department	1 0.01	0 0.00	3 0.03	4
Lincoln Rescue	133 0.74	395 7.88	356 3.43	884
Manville Fire Department	0 0.00	0 0.00	1 0.01	1
Middletown Fire Department	5 0.03	0 0.00	0 0.00	5
North Kingstown Fire Department	0 0.00	1 0.02	0 0.00	1
North Providence Fire Department	76 0.42	27 0.54	0 0.00	103
North Smithfield FD	1 0.01	0 0.00	4 0.04	5

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**The FREQ Procedure**

Frequency Col Pct	Table of AgencyName by Svc_Area				
	AgencyName(Agency Name (dAgency.03))	Svc_Area			
		Pawtucket	Central Falls	Cumberland	Total
	<b>Pawtucket Fire Department</b>	17220 96.22	330 6.58	14 0.14	17564
	<b>Professional Ambulance</b>	62 0.35	2 0.04	7 0.07	71
	<b>Providence Fire Department</b>	59 0.33	5 0.10	1 0.01	65
	<b>Rhode Island School of Design</b>	0 0.00	0 0.00	1 0.01	1
	<b>Smithfield Fire Department</b>	1 0.01	0 0.00	0 0.00	1
	<b>Warren Fire Department</b>	1 0.01	0 0.00	1 0.01	2
	<b>West Warwick Fire Department</b>	0 0.00	0 0.00	1 0.01	1
	<b>Woonsocket Fire Department</b>	0 0.00	0 0.00	27 0.26	27
	<b>Total</b>	17897	5012	10368	33277

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
33277	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	30908	5	5	0	2	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	30909	2	1	0	0	3	175
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	27740	11	10	0	4	19	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	26445	9	7	0	3	16	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	26406	20	17	0	5	40	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	26440	26	24	0	15	40	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	33157	42	37	0	19	72	179

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	16563	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	15300	5	5	0	2	9	68
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	15299	1	1	0	0	3	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	13860	10	9	0	3	18	97
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	13293	7	6	0	3	15	43
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	13281	19	15	0	5	39	165
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	13292	24	23	0	14	37	152
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	16516	39	34	0	19	68	179
2018 (Post-Closure)	16714	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	15608	5	5	0	2	9	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	15610	2	1	0	0	4	175
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	13880	11	10	0	4	20	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	13152	10	9	0	4	18	79
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	13125	21	19	0	6	40	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	13148	28	26	0	17	42	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	16641	44	40	0	20	75	175

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
33277	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	30908	5	5	0	2	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	30909	2	1	0	0	3	175
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	27740	11	10	0	4	19	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	26445	9	7	0	3	16	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	26406	20	17	0	5	40	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	26440	26	24	0	15	40	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	33157	42	37	0	19	72	179

Svc_Area	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Pawtucket	17897	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	17774	5	5	0	3	9	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	17777	2	1	0	0	5	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	16668	9	9	0	3	16	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	16230	6	6	0	3	11	52
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	16214	15	13	0	4	27	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	16230	23	22	0	15	32	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	17851	37	34	0	21	55	174
Central Falls	5012	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4868	3	3	0	1	7	66
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4869	1	1	0	0	3	88
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4628	11	10	0	4	20	76
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4519	9	8	0	5	13	79
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4509	25	23	0	9	42	152
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4515	25	23	0	15	36	95
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4995	47	45	0	23	71	179
Cumberland	10368	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8266	6	5	0	2	10	68
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8263	1	1	0	0	2	175
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	6444	15	14	0	6	23	97
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5696	15	15	0	8	22	62
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5683	32	31	0	13	52	151
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5695	37	36	9	25	49	152
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	10311	49	46	0	17	85	179

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
28325	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	28192	5	5	0	2	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	28194	2	1	0	0	4	165
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	27022	11	10	0	3	19	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	26443	9	7	0	3	16	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	26404	20	17	0	5	40	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	26438	26	24	0	15	40	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	28233	45	40	0	23	74	179

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	21196	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	21164	5	5	0	2	9	68
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	21164	2	1	0	0	4	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	20779	11	10	0	3	19	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	20517	8	7	0	3	14	62
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	20489	19	15	0	5	39	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	20519	25	24	0	15	37	152
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	21138	44	39	0	23	71	179
Non-Emergent	5936	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	5929	6	5	0	2	10	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	5931	1	1	0	0	3	66
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	5928	11	10	0	4	20	97
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5925	12	11	0	5	21	79
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5914	24	22	0	7	42	173
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5918	30	28	4	17	46	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5914	54	52	4	28	81	175

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)**

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**The MEANS Procedure**

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Not Applicable	4	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	4 4 2 1 1 1 4	4 0 7 0 1 8 14	3 0 7 0 1 8 13	0 0 7 0 1 8 9	0 0 7 0 1 8 9	8 0 8 0 1 8 22	8 0 8 0 1 8 22
Not Recorded	1189	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1095 1095 313 0 0 0 1177	5 2 11 .. .. .. 26	5 1 10 .. .. .. 22	0 0 0 .. .. .. 3	3 0 3 .. .. .. 12	8 5 20 .. .. .. 40	26 46 74 .. .. .. 174

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02860**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
12925	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	12837	6	5	0	3	9	113
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	12838	2	1	0	0	5	104
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	12152	9	8	0	3	16	71
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	11852	6	5	0	3	10	52
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	11843	14	12	0	3	27	173
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	11853	23	22	0	15	32	122
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	12901	36	34	0	20	54	174

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	6238	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	6199	5	5	0	3	8	63
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	6200	2	1	0	0	5	104
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	5954	9	8	0	3	16	49
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5855	5	5	0	2	9	33
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5853	13	10	0	3	23	165
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5856	21	20	0	13	30	121
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	6231	33	31	3	20	49	165
2018 (Post-Closure)	6687	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	6638	6	5	0	3	9	113
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	6638	2	1	0	0	6	83
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	6198	9	9	0	3	16	71
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5997	7	6	0	3	11	52
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5990	16	14	0	3	29	173
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5997	24	23	0	16	33	122
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	6670	39	37	0	21	58	174

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02860**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
12902	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	12818	6	5	0	3	9	113
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	12819	2	1	0	0	5	104
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	12147	9	8	0	3	16	71
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	11852	6	5	0	3	10	52
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	11843	14	12	0	3	27	173
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	11853	23	22	0	15	32	122
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	12878	36	34	0	20	54	174

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	10647	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	10629	5	5	0	3	8	63
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	10630	2	1	0	0	5	104
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	10463	9	9	0	3	16	71
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	10390	6	5	0	3	10	52
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	10382	14	12	0	3	27	170
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	10391	23	22	0	15	32	121
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	10633	37	34	0	21	54	165
Non-Emergent	1463	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	1463	6	6	0	3	10	113
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	1463	2	1	0	0	6	48
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	1463	8	7	0	2	14	56
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	1462	6	6	0	3	11	33
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	1461	14	12	0	4	27	173
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	1462	23	21	4	14	31	122
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	1460	37	34	4	22	55	174
Not Recorded	792	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	726	5	5	0	3	8	22
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	726	2	1	0	0	6	46
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	221	11	9	0	3	21	47
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	0	.	.	.	.	.	.
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	0	.	.	.	.	.	.
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	785	24	21	3	12	38	174
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service							

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02861**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
4972	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4937	5	5	0	3	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4939	1	1	0	0	3	165
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4516	10	9	0	3	17	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4378	7	7	0	3	12	43
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4371	16	14	0	5	29	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4377	24	23	0	15	33	142
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4950	38	36	3	22	56	167

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	2711	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2707	5	5	0	2	8	57
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2707	1	1	0	0	2	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2509	9	9	0	3	16	46
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2448	6	5	0	2	11	43
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2444	15	13	0	5	26	123
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2449	22	21	0	13	31	65
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2699	36	34	5	21	53	167
2018 (Post-Closure)	2261	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2230	6	5	0	3	9	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2232	2	1	0	0	4	48
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2007	10	9	0	3	17	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	1930	9	9	0	5	13	34
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	1927	17	15	0	5	31	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	1928	26	25	9	18	35	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2251	41	39	3	23	60	157

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02861**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
4969	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4936	5	5	0	3	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4938	1	1	0	0	3	165
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4515	10	9	0	3	17	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4378	7	7	0	3	12	43
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4371	16	14	0	5	29	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4377	24	23	0	15	33	142
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4947	38	36	5	22	56	167

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	4203	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4198	5	5	0	3	9	57
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4198	1	1	0	0	3	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4041	10	9	0	3	17	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	3992	7	7	0	3	12	43
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	3985	16	14	0	5	28	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	3993	24	23	0	15	33	131
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4188	39	37	5	23	57	167
Non-Emergent	387	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	385	6	5	0	3	10	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	387	2	1	0	0	4	48
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	386	8	7	0	2	15	31
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	386	8	8	0	3	13	30
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	386	15	12	0	3	29	95
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	384	24	23	8	16	31	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	385	39	37	9	24	54	142
Not Recorded	379	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	353	5	5	0	2	8	26
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	353	1	1	0	0	2	22
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	88	12	10	1	4	20	74
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	0	.	.	.	.	.	.
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	0	.	.	.	.	.	.
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	0	.	.	.	.	.	.
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	374	29	23	6	13	49	157

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02863**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
5012	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4868	3	3	0	1	7	66
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4869	1	1	0	0	3	88
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4628	11	10	0	4	20	76
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4519	9	8	0	5	13	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4509	25	23	0	9	42	152
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4515	25	23	0	15	36	95
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4995	47	45	0	23	71	179

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	2416	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2331	3	2	0	1	7	66
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2331	1	1	0	0	3	88
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2235	11	9	0	3	20	58
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2184	8	7	0	4	11	42
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2185	23	22	0	8	40	152
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2182	23	21	0	13	33	76
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2413	44	42	0	22	67	179
2018 (Post-Closure)	2596	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2537	4	3	0	1	7	19
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2538	1	1	0	0	3	66
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2393	12	10	0	4	21	76
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2335	10	9	0	6	14	79
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2324	26	25	0	9	44	108
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2333	26	25	4	17	37	95
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2582	49	48	7	25	74	163

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02863**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
4554	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4547	4	3	0	1	7	66
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4547	1	1	0	0	3	66
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4529	11	10	0	4	20	76
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4518	9	8	0	5	13	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4508	25	23	0	9	42	152
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4514	25	23	0	15	36	95
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4538	49	47	0	28	72	179

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02863**

**The MEANS Procedure**

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	3307	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3306 3305 3299 3292 3286 3291 3298	4 1 11 8 25 24 49	3 1 10 8 23 23 47	0 0 0 0 0 0 0	1 0 4 5 8 15 28	7 3 21 12 43 35 73	66 29 76 42 152 86 179
Non-Emergent	1229	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1225 1226 1225 1225 1221 1222 1222	4 1 10 10 25 25 50	3 1 9 10 24 24 49	0 0 0 0 0 4 10	1 0 4 6 10 16 30	7 2 19 15 40 36 70	19 66 43 79 82 95 135
Not Applicable	1	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1 1 1 1 1 1 1	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9
Not Recorded	17	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	15 15 4 0 0 0 17	7 3 10 . . . . . . 21	7 1 10 . . . . . . 19	4 0 4 . . . . . . 11	5 1 4 . . . . . . 12	9 9 16 . . . . . . 28	10 11 16 . . . . . . 39

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02864**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
10368	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8266	6	5	0	2	10	68
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8263	1	1	0	0	2	175
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	6444	15	14	0	6	23	97
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5696	15	15	0	8	22	62
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5683	32	31	0	13	52	151
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5695	37	36	9	25	49	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	10311	49	46	0	17	85	179

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	5198	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4063	6	5	0	2	10	68
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4061	1	1	0	0	2	121
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	3162	14	13	0	6	22	97
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2806	14	13	0	7	21	41
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2799	33	31	0	12	53	150
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2805	34	33	10	23	46	152
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5173	47	42	0	16	84	179
2018 (Post-Closure)	5170	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4203	6	5	0	2	10	47
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4202	1	1	0	0	2	175
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	3282	16	14	0	7	25	88
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2890	16	16	0	9	23	62
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2884	32	31	0	14	51	151
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2890	39	38	9	27	51	103
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5138	51	51	0	18	87	175

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02864**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
5900	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	5891	6	6	0	3	10	68
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	5890	1	1	0	0	2	121
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	5831	14	14	0	6	23	97
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5695	15	15	0	8	22	62
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5682	32	31	0	13	52	151
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5694	37	36	9	25	49	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5870	67	66	8	41	94	179

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02864**

**The MEANS Procedure**

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	3039	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3031 3031 2976 2843 2836 2844 3019	6 1 15 14 36 36 68	6 1 14 14 34 35 68	0 0 0 0 0 11 8	3 0 7 7 13 24 37	10 2 24 20 58 48 99	68 121 80 62 151 152 179
Non-Emergent	2857	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	2856 2855 2854 2852 2846 2850 2847	6 1 14 16 29 37 66	6 1 13 16 29 36 65	0 0 0 0 0 9 18	3 0 6 9 13 25 45	10 2 22 24 45 50 88	53 31 97 48 150 115 175
Not Applicable	3	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3 3 1 0 0 3	4 0 8 . . . . 16	6 0 8 . . . . 15	0 0 8 . . . . 11	0 0 8 . . . . 11	8 0 8 . . . . 22	8 0 8 . . . . 22
Not Recorded	1	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1 1 0 0 0 1	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Central Falls, RI**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
5012	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4868	3	3	0	1	7	66
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4869	1	1	0	0	3	88
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4628	11	10	0	4	20	76
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4519	9	8	0	5	13	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4509	25	23	0	9	42	152
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4515	25	23	0	15	36	95
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4995	47	45	0	23	71	179

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	2416	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2331	3	2	0	1	7	66
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2331	1	1	0	0	3	88
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2235	11	9	0	3	20	58
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2184	8	7	0	4	11	42
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2185	23	22	0	8	40	152
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2182	23	21	0	13	33	76
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2413	44	42	0	22	67	179
2018 (Post-Closure)	2596	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2537	4	3	0	1	7	19
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2538	1	1	0	0	3	66
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2393	12	10	0	4	21	76
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2335	10	9	0	6	14	79
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2324	26	25	0	9	44	108
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2333	26	25	4	17	37	95
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2582	49	48	7	25	74	163

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

16:02 Friday, January 10, 2020 19

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Central Falls, RI**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
4554	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4547	4	3	0	1	7	66
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4547	1	1	0	0	3	66
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4529	11	10	0	4	20	76
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4518	9	8	0	5	13	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4508	25	23	0	9	42	152
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4514	25	23	0	15	36	95
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4538	49	47	0	28	72	179

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

16:02 Friday, January 10, 2020 20

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Central Falls, RI**

**The MEANS Procedure**

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	3307	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3306 3305 3299 3292 3286 3291 3298	4 1 11 8 25 24 49	3 1 10 8 23 23 47	0 0 0 0 0 0 0	1 0 4 5 8 15 28	7 3 21 12 43 35 73	66 29 76 42 152 86 179
Non-Emergent	1229	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1225 1226 1225 1225 1221 1222 1222	4 1 10 10 25 25 50	3 1 9 10 24 24 49	0 0 0 0 0 4 10	1 0 4 6 10 16 30	7 2 19 15 40 36 70	19 66 43 79 82 95 135
Not Applicable	1	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1 1 1 1 1 1 1	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9
Not Recorded	17	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	15 15 4 0 0 0 17	7 3 10 . . . . . . 21	7 1 10 . . . . . . 19	4 0 4 . . . . . . 11	5 1 4 . . . . . . 12	9 9 16 . . . . . . 28	10 11 16 . . . . . . 39

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

16:02 Friday, January 10, 2020 21

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Cumberland, RI**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
10368	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8266	6	5	0	2	10	68
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8263	1	1	0	0	2	175
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	6444	15	14	0	6	23	97
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5696	15	15	0	8	22	62
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5683	32	31	0	13	52	151
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5695	37	36	9	25	49	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	10311	49	46	0	17	85	179

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	5198	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4063	6	5	0	2	10	68
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4061	1	1	0	0	2	121
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	3162	14	13	0	6	22	97
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2806	14	13	0	7	21	41
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2799	33	31	0	12	53	150
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2805	34	33	10	23	46	152
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5173	47	42	0	16	84	179
2018 (Post-Closure)	5170	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4203	6	5	0	2	10	47
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4202	1	1	0	0	2	175
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	3282	16	14	0	7	25	88
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2890	16	16	0	9	23	62
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2884	32	31	0	14	51	151
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2890	39	38	9	27	51	103
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5138	51	51	0	18	87	175

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

16:02 Friday, January 10, 2020 22

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Cumberland, RI**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
5900	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	5891	6	6	0	3	10	68
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	5890	1	1	0	0	2	121
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	5831	14	14	0	6	23	97
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5695	15	15	0	8	22	62
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5682	32	31	0	13	52	151
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5694	37	36	9	25	49	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5870	67	66	8	41	94	179

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

16:02 Friday, January 10, 2020 23

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Cumberland, RI**

**The MEANS Procedure**

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	3039	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3031 3031 2976 2843 2836 2844 3019	6 1 15 14 36 36 68	6 1 14 14 34 35 68	0 0 0 0 0 11 8	3 0 7 7 13 24 37	10 2 24 20 58 48 99	68 121 80 62 151 152 179
Non-Emergent	2857	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	2856 2855 2854 2852 2846 2850 2847	6 1 14 16 29 37 66	6 1 13 16 29 36 65	0 0 0 0 0 9 18	3 0 6 9 13 25 45	10 2 22 24 45 50 88	53 31 97 48 150 115 175
Not Applicable	3	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3 3 1 0 0 3	4 0 8 . . . . 16	6 0 8 . . . . 15	0 0 8 . . . . 11	0 0 8 . . . . 11	8 0 8 . . . . 22	8 0 8 . . . . 22
Not Recorded	1	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1 1 0 0 0 1	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Pawtucket, RI**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
17897	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	17774	5	5	0	3	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	17777	2	1	0	0	5	165
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	16668	9	9	0	3	16	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	16230	6	6	0	3	11	52
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	16214	15	13	0	4	27	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	16230	23	22	0	15	32	142
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	17851	37	34	0	21	55	174

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	8949	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8906	5	5	0	3	8	63
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8907	2	1	0	0	4	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	8463	9	8	0	3	16	49
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	8303	5	5	0	2	10	43
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	8297	13	11	0	4	24	165
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	8305	21	21	0	13	30	121
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	8930	34	32	3	20	50	167
2018 (Post-Closure)	8948	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8868	6	5	0	3	9	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8870	2	1	0	0	5	83
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	8205	10	9	0	3	17	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	7927	7	7	0	4	12	52
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	7917	16	14	0	3	30	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	7925	25	24	0	17	34	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	8921	39	37	0	21	58	174

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Pawtucket, RI**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
17871	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	17754	5	5	0	3	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	17757	2	1	0	0	5	165
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	16662	9	9	0	3	16	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	16230	6	6	0	3	11	52
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	16214	15	13	0	4	27	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	16230	23	22	0	15	32	142
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	17825	37	34	0	21	55	174

Disposition Transport Mode From Scene		N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent		14850	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	14827	5	5	0	3	8	63
			Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	14828	2	1	0	0	5	165
			Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	14504	10	9	0	3	16	110
			Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	14382	6	6	0	3	11	52
			Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	14367	15	13	0	4	27	174
			Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	14384	23	22	0	15	32	131
			Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	14821	38	35	0	22	55	167
Non-Emergent		1850	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	1848	6	6	0	3	10	131
			Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	1850	2	1	0	0	5	48
			Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	1849	8	7	0	2	14	56
			Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	1848	7	6	0	3	12	33
			Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	1847	14	12	0	4	28	173
			Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	1846	23	22	4	15	31	142
			Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	1845	37	35	4	22	54	174
Not Recorded		1171	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	1079	5	5	0	3	8	26
			Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	1079	2	1	0	0	5	46
			Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	309	11	10	0	3	21	74
			Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	0	.	.	.	.	.	.
			Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	0	.	.	.	.	.	.
			Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	0	.	.	.	.	.	.
			Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	1159	26	22	3	12	40	174

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Pawtucket Service Area**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
17897	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	17774	5	5	0	3	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	17777	2	1	0	0	5	165
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	16668	9	9	0	3	16	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	16230	6	6	0	3	11	52
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	16214	15	13	0	4	27	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	16230	23	22	0	15	32	142
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	17851	37	34	0	21	55	174

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	8949	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8906	5	5	0	3	8	63
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8907	2	1	0	0	4	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	8463	9	8	0	3	16	49
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	8303	5	5	0	2	10	43
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	8297	13	11	0	4	24	165
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	8305	21	21	0	13	30	121
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	8930	34	32	3	20	50	167
2018 (Post-Closure)	8948	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8868	6	5	0	3	9	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8870	2	1	0	0	5	83
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	8205	10	9	0	3	17	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	7927	7	7	0	4	12	52
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	7917	16	14	0	3	30	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	7925	25	24	0	17	34	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	8921	39	37	0	21	58	174

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Pawtucket Service Area**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
17871	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	17754	5	5	0	3	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	17757	2	1	0	0	5	165
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	16662	9	9	0	3	16	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	16230	6	6	0	3	11	52
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	16214	15	13	0	4	27	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	16230	23	22	0	15	32	142
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	17825	37	34	0	21	55	174

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	14850	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	14827	5	5	0	3	8	63
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	14828	2	1	0	0	5	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	14504	10	9	0	3	16	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	14382	6	6	0	3	11	52
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	14367	15	13	0	4	27	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	14384	23	22	0	15	32	131
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	14821	38	35	0	22	55	167
Non-Emergent	1850	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	1848	6	6	0	3	10	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	1850	2	1	0	0	5	48
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	1849	8	7	0	2	14	56
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	1848	7	6	0	3	12	33
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	1847	14	12	0	4	28	173
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	1846	23	22	4	15	31	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	1845	37	35	4	22	54	174
Not Recorded	1171	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	1079	5	5	0	3	8	26
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	1079	2	1	0	0	5	46
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	309	11	10	0	3	21	74
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	0	.	.	.	.	.	.
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	0	.	.	.	.	.	.
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	0	.	.	.	.	.	.
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	1159	26	22	3	12	40	174

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Central Falls Service Area**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
5012	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4868	3	3	0	1	7	66
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4869	1	1	0	0	3	88
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4628	11	10	0	4	20	76
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4519	9	8	0	5	13	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4509	25	23	0	9	42	152
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4515	25	23	0	15	36	95
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4995	47	45	0	23	71	179

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	2416	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2331	3	2	0	1	7	66
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2331	1	1	0	0	3	88
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2235	11	9	0	3	20	58
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2184	8	7	0	4	11	42
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2185	23	22	0	8	40	152
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2182	23	21	0	13	33	76
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2413	44	42	0	22	67	179
2018 (Post-Closure)	2596	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2537	4	3	0	1	7	19
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2538	1	1	0	0	3	66
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2393	12	10	0	4	21	76
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2335	10	9	0	6	14	79
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2324	26	25	0	9	44	108
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2333	26	25	4	17	37	95
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2582	49	48	7	25	74	163

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Central Falls Service Area**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
4554	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4547	4	3	0	1	7	66
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4547	1	1	0	0	3	66
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4529	11	10	0	4	20	76
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4518	9	8	0	5	13	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4508	25	23	0	9	42	152
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4514	25	23	0	15	36	95
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4538	49	47	0	28	72	179

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Central Falls Service Area**

**The MEANS Procedure**

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	3307	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3306 3305 3299 3292 3286 3291 3298	4 1 11 8 25 24 49	3 1 10 8 23 23 47	0 0 0 0 0 0 0	1 0 4 5 8 15 28	7 3 21 12 43 35 73	66 29 76 42 152 86 179
Non-Emergent	1229	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1225 1226 1225 1225 1221 1222 1222	4 1 10 10 25 25 50	3 1 9 10 24 24 49	0 0 0 0 0 4 10	1 0 4 6 10 16 30	7 2 19 15 40 36 70	19 66 43 79 82 95 135
Not Applicable	1	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1 1 1 1 1 1 1	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9
Not Recorded	17	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	15 15 4 0 0 0 17	7 3 10 . . . . . . 21	7 1 10 . . . . . . 19	4 0 4 . . . . . . 11	5 1 4 . . . . . . 12	9 9 16 . . . . . . 28	10 11 16 . . . . . . 39

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Cumberland Service Area**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
10368	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8266	6	5	0	2	10	68
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8263	1	1	0	0	2	175
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	6444	15	14	0	6	23	97
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5696	15	15	0	8	22	62
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5683	32	31	0	13	52	151
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5695	37	36	9	25	49	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	10311	49	46	0	17	85	179

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	5198	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4063	6	5	0	2	10	68
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4061	1	1	0	0	2	121
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	3162	14	13	0	6	22	97
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2806	14	13	0	7	21	41
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2799	33	31	0	12	53	150
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2805	34	33	10	23	46	152
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5173	47	42	0	16	84	179
2018 (Post-Closure)	5170	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4203	6	5	0	2	10	47
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4202	1	1	0	0	2	175
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	3282	16	14	0	7	25	88
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2890	16	16	0	9	23	62
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2884	32	31	0	14	51	151
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2890	39	38	9	27	51	103
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5138	51	51	0	18	87	175

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Cumberland Service Area**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
5900	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	5891	6	6	0	3	10	68
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	5890	1	1	0	0	2	121
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	5831	14	14	0	6	23	97
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5695	15	15	0	8	22	62
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5682	32	31	0	13	52	151
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5694	37	36	9	25	49	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5870	67	66	8	41	94	179

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
All Patient Dispositions**

16:02 Friday, January 10, 2020 33

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Cumberland Service Area**

**The MEANS Procedure**

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	3039	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3031 3031 2976 2843 2836 2844 3019	6 1 15 14 36 36 68	6 1 14 14 34 35 68	0 0 0 0 0 11 8	3 0 7 7 13 24 37	10 2 24 20 58 48 99	68 121 80 62 151 152 179
Non-Emergent	2857	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	2856 2855 2854 2852 2846 2850 2847	6 1 14 16 29 37 66	6 1 13 16 29 36 65	0 0 0 0 0 9 18	3 0 6 9 13 25 45	10 2 22 24 45 50 88	53 31 97 48 150 115 175
Not Applicable	3	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3 3 1 0 0 3	4 0 8 . . . . 16	6 0 8 . . . . 15	0 0 8 . . . . 11	0 0 8 . . . . 11	8 0 8 . . . . 22	8 0 8 . . . . 22
Not Recorded	1	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1 1 0 0 0 1	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

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**The FREQ Procedure**

Patient Disposition Exclusion				
PtDispExcl	Frequency	Percent	Cumulative Frequency	Cumulative Percent
No	32733	100.00	32733	100.00

Svc_Area	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Pawtucket	17610	53.80	17610	53.80
Central Falls	4959	15.15	22569	68.95
Cumberland	10164	31.05	32733	100.00

Agency Name (dAgency.03)					
AgencyName	Frequency	Percent	Cumulative Frequency	Cumulative Percent	
Central Coventry Fire Department	2	0.01	2	0.01	
Central Falls Fire Department	4209	12.86	4211	12.86	
Cumberland EMS	6328	19.33	10539	32.20	
Cumberland Fire District	3729	11.39	14268	43.59	
East Providence Fire Department	28	0.09	14296	43.67	
Harrisville Fire Department	4	0.01	14300	43.69	
Jamestown Fire Department	1	0.00	14301	43.69	
Johnston Fire Department	1	0.00	14302	43.69	
LifePACT	1	0.00	14303	43.70	
Lime Rock Fire Department	4	0.01	14307	43.71	
Lincoln Rescue	865	2.64	15172	46.35	
Manville Fire Department	1	0.00	15173	46.35	
Middletown Fire Department	5	0.02	15178	46.37	
North Kingstown Fire Department	1	0.00	15179	46.37	
North Providence Fire Department	103	0.31	15282	46.69	
North Smithfield FD	5	0.02	15287	46.70	
Pawtucket Fire Department	17279	52.79	32566	99.49	
Professional Ambulance	71	0.22	32637	99.71	
Providence Fire Department	64	0.20	32701	99.90	
Rhode Island School of Design	1	0.00	32702	99.91	
Smithfield Fire Department	1	0.00	32703	99.91	
Warren Fire Department	2	0.01	32705	99.91	

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

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**The FREQ Procedure**

Agency Name (dAgency.03)				
AgencyName	Frequency	Percent	Cumulative Frequency	Cumulative Percent
West Warwick Fire Department	1	0.00	32706	99.92
Woonsocket Fire Department	27	0.08	32733	100.00

Frequency Col Pct	Table of AgencyName by Svc_Area				
	AgencyName(Agency Name (dAgency.03))	Svc_Area			
		Pawtucket	Central Falls	Cumberland	Total
	Central Coventry Fire Department	2 0.01	0 0.00	0 0.00	2
	Central Falls Fire Department	265 1.50	3884 78.32	60 0.59	4209
	Cumberland EMS	33 0.19	319 6.43	5976 58.80	6328
	Cumberland Fire District	0 0.00	3 0.06	3726 36.66	3729
	East Providence Fire Department	28 0.16	0 0.00	0 0.00	28
	Harrisville Fire Department	4 0.02	0 0.00	0 0.00	4
	Jamestown Fire Department	0 0.00	0 0.00	1 0.01	1
	Johnston Fire Department	0 0.00	0 0.00	1 0.01	1
	LifePACT	1 0.01	0 0.00	0 0.00	1
	Lime Rock Fire Department	1 0.01	0 0.00	3 0.03	4
	Lincoln Rescue	132 0.75	393 7.92	340 3.35	865
	Manville Fire Department	0 0.00	0 0.00	1 0.01	1
	Middletown Fire Department	5 0.03	0 0.00	0 0.00	5
	North Kingstown Fire Department	0 0.00	1 0.02	0 0.00	1
	North Providence Fire Department	76 0.43	27 0.54	0 0.00	103
	North Smithfield FD	1 0.01	0 0.00	4 0.04	5

**The FREQ Procedure**

Frequency Col Pct	Table of AgencyName by Svc_Area				
	AgencyName(Agency Name (dAgency.03))	Svc_Area			
		Pawtucket	Central Falls	Cumberland	Total
	<b>Pawtucket Fire Department</b>	16940 96.20	325 6.55	14 0.14	17279
	<b>Professional Ambulance</b>	62 0.35	2 0.04	7 0.07	71
	<b>Providence Fire Department</b>	58 0.33	5 0.10	1 0.01	64
	<b>Rhode Island School of Design</b>	0 0.00	0 0.00	1 0.01	1
	<b>Smithfield Fire Department</b>	1 0.01	0 0.00	0 0.00	1
	<b>Warren Fire Department</b>	1 0.01	0 0.00	1 0.01	2
	<b>West Warwick Fire Department</b>	0 0.00	0 0.00	1 0.01	1
	<b>Woonsocket Fire Department</b>	0 0.00	0 0.00	27 0.27	27
	<b>Total</b>	17610	4959	10164	32733

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
32733	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	30398	5	5	0	2	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	30399	2	1	0	0	3	175
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	27520	11	10	0	4	19	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	26441	9	7	0	3	16	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	26402	20	17	0	5	40	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	26436	26	24	0	15	40	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	32618	42	37	0	20	72	179

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	16306	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	15058	5	5	0	2	9	68
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	15057	1	1	0	0	3	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	13750	10	9	0	3	18	97
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	13291	7	6	0	3	15	43
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	13279	19	15	0	5	39	165
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	13290	24	23	0	14	37	152
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	16261	40	35	0	19	69	179
2018 (Post-Closure)	16427	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	15340	5	5	0	2	9	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	15342	2	1	0	0	4	175
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	13770	11	10	0	4	20	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	13150	10	9	0	4	18	79
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	13123	21	19	0	6	40	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	13146	28	26	0	17	42	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	16357	45	41	0	21	75	175

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
32733	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	30398	5	5	0	2	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	30399	2	1	0	0	3	175
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	27520	11	10	0	4	19	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	26441	9	7	0	3	16	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	26402	20	17	0	5	40	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	26436	26	24	0	15	40	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	32618	42	37	0	20	72	179

Svc_Area	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Pawtucket	17610	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	17500	5	5	0	3	9	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	17503	2	1	0	0	5	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	16592	9	9	0	3	16	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	16227	6	6	0	3	11	52
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	16211	15	13	0	4	27	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	16227	23	22	0	15	32	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	17569	37	35	0	21	55	174
Central Falls	4959	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4826	3	3	0	1	7	66
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4827	1	1	0	0	3	88
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4613	11	10	0	4	20	76
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4519	9	8	0	5	13	79
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4509	25	23	0	9	42	152
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4515	25	23	0	15	36	95
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4942	47	46	0	24	71	179
Cumberland	10164	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8072	6	5	0	2	10	68
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8069	1	1	0	0	2	175
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	6315	15	14	0	6	23	97
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5695	15	15	0	8	22	62
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5682	32	31	0	13	52	151
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5694	37	36	9	25	49	152
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	10107	49	47	0	17	86	179

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
28010	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	27891	5	5	0	2	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	27893	2	1	0	0	4	165
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	26921	11	10	0	3	19	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	26439	9	7	0	3	16	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	26400	20	17	0	5	40	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	26434	26	24	0	15	40	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	27923	45	41	0	23	74	179

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	21062	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	21033	5	5	0	2	9	68
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	21033	2	1	0	0	4	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	20723	11	10	0	3	19	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	20515	8	7	0	3	14	62
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	20487	19	15	0	5	39	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	20517	25	24	0	15	37	152
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	21006	44	39	0	23	71	179
Non-Emergent	5933	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	5926	6	5	0	2	10	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	5928	1	1	0	0	3	66
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	5925	11	10	0	4	20	97
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5923	12	11	0	5	21	79
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5912	24	22	0	7	42	173
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5916	30	28	4	17	45	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5911	54	52	4	28	81	175

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 40

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)**

**The MEANS Procedure**

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Not Applicable	4	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	4 4 2 1 1 1 4	4 0 7 0 1 8 14	3 0 7 0 1 8 13	0 0 7 0 1 8 9	0 0 7 0 1 8 9	8 0 8 0 1 8 22	8 0 8 0 1 8 22
Not Recorded	1011	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	928 928 271 0 0 0 1002	5 2 11 . . . . . . 25	5 1 9 . . . . . . 21	0 0 0 . . . . . . 3	3 0 3 . . . . . . 12	8 5 20 . . . . . . 38	26 45 47 . . . . . . 174

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 41

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02860**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
12744	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	12667	6	5	0	3	9	113
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	12668	2	1	0	0	5	104
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	12100	9	8	0	3	16	71
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	11851	6	5	0	3	10	52
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	11842	14	12	0	3	27	173
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	11852	23	22	0	15	32	122
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	12722	36	34	0	20	54	174

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	6155	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	6122	5	5	0	3	8	63
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	6123	2	1	0	0	5	104
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	5928	9	8	0	3	16	49
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5855	5	5	0	2	9	33
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5853	13	10	0	3	23	165
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5856	21	20	0	13	30	121
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	6148	33	31	4	20	49	165
2018 (Post-Closure)	6589	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	6545	6	5	0	3	9	113
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	6545	2	1	0	0	6	83
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	6172	9	9	0	3	16	71
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5996	7	6	0	3	11	52
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5989	16	14	0	3	29	173
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5996	24	23	0	16	33	122
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	6574	39	37	0	21	58	174

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02860**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
12726	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	12651	6	5	0	3	9	113
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	12652	2	1	0	0	5	104
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	12096	9	8	0	3	16	71
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	11851	6	5	0	3	10	52
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	11842	14	12	0	3	27	173
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	11852	23	22	0	15	32	122
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	12704	36	34	0	20	54	174

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	10586	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	10570	5	5	0	3	8	63
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	10571	2	1	0	0	5	104
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	10440	9	9	0	3	16	71
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	10390	6	5	0	3	10	52
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	10382	14	12	0	3	27	170
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	10391	23	22	0	15	32	121
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	10572	37	35	0	22	54	165
Non-Emergent	1462	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	1462	6	6	0	3	10	113
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	1462	2	1	0	0	6	48
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	1462	8	7	0	2	14	56
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	1461	6	6	0	3	11	33
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	1460	14	12	0	4	27	173
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	1461	23	21	4	14	31	122
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	1459	37	34	4	22	55	174
Not Recorded	678	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	619	5	5	0	3	8	22
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	619	2	1	0	0	6	45
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	194	11	9	0	3	20	47
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	0	.	.	.	.	.	.
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	0	.	.	.	.	.	.
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	0	.	.	.	.	.	.
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	673	24	21	3	12	37	174

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02861**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
4866	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4833	5	5	0	3	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4835	1	1	0	0	3	165
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4492	10	9	0	3	17	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4376	7	7	0	3	12	43
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4369	16	14	0	5	29	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4375	24	23	0	15	33	142
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4847	38	36	3	22	56	167

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	2656	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2652	5	5	0	2	8	57
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2652	1	1	0	0	2	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2498	9	9	0	3	16	46
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2446	6	5	0	2	11	43
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2442	15	13	0	5	26	123
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2447	22	21	0	13	31	65
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2646	36	34	5	21	53	167
2018 (Post-Closure)	2210	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2181	6	5	0	3	9	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2183	2	1	0	0	4	48
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	1994	10	9	0	3	17	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	1930	9	9	0	5	13	34
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	1927	17	15	0	5	31	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	1928	26	25	9	18	35	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2201	41	39	3	23	60	157

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02861**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
4863	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4832	5	5	0	3	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4834	1	1	0	0	3	165
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4491	10	9	0	3	17	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4376	7	7	0	3	12	43
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4369	16	14	0	5	29	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4375	24	23	0	15	33	142
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4844	38	36	5	22	56	167

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	4157	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4152	5	5	0	3	9	57
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4152	1	1	0	0	3	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4031	10	9	0	3	17	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	3990	7	7	0	3	12	43
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	3983	16	14	0	5	28	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	3991	24	23	0	15	33	131
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4144	39	37	5	23	57	167
Non-Emergent	387	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	385	6	5	0	3	10	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	387	2	1	0	0	4	48
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	386	8	7	0	2	15	31
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	386	8	8	0	3	13	30
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	386	15	12	0	3	29	95
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	384	24	23	8	16	31	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	385	39	37	9	24	54	142
Not Recorded	319	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	295	5	5	0	2	8	26
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	295	1	1	0	0	2	22
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	74	12	10	1	5	20	31
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	0	.	.	.	.	.	.
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	0	.	.	.	.	.	.
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	315	29	23	6	12	49	157
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service							

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02863**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
4959	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4826	3	3	0	1	7	66
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4827	1	1	0	0	3	88
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4613	11	10	0	4	20	76
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4519	9	8	0	5	13	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4509	25	23	0	9	42	152
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4515	25	23	0	15	36	95
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4942	47	46	0	24	71	179

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	2395	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2314	3	2	0	1	7	66
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2314	1	1	0	0	3	88
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2227	11	9	0	3	20	58
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2184	8	7	0	4	11	42
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2185	23	22	0	8	40	152
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2182	23	21	0	13	33	76
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2392	44	42	0	23	67	179
2018 (Post-Closure)	2564	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2512	4	3	0	1	7	19
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2513	1	1	0	0	3	66
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2386	12	10	0	4	21	76
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2335	10	9	0	6	14	79
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2324	26	25	0	9	44	108
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2333	26	25	4	17	37	95
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2550	50	49	7	26	75	163

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02863**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
4548	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4543	4	3	0	1	7	66
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4543	1	1	0	0	3	66
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4527	11	10	0	4	20	76
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4518	9	8	0	5	13	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4508	25	23	0	9	42	152
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4514	25	23	0	15	36	95
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4532	49	47	0	28	72	179

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02863**

**The MEANS Procedure**

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	3305	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3304 3303 3298 3292 3286 3291 3296	4 1 11 8 25 24 49	3 1 10 8 23 23 47	0 0 0 0 0 0 0	1 0 4 5 8 15 28	7 3 21 12 43 35 73	66 29 76 42 152 86 179
Non-Emergent	1229	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1225 1226 1225 1225 1221 1222 1222	4 1 10 10 25 25 50	3 1 9 10 24 24 49	0 0 0 0 0 4 10	1 0 4 6 10 16 30	7 2 19 15 40 36 70	19 66 43 79 82 95 135
Not Applicable	1	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1 1 1 1 1 1 1	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9
Not Recorded	13	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	13 13 3 0 0 0 13	7 3 10 . . . . . . 22	7 1 10 . . . . 20	4 0 4 . . . . 11	5 1 4 . . . . 16	9 9 16 . . . . 28	10 11 16 . . . . 39

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02864**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
10164	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8072	6	5	0	2	10	68
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8069	1	1	0	0	2	175
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	6315	15	14	0	6	23	97
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5695	15	15	0	8	22	62
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5682	32	31	0	13	52	151
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5694	37	36	9	25	49	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	10107	49	47	0	17	86	179

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	5100	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	3970	6	5	0	2	10	68
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	3968	1	1	0	0	2	121
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	3097	14	13	0	6	22	97
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2806	14	13	0	7	21	41
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2799	33	31	0	12	53	150
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2805	34	33	10	23	46	152
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5075	47	43	0	16	84	179
2018 (Post-Closure)	5064	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4102	6	5	0	2	10	47
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4101	1	1	0	0	2	175
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	3218	15	14	0	7	24	84
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2889	16	16	0	9	23	62
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2883	32	31	0	14	51	151
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2889	39	38	9	27	51	103
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5032	51	52	4	18	87	175

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 49

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02864**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
5873	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	5865	6	6	0	3	10	68
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	5864	1	1	0	0	2	121
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	5807	14	14	0	6	23	97
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5694	15	15	0	8	22	62
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5681	32	31	0	13	52	151
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5693	37	36	9	25	49	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5843	67	66	8	42	94	179

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 50

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By ZIP Code  
02864**

**The MEANS Procedure**

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	3014	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3007 3007 2954 2843 2836 2844 2994	6 1 15 14 36 36 68	6 1 14 14 34 35 68	0 0 0 0 0 11 8	3 0 7 7 13 24 38	10 2 24 20 58 48 99	68 121 80 62 151 152 179
Non-Emergent	2855	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	2854 2853 2852 2851 2845 2849 2845	6 1 14 16 29 37 66	6 1 13 16 29 36 65	0 0 0 0 0 9 18	3 0 6 9 13 25 45	10 2 22 24 45 50 88	53 31 97 48 150 115 175
Not Applicable	3	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3 3 1 0 0 3	4 0 8 . . . . 16	6 0 8 . . . . 15	0 0 8 . . . . 11	0 0 8 . . . . 11	8 0 8 . . . . 22	8 0 8 . . . . 22
Not Recorded	1	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1 1 0 0 0 1	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 51

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Central Falls, RI**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
4959	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4826	3	3	0	1	7	66
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4827	1	1	0	0	3	88
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4613	11	10	0	4	20	76
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4519	9	8	0	5	13	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4509	25	23	0	9	42	152
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4515	25	23	0	15	36	95
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4942	47	46	0	24	71	179

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	2395	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2314	3	2	0	1	7	66
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2314	1	1	0	0	3	88
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2227	11	9	0	3	20	58
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2184	8	7	0	4	11	42
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2185	23	22	0	8	40	152
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2182	23	21	0	13	33	76
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2392	44	42	0	23	67	179
2018 (Post-Closure)	2564	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2512	4	3	0	1	7	19
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2513	1	1	0	0	3	66
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2386	12	10	0	4	21	76
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2335	10	9	0	6	14	79
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2324	26	25	0	9	44	108
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2333	26	25	4	17	37	95
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2550	50	49	7	26	75	163

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 52

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Central Falls, RI**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
4548	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4543	4	3	0	1	7	66
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4543	1	1	0	0	3	66
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4527	11	10	0	4	20	76
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4518	9	8	0	5	13	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4508	25	23	0	9	42	152
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4514	25	23	0	15	36	95
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4532	49	47	0	28	72	179

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 53

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Central Falls, RI**

**The MEANS Procedure**

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	3305	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3304 3303 3298 3292 3286 3291 3296	4 1 11 8 25 24 49	3 1 10 8 23 23 47	0 0 0 0 0 0 0	1 0 4 5 8 15 28	7 3 21 12 43 35 73	66 29 76 42 152 86 179
Non-Emergent	1229	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1225 1226 1225 1225 1221 1222 1222	4 1 10 10 25 25 50	3 1 9 10 24 24 49	0 0 0 0 0 4 10	1 0 4 6 10 16 30	7 2 19 15 40 36 70	19 66 43 79 82 95 135
Not Applicable	1	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1 1 1 1 1 1 1	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9
Not Recorded	13	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	13 13 3 0 0 0 13	7 3 10 . . . . . . 22	7 1 10 . . . . 20	4 0 4 . . . . 11	5 1 4 . . . . 16	9 9 16 . . . . 28	10 11 16 . . . . 39

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 54

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Cumberland, RI**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
10164	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8072	6	5	0	2	10	68
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8069	1	1	0	0	2	175
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	6315	15	14	0	6	23	97
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5695	15	15	0	8	22	62
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5682	32	31	0	13	52	151
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5694	37	36	9	25	49	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	10107	49	47	0	17	86	179

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	5100	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	3970	6	5	0	2	10	68
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	3968	1	1	0	0	2	121
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	3097	14	13	0	6	22	97
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2806	14	13	0	7	21	41
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2799	33	31	0	12	53	150
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2805	34	33	10	23	46	152
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5075	47	43	0	16	84	179
2018 (Post-Closure)	5064	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4102	6	5	0	2	10	47
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4101	1	1	0	0	2	175
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	3218	15	14	0	7	24	84
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2889	16	16	0	9	23	62
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2883	32	31	0	14	51	151
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2889	39	38	9	27	51	103
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5032	51	52	4	18	87	175

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 55

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Cumberland, RI**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
5873	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	5865	6	6	0	3	10	68
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	5864	1	1	0	0	2	121
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	5807	14	14	0	6	23	97
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5694	15	15	0	8	22	62
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5681	32	31	0	13	52	151
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5693	37	36	9	25	49	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5843	67	66	8	42	94	179

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 56

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Cumberland, RI**

**The MEANS Procedure**

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	3014	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3007 3007 2954 2843 2836 2844 2994	6 1 15 14 36 36 68	6 1 14 14 34 35 68	0 0 0 0 0 11 8	3 0 7 7 13 24 38	10 2 24 20 58 48 99	68 121 80 62 151 152 179
Non-Emergent	2855	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	2854 2853 2852 2851 2845 2849 2845	6 1 14 16 29 37 66	6 1 13 16 29 36 65	0 0 0 0 0 9 18	3 0 6 9 13 25 45	10 2 22 24 45 50 88	53 31 97 48 150 115 175
Not Applicable	3	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3 3 1 0 0 3	4 0 8 . . . . 16	6 0 8 . . . . 15	0 0 8 . . . . 11	0 0 8 . . . . 11	8 0 8 . . . . 22	8 0 8 . . . . 22
Not Recorded	1	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1 1 0 0 0 1	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 57

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Pawtucket, RI**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
17610	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	17500	5	5	0	3	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	17503	2	1	0	0	5	165
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	16592	9	9	0	3	16	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	16227	6	6	0	3	11	52
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	16211	15	13	0	4	27	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	16227	23	22	0	15	32	142
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	17569	37	35	0	21	55	174

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	8811	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8774	5	5	0	3	8	63
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8775	2	1	0	0	4	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	8426	9	8	0	3	16	49
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	8301	5	5	0	2	10	43
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	8295	13	11	0	4	24	165
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	8303	21	21	0	13	30	121
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	8794	34	32	4	20	50	167
2018 (Post-Closure)	8799	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8726	6	5	0	3	9	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8728	2	1	0	0	5	83
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	8166	10	9	0	3	16	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	7926	7	7	0	4	12	52
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	7916	16	14	0	3	30	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	7924	25	24	0	17	34	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	8775	39	37	0	22	58	174

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 58

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By City/Town  
Pawtucket, RI**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
17589	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	17483	5	5	0	3	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	17486	2	1	0	0	5	165
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	16587	9	9	0	3	16	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	16227	6	6	0	3	11	52
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	16211	15	13	0	4	27	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	16227	23	22	0	15	32	142
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	17548	37	35	0	21	55	174

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	14743	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	14722	5	5	0	3	8	63
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	14723	2	1	0	0	5	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	14471	10	9	0	3	16	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	14380	6	6	0	3	11	52
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	14365	15	13	0	4	27	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	14382	23	22	0	15	32	131
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	14716	38	35	0	22	55	167
Non-Emergent	1849	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	1847	6	6	0	3	10	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	1849	2	1	0	0	5	48
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	1848	8	7	0	2	14	56
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	1847	7	6	0	3	12	33
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	1846	14	12	0	4	28	173
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	1845	23	22	4	15	31	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	1844	37	35	4	22	54	174
Not Recorded	997	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	914	5	5	0	3	8	26
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	914	2	1	0	0	5	45
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	268	11	9	0	3	20	47
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	0	.	.	.	.	.	.
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	0	.	.	.	.	.	.
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	0	.	.	.	.	.	.
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	988	25	21	3	12	39	174

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 59

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Pawtucket Service Area**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
17610	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	17500	5	5	0	3	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	17503	2	1	0	0	5	165
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	16592	9	9	0	3	16	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	16227	6	6	0	3	11	52
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	16211	15	13	0	4	27	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	16227	23	22	0	15	32	142
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	17569	37	35	0	21	55	174

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	8811	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8774	5	5	0	3	8	63
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8775	2	1	0	0	4	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	8426	9	8	0	3	16	49
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	8301	5	5	0	2	10	43
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	8295	13	11	0	4	24	165
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	8303	21	21	0	13	30	121
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	8794	34	32	4	20	50	167
2018 (Post-Closure)	8799	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8726	6	5	0	3	9	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8728	2	1	0	0	5	83
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	8166	10	9	0	3	16	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	7926	7	7	0	4	12	52
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	7916	16	14	0	3	30	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	7924	25	24	0	17	34	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	8775	39	37	0	22	58	174

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 60

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Pawtucket Service Area**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
17589	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	17483	5	5	0	3	9	131
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	17486	2	1	0	0	5	165
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	16587	9	9	0	3	16	110
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	16227	6	6	0	3	11	52
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	16211	15	13	0	4	27	174
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	16227	23	22	0	15	32	142
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	17548	37	35	0	21	55	174

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	14743	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	14722	5	5	0	3	8	63
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	14723	2	1	0	0	5	165
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	14471	10	9	0	3	16	110
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	14380	6	6	0	3	11	52
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	14365	15	13	0	4	27	174
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	14382	23	22	0	15	32	131
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	14716	38	35	0	22	55	167
Non-Emergent	1849	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	1847	6	6	0	3	10	131
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	1849	2	1	0	0	5	48
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	1848	8	7	0	2	14	56
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	1847	7	6	0	3	12	33
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	1846	14	12	0	4	28	173
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	1845	23	22	4	15	31	142
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	1844	37	35	4	22	54	174
Not Recorded	997	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	914	5	5	0	3	8	26
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	914	2	1	0	0	5	45
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	268	11	9	0	3	20	47
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	0	.	.	.	.	.	.
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	0	.	.	.	.	.	.
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	0	.	.	.	.	.	.
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	988	25	21	3	12	39	174

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 61

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Central Falls Service Area**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
4959	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4826	3	3	0	1	7	66
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4827	1	1	0	0	3	88
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4613	11	10	0	4	20	76
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4519	9	8	0	5	13	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4509	25	23	0	9	42	152
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4515	25	23	0	15	36	95
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4942	47	46	0	24	71	179

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	2395	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2314	3	2	0	1	7	66
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2314	1	1	0	0	3	88
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2227	11	9	0	3	20	58
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2184	8	7	0	4	11	42
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2185	23	22	0	8	40	152
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2182	23	21	0	13	33	76
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2392	44	42	0	23	67	179
2018 (Post-Closure)	2564	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	2512	4	3	0	1	7	19
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	2513	1	1	0	0	3	66
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	2386	12	10	0	4	21	76
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2335	10	9	0	6	14	79
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2324	26	25	0	9	44	108
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2333	26	25	4	17	37	95
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	2550	50	49	7	26	75	163

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Central Falls Service Area**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
4548	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4543	4	3	0	1	7	66
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4543	1	1	0	0	3	66
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	4527	11	10	0	4	20	76
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	4518	9	8	0	5	13	79
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	4508	25	23	0	9	42	152
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	4514	25	23	0	15	36	95
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	4532	49	47	0	28	72	179

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 63

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Central Falls Service Area**

**The MEANS Procedure**

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	3305	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3304 3303 3298 3292 3286 3291 3296	4 1 11 8 25 24 49	3 1 10 8 23 23 47	0 0 0 0 0 0 0	1 0 4 5 8 15 28	7 3 21 12 43 35 73	66 29 76 42 152 86 179
Non-Emergent	1229	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1225 1226 1225 1225 1221 1222 1222	4 1 10 10 25 25 50	3 1 9 10 24 24 49	0 0 0 0 0 4 10	1 0 4 6 10 16 30	7 2 19 15 40 36 70	19 66 43 79 82 95 135
Not Applicable	1	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1 1 1 1 1 1 1	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9	1 0 7 0 1 8 9
Not Recorded	13	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	13 13 3 0 0 0 13	7 3 10 . . . . . . 22	7 1 10 . . . . 20	4 0 4 . . . . 11	5 1 4 . . . . 16	9 9 16 . . . . 16	10 11 16 . . . . 39

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 64

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Cumberland Service Area**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
10164	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	8072	6	5	0	2	10	68
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	8069	1	1	0	0	2	175
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	6315	15	14	0	6	23	97
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5695	15	15	0	8	22	62
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5682	32	31	0	13	52	151
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5694	37	36	9	25	49	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	10107	49	47	0	17	86	179

Data Year	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
2017 (Pre-Closure)	5100	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	3970	6	5	0	2	10	68
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	3968	1	1	0	0	2	121
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	3097	14	13	0	6	22	97
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2806	14	13	0	7	21	41
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2799	33	31	0	12	53	150
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2805	34	33	10	23	46	152
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5075	47	43	0	16	84	179
2018 (Post-Closure)	5064	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	4102	6	5	0	2	10	47
		Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	4101	1	1	0	0	2	175
		Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	3218	15	14	0	7	24	84
		Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	2889	16	16	0	9	23	62
		Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	2883	32	31	0	14	51	151
		Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	2889	39	38	9	27	51	103
		Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5032	51	52	4	18	87	175

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

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**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Cumberland Service Area**

**The MEANS Procedure**

N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
5873	Time_Notify_Scene	Time In Minutes - Notification To Arrival On Scene	5865	6	6	0	3	10	68
	Time_Scene_Pt	Time In Minutes - Arrival On Scene To Arrival At Patient	5864	1	1	0	0	2	121
	Time_Pt_Left	Time In Minutes - Arrival At Patient To Left Scene	5807	14	14	0	6	23	97
	Time_Left_Dest	Time In Minutes - Left Scene To Arrival At Destination	5694	15	15	0	8	22	62
	Time_Dest_Back	Time In Minutes - Arrival At Destination To Back In Service	5681	32	31	0	13	52	151
	Time_Notify_Dest	Time In Minutes - Notification To Arrival At Destination	5693	37	36	9	25	49	152
	Time_Notify_Back	Total Time In Minutes - Notification To Back In Service	5843	67	66	8	42	94	179

**Memorial Hospital Rhode Island Project  
Excluding Lincoln And East Providence  
Non-Excluded Patient Dispositions**

16:02 Friday, January 10, 2020 66

**Selected Time Intervals (Negative Values And Times > 180 Minutes Dropped)  
By Service Area  
Cumberland Service Area**

**The MEANS Procedure**

Disposition Transport Mode From Scene	N Obs	Variable	Label	N	Mean	Median	Minimum	10th Pctl	90th Pctl	Maximum
Emergent	3014	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3007 3007 2954 2843 2836 2844 2994	6 1 15 14 36 36 68	6 1 14 14 34 35 68	0 0 0 0 0 11 8	3 0 7 7 13 24 38	10 2 24 20 58 48 99	68 121 80 62 151 152 179
Non-Emergent	2855	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	2854 2853 2852 2851 2845 2849 2845	6 1 14 16 29 37 66	6 1 13 16 29 36 65	0 0 0 0 0 9 18	3 0 6 9 13 25 45	10 2 22 24 45 50 88	53 31 97 48 150 115 175
Not Applicable	3	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	3 3 1 0 0 3	4 0 8 . . . . 16	6 0 8 . . . . 15	0 0 8 . . . . 11	0 0 8 . . . . 11	8 0 8 . . . . 22	8 0 8 . . . . 22
Not Recorded	1	Time_Notify_Scene Time_Scene_Pt Time_Pt_Left Time_Left_Dest Time_Dest_Back Time_Notify_Dest Time_Notify_Back	Time In Minutes - Notification To Arrival On Scene Time In Minutes - Arrival On Scene To Arrival At Patient Time In Minutes - Arrival At Patient To Left Scene Time In Minutes - Left Scene To Arrival At Destination Time In Minutes - Arrival At Destination To Back In Service Time In Minutes - Notification To Arrival At Destination Total Time In Minutes - Notification To Back In Service	1 1 0 0 0 1	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23	10 2 . . . . . . 23

# Appendix E

## Qualitative Research

- Key informant interview list
- Key informant interview guides
  - General
  - HEZ
  - CNE
- Focus groups / group interview composition, dates, participant counts
- Focus group moderator's guide

## MHRI Impact Study – Qualitative Research

### LIST OF KEY INFORMANT INTERVIEWEES

Interviewee Type	Organization, Interviewee Name(s)	Date	Location
Affordable housing developer and management	Pawtucket Central Falls Development Corporation (Andrew Pierson)	May 07, 2019	Phone interview
EMS	RIDOH Emergency Services (Jason Rhodes)	February 14, 2019	Rhode Island Department of Health
FQHC	Blackstone Valley Community Health Center (BVCHC) (Raymond Lavoie)	February 14, 2019	Blackstone Valley Community Health Center
	BVCHC Central Falls Health Station (Michael Fine, MD)	March 08, 2019	Central Falls City Hall
Health Plan	Neighborhood Health Plan (David Burnett)	July 11, 2019	Phone interview
Health System, Other RI Hospital	Lifespan and Rhode Island Hospital (Timothy Babineau, MD; John Murphy, MD; Margaret Van Bree; and Latha Sivaprasad, MD)	February 14, 2019	Rhode Island Hospital
Industry Experts/Associations	Hospital Association of Rhode Island (M. Teresa Paiva Weed)	March 21, 2019	Phone interview
	Rhode Island Healthcare Association (Jane Hayward)	March 15, 2019	Phone interview
	Rhode Island Medical Society (Steven Detoy)	February 14, 2019	Rhode Island Medical Society
Insurer	Medicaid Program (Marlanea Peabody)	March 01, 2019	Phone interview
Local Government	Central Falls Mayor (James Diossa)	March 29, 2019	Phone interview
	Pawtucket Mayor (Donald Grebien)	February 14, May 21, and November 14, 2019	Pawtucket City Hall
Medical Group / Medical Practice	Coastal Medical Hillside (Barbara Jablow, MD)	May 02, 2019	Phone interview
	John Miskovsky, MD	November 18, 2019	Phone interview

Interviewee Type	Organization, Interviewee Name(s)	Date	Location
Other RI Hospital	Landmark Hospital (Michael Souza and Scott Brown)	February 13, 2019	Landmark Hospital
	The Miriam Hospital (Maria Ducharme; Dean Roye, MD; and Arthur Sampson)	February 25, 2019	Miriam Hospital
Other Hospital, out of state	Sturdy Memorial Hospital (Joseph Casey)	March 29, 2019	Phone interview
Parent Organization to MHRI/ Health System	Care New England (James Fanale, MD) Bryan Liese	March 11, 2019, and follow up discussions via telephone	Care New England
Primary and Specialty Practice on MHRI campus	CNE Express Clinic (Jeanette Duquette)	April 23, July 17, 2019	Family Care Center
	CNE Residency Program (Jeffery Borkan, MD)	April 23, 2019	Family Care Center
Regional Care Network	CharterCARE Health Partners (Jeffrey Liebman)	March 04, 2019	Roger Williams Medical Center

## LIST OF FOCUS GROUP DISCUSSIONS

Participant Type	Count of Participants	Date	Location
Older adult residents of Central Falls (Conducted in Spanish)	10	Thursday, June 13, 2019	Progreso Latino
Older adult residents of Pawtucket	6	Wednesday, July 24, 2019	Leon Mathieu Senior Center
Young to middle-aged adults of Central Falls (Conducted in Spanish)	8	Monday, November 04, 2019	Central Falls Housing Authority (Forand Manor Association)
Young to middle-aged adults of Pawtucket	10	Thursday, August 01, 2019	Pawtucket Housing (Kennedy Manor)
Blackstone Valley Community Health Workers	3	Wednesday, July 10, 2019	Blackstone Valley Community Health Center
Health Equity Zone (HEZ) Group Interview	22	Wednesday, March 20, 2019	YMCA of Pawtucket Association Office
<b>Total</b>	<b>59</b>		

## **MHRI Assessment Interview Guide**

### **1. Introduction**

- a. Project purpose –** Thank you for agreeing to participate in this interview. The primary goal of the project is to assess the long-term impacts on the community and health care providers related to the closure of Memorial Hospital, including the elimination of the Emergency Department at the Memorial Hospital of Rhode Island (MHRI) and elimination of primary care services under MHRI licenses. The research and analysis will focus on the health care and health of the affected communities and the health care providers that serve them, and other licensed hospitals and health care providers in the state. JSI has been engaged by RIDOH to support the assessment, which was included as one of the conditions of closure/change in license.
- b. Purpose and structure of interview -** The general purpose of this interview is to solicit your input into the assessment as well as strategies to mitigate any negative impact. JSI has prepared an interview guide, but it is intended only as a guide to facilitate our conversation. We can certainly explore other areas as they come up in our conversation or explore areas in more depth.
- c. Confidentiality –** We will not attribute interview findings, unless of course you would like us to. We will maintain confidentiality but cannot guarantee anonymity. We will use interview findings collectively to inform the analysis and resulting recommendations.
- d. Do you (does anyone) have questions or concerns about the focus/purpose of the project? If so, what are those? (Answer questions and note concerns).**

### **2. Defining relationship to MHRI and populations served by the hospital**

- a. What was your / your organizations relationship to MHRI prior to closure? Probe: served the same patients, contracted to provide care for services, collaborated on joint ventures, etc.**
- b. What adjustments have you / your organization needed to make because of the closure?**
- c. What do you see as the major health needs of the population living in communities served by the hospital (primarily Pawtucket and Central Falls)? What health care and social services are most needed to address those needs? What are the barriers to accessing those services?**

### **3. Assessment of impact (other than direct impacts as noted in #2)**

- a. What have you / your organization observed as impacts of the:**

- i. The closure of the hospital in general?
  - ii. The closure of the hospital ED?
  - iii. The transfer of licensure of the on-site residency program to Kent Hospital?
- b. What is the basis of these observations? Do you have any information / data that you can share that defines / measures the impact? If so, can you share those?
- c. What do you foresee as longer-term impacts that will need to be monitored and addressed?
- d. Do you see impacts beyond health and health care? If so, what are those? Probe: community economics, employment, socio-economic or cultural disconnectedness, optics (empty building), crime, etc
- e. Who do you see as being most impacted by the closure?

4. Strategies for mitigating negative impacts

- a. Have you / your organization been engaged in efforts to address impact – short-term and longer-term? If so, what are those? Have they been effective / successful? If yes, what have been the keys to success? If no, what have been the barriers to success?
- b. What strategies do you feel are needed in the short-term (now)? What strategies are needed to address the longer-term impact?

5. What would you want to see for ongoing monitoring of impact of closure (and mitigating strategies) – what are the most important measures?

6. Wrap-up

- a. What areas, if any, did we not discuss that we should?
- b. Any final thoughts?

Thanks!

## *MHRI Assessment Discussion Guide for HEZ*

### 1. Introduction

- a. Project purpose – Thank you for agreeing to participate in this group discussion. The primary goal of the project is to assess the long-term impacts on the community and health care providers related to the elimination of the Emergency Department at the Memorial Hospital of Rhode Island (MHRI) and elimination of primary care services under MHRI licenses. The research and analysis will focus on the health care and health of the affected communities and the health care providers that serve them. JSI has been engaged by RIDOH to support the assessment, which was included as one of the conditions of closure.
- a. Purpose and structure of interview - The general purpose of this interview is to solicit your input into the assessment as well as strategies to mitigate any negative impact. JSI has prepared an interview guide, but it is intended only as a guide to facilitate our conversation. We can certainly explore other items as they come up in our conversation or explore areas in more depth.
- b. Confidentiality – We will not attribute interview findings, unless of course you would like us to. We will maintain confidentiality but cannot guarantee anonymity. We will use interview findings collectively to inform the impact analysis and recommendations.
- c. Does anyone have questions or concerns about the focus/purpose of the project? If so, what are those? (Answer questions and note concerns).

### 2. Understanding the community and relationship to MHRI

- a. Can you tell us about the community served by the HEZ? Who are they? What disparities exist within the community – health and non-health?
- b. What role(s) did MHRI serve to the community (probe: employer, provider of services, public place to gather, etc.).
- c. What part(s) of the community was most impacted by the closure? By the change in licensure of the primary care clinic? How so?

### 3. Mitigating strategies

- a. How has the community responded/adjusted to the closure? To the change in license of the primary care clinic?
- b. How have organizations that serve the community responded? What impact has this response had?

- c. What other actions can be taken to reduce any negative impacts of the closure? Of the change in license?

4. What specific organizations/individuals do you recommend we interview to inform the assessment?

Thanks to all!

## **MHRI Assessment Interview Guide - CNE**

1. Introduction and overview of project
  - a. Project purpose – Thank you for agreeing to participate in this interview. The primary goal of the project is to assess the long-term impacts on the community and health care providers related to the elimination of the Emergency Department at the Memorial Hospital of Rhode Island (MHRI) and elimination of primary care services under MHRI licenses. The research and analysis will focus on the health care and health of the affected communities and the health care providers that serve them. The purpose of this interview is to solicit your input into the assessment as well and strategies to mitigate any negative impact. JSI has been engaged by RIDOH to support the assessment, which, as you know, was included as one of the conditions of closure.
  - b. Do you (does anyone) have questions or concerns about the focus/purpose of the project? If so, what are those? (Answer questions and note concerns).
2. What have been the major steps that CNE has taken to manage through the transition? What has been the overall experience – what went as expected or what had unexpected benefits? What were the greatest challenges that had to be addressed and how so?
  - a. Transition of patients in the hospital at closure?
  - b. Transition of patients receiving outpatient services (cancer treatment, etc.)
  - c. Transition of staff – outplacement or other CNE providers. Are you able to share numbers of employees that 1) received outplacement services, 2) were transferred to other CNE locations, 3) retired, or 4) other relocation/transfer?
3. In determining the longer-term impact on the community, we would like to explore some key areas that were identified through review of community forums, CNE applications, RIDOH decision, among other documents.
  - a. Primary care –
    - i. Confirming primary care services – in the Reverse CON request, MHRI Primary Care included Internal Medicine, Family Medicine – Family Care Center, and Pediatrics – Pediatric Care Center at 555 Prospect. How do those services relate to the Care New England Medical Group Primary Care and Specialty Services, if at all? Where is the residency program located?
    - ii. How have primary care services been sustained in Pawtucket, i.e., have services remained on the hospital campus or new location? What is the expectation for the future now that inpatient and emergency services have closed?

- iii. What is the current status of the residency program? How has the change in license affected residency slots and location of residents? If the number of residents is reduced, how will this impact capacity to provide primary care services and how will this be addressed?
  - iv. Are you able to provide data on number of patients that have officially been transferred to other primary care sites within CNE or other primary care providers? What steps were taken to avert or mitigate any adverse impacts, e.g., longer wait times for appointments, increased panel size for providers, etc.?
- b. Emergency department services – how are the communities' needs for emergency services being addressed?
- c. Outpatient services – In reviewing the public comments regarding closure, there were several comments about the loss of hospital based outpatient services, e.g., chemotherapy treatments. What outpatient services were offered prior to closing? Where are patients receiving services offered through MHRI's outpatient departments that are now closed? What steps have been taken to ensure access, e.g. transportation? What has been the impact on wait times to get into the existing outpatient services?

4. As part of our scope of work, JSI will look at baseline measures (prior to closure) and post-closure data to assess changes in health care access and system capacity. Working through RIDOH, JSI hopes to obtain summary-level data directly from CNE where not publicly available. In particular, we would want to look at data for primary care services and outpatient services, before and after the license transfer. JSI would work with CNE staff to define data requests and identify best sources. Specific data requests would include:

- a. Number and distribution of patients accessing primary care services by service type (internal medicine, family practice, pediatrics), by zip code, race/ethnicity, language, age/sex, and insurance.
- b. Number and distribution of patients accessing outpatient services for each service type, by zip code, race/ethnicity, language, age/sex, and insurance.
- c. What other data do you feel is important – 3<sup>rd</sup> next available appointments for primary care and outpatient specialty services, patient satisfaction survey results?

5. Community health needs

- a. What do you see as the major health needs of the population living in communities served by the hospital (primarily Pawtucket and Central Falls)? What health care and social services are most needed to address those needs? What are the barriers to accessing those services?

- b. In addition to the actions you are taking, what strategies do you feel are needed in the short-term (now)? What strategies are needed to address the longer-term impact?
- 6. Wrap-up
  - a. Are there other areas that we did not discuss today that you feel are important to discuss now?
  - b. Are there other (individuals within CNE and/or other organizations) that we should include in key informant interviews?

## *MHRI Closure Impact Assessment: Discussion Guide for Consumer Focus Groups*

### **Introduction:**

1. Welcome - Hello, my name is \_\_\_\_\_ and I am a consultant with John Snow, Inc. (JSI). I will be moderating the focus group today. I am joined by my colleague \_\_\_\_\_ who will be taking notes. Before we get started, could each of you introduce yourselves, first name only is fine, and write name and town where you live on the name tent in front of you. We will not be using names in our report. Please help yourself to refreshments. (If recording, let them know we are recording and used only for our reference and get okay).
2. Format
  - a. Purpose of focus group - Thank you for agreeing to participate in this focus group. Hearing about your (and your family member) experiences will help us to understand the impact of the closure of Memorial Hospital of Rhode Island (inpatient and emergency department on January 1, 2018) on your ability to access health care services and the long-term impact on your health and well-being, and that of the broader community serviced by MHRI. Your responses will be part of the research conducted by JSI to assess the long-term impacts of the community and health care providers related to closing of MHRI.
  - b. Project purpose – JSI, is a healthcare consulting organization. We are headquartered in Boston but have an office in Providence. JSI has been engaged by RIDOH to support this assessment, which was included as one of the conditions of closure.
  - c. Structure of the focus group discussion - JSI has prepared a guide to facilitate this discussion which we will use to ensure that all participants have the opportunity to share their thoughts and to make sure we gather information in the same way across the various focus groups being conducted. We will also be flexible to explore topics as they come up in our conversation.
  - d. We would like a chance to hear from everyone, so there may be times where I need to interrupt or cut you off a bit to make sure we have time to hear all of your voices. Please forgive me in advance for being rude. I will do my best to give everyone sufficient time to speak.
  - e. Confidentiality – As a reminder, we will not attribute findings from any one individual, unless of course you would like us to. We will maintain confidentiality but cannot guarantee anonymity. We will use what we hear in this session collectively to inform our analysis and recommendations.

- f. Does anyone have questions or concerns about the focus/purpose of the project? If so, what are those? (Answer questions and note concerns).

### ***Questions***

1. Understanding your relationship to MHRI
  - a. Can you tell us about the services you (or your family member) received at Memorial Hospital campus prior to the Hospital closure (probe: inpatient, emergency, lab, infusion, other)? What was your experience? How did you access those services - walk, drive, public transportation, other?
  - b. What has been the impact of closure on your ability to access services? Where do you go for services no longer provided on Memorial Hospital campus (probe: inpatient, emergency services, lab, infusion therapy, other)? How do you get to those services?
  - c. For those of you that use the Care New England Medical Group located at 111 Brewster Street in Pawtucket (Family Care Center, Internal Medicine, Family Practice, Express Care Clinic), can you tell us about the services you (or your family members) receive there prior to the closure of the Hospital? Has there been any change after the closure of the Hospital (probe: ability to get an appointment with your primary care provider, access to same day appointment for urgent care needs, etc.)? Have you (or other family members) sought primary care services from other providers because of the closure? If so, where?
  - d. Are you aware of the Care New England Express Health Care Center (available to treat injuries such as cuts, sprains and strains, minor traumas, cold, flu, and headache) located at the Memorial Hospital site? Have you or a family member received services at the Express Care Clinic?
2. Now we would like to ask about the impact on your community as a whole.
  - a. What do you see as the greatest health care needs of your community? What long-term impact do you see on the health needs of the community (if any)?
  - b. Other than a health care provider, what role(s) did MHRI serve to your community (probe: employer, public place to gather, etc.).
  - c. What part(s) of your community do you think have been most impacted by the closure? How so?
3. We would like to understand how the community has responded/adjusted to the closure.
  - a. How has your community responded/adjusted to the closure?

- b. How have organizations that serve your community responded? If so, how? What impact has this response had?  
(PROBE: CHC coverage for primary care, OB, or ER services)
  - c. What other actions can be taken to reduce any negative impacts of the closure - for you and your family and for the larger community? (Any suggestions for improving the clinic or primary care?)
- 4. Wrap up. Before we close, I would like to ask if there are additional comments about what we discussed or other important areas that we might have missed. Probes: I'd like to make sure we hear from everyone, those who we haven't heard from.
  - a. PROBE: What would you like to offer? Would you like to explore that a bit further?
- 5. Thank you for your time and your ability to be open with your thoughts. Thanks to all!

## Appendix F

### Monitoring Measures

*Access measures*

Area	Metric	Source(s)
Primary care	Population per FTE primary care provider (including but not limited to service area)	RIDOH Office of Primary Care
	Annual number of visits provided by Family Care Center, Internal Medicine Clinic, Walk-in Clinic and Specialty Clinics. (by physician and residents)	CNE
	Number of residents being training in Family Medicine residency program and Internal Medicine residency program	CNE
Emergency/urgent care services	Emergency room visits per year by hospital  Average wait time  Number leaving without getting service  EMS average trip time	Collected by RIDOH from hospitals  EMS
Inpatient services	Hospital diversions  Occupancy rate by hospital and service within hospital	Collected by RIDOH from hospitals
Patient navigation	Number of Family Care Center / Internal Medicine Clinic receiving navigation support	CNE internal records

*Health status/chronic care management*

Area	Metric	Source(s)
Chronic disease burden	PQI scores for service area population compared to state (chronic and acute rates)	RIDOH

*Social determinants of health*

Area	Metric	Source(s)
Income	Percentage household at FPL, 200% FPL within service area	US Census
Employment	Percentage unemployed within service area	US Census
	Demographic profile of CNE employees (to demonstrate diversity and hiring of qualified candidates residing within the service area)	CNE Chief Diversity Officer
Health care access	Percentage with health insurance within the service area  Percentage with private vehicle within the service area	American Community Survey  US Census
Housing stability	Percentage of renters with rent at or above 30% of income	US Census
	Percentage of homeowners with mortgage at or above 30% of income	US Census