Medicine Service Line

Process

Members

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- Irisbel Guzman Sanchez, Program Analyst, VISN 1 Informatics

The Task Force subgroup on Medicine was led by Dr. Ronnie Marrache, the Assistant Medicine Service Line Lead for VISN 1, and was made up of multidisciplinary subject matter experts in Medicine from both the Manchester VAMC and other sites across VISN 1. Additionally, Dr. Ronnie Rosenthal, the VISN 1 Surgical Service Line Lead, was included to provide insight into how Medicine Service and Surgical Service can work together to better serve all the health needs of the Veteran population.

In developing their recommendations, the subgroup members reviewed data on the current state of Medicine provided at the VAMC's as well as anticipated trends in the Veteran population and the Medicine service line workload moving forward. The group completed site visits to the Manchester VA on August 24th and September 12th. In addition, local subgroup meetings (either in person or electronically) were set up to get more local input. The VISN Medicine Service also had weekly meetings (comprised of the stakeholders) to help construct the various options to be presented to the task force. Finally, the group reviewed policies and procedures related to Medicine Service Line currently in place at the National and VISN levels, as well as locally at the VAMC. Appendix A contains a complete list of data sources used by the Medicine subgroup.

The subgroup presented its preliminary analysis to the full Task Force at the face to face meeting on October 4, 2017 and final analysis on November 1, 2017.

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Current Status – Manchester Medicine Service Line

Number of unique patients and encounters in Medicine are shown below. Overall there has been 8% growth in Medical specialty patients and workload over the past 5 years. This growth has continued, even though the total number of Veterans in the geographic area has declined.

The total square footage of Medicine Specialty at the VAMC is included in a table below. Also shown below is the square footage recommended under current VHA guidance for the current Medicine workload. At the Manchester VA, the Department of Medicine services are split between 2 non-contiguous floors.

Table 1. 5 Year Growth – Manchester Medicine Service Line Outpatient Uniques

5 Year Growth- Manchester Medicine Service Line Outpatient Uniques						
CLINIC	FY13	FY14	FY15	FY16	FY17	
Cardiology	1,176	1,711	1,779	2,017	1,847	
Dermatology	3,527	3,443	3,598	3,773	3,861	
Emergency	6,371	6,333	6,018	6,390	6,554	
Endocrinology	722	716	716	805	881	
Gastroenterology	2,569	2,494	2,442	2,438	2,234	
General Medicine	2,633	2,571	3,370	3,712	3,372	
Hematology/Oncology	932	909	853	829	853	
Infectious Disease	92	102	89	114	109	
Neurology	1,069	1,071	1,252	1,333	1,370	
Pulmonary/Respiratory Disease	2,015	2,057	1,766	1,987	1,828	
Rheumatology	238	237	154	311	457	
TOTALS MEDICINE SERVICE	21,344	21,644	22,037	23,709	23,366	

Table 2. 5 Year Growth – Manchester Medicine Service Line Outpatient Uniques

5 Year Growth- Manchester Medicine Service Line Outpatient Uniques						
Portsmouth	FY13	FY14	FY15	FY16	FY17	
Endocrinology	12	22	25	14	0	
Rheumatology	0	0	0	0	1	

5 Year Growth- Manchester Medicine Service Line Outpatient Uniques						
Conway	FY13	FY14	FY15	FY16	FY17	
Endocrinology	0	0	0	1	3	
Rheumatology	0	0	0	0	5	

5 Year Growth- Manchester Medicine Service Line Outpatient Uniques						
Somersworth	FY13	FY14	FY15	FY16	FY17	
Endocrinology	55	12	12	8	2	
Rheumatology	0	0	0	0	1	

5 Year Growth- Manchester Medicine Service Line Outpatient Uniques						
Tilton	FY13	FY14	FY15	FY16	FY17	
Endocrinology	53	38	16	9	7	
Rheumatology	0	0	0	0	5	

Table 3. 5 Year Growth – Manchester Medicine Service Line Outpatient Encounters

5 Year Growth- Manchester Medicine Service Line Outpatient Encounters						
CLINIC	FY13	FY14	FY15	FY16	FY17	
Cardiology	2,705	3,358	3,689	4,502	3,917	
Dermatology	7,691	7,340	8,270	7,942	8,163	
Emergency	13,202	12,354	11,299	12,000	12,488	
Endocrinology	1,804	1,830	1,724	1,882	1,985	
Gastroenterology	4,256	3,983	3,994	3,695	2,958	
General Medicine	3,889	3,231	4,998	6,044	5,361	
Hematology/Oncology	4,746	4,826	4,744	4,972	5,253	
Infectious Disease	207	198	199	233	203	
Neurology	1,949	1,964	2,308	2,807	2,851	
Pulmonary/Respiratory Disease	2,015	3,733	2,804	3,083	2,795	
Rheumatology	238	389	266	588	950	
TOTALS MEDICINE SERVICE	42,702	43,206	44,295	47,748	46,924	

Table 4. 5 Year Growth – Manchester Medicine Service Line Outpatient Encounters - CBOCs

5 Year Growth- Manchester Medicine Service Line Outpatient Encounters						
Portsmouth	FY13	FY14	FY15	FY16	FY17	
Endocrinology	12	22	31	18	0	
Rheumatology	0	0	0	0	1	

5 Year Growth- Manchester Medicine Service Line Outpatient Encounters						
Conway	FY13	FY14	FY15	FY16	FY17	
Endocrinology	0	0	0	1	3	
Rheumatology	0	0	0	0	5	

5 Year Growth- Manchester Medicine Service Line Outpatient Encounters						
Somersworth	FY13	FY14	FY15	FY16	FY17	
Endocrinology	55	29	45	22	2	
Rheumatology	0	0	0	0	1	

5 Year Growth- Manchester Medicine Service Line Outpatient Encounters						
Tilton	FY13	FY14	FY15	FY16	FY17	
Endocrinology	89	55	27	23	15	
Rheumatology	0	0	0	0	8	

Data Source: Encounter Cube Run Date: Nov 13, 2017

Table 5. Manchester Medicine Service Line Current Square Footage

Manchester Medicine Service Current Square Footage			
Site	**SF**	**Needed Space**	**Space Gap**
Cardiology	2178	7500	(5322)
Urgent Care	4433	7500	(3067)
Sleep Lab	1446	Unknown	Unknown
Endoscopy	6000	0	0
Hematology/Oncology	0	3510	(3510)
Gastroenterology		Specialty Care	
Endocrinology		Specialty Care	
Infectious Disease		Specialty Care	
Neurology		Specialty Care	
Pulmonary/Respiratory Disease		Specialty Care	
Rheumatology		Specialty Care	
Dermatology		Specialty Care	
Specialty Care	11700	14178	(2478)
TOTALS Medicine Service	25757	32688	(6931)

Projected Workload – Manchester Medicine Specialty

Below are workload projections for the North Market, which includes New Hampshire and Vermont for the Primary Care – Geriatrics – Urgent Care data set The data was generated in July 2015, and the 5, 10, 15, and 20 year marks refer to 2020, 2025, 2030, and 2035, respectively. In 2025, the projected workload is projected to grow by 18% over 2015 for this set of services and remain stable in the ensuing 10 years.

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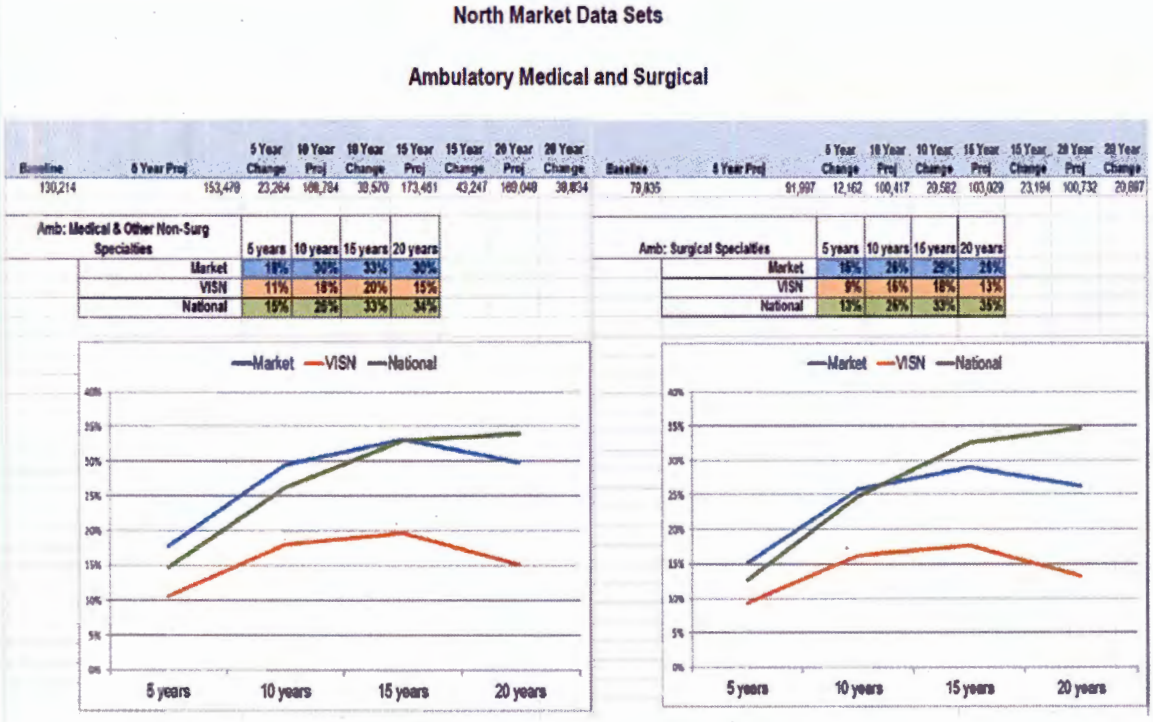
Figure 1. North Market Data Sets
AMBULATORY MEDICAL & SURGICAL PROJECTIONS



Facility: North Market
Data Source: VSSC, Utilization Projections by Geography by 2014 Cube
Run Date: July 20, 2017

The table below includes space calculations for the VAMC and each of the affiliated sub-specialty clinics based on an estimated workload for 2025. The projected workload was based on the trends in growth over the last five years.

Table 6. Medicine Service Line Space Estimations

SPACE ESTIMATIONS				
Site	**2025 Projected Workload**	**2025 Needed Space**	**Space Gap**	**Space Gap as % of Need**
TOTALS Medicine Service	See above	39225	13468	35%

Options

In addition to the specific recommendations below, there are certain principles that the Medicine Subgroup supports as part of the future of VA Medical Specialty in New Hampshire. It supports the continued development of a Med/Surg hospital with enhanced endoscopy capability including expansion of Emergency Services.

Option 1: Full Service Hospital

Build a full service Med/Surg Hospital with Enhanced Endoscopy Capability. MultispecialtyClinic with Ambulatory Surgery and Medicine procedures. Full Service Emergency Room.

- Facility would provide intermediate surgery and medical services in a small inpatient (25-30 beds) footprint.
- Limited critical care services through a combination of on site and eICU would be available.
- Full service emergency services could be accommodated in this model. Limited linkages with the community for complex surgical and medical procedures. eICU and Tele-Stroke services in ED
- Strategic alliances with local hospitals and VISN 1 (Boston) for complex care

Table 7. Pros and Cons of Option 1

PROS	CONS
1. The public, Veterans and the majority of the Manchester specialty medical staff want a full service Veterans hospital for New Hampshire. 2. Recruitment and retention of needed medical and surgical subspecialties is enhanced by an atmosphere whereby the needed specialists may practice the full scope of their skill set. 3. A full service hospital enhances the possibility of a formal academic linkage which then promotes a culture of continuous improvement. 4. Veterans are cared for in a more vertical model with less interruptions and breaks in their care. 5. The VA has proven its ability to control medical costs much better than the community. When we send patients out in the community we run the risk of losing the economies of scale 6. A full service on site facility does not require considerations of local capacity/willingness to partner of local facilities.	1. Cost. While most options will result in significant capital expenditures, this option will most certainly result in the greatest. 2. Building a new facility does not alone result in improvement, culture change, or guarantee recruitment. 3. Significant logistical hurdles not the least of which will be the interim plan while a facility would be built. 4. Veterans would have to travel to Manchester for services located at the new facility. 5. Potentially duplicates services both in the VISN and the local community (although the latter is of lesser concern to the VA). 6. National Surgery Office Infrastructure requirements can be daunting but if tele-medicine were embraced this could be mitigated. 7. Lack of academic residency program to support 24/7 inpatient operations

Option 2: Multispecialty Clinic – Community Partnership 2A

On-site Multispecialty clinic with Full Endoscopy capability; more advanced care delivered via Community Partnership (VA providers in non-VA setting)

- Build a Multispecialty Clinic with Ambulatory Surgery on the Manchester site with integrated outpatient surgical services. Full service endoscopy (EGD, Colonoscopy, Bronchoscopy, Cystoscopy, ENT procedures, etc.) would be offered.
- A full service Urgent Care Center with strategic community alliance for after-hours service.

- Strategic alliances with local hospitals and VISN 1 partners (Boston VA) for inpatient admissions, complex surgery, intensive care (non-VA space + VA providers).
- Staffed by VA physicians (e.g. hospitalists and selected subspecialties) and strategic coverage by fee inpatient consultant providers.
- Case management would be provided by onsite VA staff

Table 8. Pros and Cons of Option 2

PROS	CONS
1. Requires less capital expenditures and likely less regulatory hurdles. 2. Provides for the majority of what the local veteran population and public desire. 3. Would be a good model for the VA to potentially under-utilized services in the community. 4. Would embrace a model of veterans receiving primary care at their local CBOC, the more advanced services at this enhanced Manchester site and then more complex care in the community. 5. Still leads to a new facility that allows subspecialists to practice nearly (but not completely) to the full scope of their specialty which aids with recruitment and retention - ability work at the community facility might get some over that hurdle. 6. Easier to implement enhanced ambulatory Manchester services without a full academic affiliation/residency program in place.	1. Local patients still need to travel to other hospitals for complex procedures and simple admissions. The potential for fractured care rises significantly. 2. Permanently limits the growth ability of Manchester. 3. While it may allow for subspecialists to practice mostly to the full extent of their scope it likely will be considered a negative for some in recruitment. 4. Limits potential new academic partnership without inpatient and research facilities. 5. Travel by VA clinicians and staff to the non-VA facility could result in significant inefficiency. 6. Care rendered at the partnered facilities would not be captured by provider productivity databases- ? on how this would affect VA Productivity numbers. 7. VA Clinicians would need a NH license and be privileged at multiple community facilities. 8. Overall a less flexible option. 9. There is no guarantee that community partners want to partner or have capacity to help the VA in a structure that works for the VA.

Option 3: Multispecialty Clinic – Community Partnership 2B

On-site Multispecialty clinic with Full Endoscopy capability; more advanced care referred to Community Partners

- Build a Multispecialty Clinic with Ambulatory Surgery on the Manchester site with integrated outpatient surgical services. Full service endoscopy (EDG, Colonoscopy, Bronchoscopy, cystoscopy, ENT procedures, etc.) would be offered.
- A full service Urgent Care Center with strategic community alliance for after-hours service.
- While Manchester would be staffed by VA employees, the employees at the partnered complex/inpatient facilities would be community based (non-VA space + non-VA providers).
- Case management would be provided by onsite VA staff

Table 9. Pros and Cons of Option 3

PROS	CONS
1. Requires less capital expenditures and likely less regulatory hurdles. 2. Provides for the majority of what the local veteran population and public desire. 3. Would be a good model for the VA to potentially access under-utilized service in the community. 4. Would embrace a model of veterans receiving primary care at their local CBOC, the more advanced services at this enhanced Manchester site and then more complex care in the community. 5. Solves some of the efficiency issues seen with Option #2a. 6. Easier to implement enhanced ambulatory Manchester services without a full academic affiliation/residency program in place.	1. Local patients still need to travel to other hospitals for complex procedures and simple admissions. The potential for fractured care rises significantly. 2. Permanently limits the growth ability of Manchester. 3. While it may allow for subspecialists to practice somewhat to the full extent of their scope it likely will be considered a negative for some in recruitment given that more advanced clinical work is sent out. 4. Limits potential new academic partnership without inpatient and research facilities. 5. While local staffing expenditures would be lower, Community Care expenses would be significantly elevated. 6. VA would be less able to compensate for cost structures of the community and this would likely in the long term be a costly solution. 7. There is no guarantee that community partners want to partner or have capacity to help the VA in a structure that works for the VA.

RECOMMENDATIONS

Recommendation: Full Service Hospital

The Medicine Service Line recommends that the Department of Veterans Affairs aggressively pursue the construction of a modern full service hospital on the campus of the Manchester VAMC, Manchester, NH site. This hospital would provide between 25 and 30 inpatient beds, a 15 bed emergency room, full service medical and surgical endoscopy as well as intermediate inpatient surgery. We would also recommend that a minimum 12 to 15 bed inpatient psychiatric unit bed be constructed on site as well to provide inpatient psychiatric care to appropriate patients. Department of Veterans Affairs data (previously supplied) supports this.

Based on the 2010 Census, the state of New Hampshire has a population of 1.316 million. The top most populous cities in New Hampshire are (in descending order): Manchester (109565), Nashua (86494), Concord (42695), Dover (29987), Rochester (29752), Keene (23409), and Portsmouth (20779).

These seven cities comprise of a total population of 342,681 or 26% of the state of New Hampshire. The six cities (Manchester excluded) average a 43 minute drive from Manchester with Nashua and Concord tied for the closest at 20 minutes and Keene the farthest at 1.25 hours.

A "heat map" of veterans (from the Census Bureau) reveals the highest density of veterans is concentrated in the following areas: Manchester, Nashua, Concord, Dover and Rochester. There are 112,790 veterans in New Hampshire that could benefit from the Manchester VAMC.

A full service hospital would provide the very best in modern health care for veterans, allow for the establishment of a formal academic affiliation, the ability to maximize recruitment possibilities for quality clinicians, and provide a venue for VA clinicians to practice the full range of their specialty.

A full service hospital would likely result in an increase in veterans accessing the system that previously had no choice but to use the community because the services were not available.

Travel is brought up frequently (and will still be an issue), but data would suggest that the majority of veterans live within a reasonable distance from Manchester and would be able to use this new facility. A robust transportation network could easily solve some of these issues.

While this is likely an expensive option, it will provide the needed care for the veterans of New Hampshire and the northeast well into the middle of this century. Construction of multispecialty CBOC with an Ambulatory Surgical Center does not solve the very real problem of fractured care and, in fact, makes it worse.

There is no guarantee that the community can reliably supply the needs of our veteran population now or into the future. The VA – not the community – has proven its ability to control long term costs.

Appendix A – Data Files Reviewed

Process: Data File Examples Reviewed

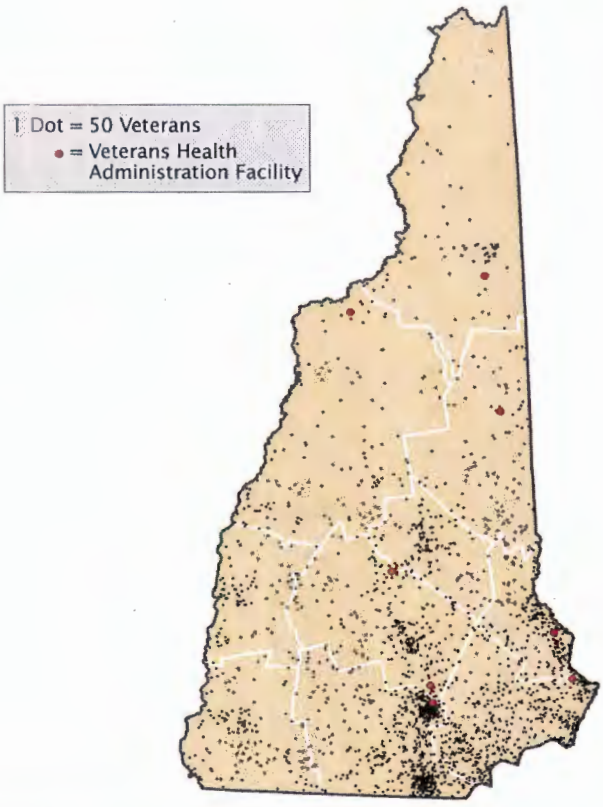
(Please see Service line Lead analysis folder for full list of documents)

- 1 Year & 90 day Potential Event Care Assessment Need Score Manchester
- Manchester Non-VA Outpatient Medicine
- Utilization by Geography
- Manchester Medicine Specialty Appointments FY16 and 17
- Manchester Patients Discharged from other VISN 1 Facilities FY 2016
- Manchester Inpatient Scenarios data
- Manchester Veterans with a VA CITC Discharge in FY16
- Manchester Veterans with a VA Inpatient Discharge in FY16
- Non VA Manchester by ICD and CPT
- SL Manchester Encounters FY 16 and 17
- VISN 1 Discharges with DRG Weighted Value
- 2016 VA Enrollee Health Care Projection Model- Base Year 2015
- NH Inpatient Model Data

VETERANS HEALTH ADMINISTRATION

Appendix B – U.S. Census Heat Map

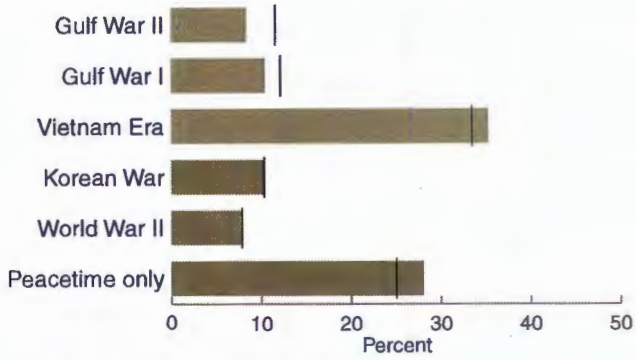
Veteran Statistics | New Hampshire



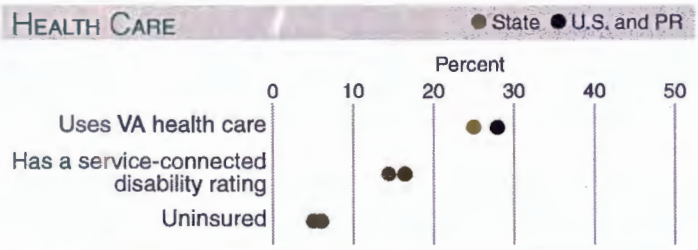
	New Hampshire	United States
Veteran Population	**112,790**	**21,369,602**
Percent female	7.4	7.3
Unemployment rate for veterans	3.8	5.3
Number of homeless veterans	171	49,865
Median household income (In 2014 inflation-adjusted dollars)	$69,664	$61,884
Number of VA* facilities	8	1,356
Number of veteran-owned businesses	16,141	2,540,706

* VA = Department of Veterans Affairs

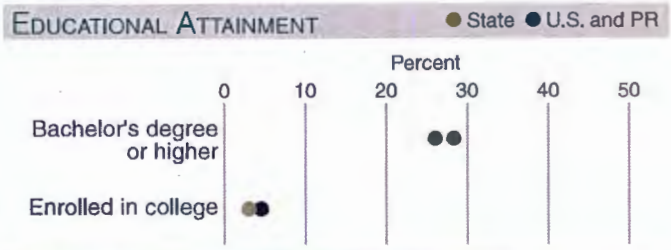
Period of Service



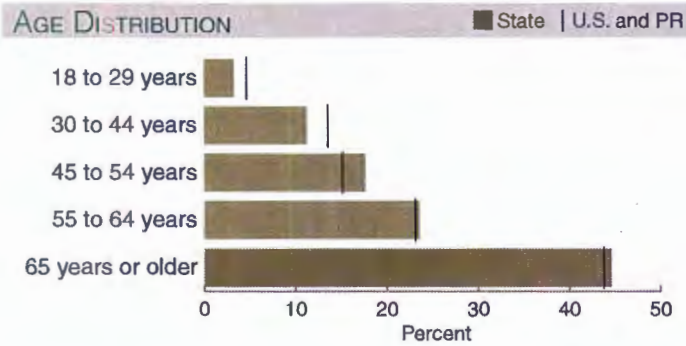
Health Care



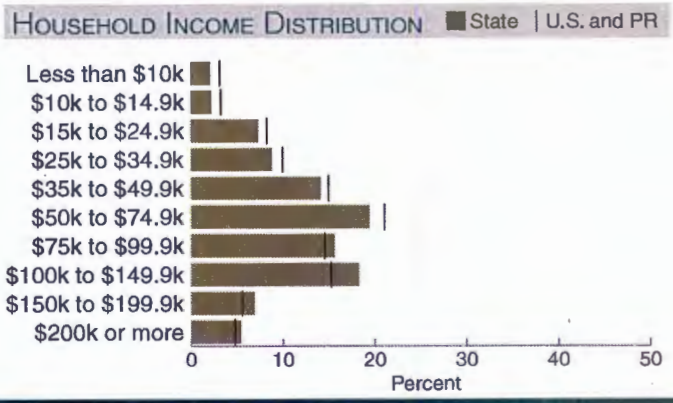
Educational Attainment



Age Distribution



Household Income Distribution



United States Census Bureau

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov

Sources: U.S. Census Bureau, 2009–2013 American Community Survey and 2012 Survey of Business Owners; Bureau of Labor Statistics, 2014 Current Population Survey; U.S. Department of Housing and Urban Development, 2014 Annual Homeless Assessment Report to Congress; and Department of Veteran Affairs.
www.census.gov/library/infographics/veterans-statistics.html