Harrington
HEALTHCARE SYSTEM
Total Local Care

Community Benefits Report

2016

Appendix List

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Background

In 2016, Harrington began a process for updating its community Health Needs Assessment (HNA). In addition to a new survey, Harrington decided to collect general demographic data from the US Census, CDC and other nationally-recognized organizations. Additionally, we would use our hospital reporting software to collect and analyze patient care data, including emergency room visits and oncology patient statistics.

Over the summer, Harrington's Marketing and Business Development departments began vetting local companies to perform a new HNA. We also asked several members of the Massachusetts Hospital Association team for recommendations through a ListServ provided by the MHA. During this process, the Marketing Department kept in communication with our Community Health Network Area (CHNA5) leaders and a key group of internal Harrington employees to inform them we would be conducting a new survey.

Harrington selected DataStar, Inc., out of Waltham, MA, to perform a robust survey in the fall of 2016. Our goal was to collect 500 responses. The survey was available in English and Spanish.

Survey Implementation

Harrington took an active role in creating a new survey. We referred to our 2013 form, but made several changes as the climate and health of our community has changed significantly over the past few years. DataStar worked to create an improved survey (*Appendix A*) that consisted of 19 questions, many of which were multiple choice (multiple answers accepted) and a number of single-response demographic questions.

The survey was distributed electronically to a number of internal Harrington employees, stakeholders, business leaders and Board members.

In addition, an internal database of approximately 15,000 patients was collected for email use. Harrington Physician Services' (an affiliate of Harrington HealthCare System) report included any patient 18 and over who had been in the system in the past 18 months; Harrington Hospital's report included any patient 18 and over who had been discharged in the past 12 months.

The link to the survey would also be shared on social platforms with a concentrated reach on Facebook to adults in our 21 zip codes.

DataStar provided Harrington with specific tracking URLs for the survey, both for social media and internal email communication.

Finally, we shared the information with our CHNA and asked all our members to not only participate in the survey, but offer it to their local community groups and clients. We suggested interested individuals be provided with the tools or technology needed to complete the survey.

Survey Results

The survey began November 9 and closed on November 30.

In total we collected 591 responses; 367 female and 205 male. We collected 94% of our responses from our email database reach, 4% from our internal audience electronic letter, and 4% from our targeted Facebook campaign.

We were happy to receive a higher percentage of females vs. males (62% to 35%) who completed the health needs assessment. Health trends indicate women are the healthcare decision makers in the household, and by capturing those who influence others in their family, we felt confident there was a level of education and interest in sharing thoughts about health deficits.

The average age of the participant was 59. Our highest age bracket for responses was the 60-69 years old with 195 responses, followed by 50-59 years old with 135 responses. Coming in third were those individuals 70 and over (130 responses).

The top six zip codes in which respondents lived were Southbridge, Charlton, Sturbridge, Webster, Dudley and Spencer.

When asked for average household income, 549 responded, with the majority (39%) selecting $75,000 or more.

The survey asked individuals to identify top health concerns across four different demographics: the community at large, women's health, pediatric, adolescent and senior health.

Community Health Concerns
- Obesity
- Cancer
- Opioids
- Depression / Behavioral Health
- Diabetes

For overall community health, 68% of participants cited obesity as a top health concern, followed by cancer (61%), opioid/heroin addiction (58%), mental health disorders/depression (57%) and diabetes (54%) (*Appendix C*).

The top five survey answers in additional categories were as follows:

Pediatric Health	Adolescent Health	Women's Health	Senior Health
- Specialists	- Opioids	- After Hours Support	- Alzheimer's/Dementia
- Behavioral Health	- Depression / Behavioral Health	- High Risk Pregnancy	- Heart Disease
- General Surgery	- Teen Pregnancy	- Doula / Midwifery	- Diabetes
- Lyme Disease	- Obesity	- Dedicated OB Services	- Cancer
- Pediatrician Volume	- ADHD & Related Conditions	- Parenting Support Classes	- Depression

We also asked participants; overall, what changes they thought would make the most impact in improving the health of the community. The top five suggestions were:

- **Creating more recreational facilities**
- **Availability of healthier food**
- **Better access to primary care physicians**
- **More job opportunities**
- **Better access to mental health services**

See Appendices C-G for additional charts.

Troubleshooting

While we felt our survey was successful, we do believe there could have been a better cross-section of our communities.

Harrington is based in Southbridge, which has a 26.6% Latino population (*2010 US Census*), yet the majority of our respondents (552) identified as Caucasian. We did receive about 18% of our responses from the Southbridge zip code. With only 1% of our survey being completed in Spanish, we felt that population was a challenge to engage in this project.

We did identify that many Latinos potentially may not have access to email and computers, and/or were not captivated enough by social media to participate in the survey. We discussed providing paper surveys and having a 'grassroots' team out in the community to collect responses but ultimately found this method labor-intensive and often impractical.

We do wish there was a better representation from the younger generation. Only 131 answers were generated from individuals ages 18 to 49. This is a disadvantage to identifying some of the health needs among the younger populations, especially new parents, newly married couples and college-age individuals who have a heavy influence on the future of healthcare in this region. We felt this population was another challenge to engage as many are overwhelmed and overstimulated by marketing and advertising messages.

In asking the respondents about specific populations, there were a fair number of participants who selected that they weren't familiar enough with those services to answer, which left us with a very small representation of those individuals.

Secondary Data

HOSPITAL DATA – EMERGENCY CARE

We pulled data points from our emergency room and our cancer center to identify a small section of our current patient population.

For Fiscal Year 2016 (*Sept. 30, 2015 through Oct. 1, 2016*), Harrington saw just under 39,000 patient visits in its Southbridge and Webster Emergency Departments. Of those who visited, the majority were ages 20-29 (7,328), and female (20,762).

The top five diagnoses in our Emergency Departments for FY2016 included abdominal or pelvic pain, back pain (dorsalgia), chest/thoracic pain, dislocation of joint or sprain and nausea/vomiting. The top ten diagnoses seen in the Emergency Departments comprise just fewer than 30% of the total patient Emergency Department Encounters for Fiscal 2016.

See Appendix H, I for additional data.

Some room for error in these reports: The total patient visits are not unique visits, so repetitive treatments for individuals are included in the aggregate numbers. In addition, the diagnosis counts are based on only the primary diagnosis identified for the patient's visit, which may result in loss of some data for patients who come in with multiple diagnoses.

HOSPITAL DATA – CANCER CENTER

Our Cancer Center data includes all patients who had at least one course of treatment at our Southbridge location from 2014-2016 (to date of collection: November, 2016).

Overall, there has been a slight decline in total number of patients treated, with 2014 totaling 272 vs. 236 (to date, November 2016). There are a number of reasons for this, however, including transfer of treatment, death, completion of treatment or additional specialty services required.

In reporting total cases per zip code from 2014-2015, the top five zip codes for patients receiving treatment included Southbridge, Webster, Dudley, Charlton and Sturbridge.

In comparing cancer diagnoses by gender, for 2015, the top five cancers included breast (60 cases), lung (48 cases), prostate (22 cases), blood and bone marrow (17 cases) and colon (15 cases).

The average age for our cancer patient from 2014-2015 was 60-69, with 143 total diagnosed/treated.

See Appendix J for additional charts.

CENSUS DATA

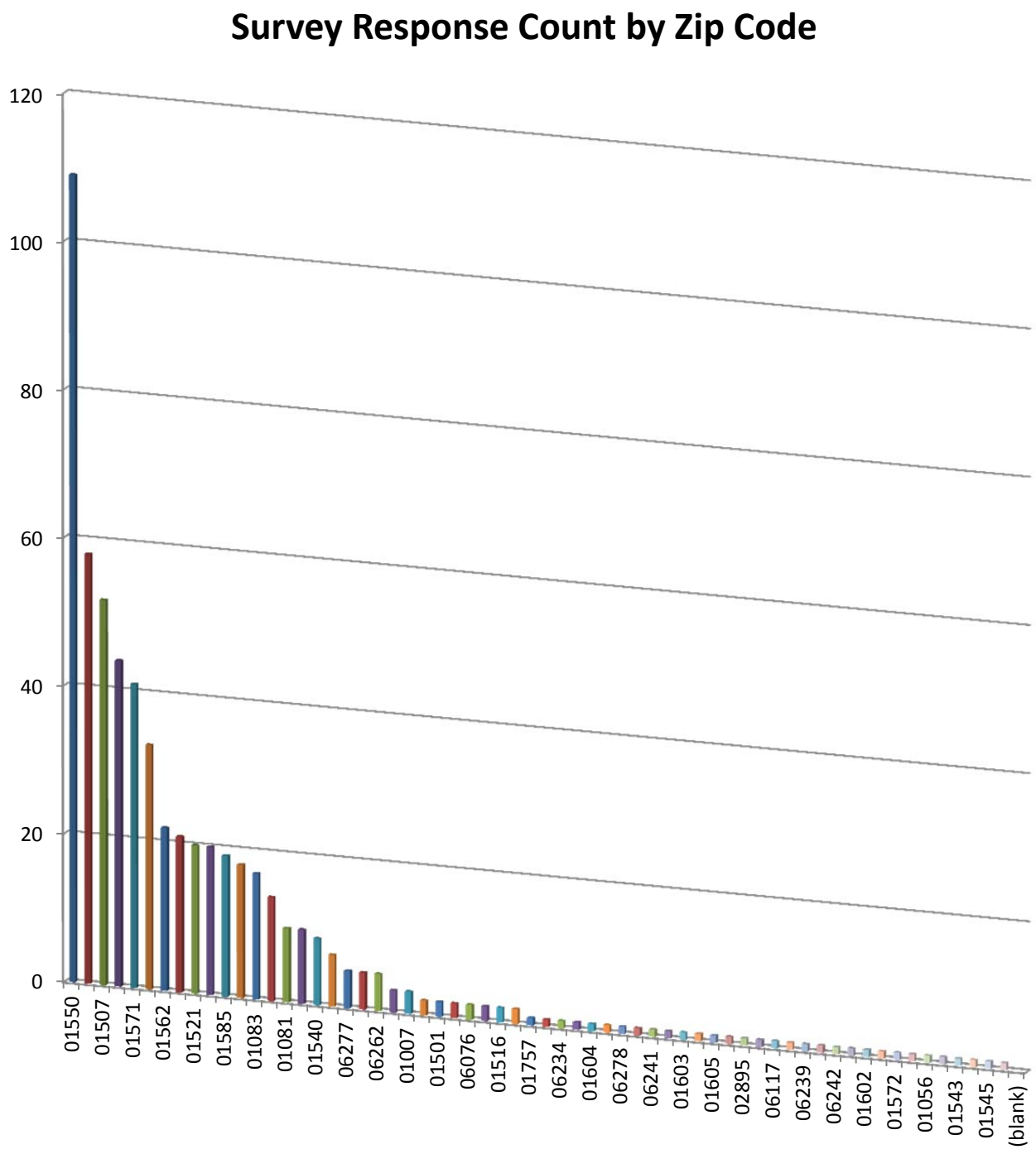
The Harrington HealthCare community is made up of 21 zip codes (*Appendix K*) and approximately 150,000 individuals. Based on data from the Department of Public Health, the leading cause of death for individuals across all 21 zip codes is heart disease with cancer coming in a close second.

Median income for the overall Harrington HealthCare Service area is $58,747 and the median poverty level is 7.6%. In the 21 zip codes, an average of 87.2% of residents over 18 years old have graduated from high school and 23.4% have a minimum of a bachelors' degree.

See Appendix K for demographic data by town.

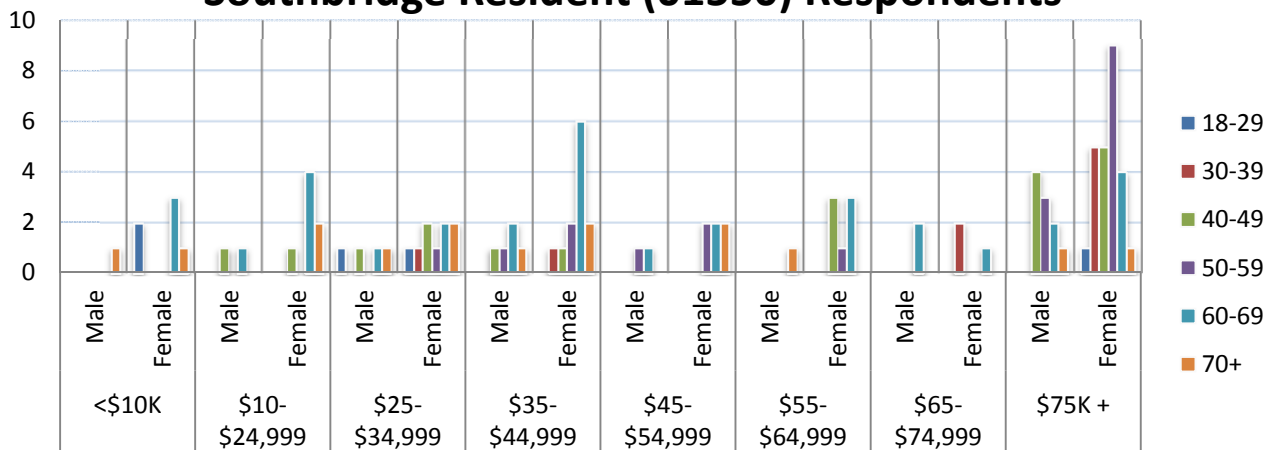
APPENDIX A: 2016 Health Needs Assessment (See attached PDF).

APPENDIX B: Survey Responses: Age, Gender, Income, Zip Code

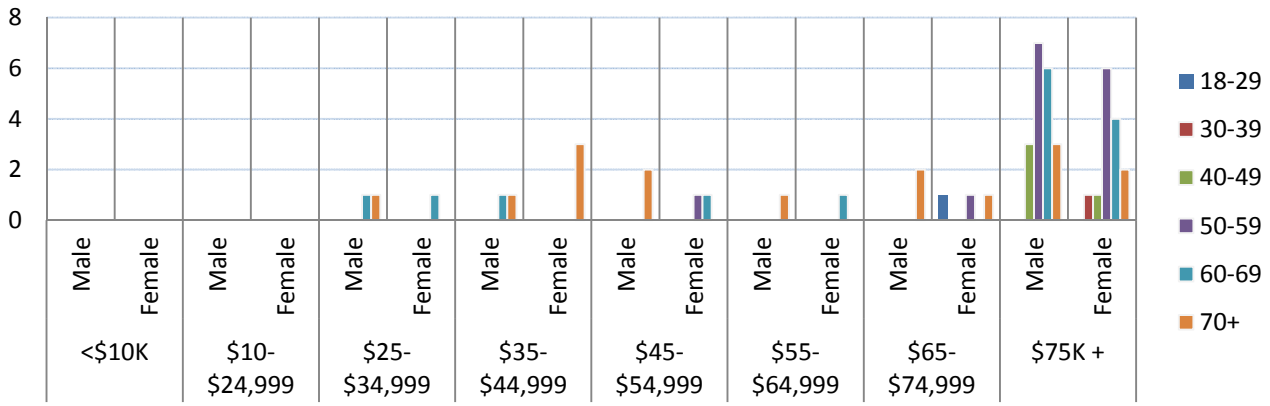


APPENDIX B: Survey Responses: Age, Gender, Income, Zip Code (Cont.)

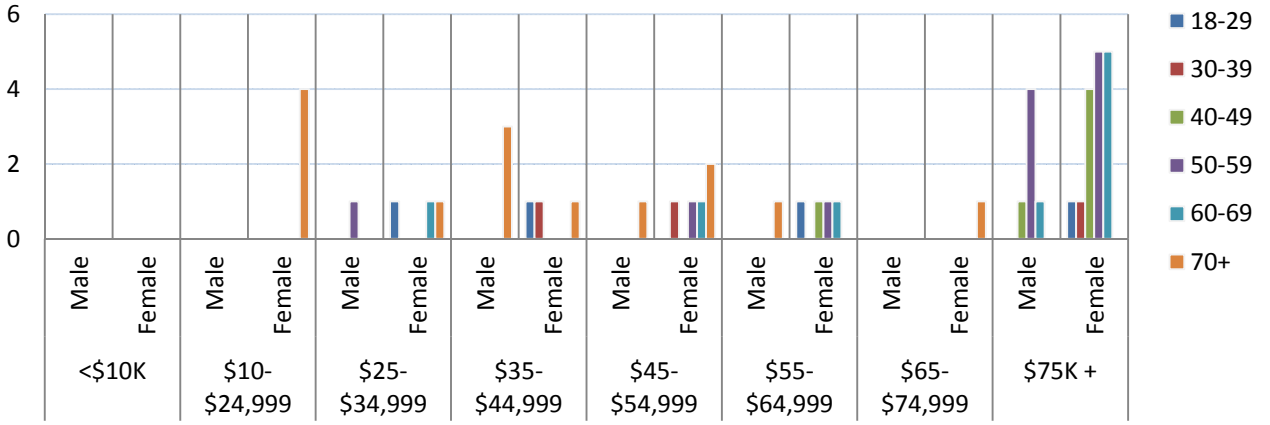
Southbridge Resident (01550) Respondents



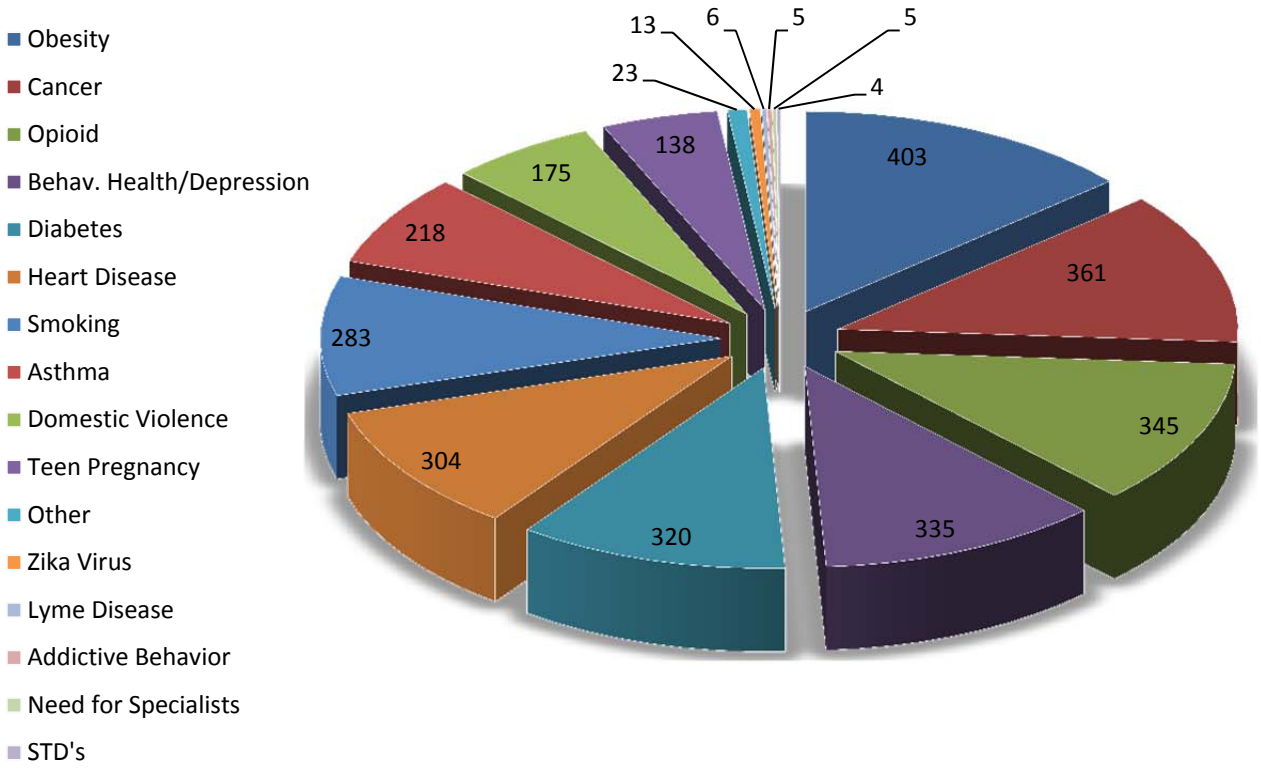
Sturbridge Resident (01566) Respondents



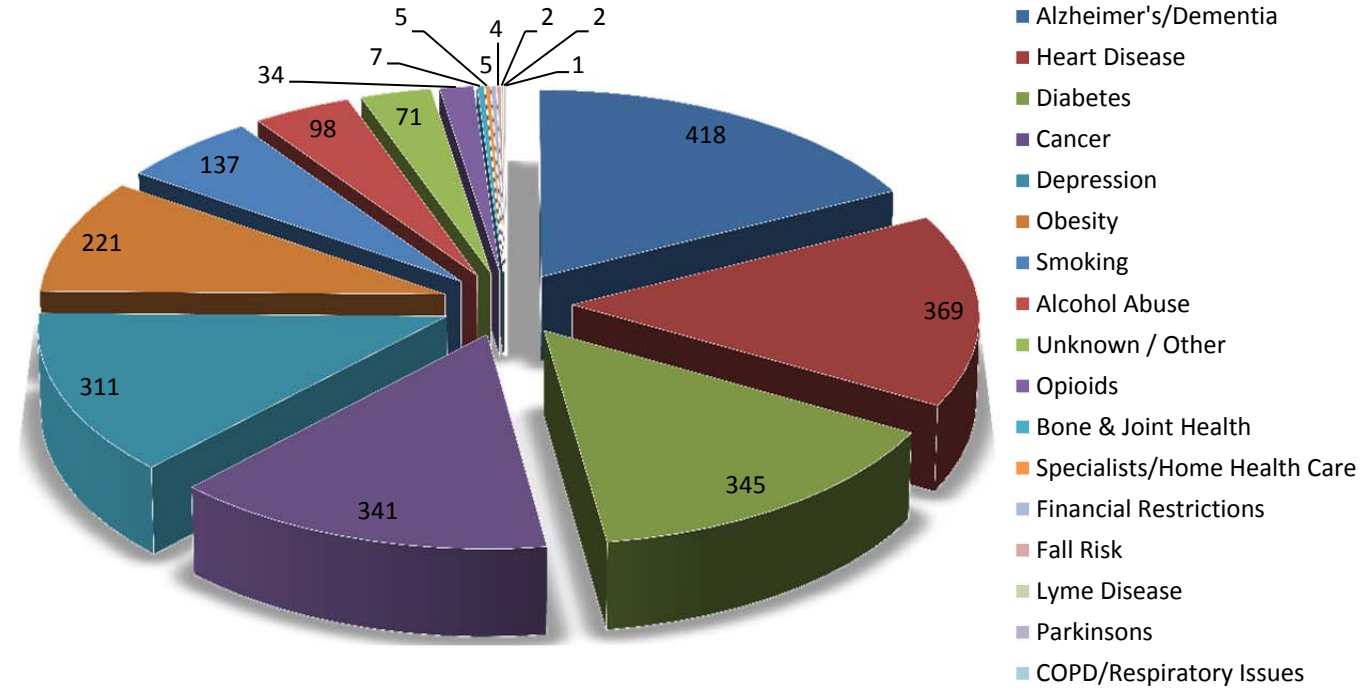
Charlton Resident (01507) Respondents



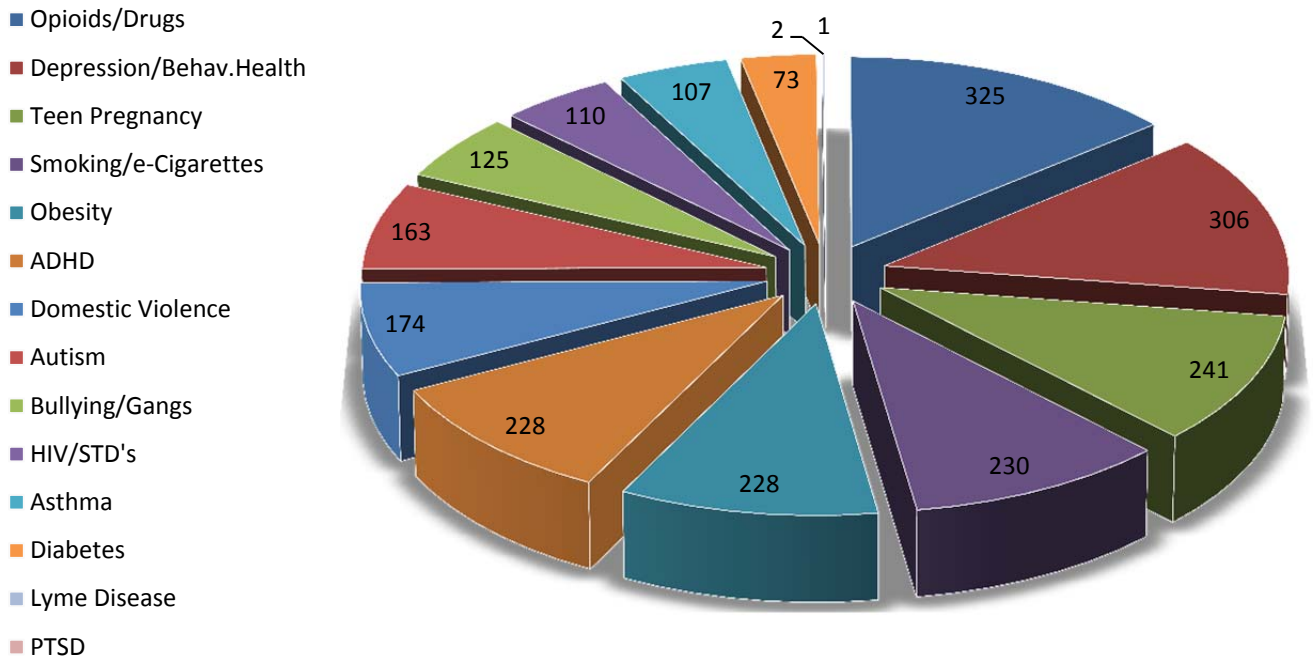
APPENDIX C: Survey Responses: Overall Community Health Concerns



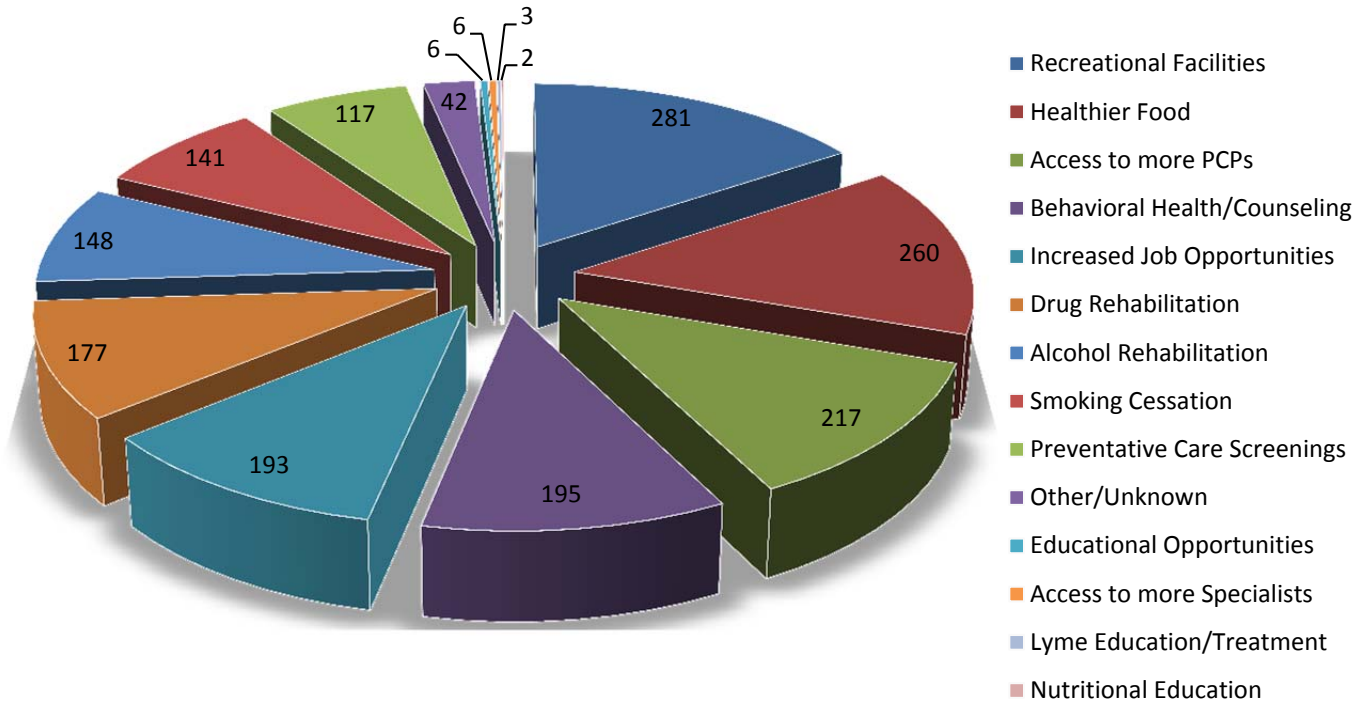
APPENDIX D: Survey Responses: Overall Senior Health Concerns



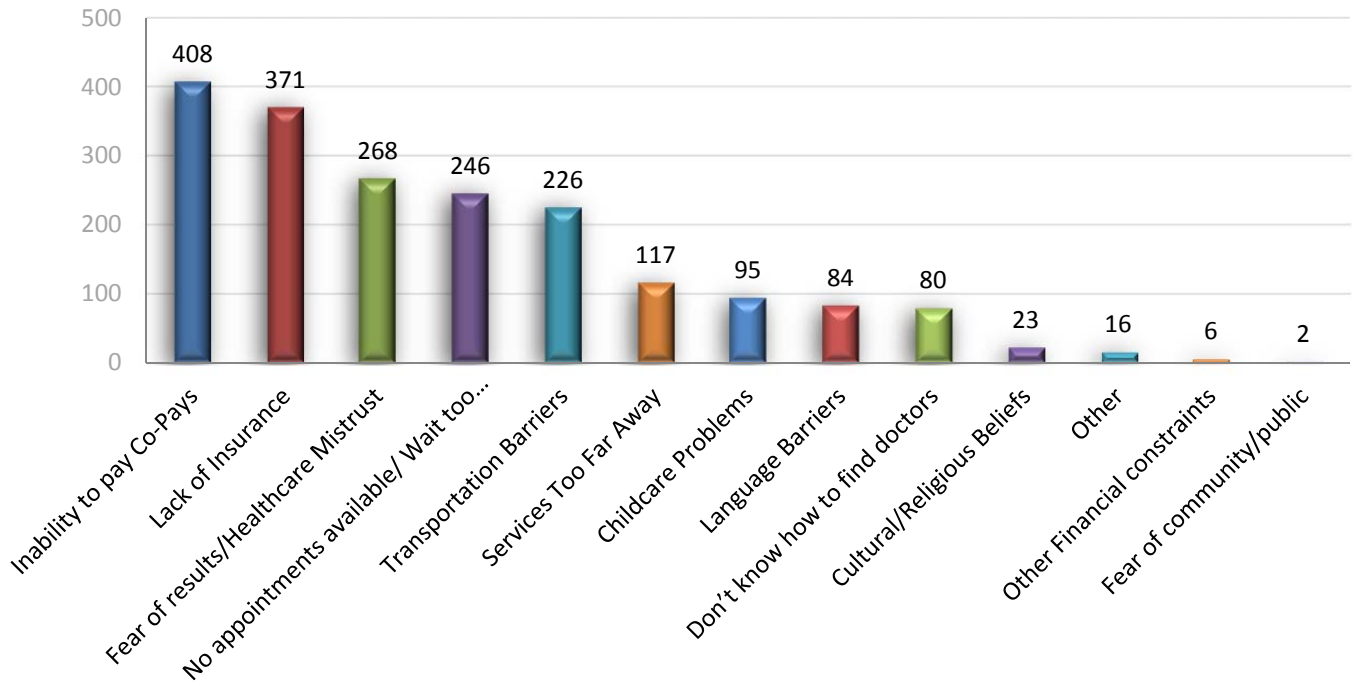
APPENDIX E: Survey Responses: Overall Adolescent Health Concerns



APPENDIX F: Survey Responses: Ways to Improve Community Health



APPENDIX G: Survey Responses: Barriers to Health Care



APPENDIX H: FY2016 ER Visits by Age, Gender

Patient Ages	
<10 yrs old	1958
11-19 yrs old	4154
20-29 yrs old	7328
30-39 yrs old	6092
40-49 yrs old	4923
50-59 yrs old	4631
60-69 yrs old	3049
70+ yrs old	3830
Patient Gender	
Female	20762
Male	17844

APPENDIX I: Top 10 Diagnoses for ER Visits FY2016

Principle ED Diagnosis	Visit Count
ABDOMINAL AND PELVIC PAIN	1906
DORSALGIA	1371
PAIN IN THROAT AND CHEST	1146
DISLOCATION AND SPRAIN OF JOINT	1062
NAUSEA AND VOMITING	1044
OPEN WOUND OF WRIST, HAND AND FINGER	928
OTHER AND UNSPECIFIED INJURIES	847
DISLOCATION & SPRAIN OF JOINTS & LIGAMENTS	828
ACUTE UPPER RESPIRATORY INFECTION	780
OPEN WOUND OF HEAD	643

APPENDIX J: Cancer Center Statistics

2014 CASES													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
OVERALL TOTALS	27	20	15	23	27	30	24	18	31	16	18	23	272
YTD Totals	27	47	62	85	112	142	166	184	215	231	249	272	

2015 CASES													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
OVERALL TOTALS	26	19	25	19	21	18	19	20	15	22	27	28	259
YTD Totals	26	45	70	89	110	128	147	167	182	204	231	259	

2016 CASES													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
OVERALL TOTALS	23	29	20	26	22	25	26	19	23	23			
YTD Totals	23	52	72	98	120	145	171	190	213	236	236	236	

HARRINGTON HEALTHCARE SYSTEM

2014-2015 ANALYTIC CANCER CASES BY AGE GROUP

YR FIRST CONTACT	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80 - 89	90 - 99	TOTAL
2014	1	5	19	54	75	67	38	14	273
2015	2	7	23	56	68	64	32	7	259
OVERALL TOTALS	3	12	42	110	143	131	70	21	532

HARRINGTON HEALTHCARE SYSTEM
2014 ANALYSTIC CANCER CASES
SITE BY SEX

SITE NAME	2014	MALE	FEMALE
PALATE	1	1	0
TONSIL	1	0	1
ESOPHAGUS	7	6	1
STOMACH	3	2	1
SMALL INTESTINE	5	2	3
COLON	15	8	7
RECTOSIGMOID JUNCTION	5	5	0
RECTUM	6	3	3
LIVER & BILE DUCTS	2	1	1
PANCREAS	4	3	1
NASAL CAVITY & MIDDLE EAR	1	1	0
LARYNX	6	5	1
BRONCHUS & LUNG	33	18	15
BLOOD & BONE MARROW	14	7	7
SKIN	5	3	2
BREAST	63	0	63
CERVIX UTERI	1	0	1
CORPUS UTERI	4	0	4
OVARY	5	0	5
PENIS	1	1	0
PROSTATE GLAND	36	36	0
KIDNEY	9	4	5
URINARY BLADDER	20	15	5
BRAIN	3	1	2
THYROID GLAND	2	0	2
OTHER ILL DEFINED SITES	1	1	0
LYMPH NODES	14	4	10
UNK PRIMARY	6	3	3
TOTAL CASES	*273*	*130*	*143*

HARRINGTON HEALTHCARE SYSTEM
2015 ANALYTIC CANCER CASES
SITE BY SEX

SITE NAME	2015	MALE	FEMALE
BASE OF TONGUE	2	2	0
OTHER PARTS OF TONGUE	1	1	0
PAROTID GLAND	3	1	2
TONSIL	3	3	0
NASOPHARYNX	1	1	0
ESOPHAGUS	6	5	1
STOMACH	3	2	1
SMALL INTESTINE	1	1	0
COLON	15	10	5
RECTUM	3	2	1
ANUS & ANAL CANAL	2	1	1
LIVER & BILE DUCTS	4	2	2
PANCREAS	3	1	2
OTHER DIGESTIVE ORGANS	1	0	1
LARYNX	1	1	0
BRONCHUS & LUNG	48	22	26
BLOOD & BONE MARROW	17	7	10
SKIN	9	5	4
BREAST	60	2	58
CORPUS UTERI	3	0	3
OVARY	3	0	3
PROSTATE GLAND	22	22	0
TESTIS	1	1	0
KIDNEY	7	3	4
URINARY BLADDER	11	8	3
BRAIN	4	3	1
THYROID GLAND	8	1	7
OTHER ILL DEFINED SITES	2	2	0
LYMPH NODES	8	5	3
UNK PRIMARY	7	3	4
TOTAL CASES	259	117	142

HARRINGTON HEALTHCARE SYSTEM
2014-2015 ANALYTIC CANCER CASES
ZIP CODE DISTRIBUTION

ZIP CODE	2014	2015	TOTAL
01005	1	0	1
01009	1	1	2
01010	7	7	14
01031	0	1	1
01037	1	0	1
01057	2	1	3
01068	1	0	1
01069	2	1	3
01081	1	2	3
01082	3	0	3
01083	3	5	8
01095	1	2	3
01501	2	2	4
01506	13	9	22
01507	17	21	38
01508	4	4	8
01515	3	10	13
01516	4	1	5
01518	9	7	16
01521	6	9	15
01524	1	1	2
01531	1	0	1
01534	0	1	1
01535	8	13	21
01537	1	0	1
01540	1	6	7
01545	2	0	2
01550	56	52	108
01562	10	14	24
01566	22	15	37
01570	37	28	65
01571	23	21	44
01585	3	6	9
01602	1	1	2
01605	0	1	1
01609	0	1	1
01610	1	0	1
01612	0	1	1
06076	1	0	1
06234	1	0	1
06239	1	1	2
06241	0	1	1
06242	1	0	1
06243	1	0	1
06244	0	1	1
06255	4	0	4
06260	1	2	3
06262	0	1	1
06277	4	6	10
06279	1	0	1
06281	6	2	8
06282	0	1	1
06377	2	0	2
12120	1	0	1
33764	1	0	1
TOTAL	**273**	**259**	**532**

APPENDIX K: Communities Served

Town	Zip Code	Census (2010)
Brimfield, MA	01010	3,609
Brookfield, MA	01506	3,390
Charlton, MA	01507	12,981
Douglas, MA	01516	8,500
Dudley, MA	01571	11,390
East Brookfield, MA	01515	1,323
Fiskdale, MA	01518	2,583
Holland, MA	01521	1,464
N.Brookfield, MA	01535	2,265
Oxford, MA	01537, 01540	11,291
Quinebaug, CT	06262	1,133
Southbridge, MA	01550	16,719
Spencer, MA	01562	11,688
Sturbridge, MA	01566	6,294
Thompson, CT	06255, 06277	9,458
Union/Stafford, CT	06076	12,087
W. Brookfield, MA	01585	4,554
Wales, MA	01081	1,698
Warren, MA	01083	1,405
Webster, MA	01570	15,767
Woodstock, CT	06281, 06262	7,964
		147,563

APPENDIX K: Communities Served: Demographic Data (1 of 3)

	Brimfield	Brookfield	Charlton	Douglas	Dudley	E.Brookfield	Fiskdale
Zip Code	01010	01506	01507	01516	01571	01515	01518
Census (2010)	3,609	3,390	12,981	8,500	11,390	1,323	2,583
Male	1790	1679	6378	4215	5702	647	1107
Female	1819	1711	6603	4256	5688	676	1476
<18 Yrs Old	985	878	3894	2516	3930	339	703
65 & Over	397	458	1000	655	1196	176	359
Median Income	$50,181	$59,587	$82,268	$79,000	$63,433	$61,711	$52,642
Per Capita Income	$23,711	$26,944	$31,601	$30,812	$28,819	$27,888	$29,611
% in Poverty	4.4%	6.1%	5.6%	4.6%	5.6%	3.9%	11.4%
High School Graduate	85.6%	83.2%	86.8%	90.8%	83.4%	92.8%	93.8%
Bachelors or more	27.9%	16.8%	26.4%	24.0%	21.0%	22.2%	33.3%
White alone	97.7%	96.3%	94.2%	95.3%	93.8%	94.8%	92.8%
Black /African American alone	0.5%	0.3%	0.6%	0.4%	1.0%	0.6%	0.6%
American Indian /Alaska Native	0.4%	0.1%	0.2%	0.2%	0.1%	0.2%	0.5%
Asian alone	0.1%	0.2%	0.9%	0.9%	0.8%	0.2%	2.0%
Native Hawaiian / Pacific Islander	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Two or more races	0.6%	1.8%	1.1%	1.4%	1.2%	1.5%	1.2%
Hispanic/Latino	1.3%	1.3%	2.9%	1.6%	2.9%	2.6%	2.6%
Opioid Deaths 2012*	0	0	1	2	1	0	-
Opioid Deaths 2013*	0	1	1	0	3	0	-
Opioid Deaths 2014*	0	2	1	0	2	0	-
Opioid Deaths 2015*	0	0	0	2	0	0	-
Top Cause of Death ** 1= Heart Disease, 2=Cancer	2	1	1	2	1	2	-

APPENDIX K: Communities Served: Demographic Data (2 of 3)

	Holland	N.Brookfield	Oxford	Quinebaug, CT	Southbridge	Spencer	Sturbridge
Zip Code	01521	01535	01537, 01540	06262	01550	01562	01566
Census (2010)	1,464	2,265	11,291	1,133	16,719	11,688	6,294
Male	784	1105	5566	525	8059	5669	3214
Female	680	1160	5725	608	8660	6019	3403
<18 Yrs Old	408	616	2574	255	3862	2595	1605
65 & Over	126	292	1558	230	2291	1648	843
Median Income	$69,758	$46,671	$64,914	$57,162	$43,870	$45,750	$56,519
Per Capita Income	$34,717	$23,527	$29,241	$31,669	$23,291	$23,597	$25,559
% in Poverty	7.3%	5.5%	5.8%	4.1%	16.9%	16.9%	6.1%
High School Graduate	92.1%	87.4%	92.6%	87.0%	81.2%	80.6%	94.4%
Bachelors or more	34.5%	15.4%	25.8%	20.4%	16.3%	17.6%	45.0%
White alone	93.9%	95.2%	96.6%	96.0%	81.2%	95.1%	93.3%
Black /African American alone	0.8%	0.4%	0.6%	0.5%	2.6%	0.8%	0.6%
American Indian /Alaska Native	0.7%	0.6%	0.2%	0.0%	0.5%	0.3%	0.1%
Asian alone	0.8%	0.2%	0.8%	0.5%	1.9%	0.8%	2.3%
Native Hawaiian / Pacific Islander	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Two or more races	1.6%	1.3%	1.2%	0.8%	2.9%	1.6%	0.9%
Hispanic/Latino	2.2%	2.3%	2.3%	2.1%	26.6%	4.3%	2.6%
Opioid Deaths 2012*	0	2	3	-	2	0	0
Opioid Deaths 2013*	0	0	1	-	2	1	1
Opioid Deaths 2014*	0	1	5	-	3	3	1
Opioid Deaths 2015*	1	0	3	-	6	8	1
Top Cause of Death ** 1= Heart Disease, 2=Cancer	1	1 / 2 (tie)	1	-	1	2	1

APPENDIX K: Communities Served: Demographic Data (3 of 3)

	Thompson, CT	Union/ Stafford, CT	W. Brookfield	Wales	Warren	Webster	Woodstock, CT
Zip Code	06277	06076	01585	01081	01083	01570	06281, 06262
Census (2010)	9,458	12087	4,554	1,698	1,405	15,767	7,964
Male	4729	5959	2095	861	669	7505	3942
Female	4729	6128	2459	837	736	8262	4022
<18 Yrs Old	2062	2695	1043	425	377	3485	1840
65 & Over	1381	1632	952	124	185	2397	1067
Median Income	$69,924	$62,371	$49,135	$60,144	$36,938	$43,116	$78,594
Per Capita Income	$33,643	$30,952	$25,191	$28,324	$19,797	$22,329	$35,502
% in Poverty	5.2%	11.4%	6.8%	3.5%	6.1%	19.2%	3.3%
High School Graduate	88.2%	87.4%	83.1%	85.3%	80.1%	79.6%	96.5%
Bachelors or more	24.9%	20.4%	19.4%	14.8%	6.2%	17.5%	42.0%
White alone	95.9%	95.5%	95.3%	95.8%	95.0%	89.1%	97.2%
Black /African American alone	0.6%	0.7%	1.1%	0.9%	0.6%	3.8%	0.4%
American Indian /Alaska Native	0.4%	0.2%	0.1%	0.2%	0.0%	0.4%	0.3%
Asian alone	0.7%	1.1%	0.4%	0.2%	0.0%	1.0%	0.7%
Native Hawaiian / Pacific Islander	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Two or more races	1.7%	1.8%	1.1%	1.3%	1.8%	2.6%	1.0%
Hispanic/Latino	1.8%	2.9%	1.9%	1.6%	2.5%	8.9%	1.5%
Opioid Deaths 2012*	0	3	0	0	1	4	0
Opioid Deaths 2013*	0	4	1	0	1	3	0
Opioid Deaths 2014*	0	7	2	0	2	4	1
Opioid Deaths 2015*	4	11	0	0	2	5	1
Top Cause of Death ** 1= Heart Disease, 2=Cancer	1	1	2	1	1	2	1

* MA Town data reported by MA Department of Public Health - Posted November 2016, CT Town data reported by overdose.trendct.org

** MA data reported by MA Department of Public Health , CT data reported by CT Department of Public Health