MASSACHUSETTS
HEALTH POLICY COMMISSION

Massachusetts health care cost trends in a national context

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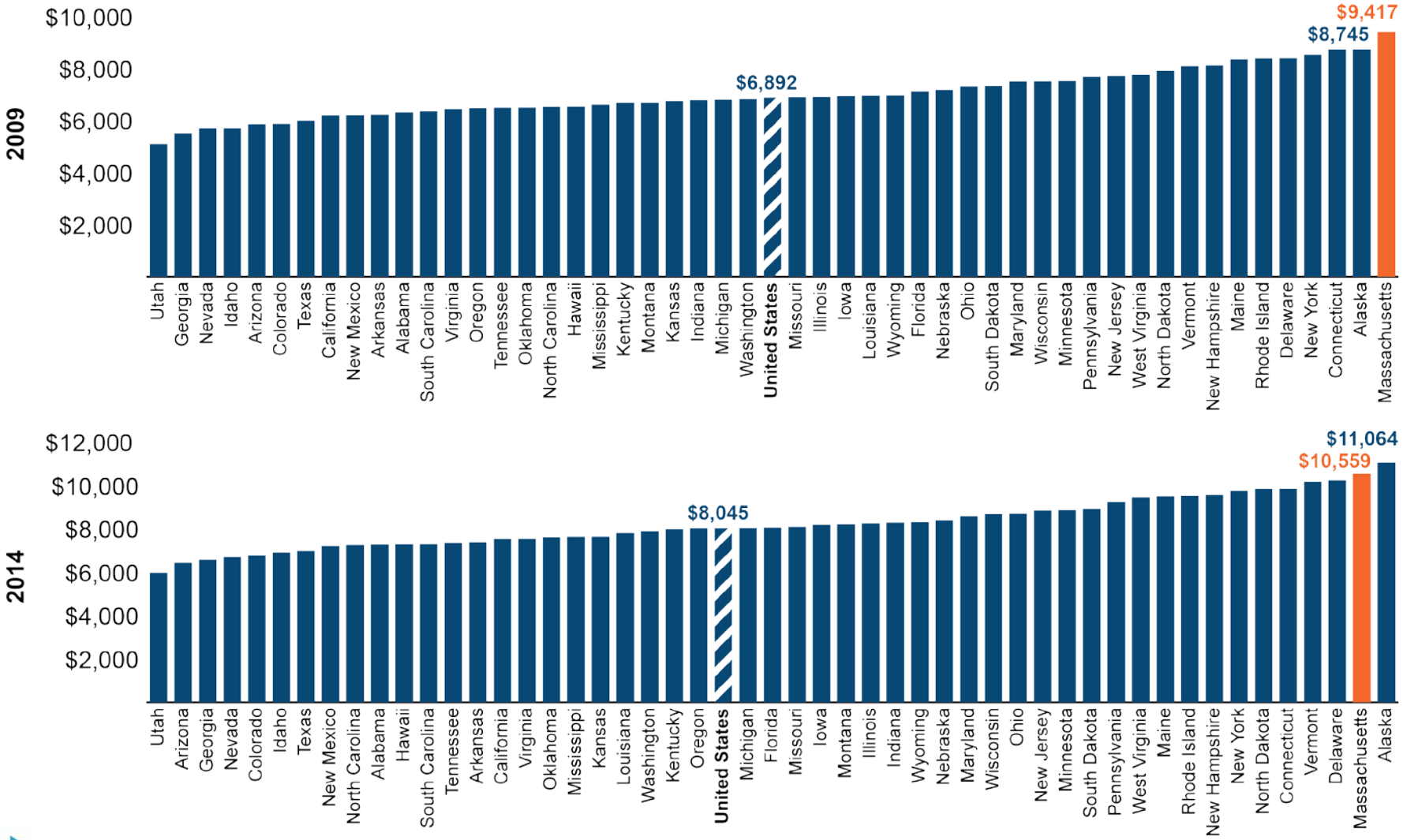
October 2, 2017

Massachusetts no longer spends the most on health care

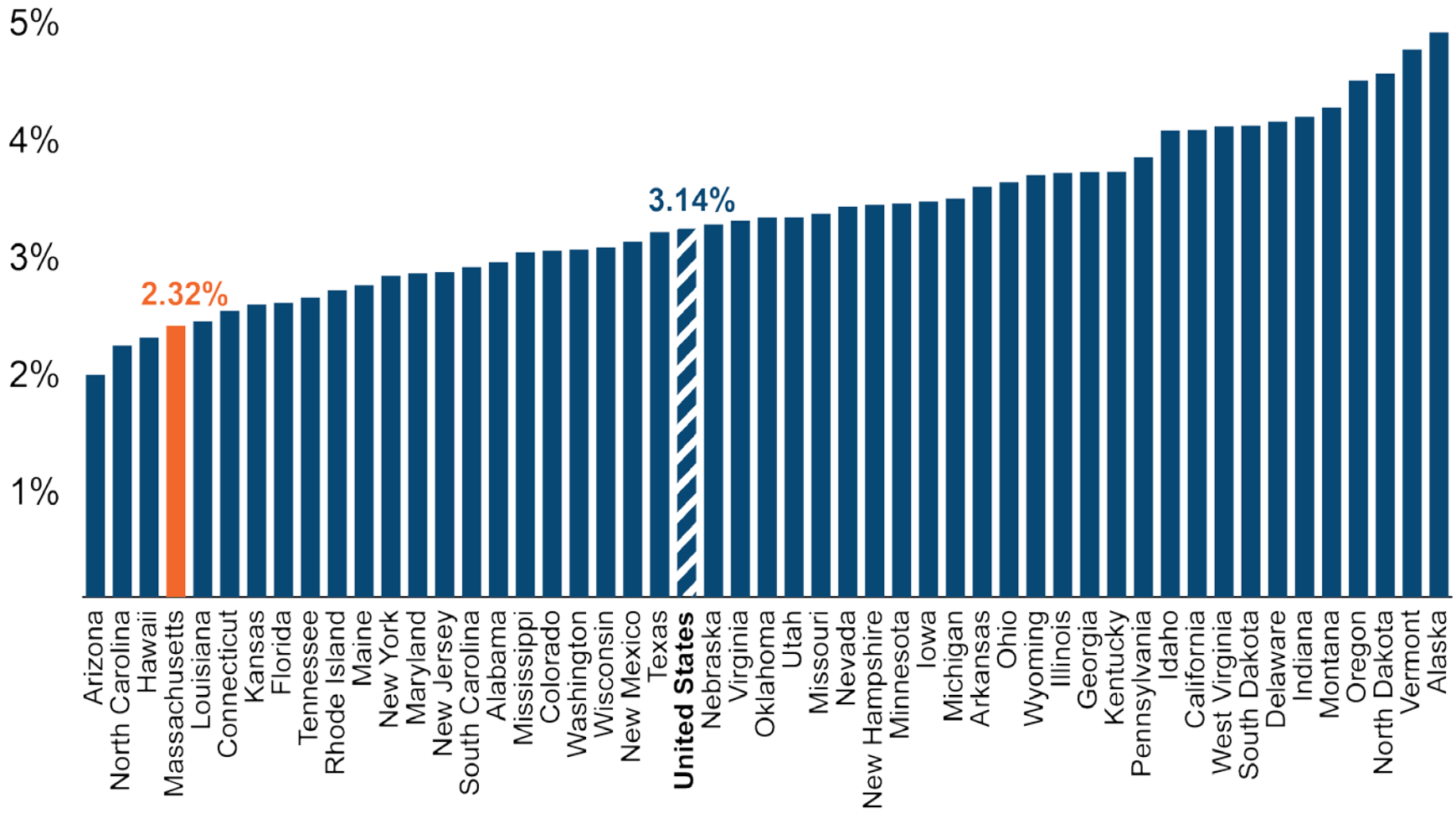
Personal health care spending, per capita, by state, 2009 and 2014



Source: Centers for Medicare and Medicaid Services, State Health Expenditure Accounts, 2009 and 2014

Massachusetts healthcare spending grew at the 4th lowest rate in the US from 2009-2014

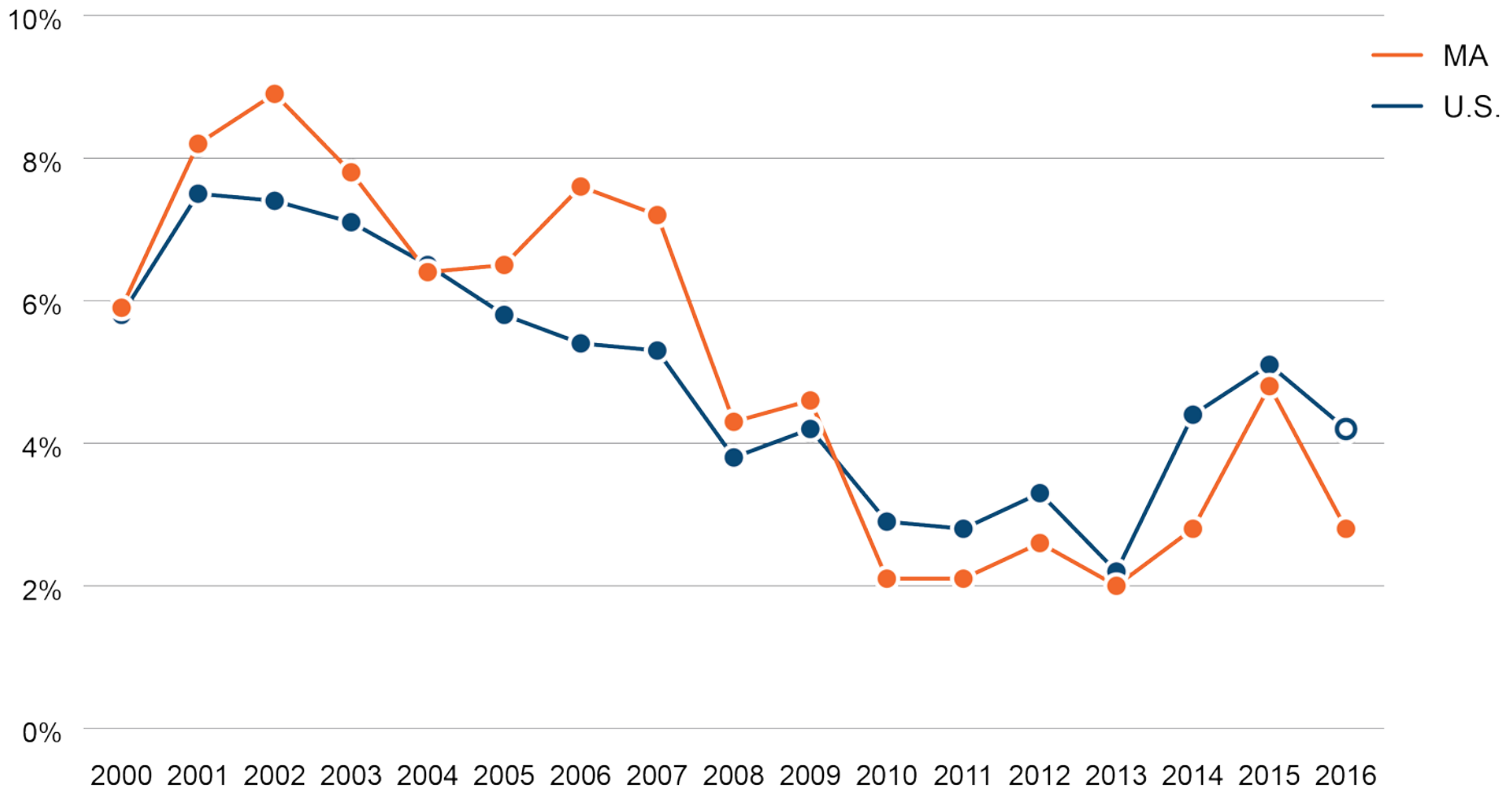
Average annual healthcare spending growth rate, per capita, 2009-2014



Source: Centers for Medicare and Medicaid Services, State Health Expenditure Accounts, 2009 and 2014

Healthcare spending growth continued to be below the U.S. average in 2015 and 2016

Annual growth in per capita healthcare spending, MA and the U.S., 2000-2016

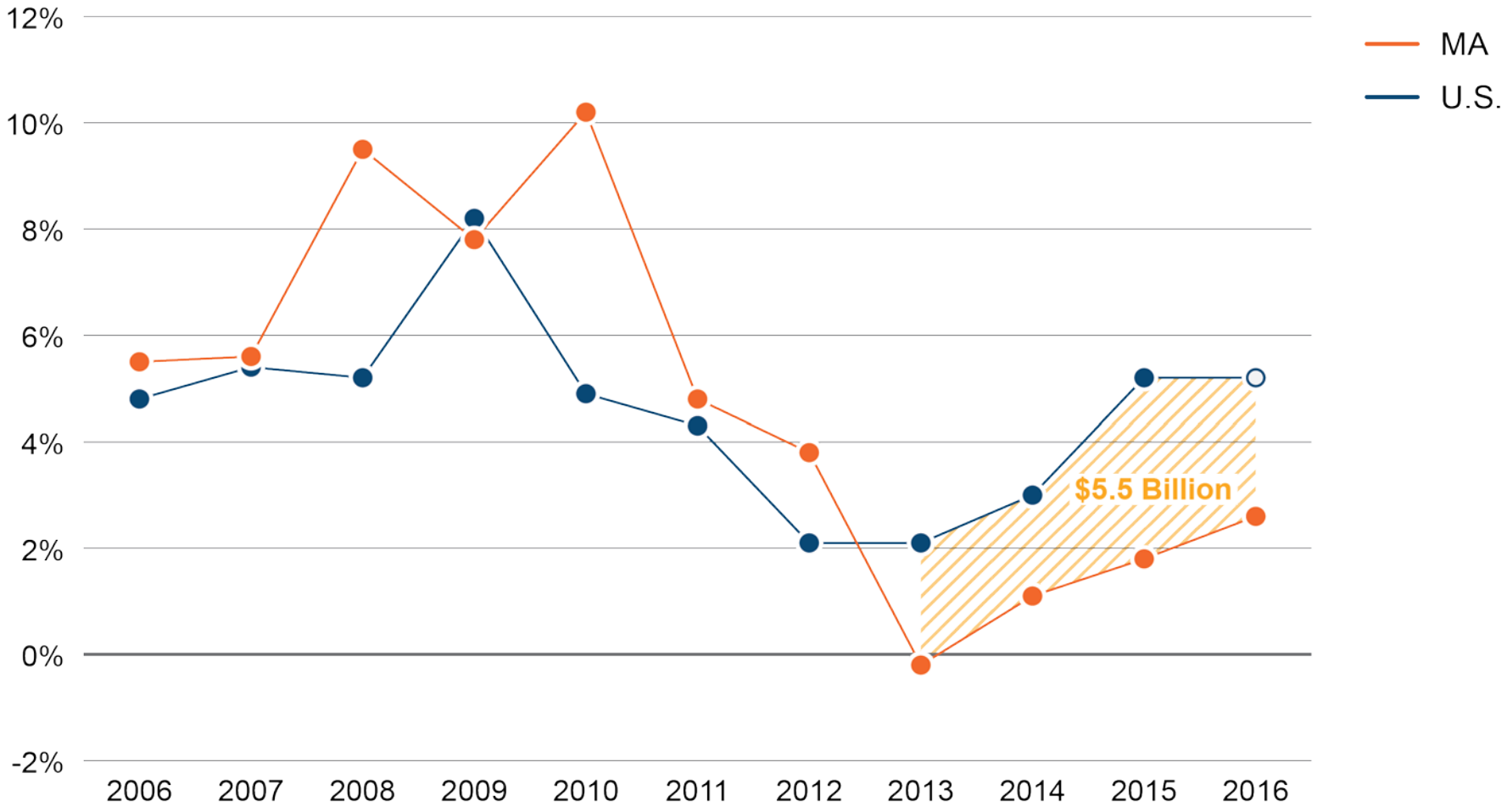


Note: U.S. figure for 2016 is partially projected.

Sources: Centers for Medicare and Medicaid Services, National Health Expenditure Accounts Personal Health Care Expenditures (U.S. 2015-2016) and State Health Expenditure Accounts (U.S. 2000-2014 and MA 2000-2014); Center for Health Information and Analysis Annual Report THCE Databook (MA 2015-2016)

In recent years, growth in spending on private health insurance in Massachusetts has been consistently lower than national rates

Annual growth in commercial health insurance premium spending from previous year, per enrollee, MA and the U.S.

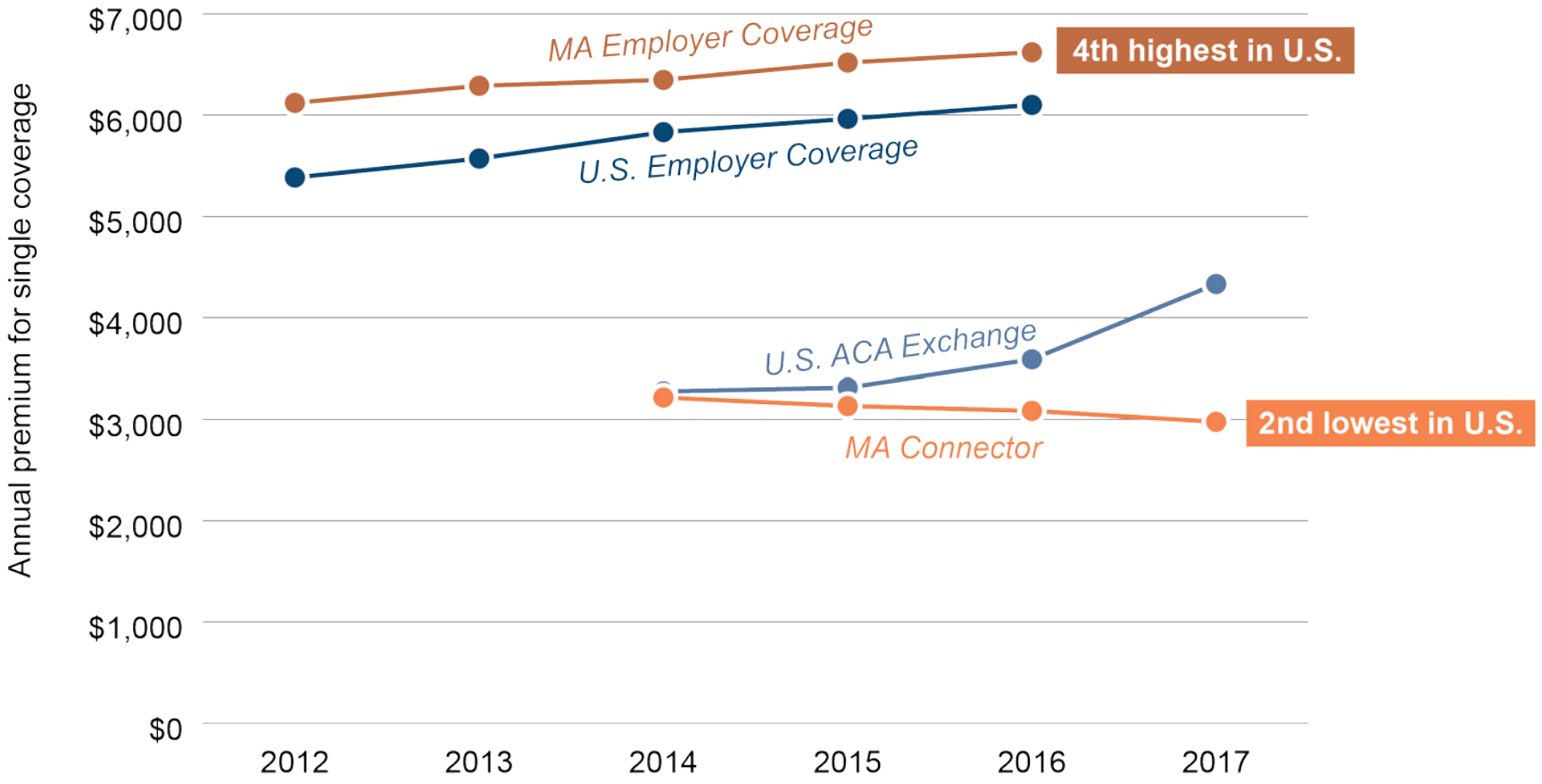


Notes: U.S. data includes Massachusetts. Center for Health Information and Analysis data are for the fully-insured market only. U.S. data for 2016 is partially projected.

Source: Centers for Medicare and Medicaid Services, State and National Healthcare Expenditure Accounts and Private Health Insurance Expenditures and Enrollment (U.S. and MA 2005-2014); Center for Health Information and Analysis Annual Reports (MA 2015-2016)

Low growth in commercial spending has been driven in part by MA Connector's 2nd lowest premiums in the U.S.

Average annual premium for single coverage in the employer-sponsored market and average annual unsubsidized benchmark premium for a 40-year old in the ACA Exchanges, MA and the U.S.



Notes: Exchange data represents the weighted average annual premium for second-lowest silver (Benchmark) plan based on country level data in each state. Premiums do not include any subsidies. Employer premiums are based on the average premiums according to a large sample of employers within each state.

Sources: Kaiser Family Foundation analysis of premium data from healthcare.gov; US Agency for Healthcare Quality, Medical Expenditure Panel Survey (insurance component), 2012-2016

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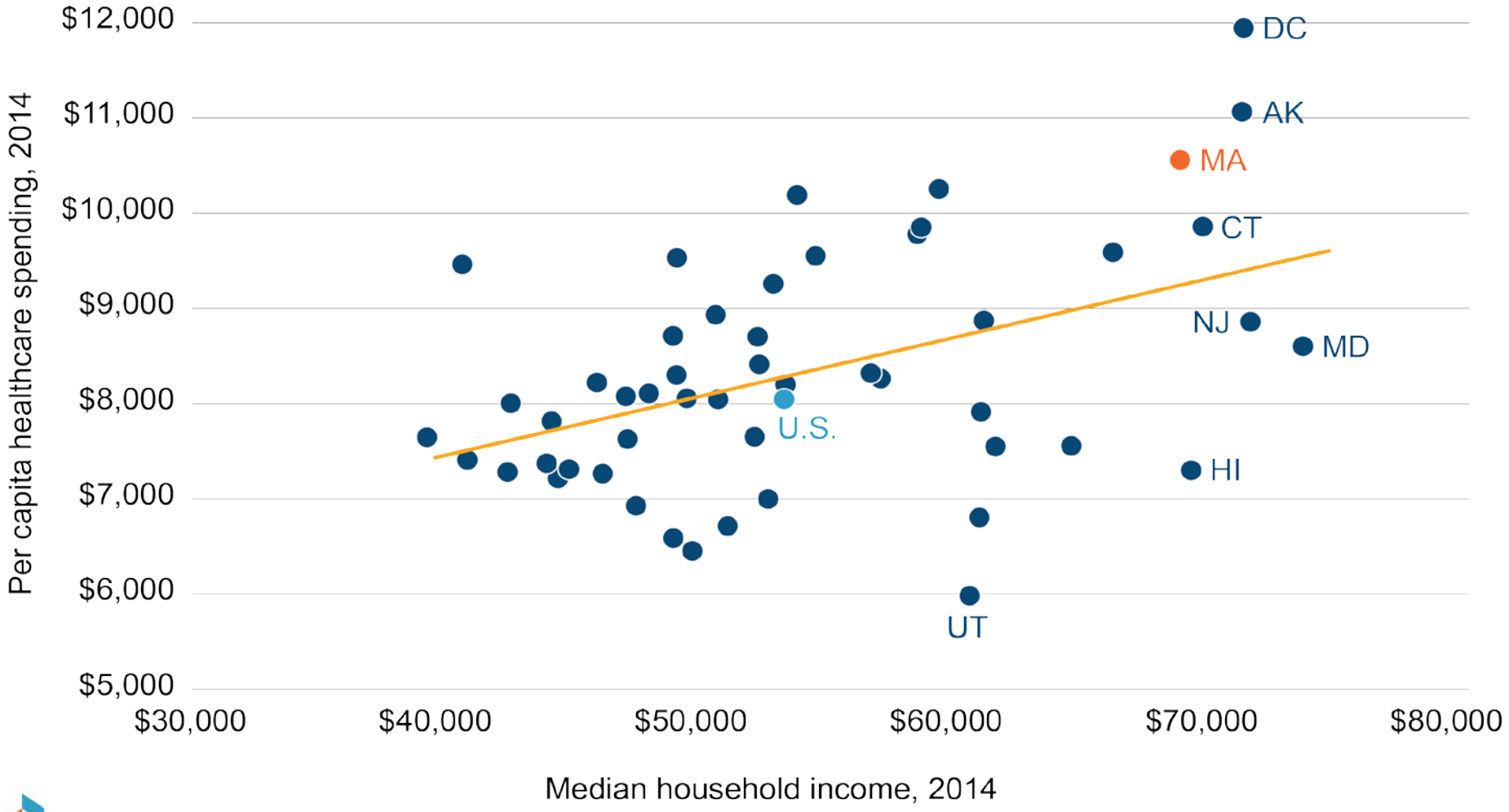
Healthcare spending Massachusetts remains high, even accounting for higher levels of income

Healthcare spending per capita and median household income, by state, 2014

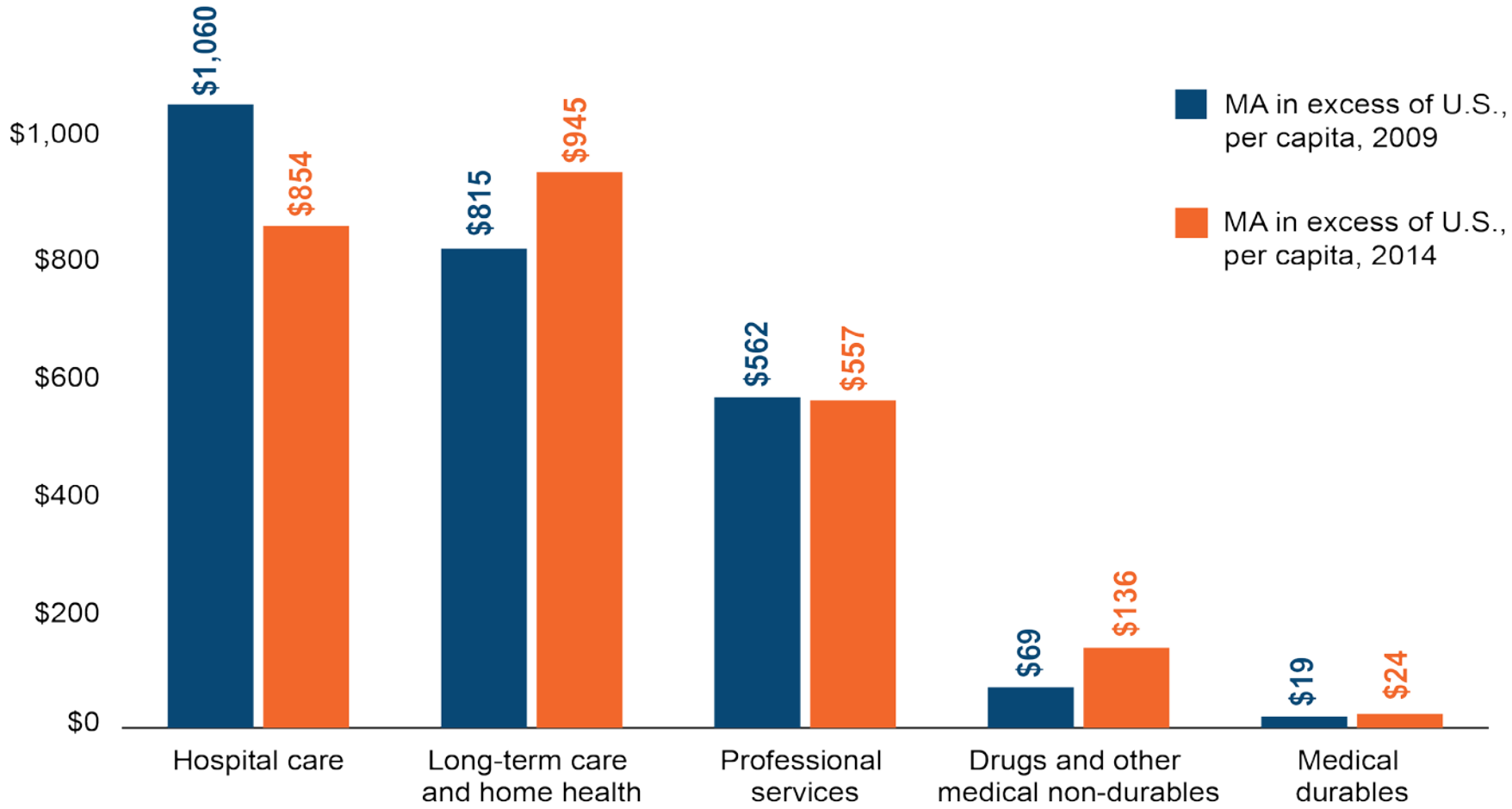


Note: Income data reported in 2014 dollars.

Sources: American Community Survey (income data); Center for Medicare and Medicaid Services (per capita health spending)

Hospital care and long-term care are the biggest contributors to excess spending in Massachusetts

Spending per person in MA in excess of the U.S. average, 2009 and 2014



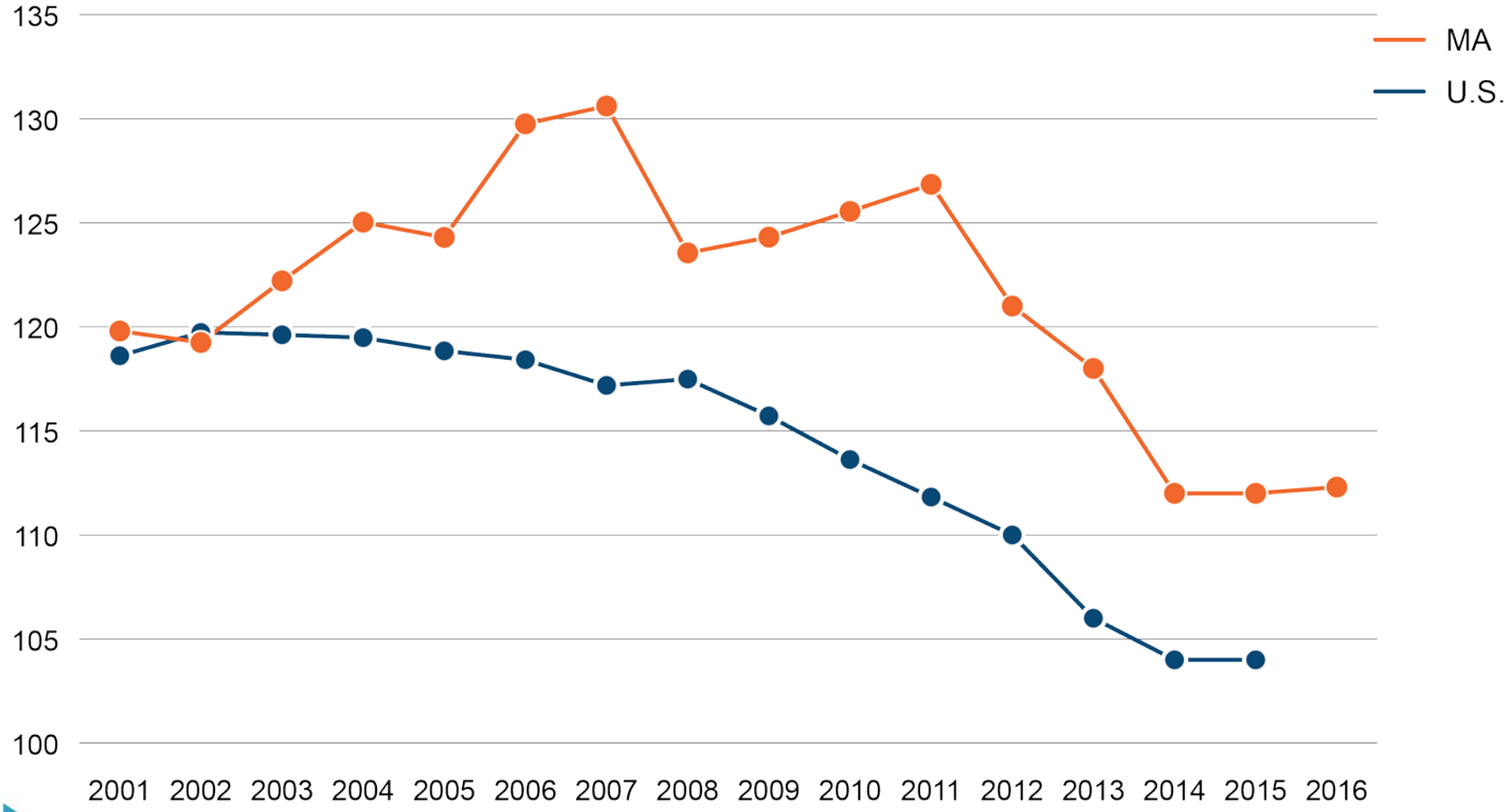
Percent of total difference	Hospital care	Long-term care and home health	Professional services	Drugs and other medical non-durables	Medical durables
	42% → 34%	32% → 38%	22% → 22%	3% → 5%	0.8% → 1.0%

Note: Hospital care includes both inpatient and outpatient care, as well as hospital-based nursing home care. Long term care and home health includes spending in freestanding nursing facilities, home health agencies, and other residential and personal care taking place in community and facility settings.

Source: Centers for Medicare and Medicaid Services, State Health Expenditure Accounts, 2009 and 2014

After years of steady decline, the inpatient admissions rate in Massachusetts has started to increase and is now 8% above the U.S. rate

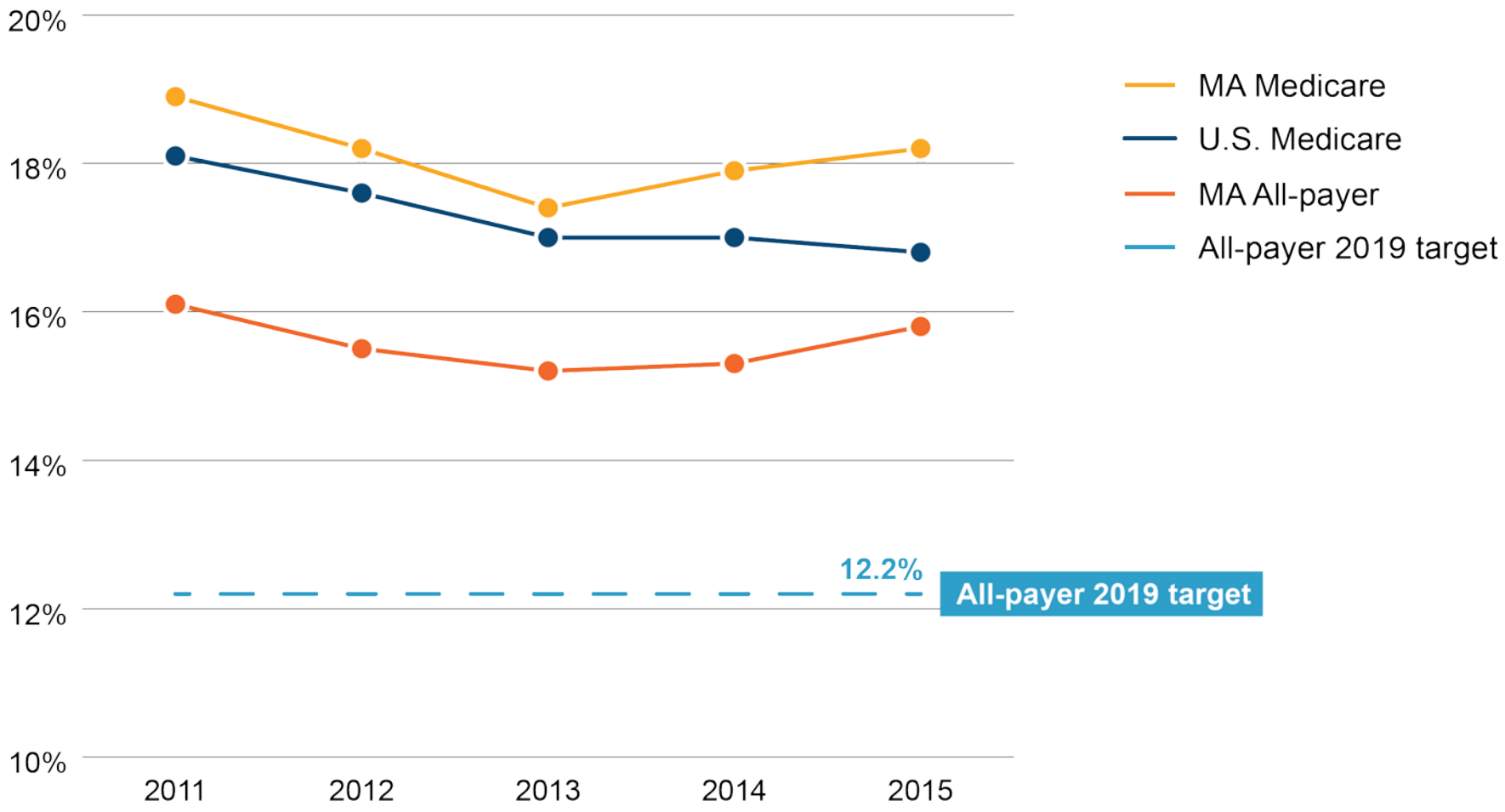
Inpatient hospital admissions per 1,000 residents, MA and the U.S., 2001-2016



Source: Kaiser Family Foundation analysis of American Hospital Association data (2001-2015); HPC analysis of Center for Health Information and Analysis Hospital Inpatient Database (MA 2016)

Readmission rates are increasing in Massachusetts while falling elsewhere

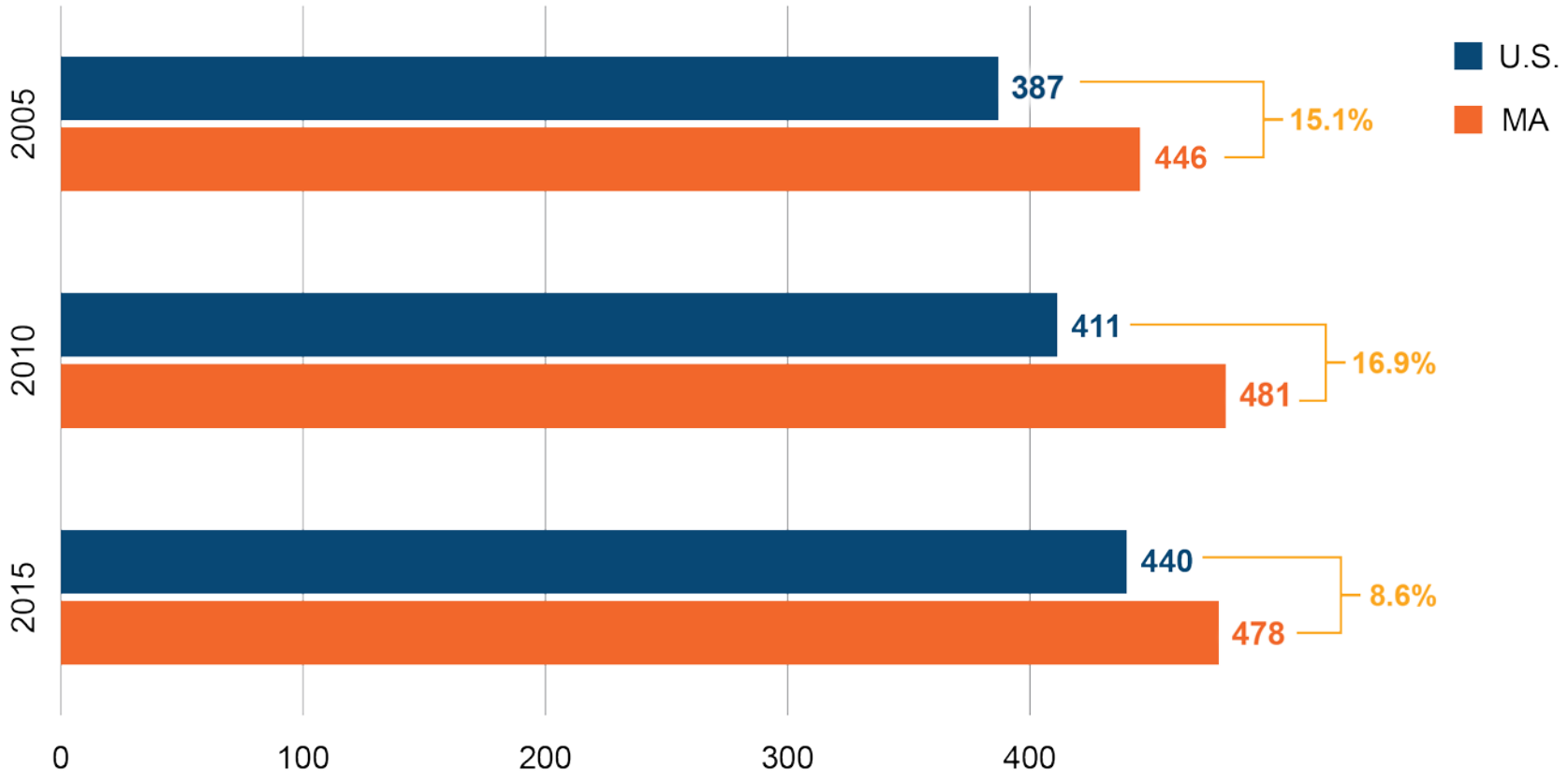
Thirty-day readmission rates, MA and the U.S., 2011-2015



Source: Centers for Medicare and Medicaid Services (U.S. and MA Medicare), 2011-2015; Center for Health Information and Analysis (all-payer MA), 2011-2015

The rate of emergency department visits has improved, but remains 9% higher than the U.S.

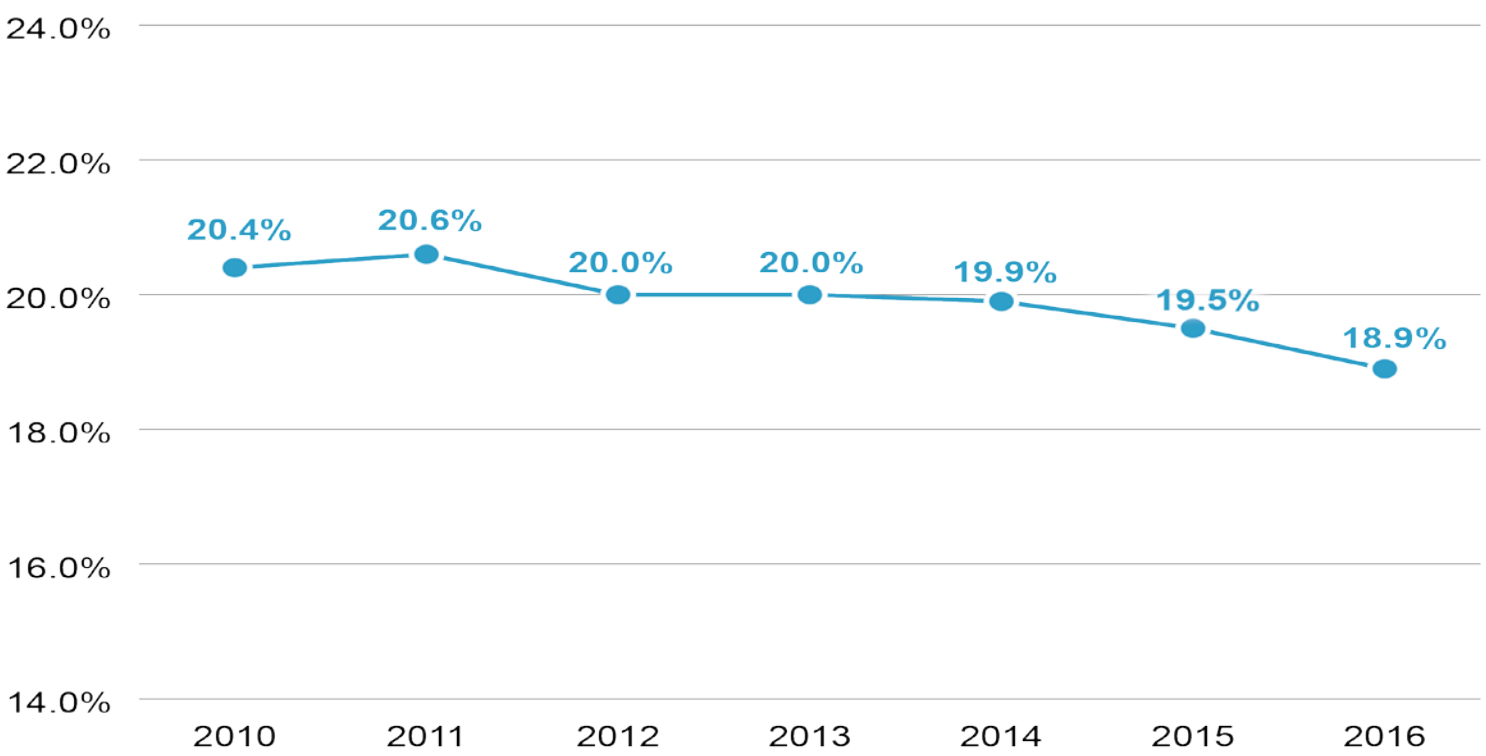
Emergency department visits, per 1,000 residents, MA and the U.S., 2005, 2010, and 2015



Source: Kaiser Family Foundation analysis of American Hospital Association data, 2005, 2010 and 2015

The rate of discharge to institutional post-acute care continues to decline

Percent of patients discharged to institutional post-acute care following an inpatient admission, 2010-2016

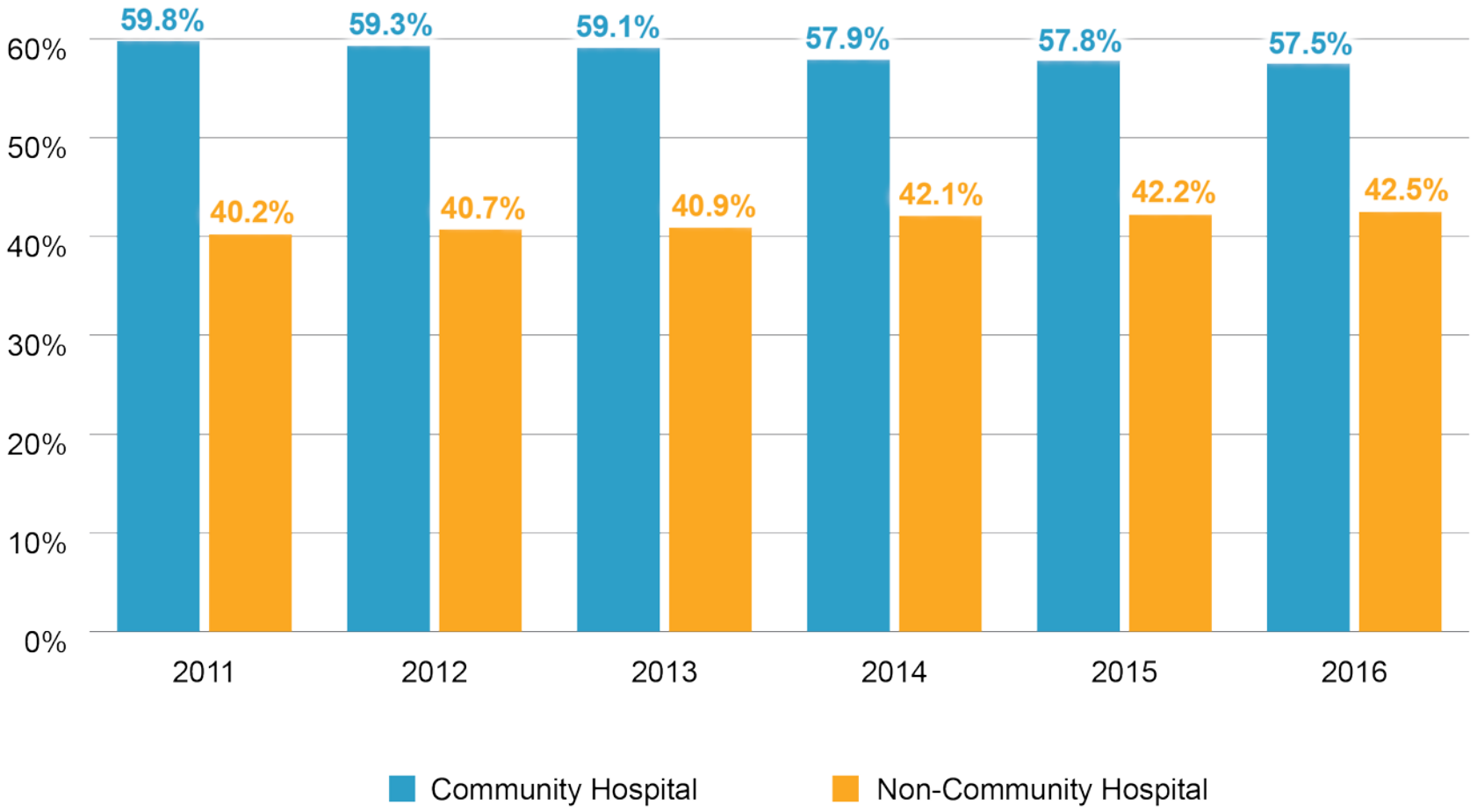


Notes: Institutional post-acute care settings include skilled nursing facilities, inpatient rehabilitation facilities, and long-term care hospitals. Rates adjusted using ordinary least squares (OLS) regression to control for age, sex, and changes in the mix of mix of diagnosis-related groups (DRGs) over time. Discharges from hospitals that closed and specialty hospitals, except New England Baptist, were excluded. Several hospitals (UMass Memorial Medical Center, Clinton Hospital, Cape Cod Hospital, Falmouth Hospital, Marlborough Hospital) were excluded due to coding irregularities in the database.

Source: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2010-2016

The share of community-appropriate discharges taking place at community hospitals continues to decline

Share of community appropriate discharges, by hospital type, 2011-2016

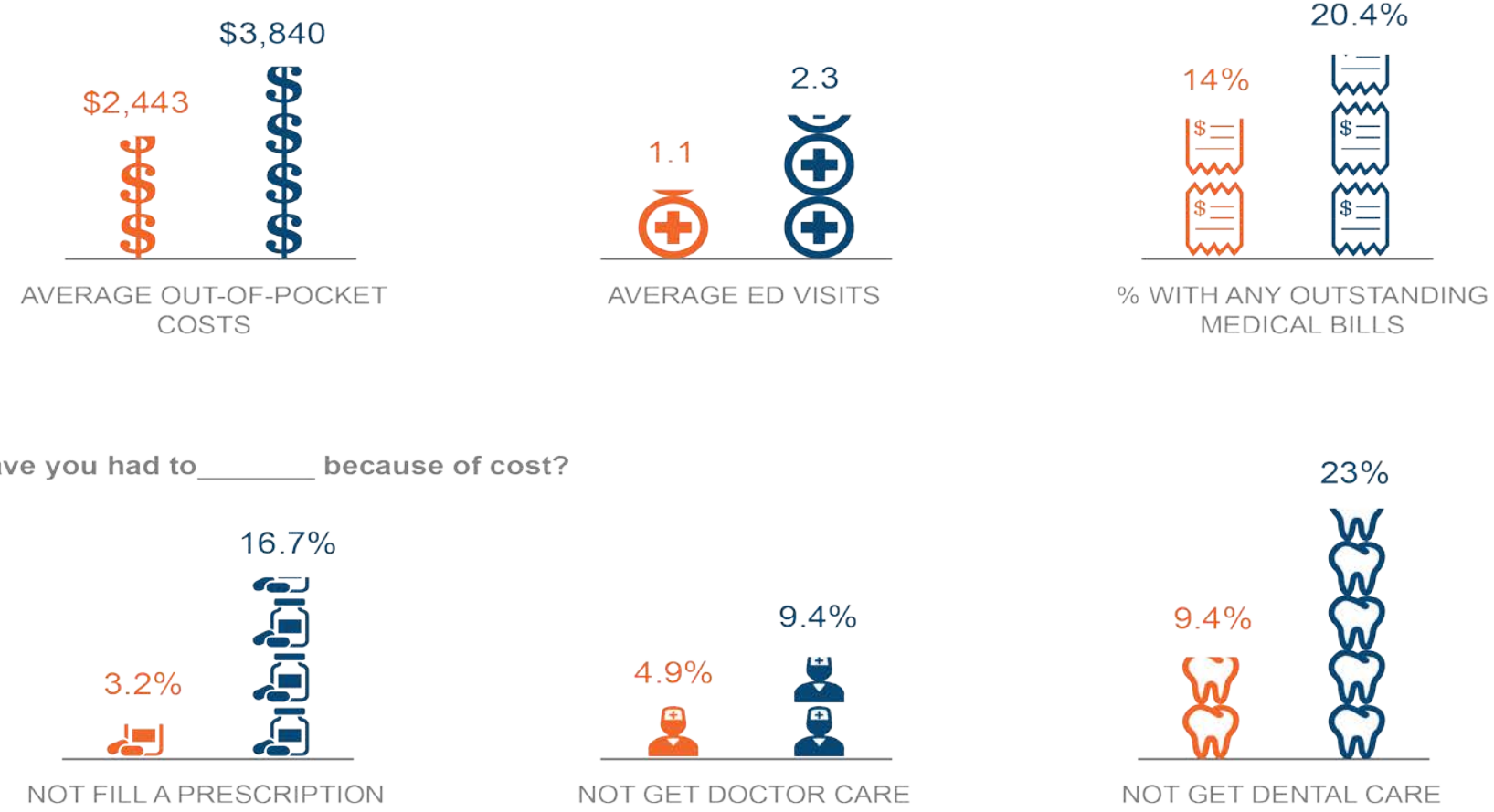


Notes: Discharges that could be appropriately treated in community hospitals were determined based on expert clinician assessment of the acuity of care provided, as reflected by the cases' diagnosis-related groups (DRGs). The Center for Health Information and Analysis defines community hospitals as general acute care hospitals that do not support large teaching and research programs.

Source: HPC analysis of Center for Health Information and Analysis, Hospital Inpatient Discharge data, 2011-2016

Access and affordability challenges remain in Massachusetts, especially for families with self-reported health problems

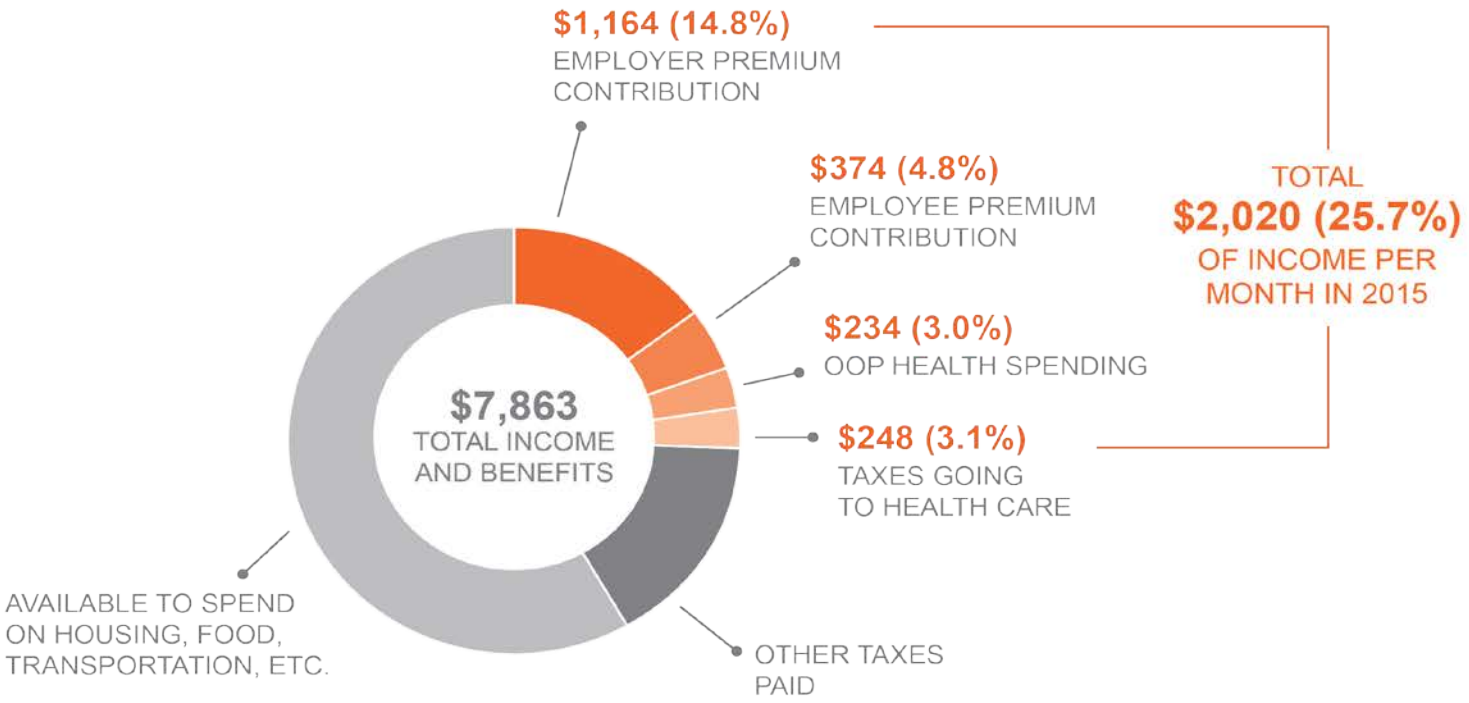
Averages for middle-income families, grouped by self-reported health status



Notes: Analysis is based on 843 families with employer-sponsored health insurance between 200% and 500% of the federal poverty level, representing 1.5 million state residents (across two years). All differences are statistically significant at the 10% level (p<.10) or less and all but two (outstanding medical bills and doctor care) are statistically significant at the 5% level (p<.05). Better health is defined as those reporting their health is 'excellent' or 'very good'. Worse Health is 'good', 'fair' and 'poor'.
Source: HPC analysis of Center for Health Information and Analysis Massachusetts Health Insurance Survey, data from 2014 and 2015

Health care costs represent a high burden on all Massachusetts families, leaving less for other priorities

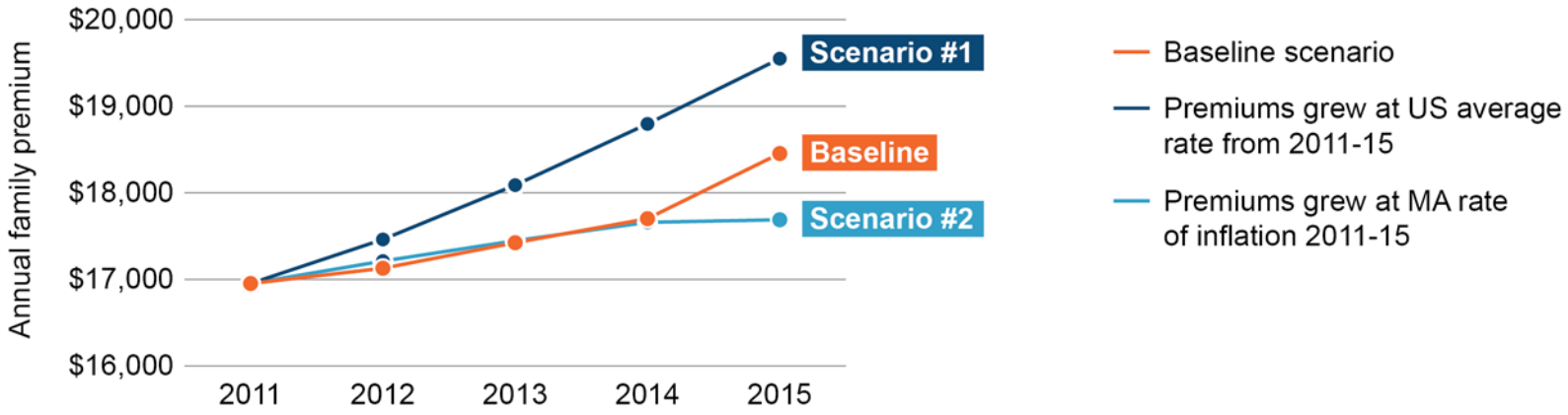
- *Monthly budget for an average Massachusetts family of four with median income ($75,000) that obtains health insurance from a family policy through an employer.*
- *Data are for 2015.*
- *The family's total monthly compensation received from the employer is $7,863*



Note: Compensation paid by employers not counted in income includes the employer health insurance premium contribution and employer share of payroll taxes. Share of taxes devoted to health care include spending on Medicare, Medicaid and other federal health programs.

Data sources: Massachusetts Health Interview Survey (CHIA), data from 2014-5 on 843 families with employer-sponsored health insurance between 200% and 500% of the FPL, representing roughly 1.5 million state residents across two years. Other data sources include US and state government budget data and data from the US Agency for Healthcare Research and Quality

How does healthcare spending growth affect family and state budgets?



	Baseline	Scenario #1		Scenario #2	
	Baseline data	If premiums grew at US average rate from 2011-15	Change in 2015	If premiums grew at MA rate of inflation 2011-15	Change in 2015
State: Health Insurance spending ($Billion)	$23.6	$25.0	$1.4B	$22.6	-$1.0B
State: Income Tax revenue collected ($Million)	$14,374	$14,025	-$349M	$14,618	$244M
Family: Annual raise	2.0%	1.0%	-1.0%	2.7%	0.7%
Family: Annual take-home pay after taxes and health care costs	$54,785	$54,050	-$734	$55,298	$513

Notes: Projections assume a full tradeoff between health insurance premium spending and salaries. See Emanuel, Ezekiel J., and Victor R. Fuchs. "Who Really Pays for Health Care?: The Myth of "Shared Responsibility"." *Jama* 299.9 (2008): 1057-1059

Data sources: Family health insurance premiums are obtained from the US Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, Insurance component. Other data sources are detailed on the previous slide.

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