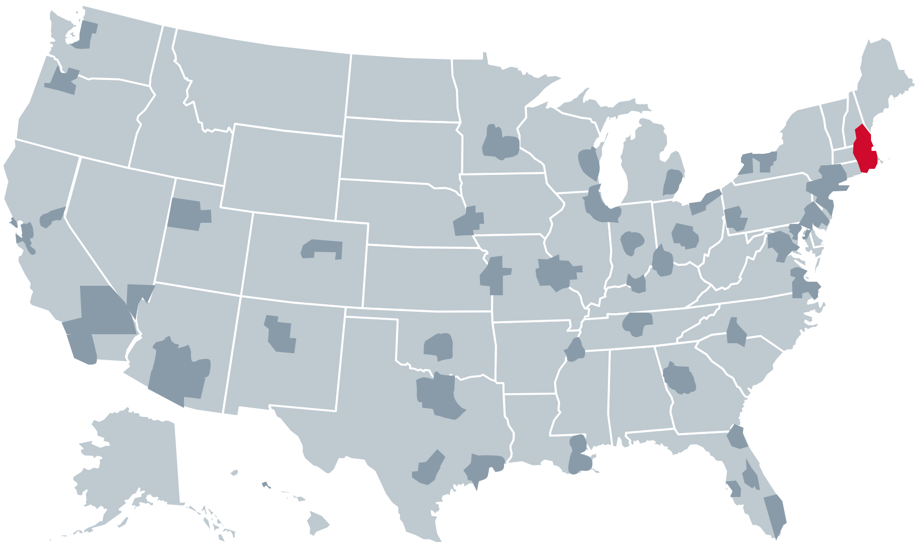
Boston, MA



Counties Covered:

County	State
Windham County	CT
Bristol County	MA
Essex County	MA
Middlesex County	MA
Norfolk County	MA
Plymouth County	MA
Suffolk County	MA
Worcester County	MA
Rockingham County	NH
Strafford County	NH
Bristol County	RI
Kent County	RI
Newport County	RI
Providence County	RI
Washington County	RI

Total Population: 7,359,268

Market Summary

- **Overview**: Considered a leader in health care delivery reform and clinical integration, the Boston-Providence market is home to some of the nation's top hospitals and most successful Medicare Pioneer ACOs. However, despite active legislation in Massachusetts aimed to restrict health care spending, the market is struggling to contain costs.
- **Health Systems**: Systems in this market are focused on system-physician clinical integration, evidenced by the prevalence of integrated delivery networks. Many of these offer alternative payment models. The market is moderately consolidated, with a handful of systems controlling share. These include Partners HealthCare – the dominant system – CareGroup, Steward Health Care System, Lahey Health, and Wellforce.
- **Insurers**: Massachusetts has instituted aggressive legislation to have as many patients as possible covered under alternative payment models. Local plans dominate the market, namely Blue Cross Blue Shield of Massachusetts – by far the dominant player – Harvard Pilgrim Health Care, and Tufts Health Plan. Roughly half of MassHealth Medicaid beneficiaries are enrolled in managed Medicaid plans, though the government is looking to expand this number as it pilots a Medicaid ACO. More than half the population is commercially insured, with that number evenly split between self-insured and fully-insured.
- **Physicians**: The majority of physicians in the market are employed by a large health system. Affiliation plays a huge role in reimbursement, as different systems receive vastly different rates for the same services. The Boston market has a physician density twice the national average.
- **Employers**: Employers are trying to combine their influence to lower health care costs in the market. Specifically, they're working with a health care union to pursue legislation evening out reimbursement rates across providers. Massachusetts employers in particular pay some of the highest premiums in the country.
- **Population**: The Boston-Providence market boasts the lowest uninsured rate in the nation at 3% and an unemployment rate under the national average, at 4%. Wealth differs heavily across the market.

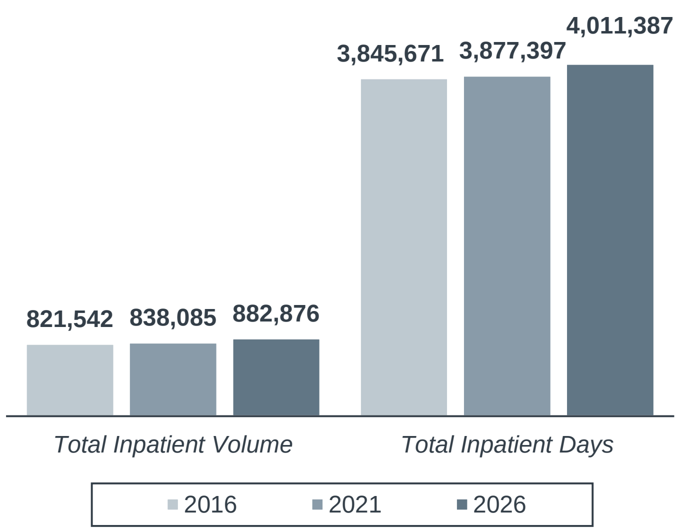
Source: Advisory Board interviews and analysis.

Market Glimpse

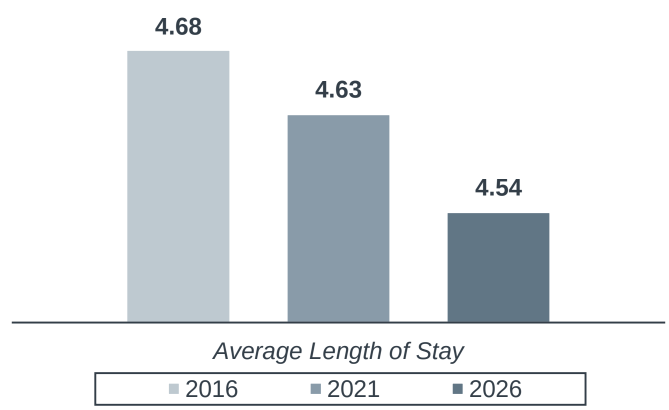
Key Figures in 2016

Category	Figure
Acute-Care Hospitals	106
Acute-Care Beds	18,181
Number of Physicians	74,231
Households Count	2,850,968
Median Age	38.8
Median Household Income	$77,910
Per Capita Income	$38,153
Patients Who Visited a Doctor in the Past Year	78.4%
Unemployment Rate	4.0%
Uninsured Rate	Low

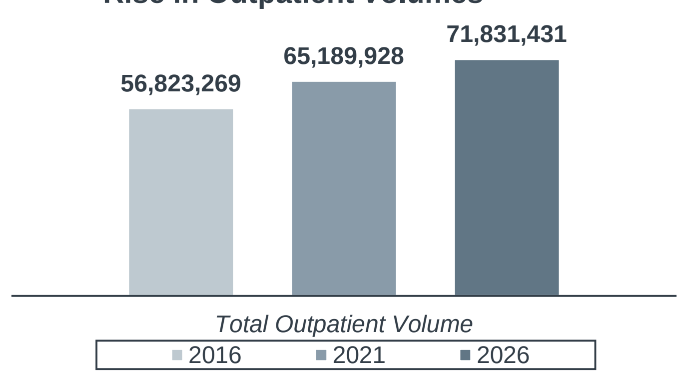
Gradual Increase in Inpatient Volume and Days



Fall in Average Length of Stay



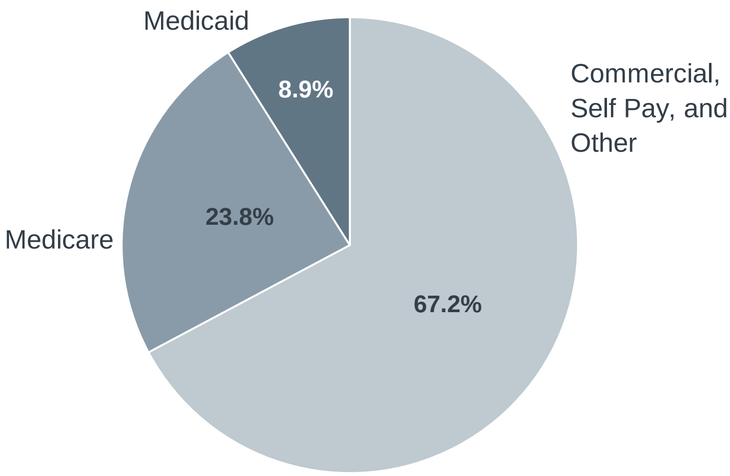
Rise in Outpatient Volumes



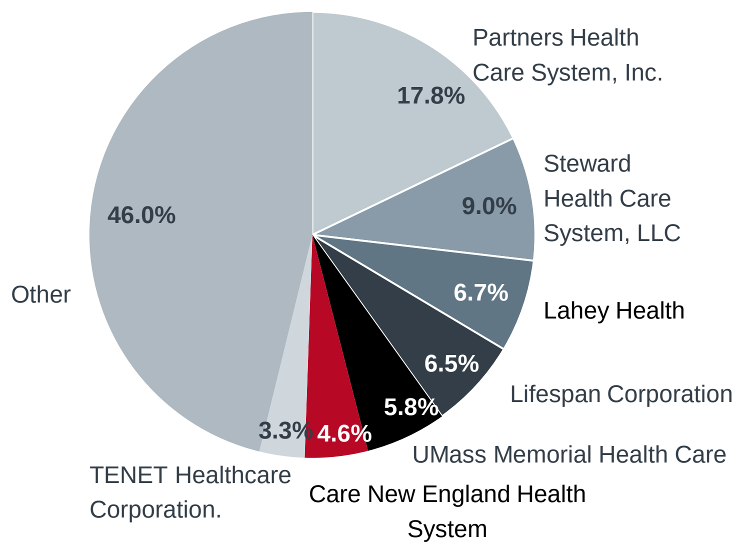
Source: Advisory Board interviews and analysis.

Overview of Payers, Inpatient Players, Major Ailments

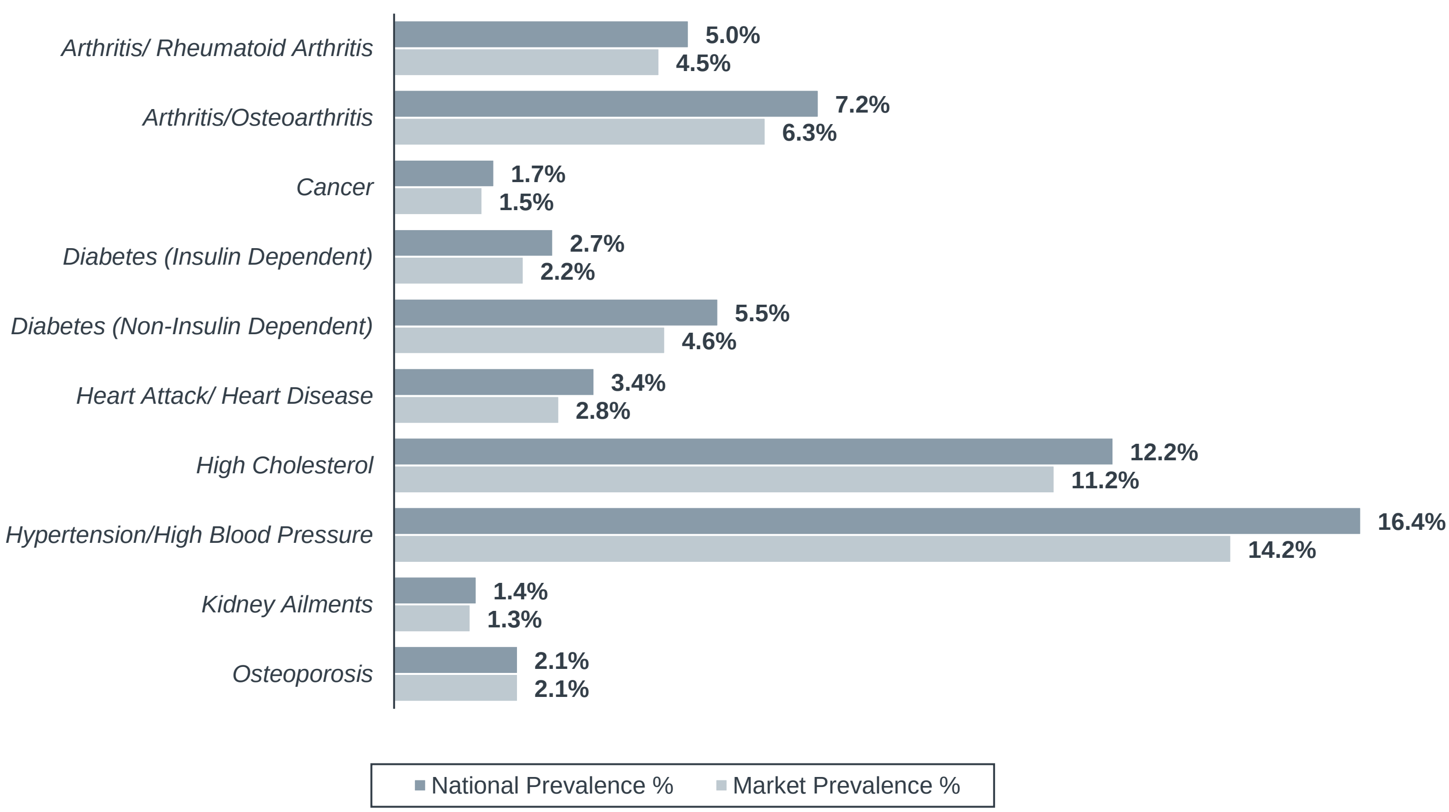
Discharge Mix



Inpatient Market Share Breakdown



Prevalence of Ailments



Source: Advisory Board interviews and analysis.

Population Stratification

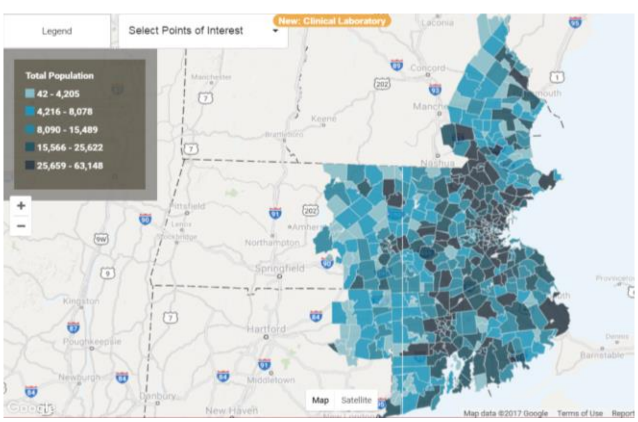
Segmentation by Age

Age Group	% of Population in 2016
0-9	10.9%
10-19	12.6%
20-29	14.2%
30-39	13.0%
40-49	13.2%
50-59	14.5%
60-69	11.1%
70-79	6.1%
80+	2.3%

Outpatient Sites of Care Volume Projections

Site of Care	2016 Volume	2026 Volume
Hospital Outpatient Department	5,978,572	7,357,117
Emergency Department	2,791,208	3,422,873
Ambulatory Surgery	6,350,819	8,028,795
Physician Office/Clinic	26,681,515	33,545,955
Endoscopy	987,605	1,331,883
Oncology Center	2,713,370	3,433,023
Sleep Studies	509,127	660,677
Advanced Imaging	2,454,106	2,841,030
Physical Therapy	3,006,671	3,996,622
Lab	5,242,647	7,061,925
Other	107,629	151,531

Population Density



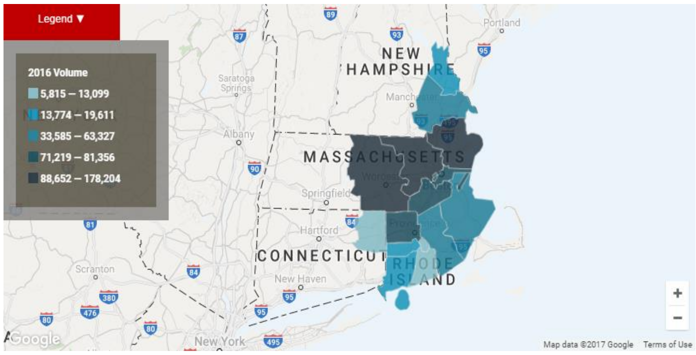
Segmentation by Gender

Gender	Population Count in 2016	Projected Population Count in 2021
Male	3,579,163	3,699,086
Female	3,780,110	3,901,847

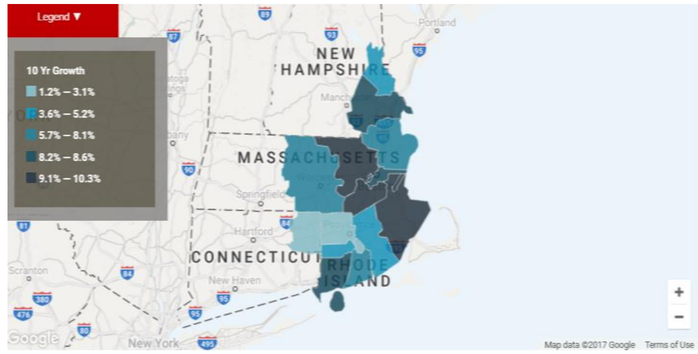
Source: Advisory Board interviews and analysis.

Inpatient Volume Projections

2016 Inpatient Volumes



2026 Inpatient Volumes (10-Year Growth)



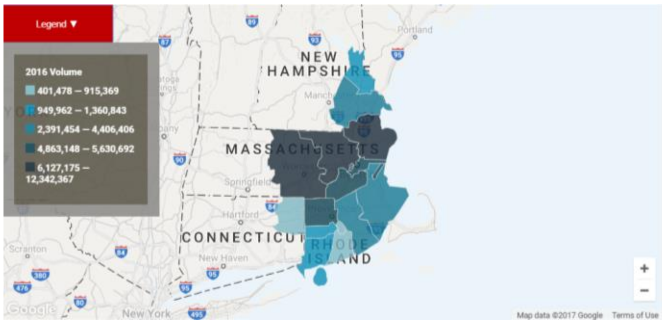
Service Line Volume Projections

Service Line	2016 Volume	2021 Volume	2026 Volume	5 Yr Growth	10 Yr Growth
+ Cardiac Services	90,428	79,734	84,221	-11.8%	-6.9%
+ ENT	8,435	7,985	8,284	-5.3%	-1.8%
+ General Medicine	291,962	309,167	330,490	5.9%	13.2%
+ General Surgery	56,216	57,996	60,708	3.2%	8.0%
+ Gynecology	9,453	8,541	8,504	-9.6%	-10.0%
+ Neonatology	79,453	85,021	86,466	7.0%	8.8%
+ Neurology	34,767	35,485	38,166	2.1%	9.8%
+ Neurosurgery	5,617	6,566	7,175	16.9%	27.7%
+ Obstetrics	99,231	102,049	105,751	2.8%	6.6%
+ Oncology/Hematology (Medical)	23,885	24,092	25,980	0.9%	8.8%
+ Ophthalmology	1,003	858	840	-14.5%	-16.3%
+ Orthopedics	52,947	54,318	56,952	2.6%	7.6%
+ Other Trauma	6,903	6,886	7,398	-0.2%	7.2%
+ Rehabilitation	9,843	9,506	9,603	-3.4%	-2.4%
+ Spine	19,044	18,297	19,052	-3.9%	0.0%
+ Thoracic Surgery	4,560	4,762	4,940	4.4%	8.3%
+ Urology	10,759	11,181	11,808	3.9%	9.7%
+ Vascular Services	15,190	13,804	14,599	-9.1%	-3.9%
+ Invalid	1,845	1,835	1,939	-0.5%	5.1%

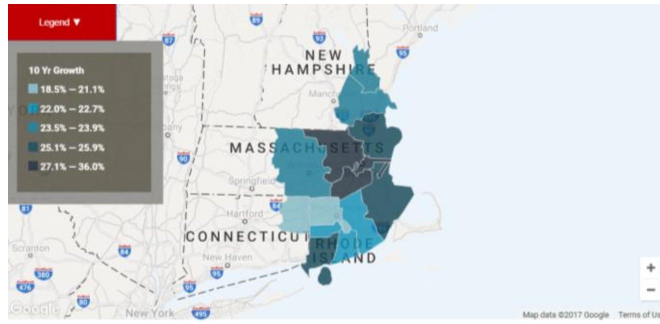
Source: Advisory Board interviews and analysis.

Outpatient Volume Projections

2016 Outpatient Volumes



2026 Outpatient Volumes (10-Year Growth)



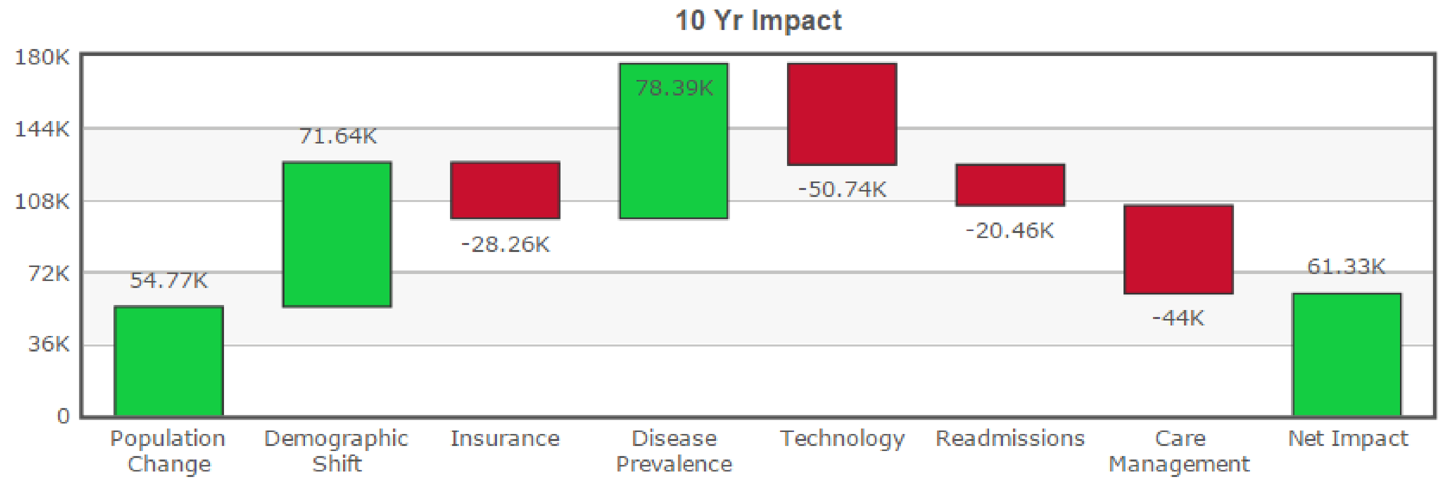
Service Line Volume Projections

Service Line	2016 Volume	2021 Volume	2026 Volume	5 Yr Growth	10 Yr Growth
+ Cardiology	2,016,970	2,207,469	2,408,722	^9.4%	^19.4%
+ Cosmetic Procedures	156,131	193,035	211,356	^23.6%	^35.4%
+ Dermatology	1,134,748	1,388,344	1,600,527	^22.3%	^41.0%
+ Endocrinology	15,674	20,773	23,210	^32.5%	^48.1%
+ ENT	632,522	754,642	848,580	^19.3%	^34.2%
+ Evaluation and Management	20,958,984	23,411,937	25,274,435	^11.7%	^20.6%
+ Gastroenterology	559,215	673,712	750,318	^20.5%	^34.2%
+ General Surgery	163,992	187,605	206,651	^14.4%	^26.0%
+ Gynecology	254,943	265,235	277,069	^4.0%	^8.7%
+ Lab	8,004,924	9,465,011	10,778,158	^18.2%	^34.6%
+ Miscellaneous Services	3,901,281	4,658,913	5,215,242	^19.4%	^33.7%
+ Nephrology	169,544	197,720	217,897	^16.6%	^28.5%
+ Neurology	304,478	381,955	433,682	^25.4%	^42.4%
+ Neurosurgery	18,012	20,403	21,827	^13.3%	^21.2%
+ Obstetrics	105,109	123,133	147,377	^17.1%	^40.2%
+ Oncology	43,005	46,647	49,110	^8.5%	^14.2%
+ Ophthalmology	1,709,179	2,159,416	2,475,834	^26.3%	^44.9%
+ Orthopedics	809,784	990,128	1,095,823	^22.3%	^35.3%
+ Pain Management	207,289	256,138	287,656	^23.6%	^38.8%
+ Physical Therapy/Rehabilitation	4,964,666	5,946,626	6,374,016	^19.8%	^28.4%
+ Podiatry	325,957	397,544	471,167	^22.0%	^44.5%
+ Psychiatry	2,635,564	3,033,225	3,391,017	^15.1%	^28.7%
+ Pulmonology	528,768	675,179	767,905	^27.7%	^45.2%
+ Radiology	6,388,583	6,748,132	7,372,693	^5.6%	^15.4%
+ Spine	26,632	31,842	36,239	^19.6%	^36.1%
+ Thoracic Surgery	5,080	7,110	8,423	^40.0%	^65.8%
+ Trauma	218,905	253,231	280,775	^15.7%	^28.3%
+ Urology	304,268	386,228	450,383	^26.9%	^48.0%
+ Vascular	259,062	308,593	355,339	^19.1%	^37.2%

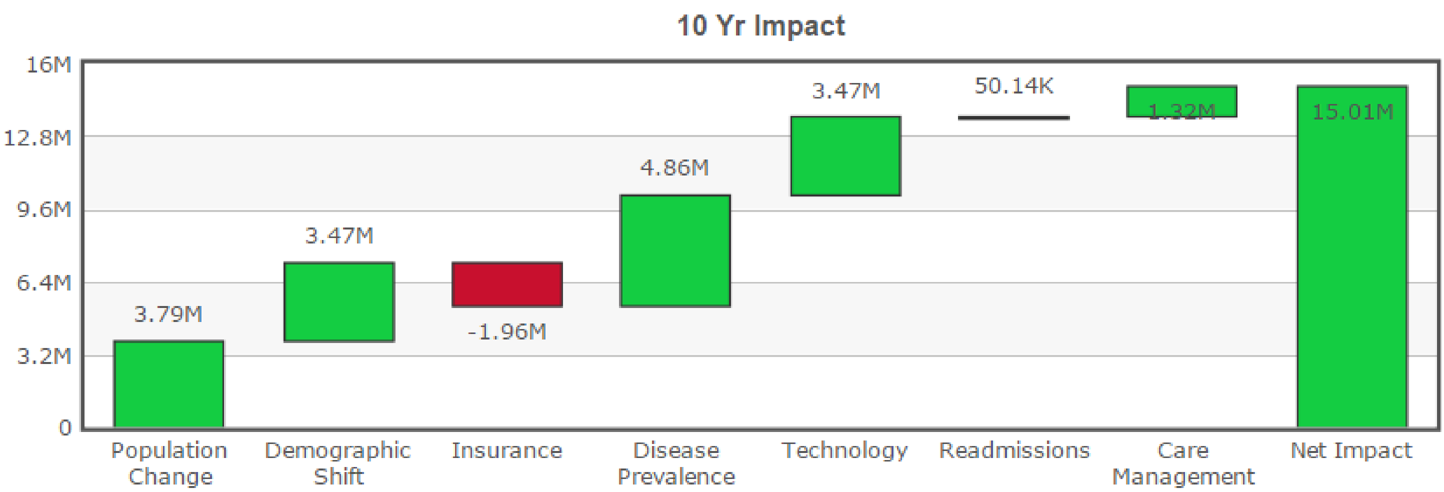
Source: Advisory Board interviews and analysis.

Volume Growth Drivers

2016-2026, Factors Influencing Inpatient Procedure Growth



2016-2026, Factors Influencing Outpatient Procedure Growth



- **Population Change:** Considers changes in total population of the market
- **Demographic Shift:** Considers changes in major demographic factors, such as age and gender
- **Insurance:** Considers insurance market factors, such as coverage expansion, increased cost-sharing, and payer scrutiny of medical necessity
- **Disease Prevalence:** Considers the growing population of chronic and multi-morbid patients
- **Technology:** Considers the role technology plays in changing demand and shifting site of care
- **Readmissions:** Considers the ongoing focus on driving down avoidable readmissions
- **Care Management:** Considers investments in care management designed to reduce inpatient utilization

Source: Advisory Board interviews and analysis.

This Advisory Board resource is part of a series of Market Profiles offered to health care industry members through the Health Care Industry Committee. We have used information and data from The Advisory Board's Market Scenario Planner, Physician Demand Estimator, and Demographic Profiler alongside US government databases. These profiles are aimed to help suppliers and service firms better understand provider customers and patients in various markets.

The Advisory Board Company

2445 M Street NW I Washington DC 20037
P 202.266.5600 I F 202.266.5700

advisory.com