



DISCLAIMER

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OUR INVESTMENT PROCESS

INTEGRATING FUNDAMENTALS AND MACRO RESEARCH

1. Idea Generation

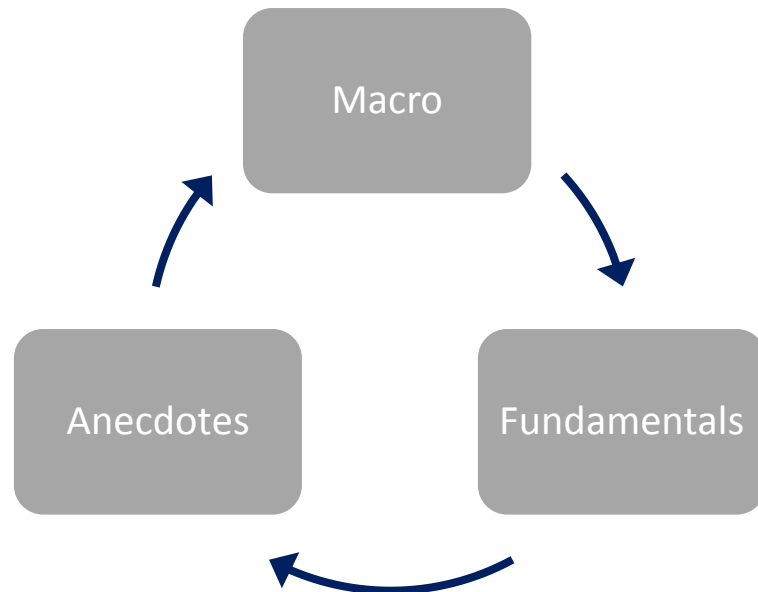
- Relative and absolute performance
- Valuation, estimate, and sentiment trends and relevance
- Battleground stocks
- Market research

2. Fundamentals

- Detailed financial models
- Identify Key Drivers
- Filings, transcripts, unstructured data, proprietary algorithms
- Professional interviews, surveys
- Multiple and sentiment forecast regressions

3. Macro Integration with Macro Monitor Database

- Database of 4000+ (and growing) curated time series data
- Automatically calculates and sorts correlations and significance
- Analyze leading and lagging relationships across multiple durations
- Identify, update, track, and chart high frequency Key Drivers



HEALTHCARE POSITION MONITOR

Sentiment	Investment Ideas - Longs			Trade	Trend	Tail	Sentiment	Investment Ideas - Shorts			Trade	Trend	Tail
Score ¹	LONG						Score ¹	SHORT					
6	ATHN	athenahealth, Inc.		✓	✓	✓	89	CERN	Cerner Corporation		×	×	×
6	EXAS	Exact Sciences Corporation		✓	✓	✓	81	HOLX	Hologic, Inc.		×	×	×
							59	AMN	AMN Healthcare Services, Inc.		×	×	×
							53	ZBH	Zimmer Biomet Holdings, Inc.		---	×	×
							41	HCA	HCA Holdings, Inc.		×	×	×
							33	MD	MEDNAX, Inc.		×	×	×
							22	QSII	Quality Systems, Inc.		---	×	×
							17	MDRX	Allscripts Healthcare Solutions, Inc.		×	×	×
							1	CPSI	Computer Programs and Systems, Inc.		---	×	×
Sentiment	Long Bench						Sentiment	Short Bench					
Score ¹	LONG						Score ¹	SHORT					
41	ILMN	Illumina, Inc.		---	---	---	83	OMCL	Omniceil, Inc.		---	---	---
44	HQY	HealthEquity Inc		---	---	---	79	LH	Laboratory Corporation of America Holdings		---	---	---
56	EVH	Evolent Health Inc Class A		---	---	---	78	ABCO	Advisory Board Company		---	---	---
							44	HQY	HealthEquity Inc		---	---	---
							44	MDSO	Medidata Solutions, Inc.		---	---	---
							36	LPNT	LifePoint Health, Inc.		---	---	---
							23	THC	Tenet Healthcare Corporation		---	---	---
							11	TDOC	Teladoc Inc		---	---	---
							5	DGX	Quest Diagnostics Incorporated		---	---	---
							1	CYH	Community Health Systems, Inc.		---	---	---

¹Percentile rank within sub-sector (1 = High Short Interest, Negative Sell Side / 100 = Low Short Interest, Positive Sell Side)

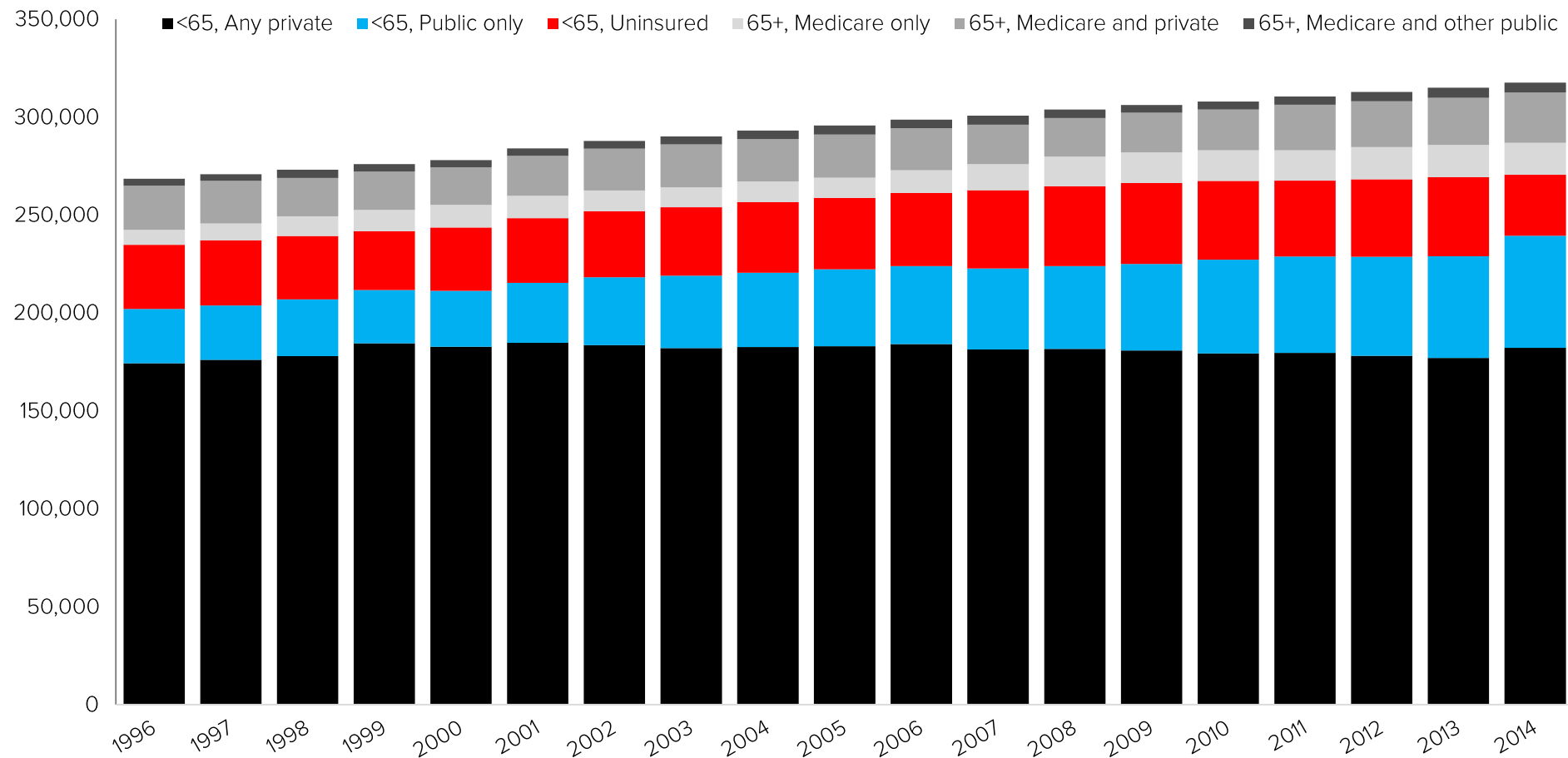
Bench = Timing is not right, or research in progress.

HARD TO FIND LONG IDEAS

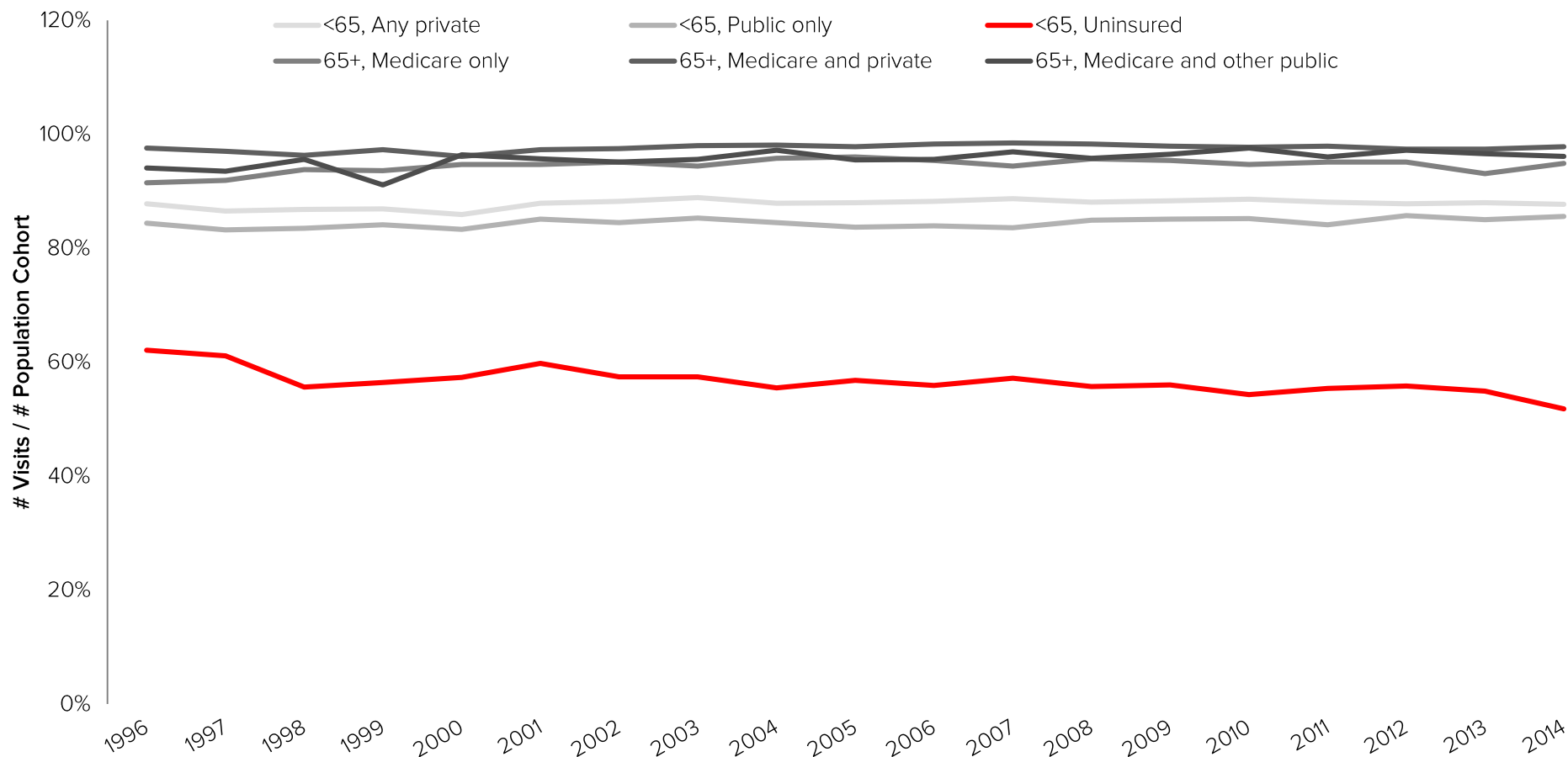
WHEN EVERYTHING IS LINED UP ON THE SHORT SIDE

- **SHORT** THE U.S. MEDICAL CONSUMER
- **SHORT** REGULATORY ENVIRONMENT
- **SHORT** MANAGEMENT TEAMS WHO ARE DOWNPLAYING THE #ACATAPER AND #ACA2.0
- **SHORT** HEALTHCARE RELATIVE GROWTH
- **SHORT** PEAK DEBT AND PEAK M&A
- **SHORT** HEALTHCARE CAPEX
- **LONG** LOW COST OF CARE
- **LONG** SHARE TAKERS
- **LONG** PRODUCT CYCLES

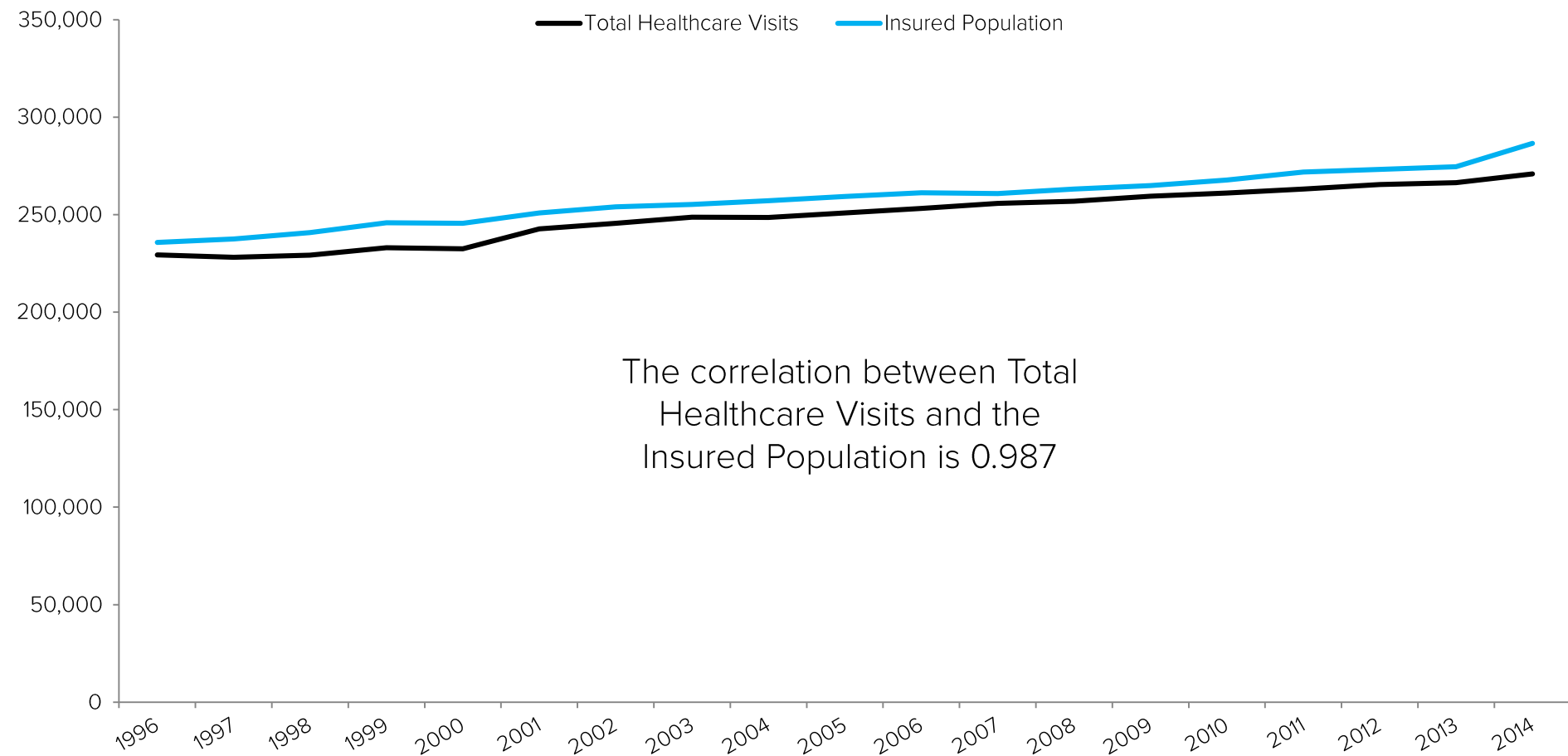
UNITED STATES POPULATION BY HEALTH INSURANCE



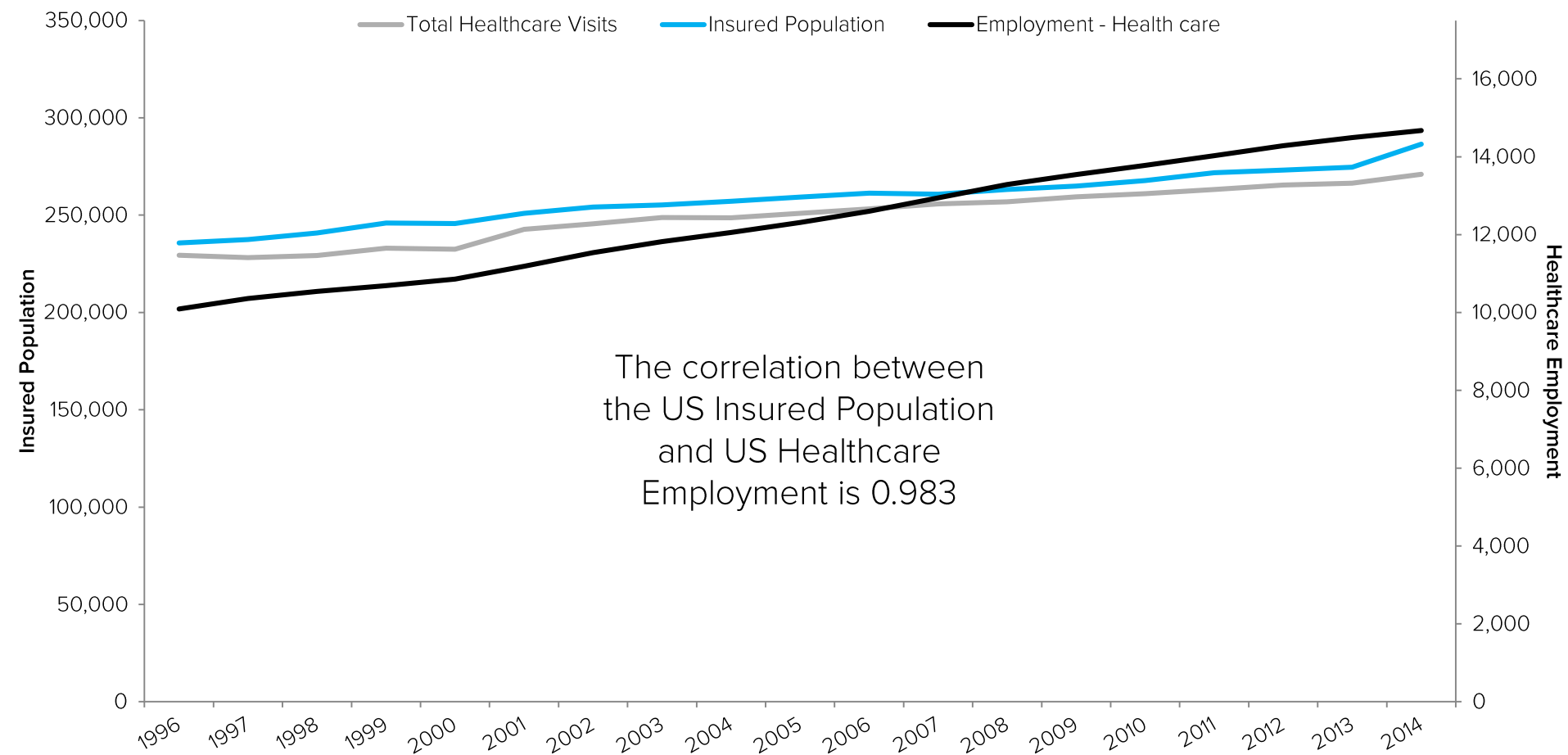
UTILIZATION RATE BY HEALTH INSURANCE & AGE



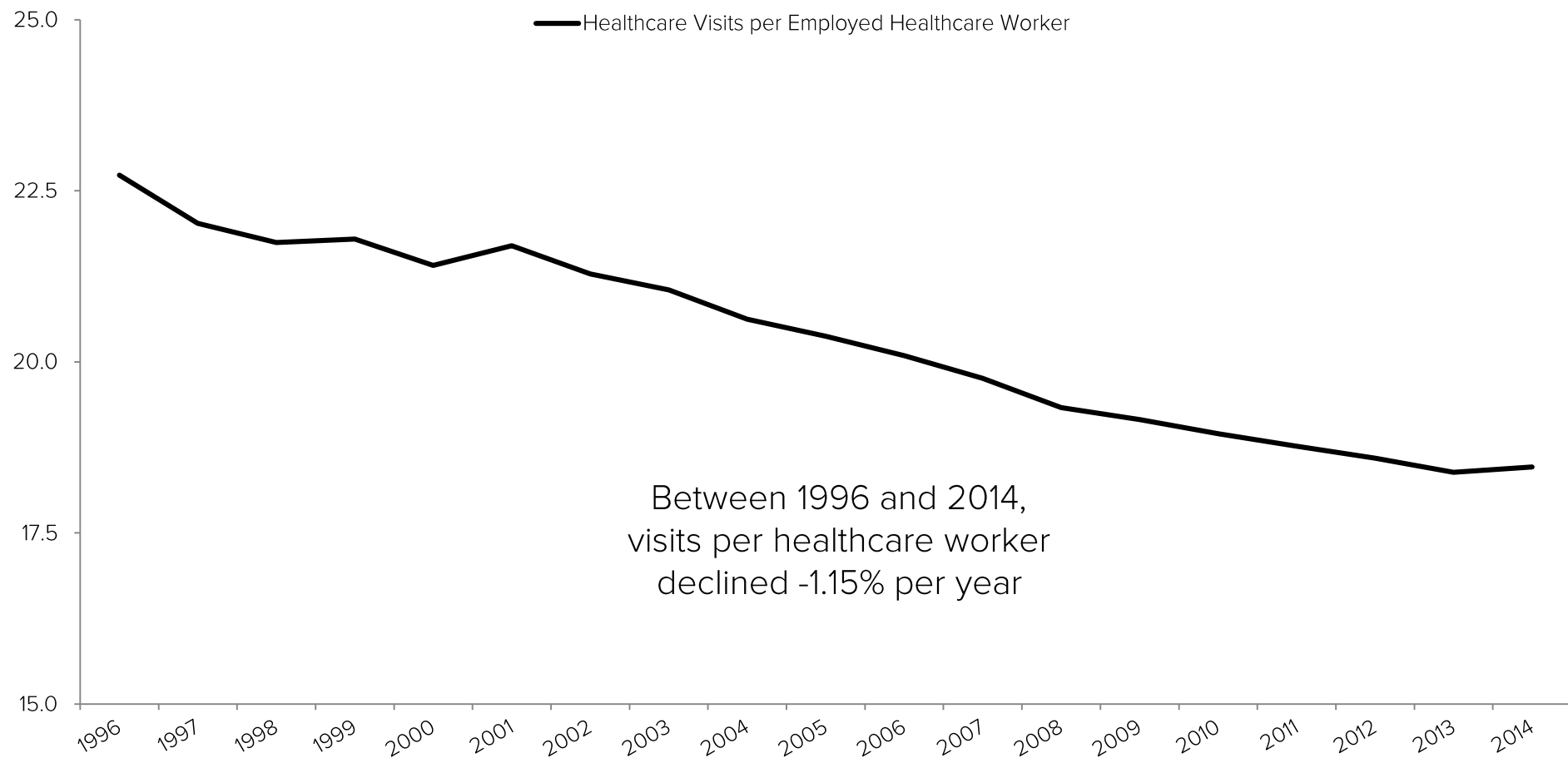
INSURED POPULATION VS HEALTHCARE VISITS



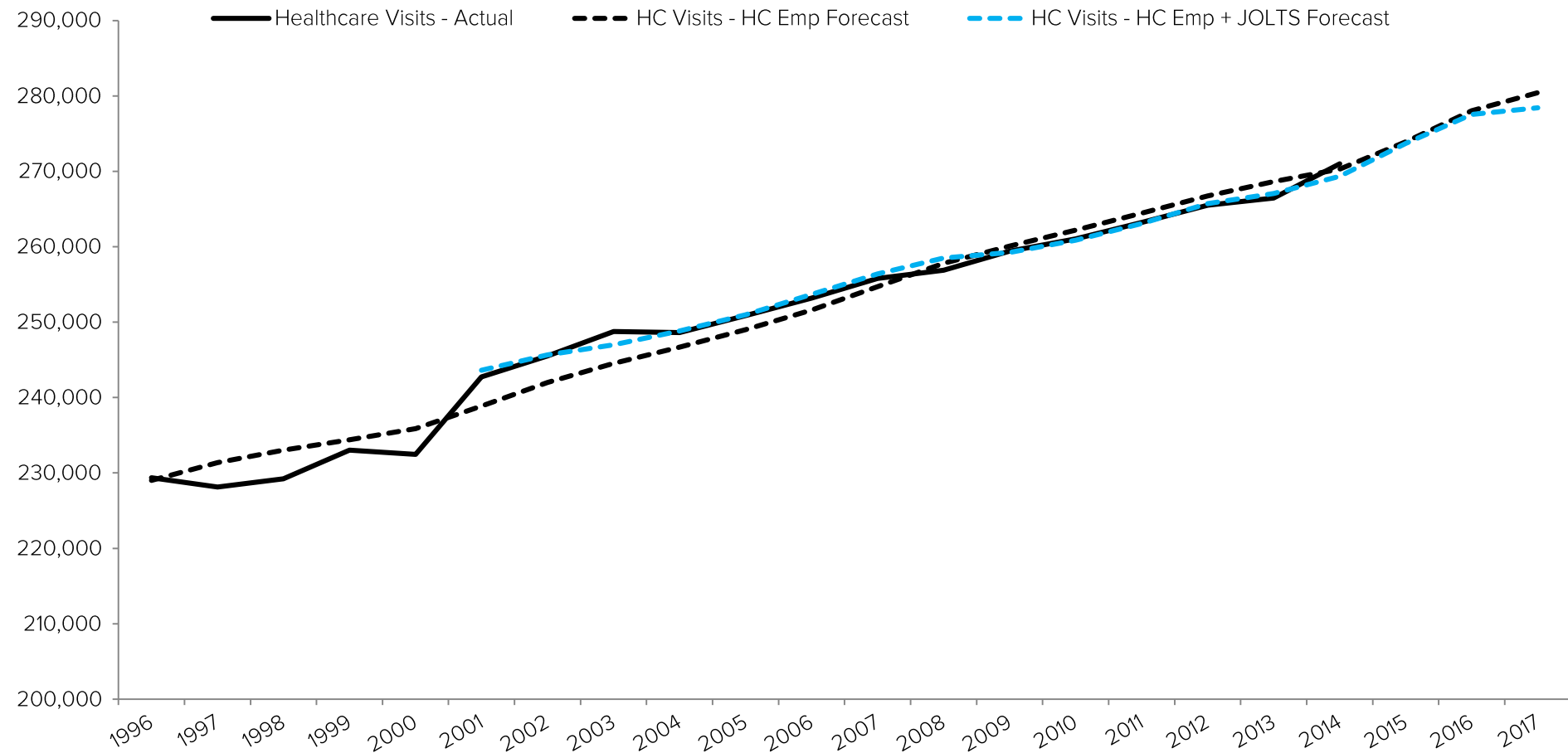
INSURED POPULATION VS HEALTHCARE EMPLOYMENT



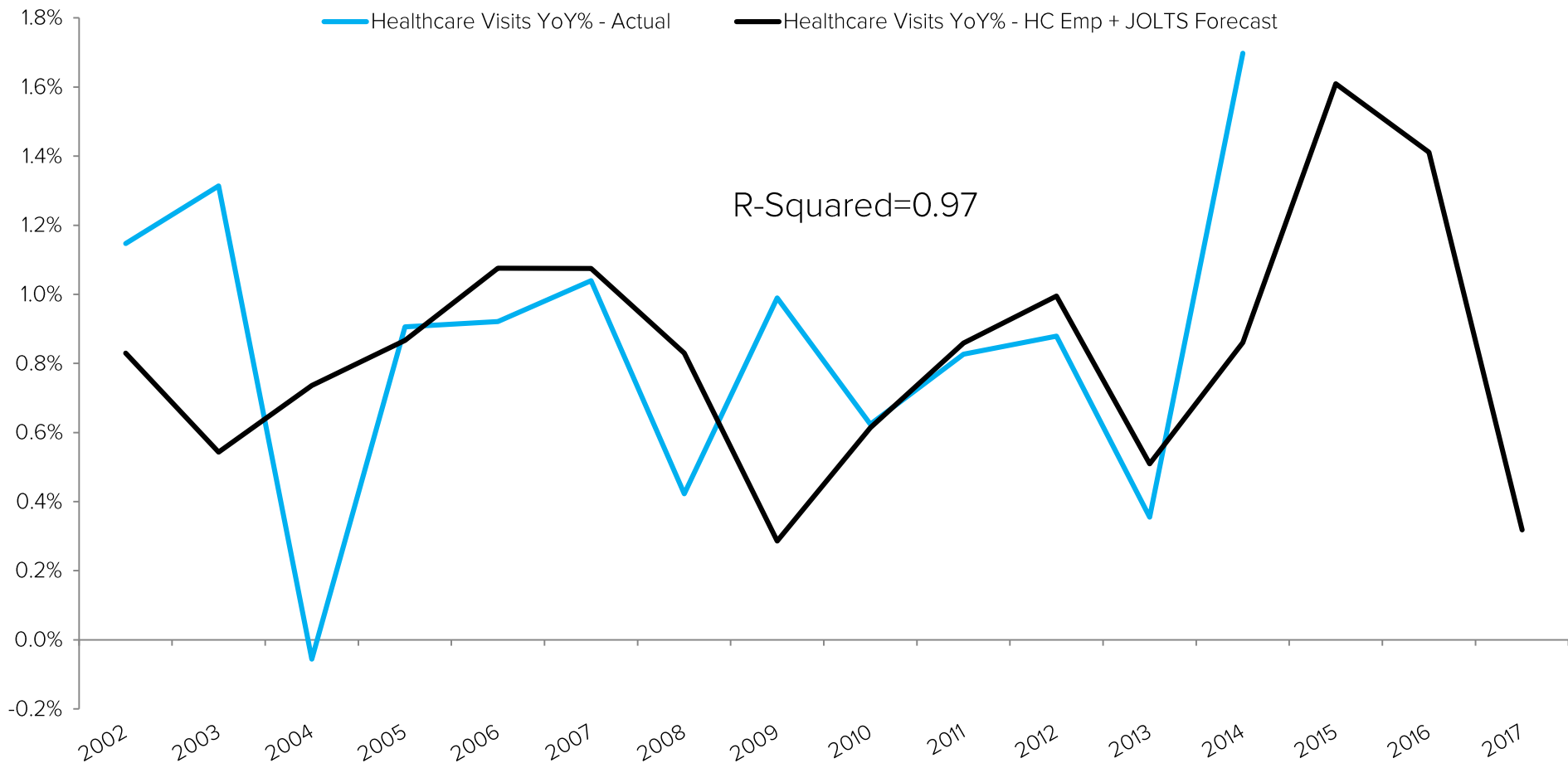
HEALTHCARE INDUSTRY LESS PRODUCTIVE



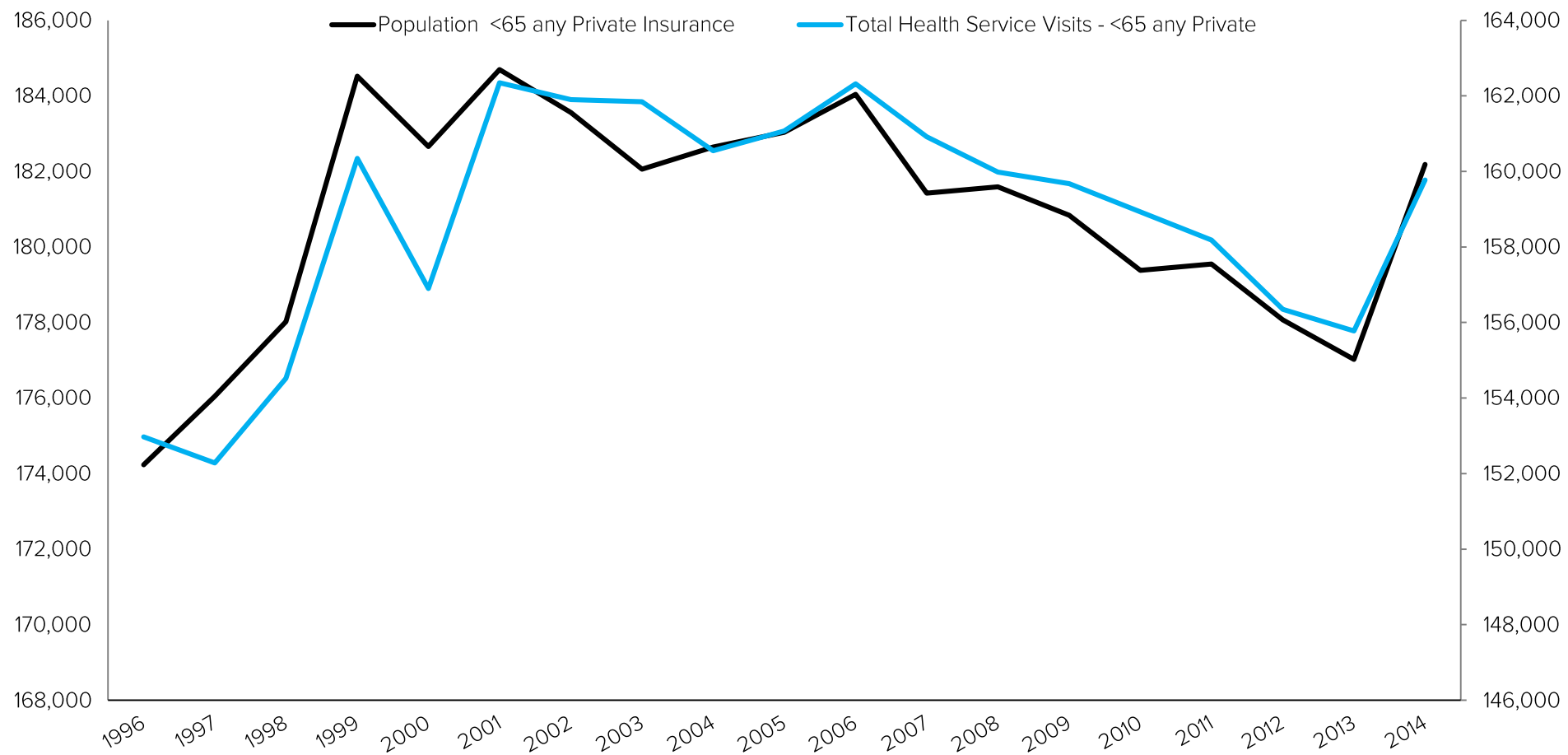
HEALTHCARE VISIT REGRESSION FORECASTS



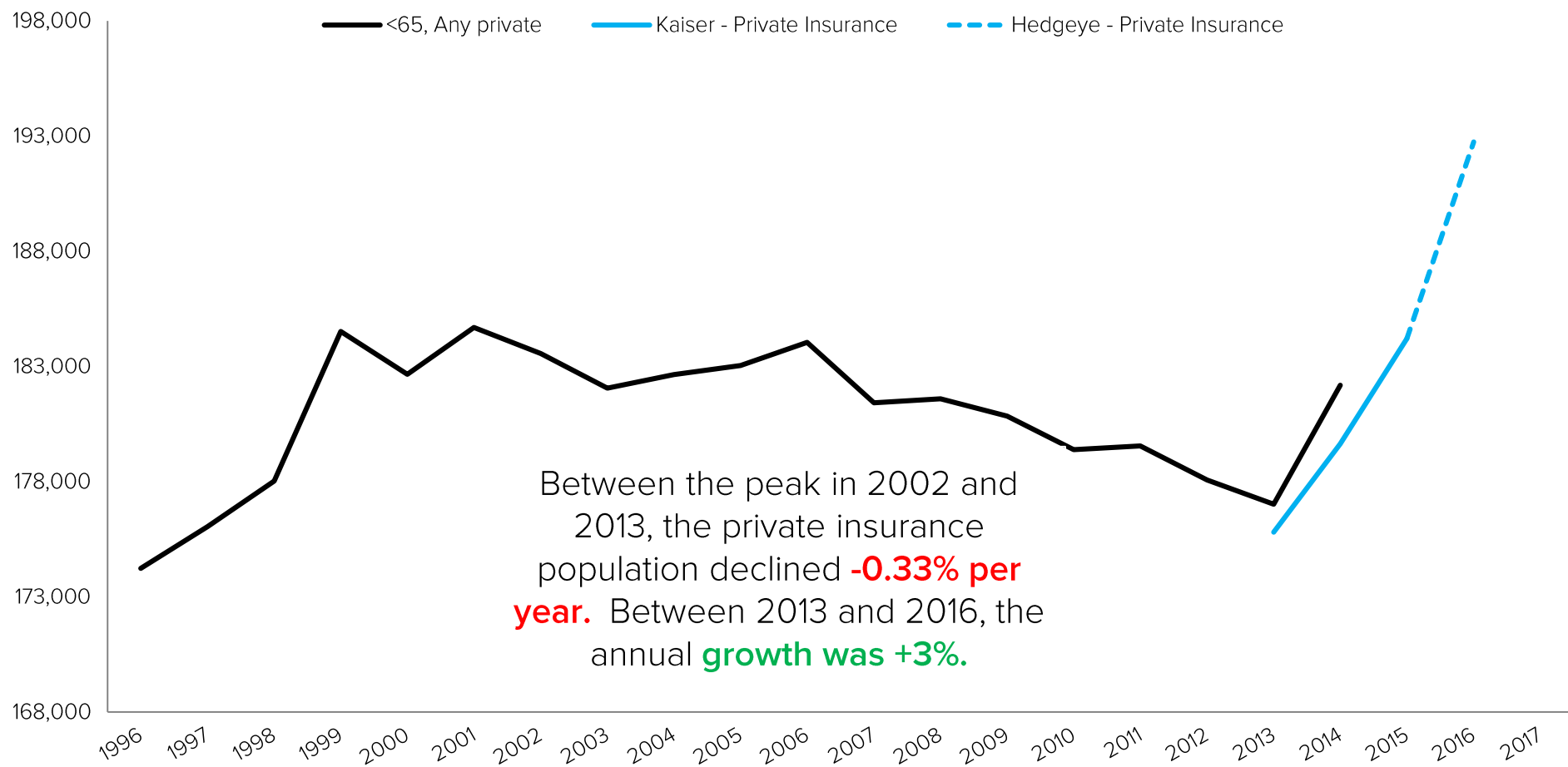
FORECASTING MEDICAL CONSUMPTION WITH HC LABOR



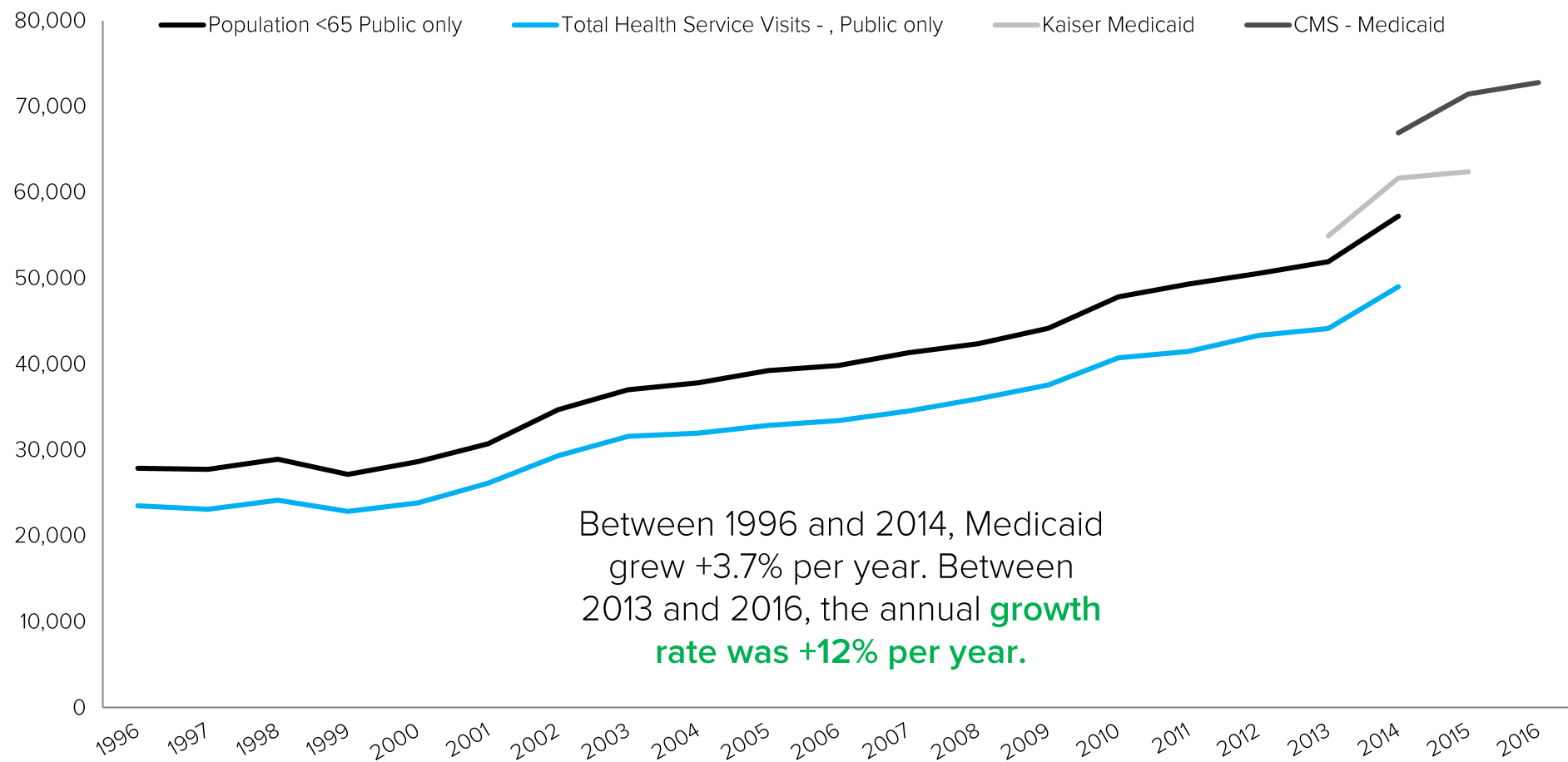
INSURANCE DRIVES MEDICAL CONSUMPTION



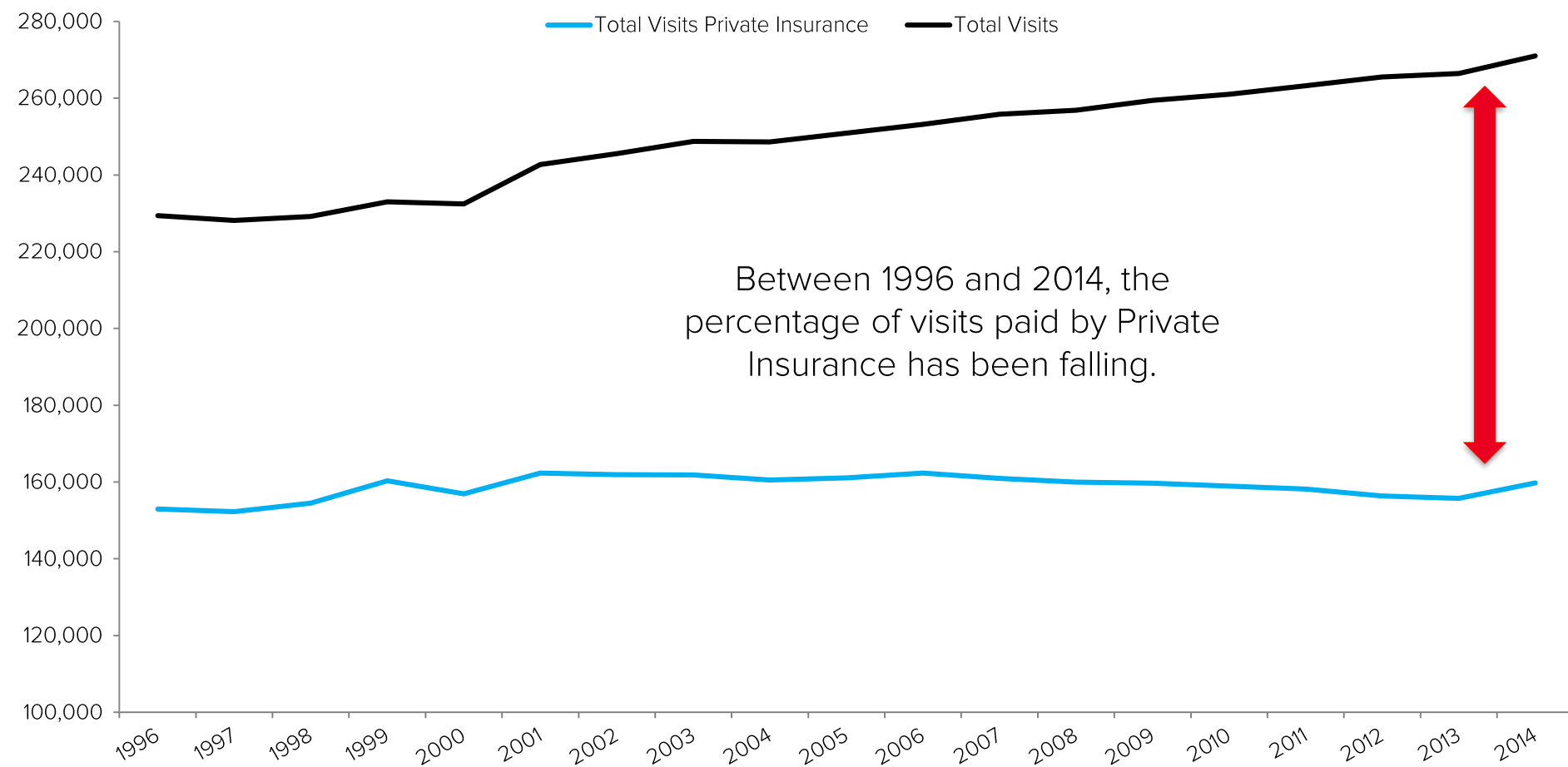
INSURANCE DRIVES MEDICAL CONSUMPTION



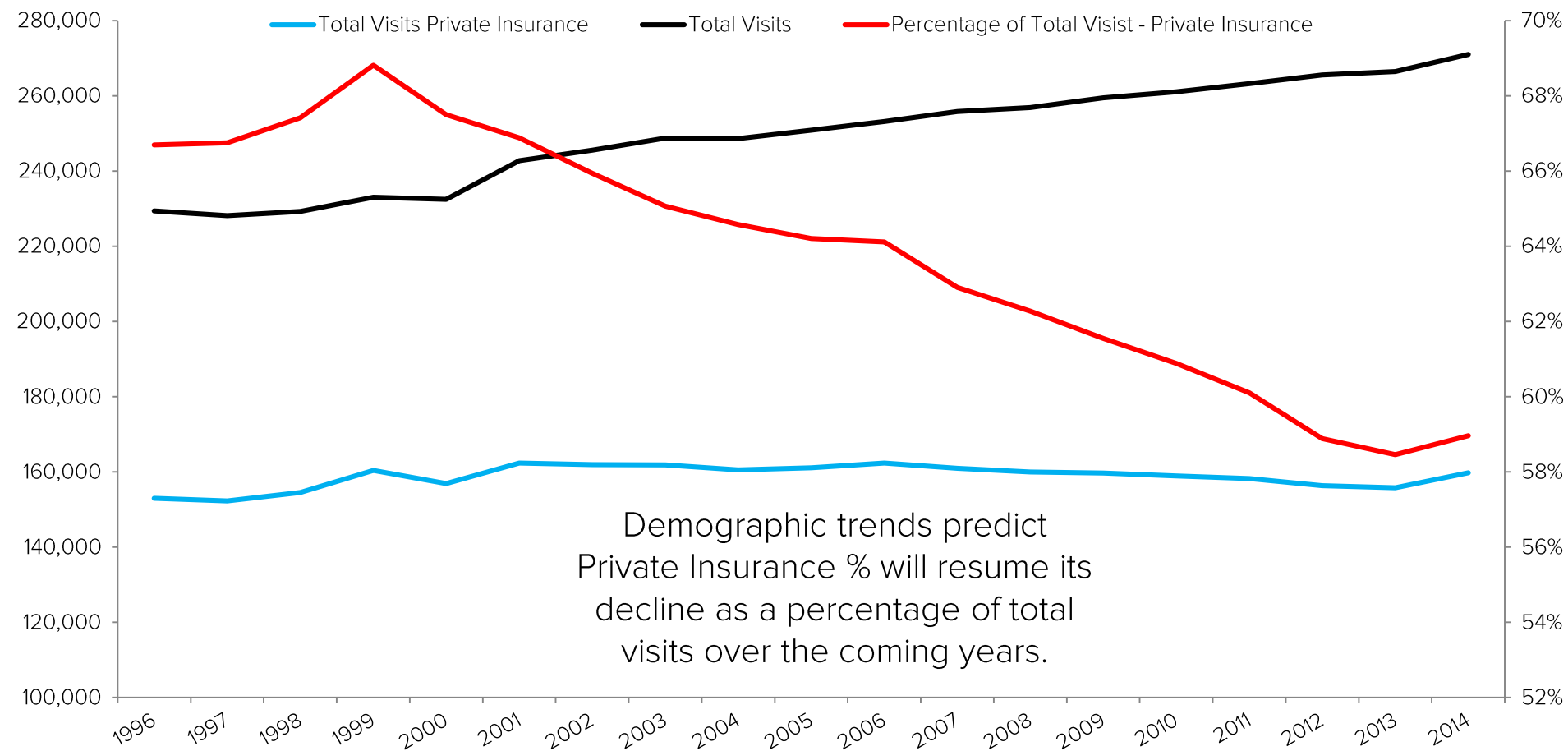
INSURANCE DRIVES MEDICAL CONSUMPTION



MEDICAL ECONOMY LESS COMMERCIALLY INSURED



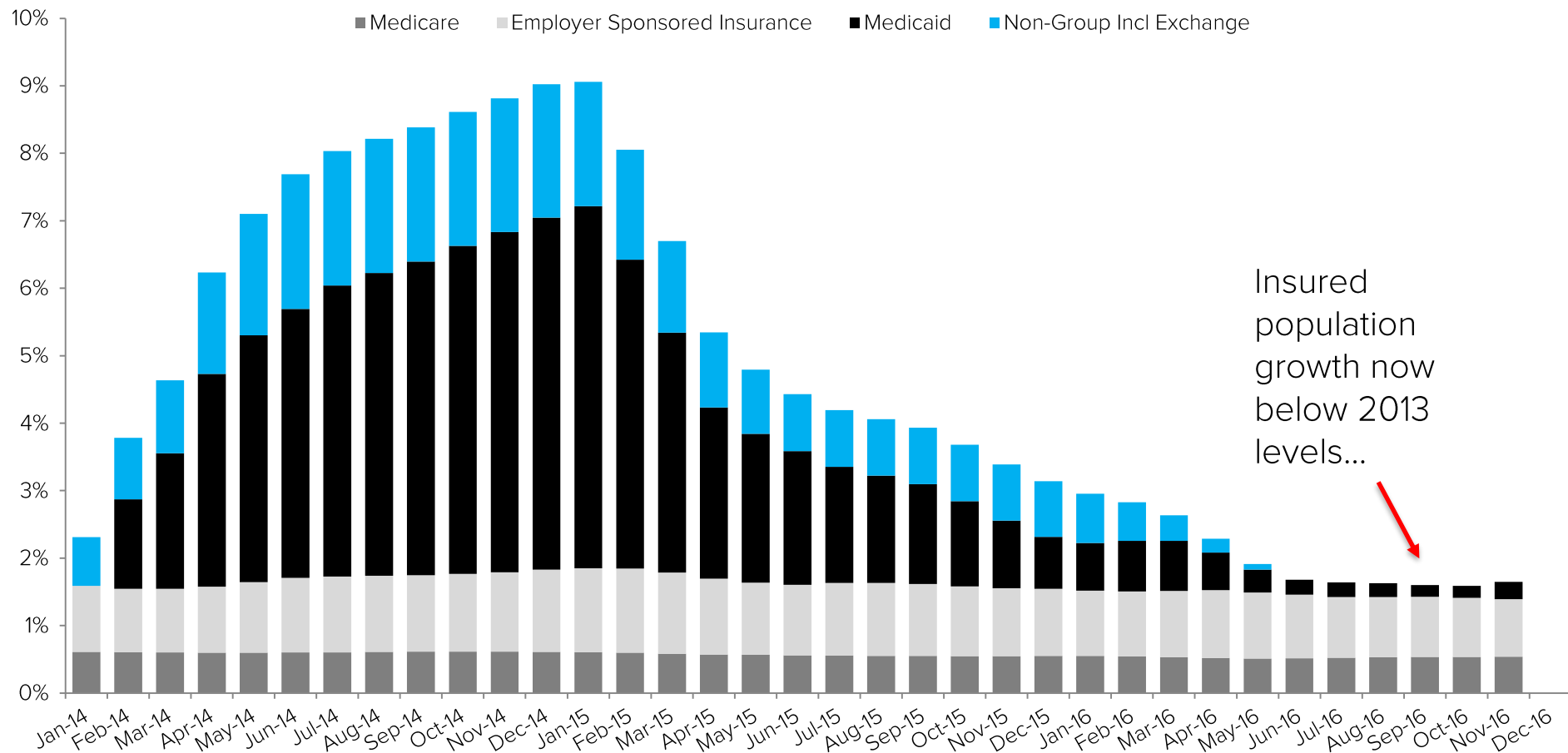
MEDICAL ECONOMY LESS COMMERCIALY INSURED



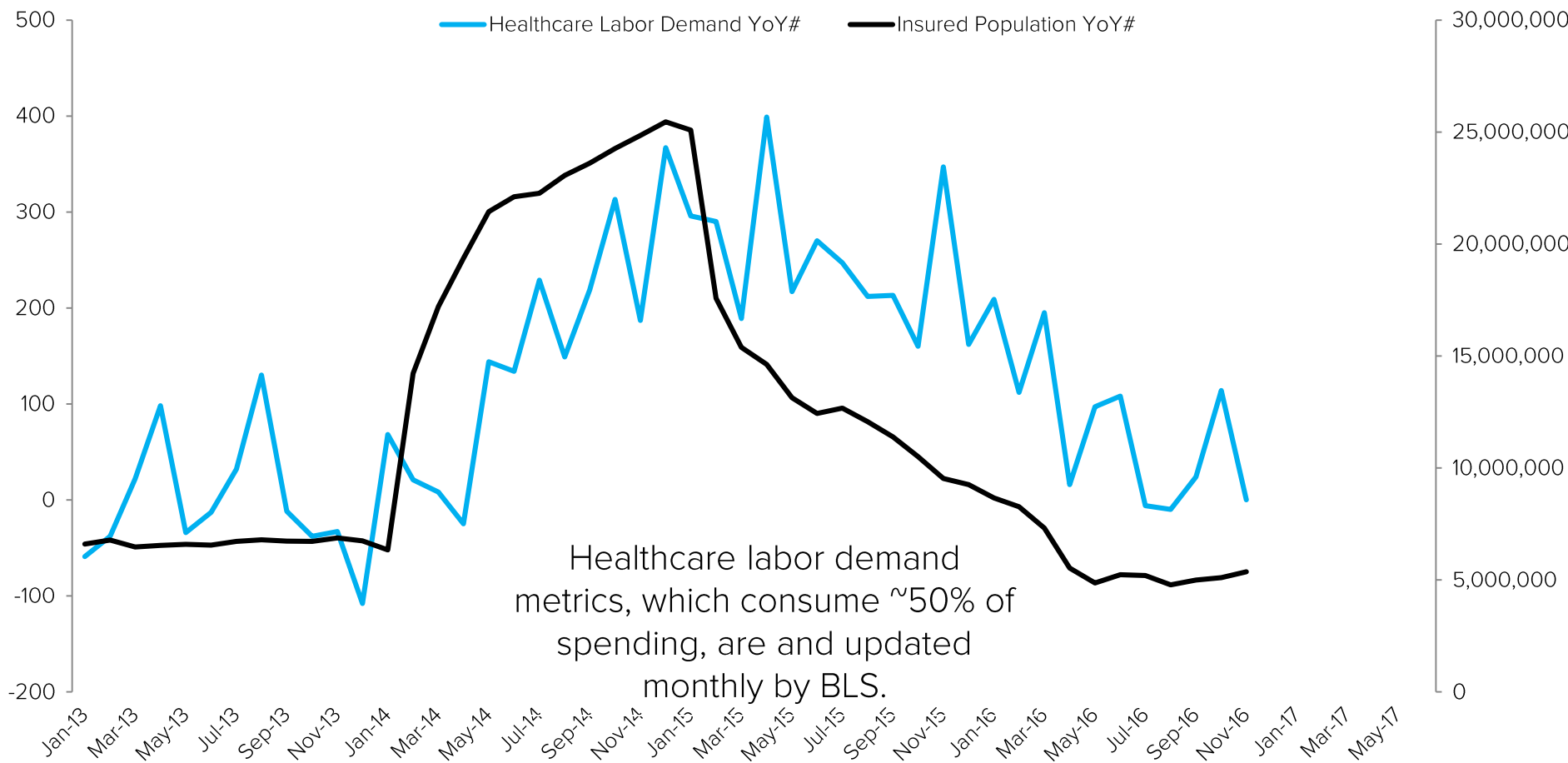


U.S. INSURED MEDICAL CONSUMERS

INSURED POPULATION HAS SLOWED

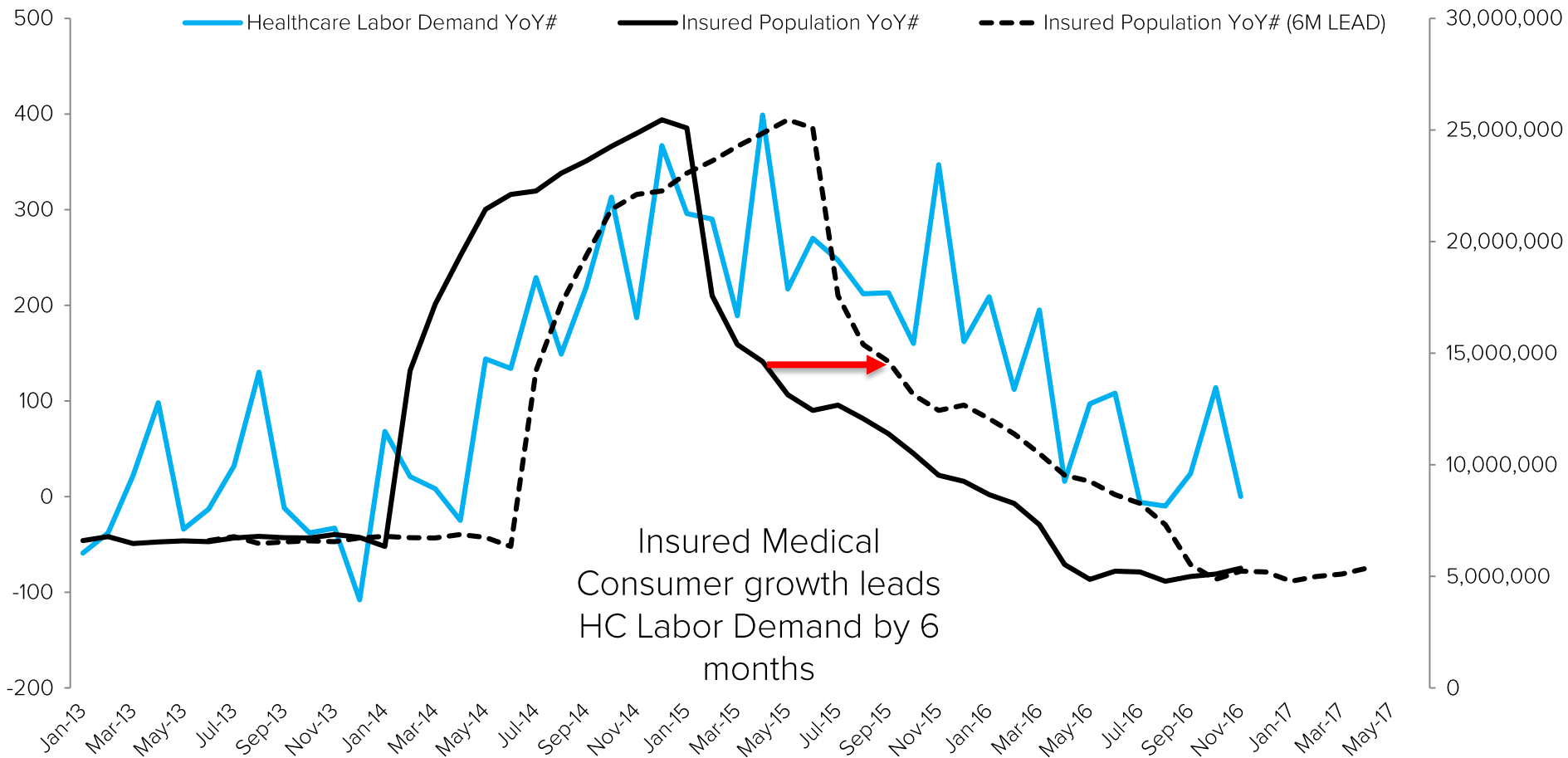


INSURED POPULATION SLOWING



Healthcare labor demand metrics, which consume ~50% of spending, are and updated monthly by BLS.

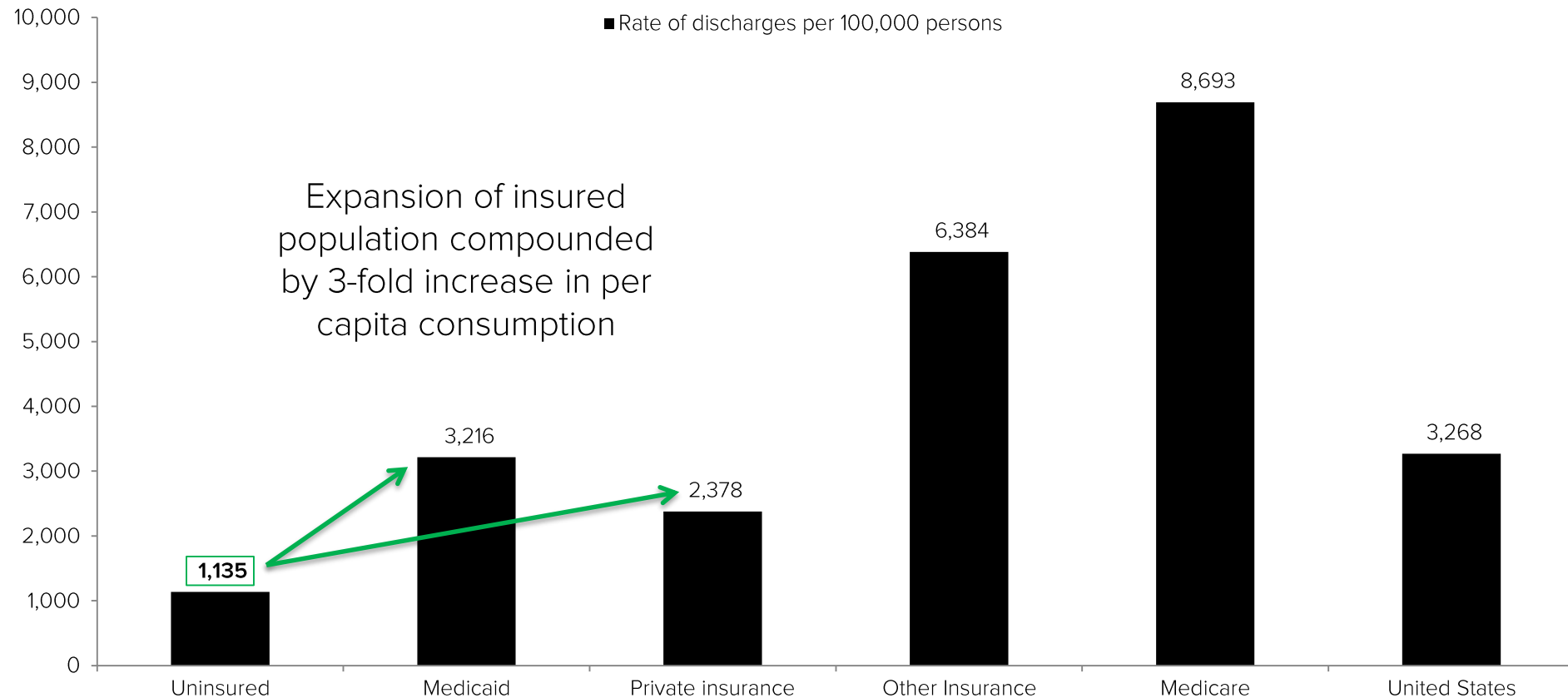
INSURED POPULATION HAS SLOWED



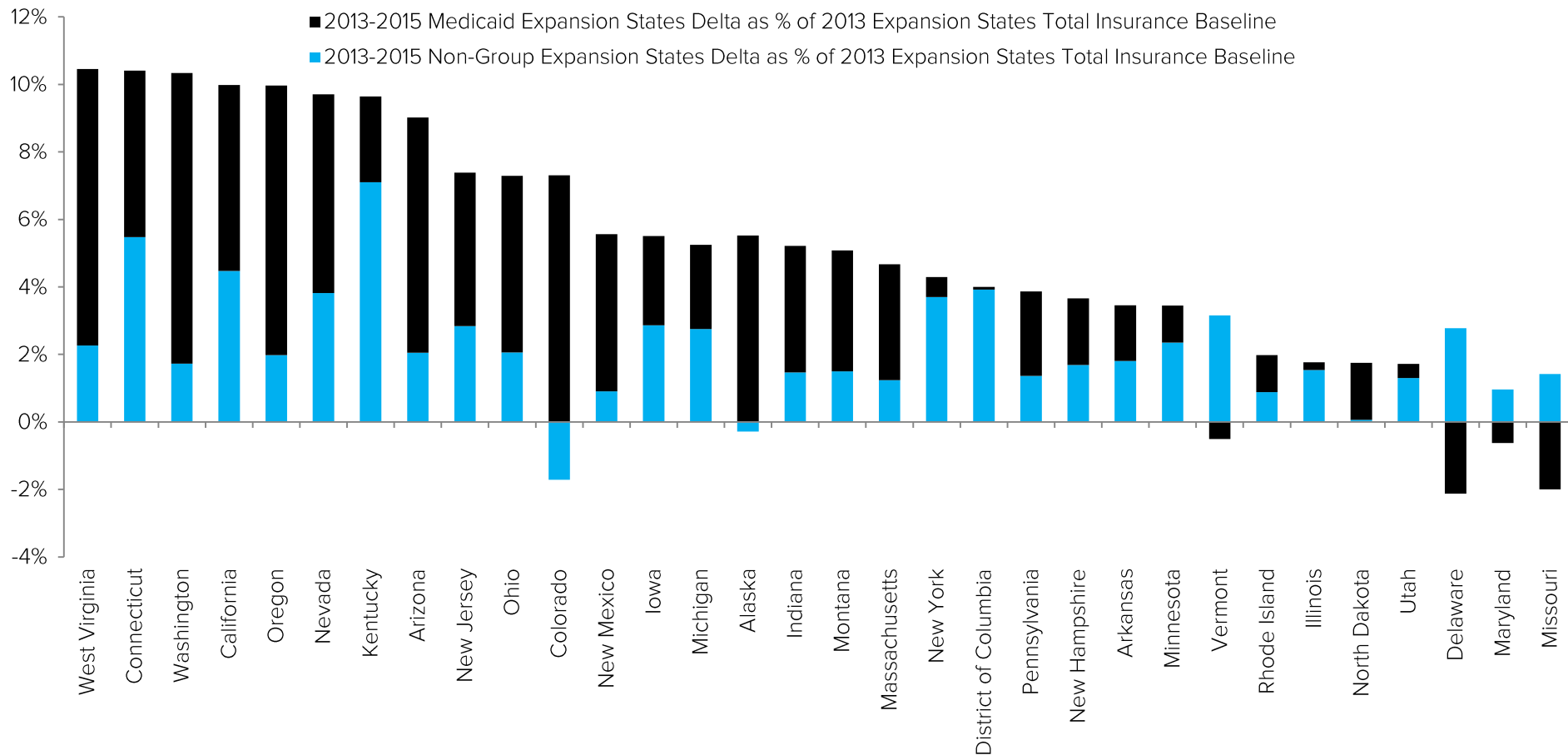
Insured Medical
Consumer growth leads
HC Labor Demand by 6
months

3-FOLD INCREASE IN UTILIZATION FOR NEWLY INSURED

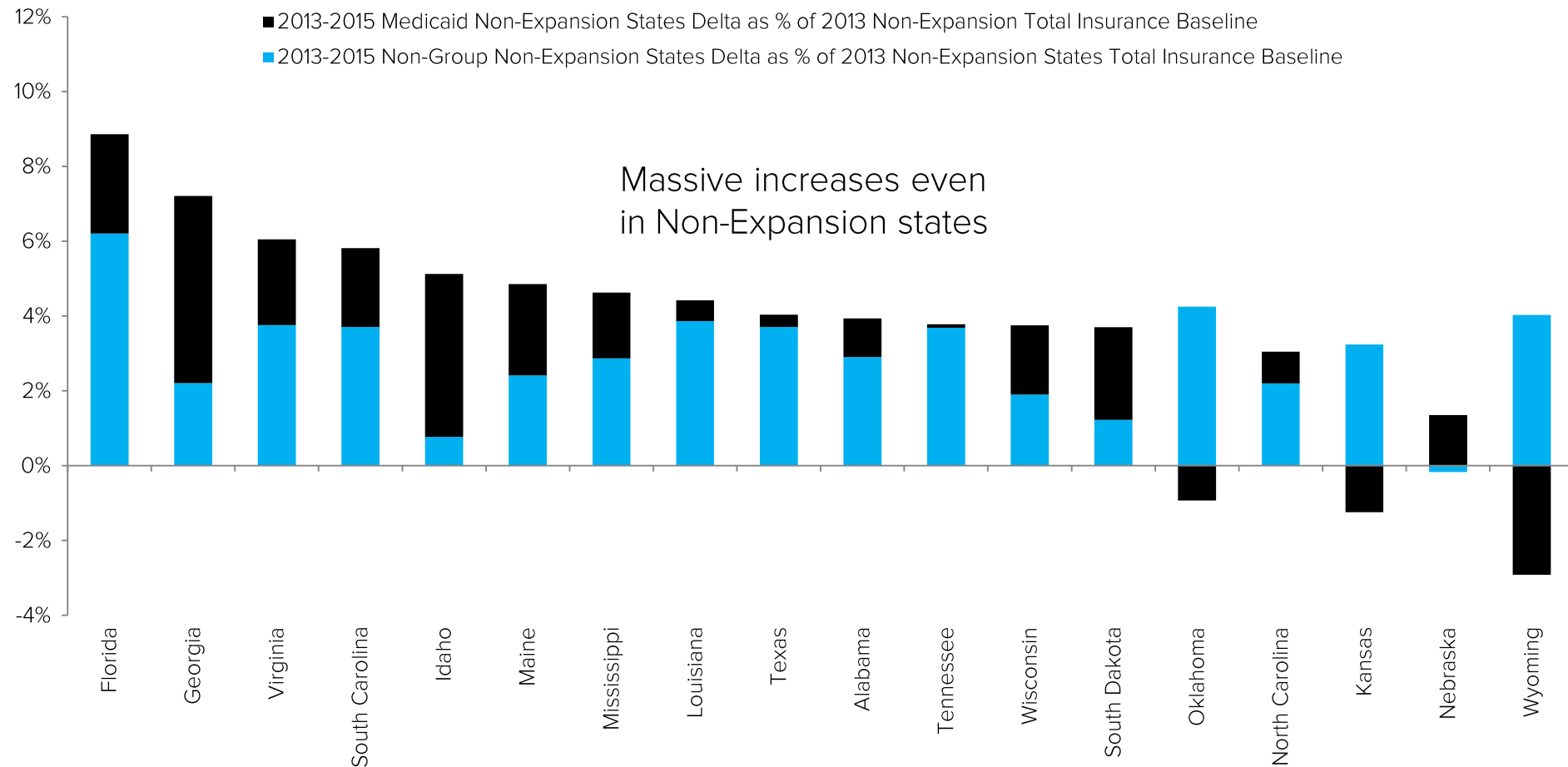
OPERATING ROOM PROCEDURES INCREASE



EXPANSION = MEDICAID + NON-GROUP

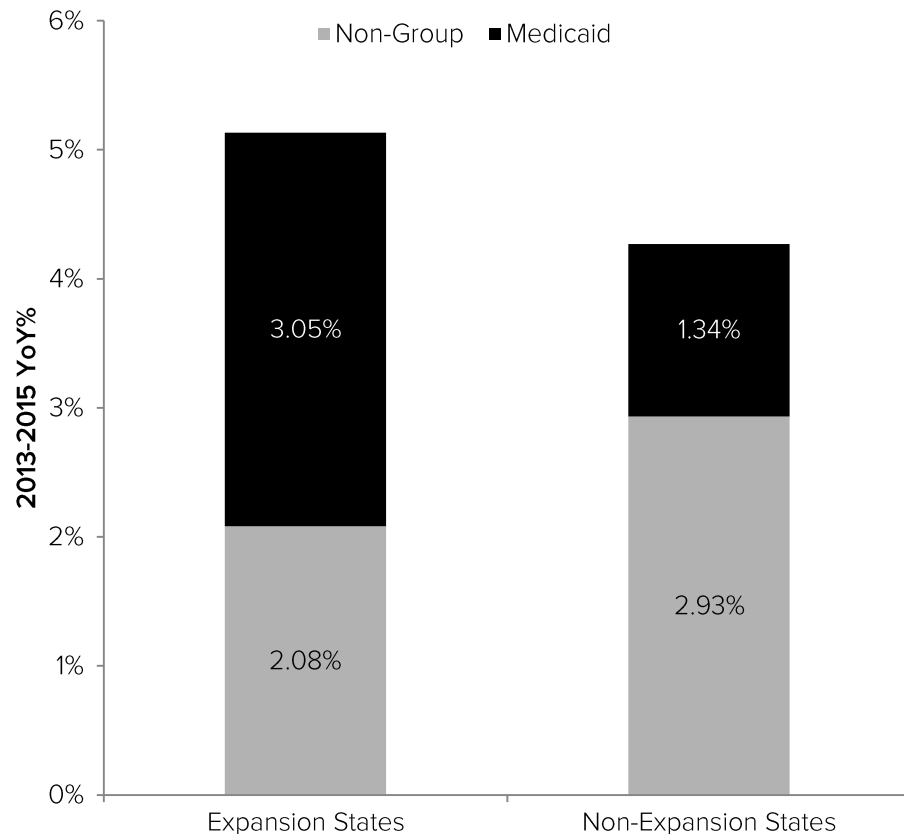
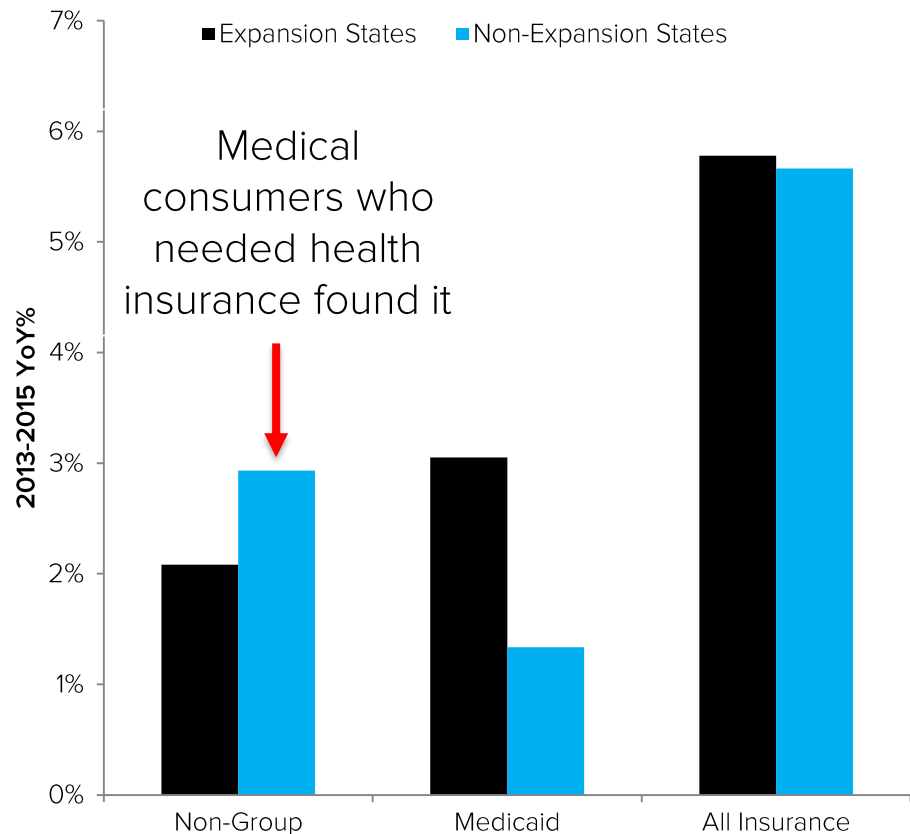


NON-EXPANSION STATES RANKED



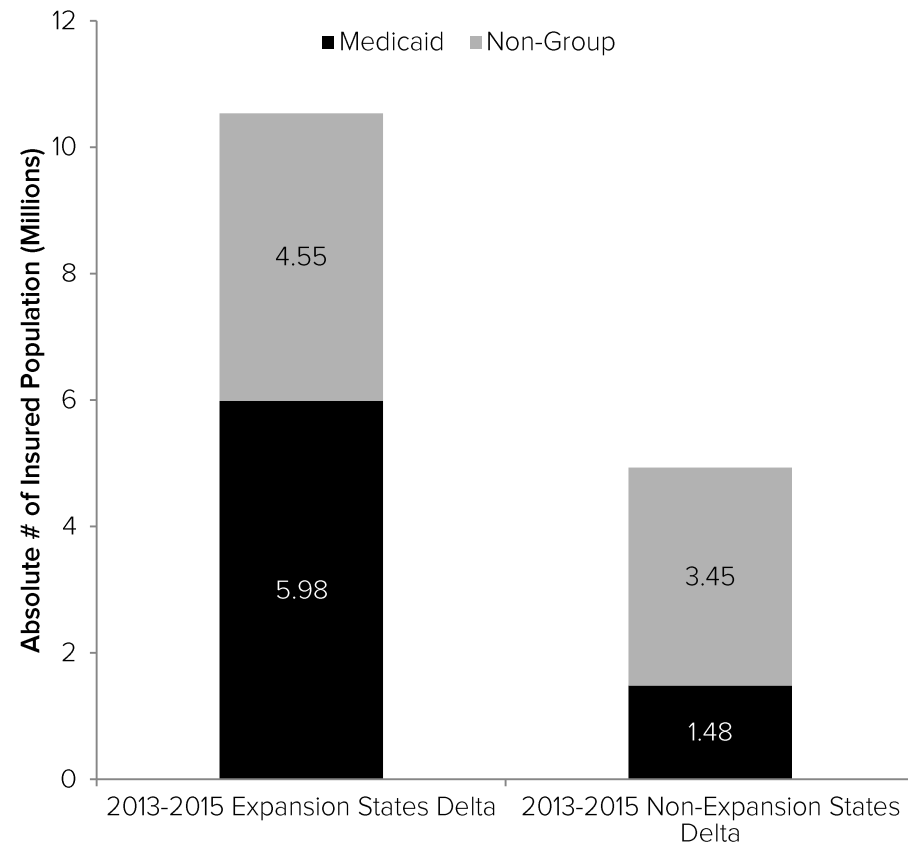
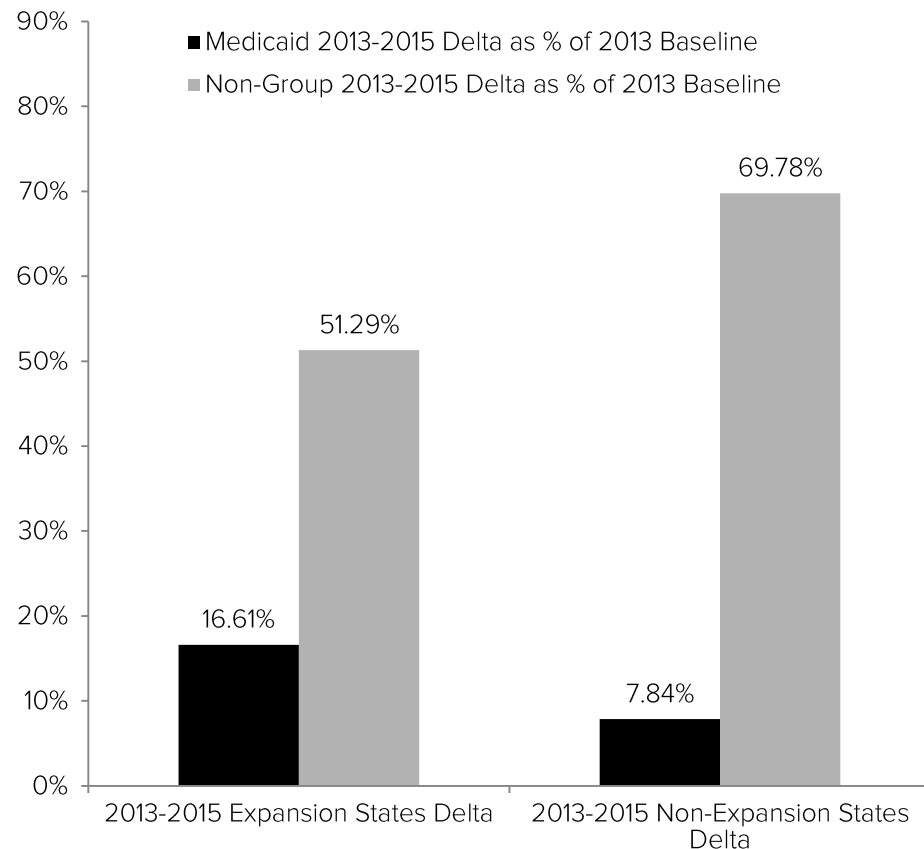
TOTAL GROWTH SIMILAR

NON-EXPANSION STATES DID BETTER WITH EXCHANGES



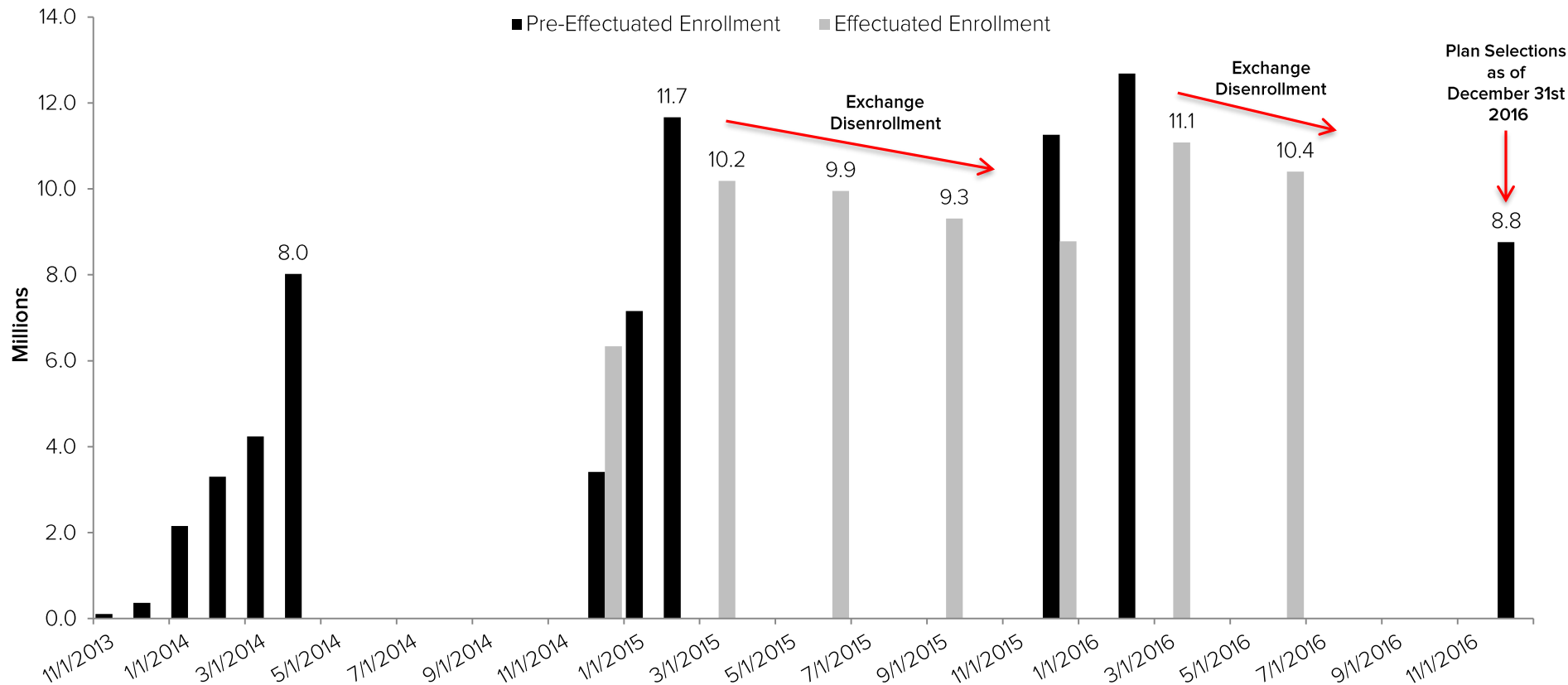
MEDICAID AND NON-GROUP

MEDICAID EXPANSION GREATER THAN EXCHANGES



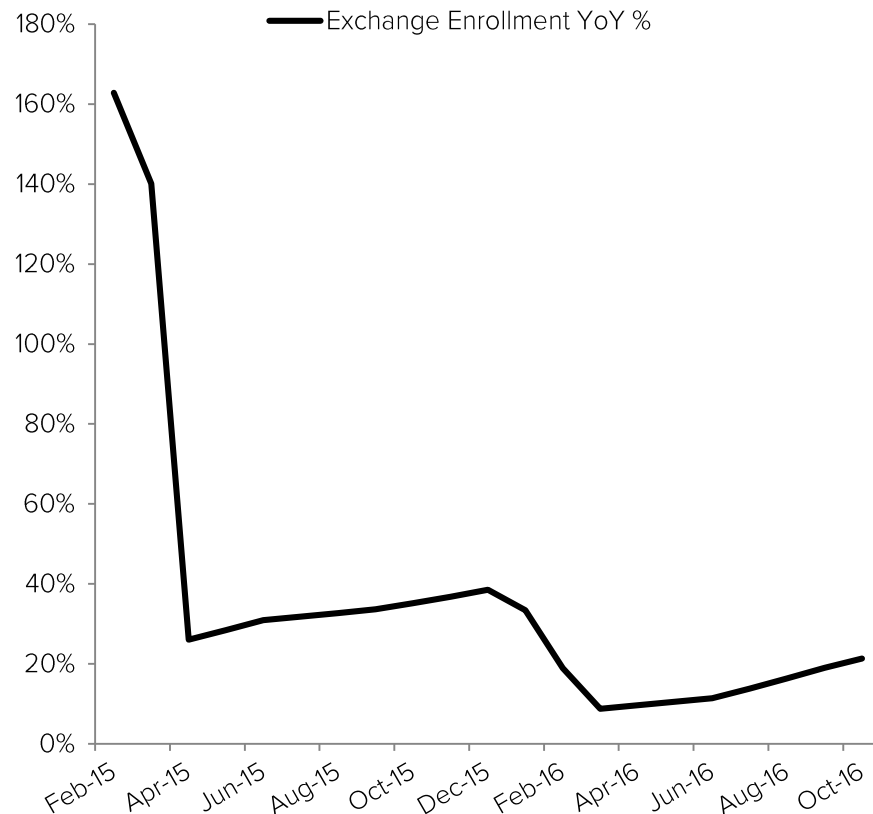
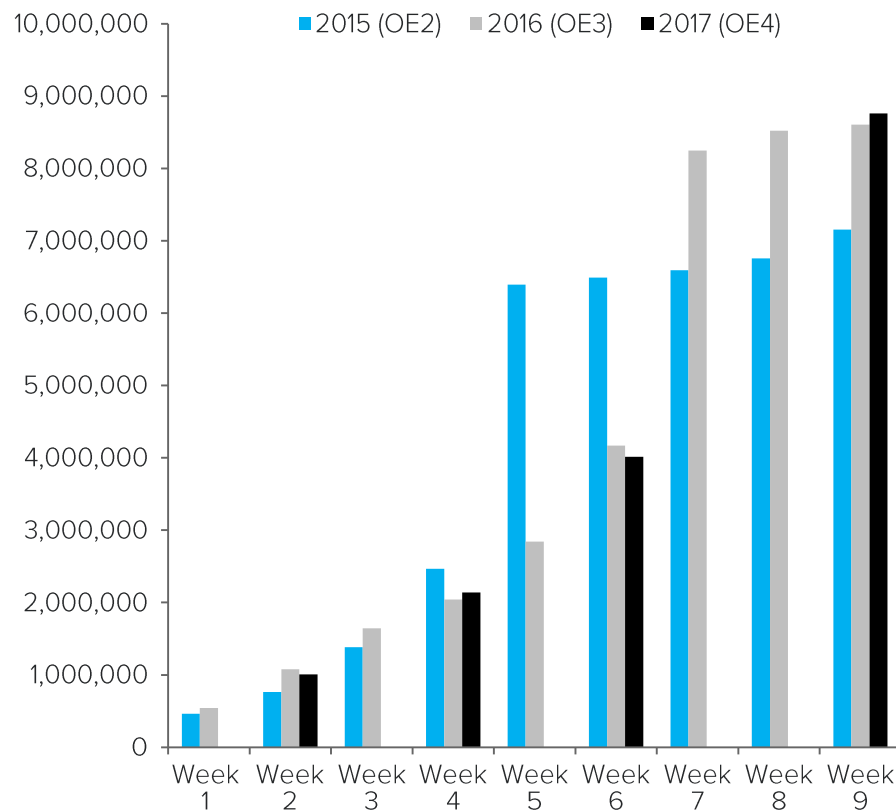
EXCHANGE ENROLLMENT SLOWING/DECLINING

-22.17% YOY DECREASE IN PRE-EFFECTUATED ENROLLMENT DECEMBER 2016



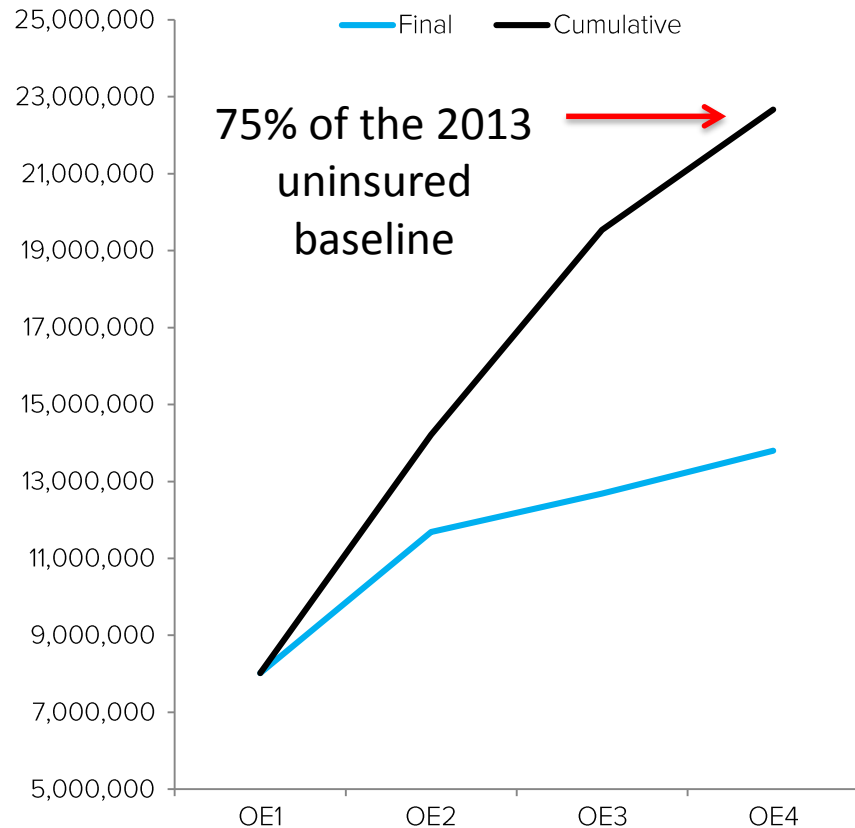
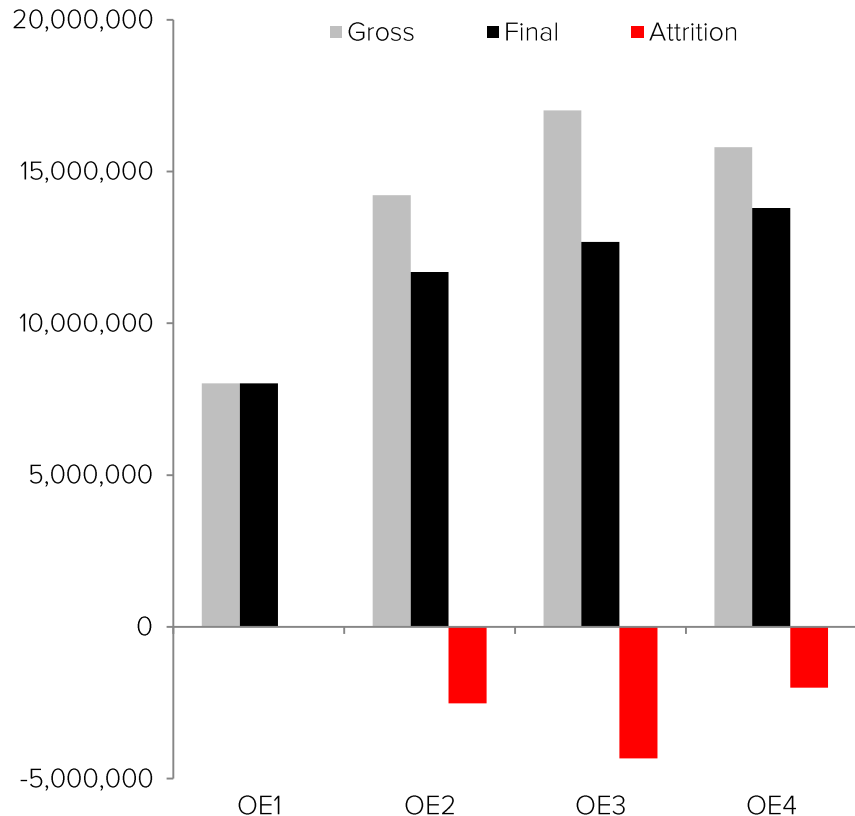
FEDERAL EXCHANGE ENROLLMENT

+1.79% YOY INCREASE IN CUMULATIVE WEEK 9 OPEN ENROLLMENT

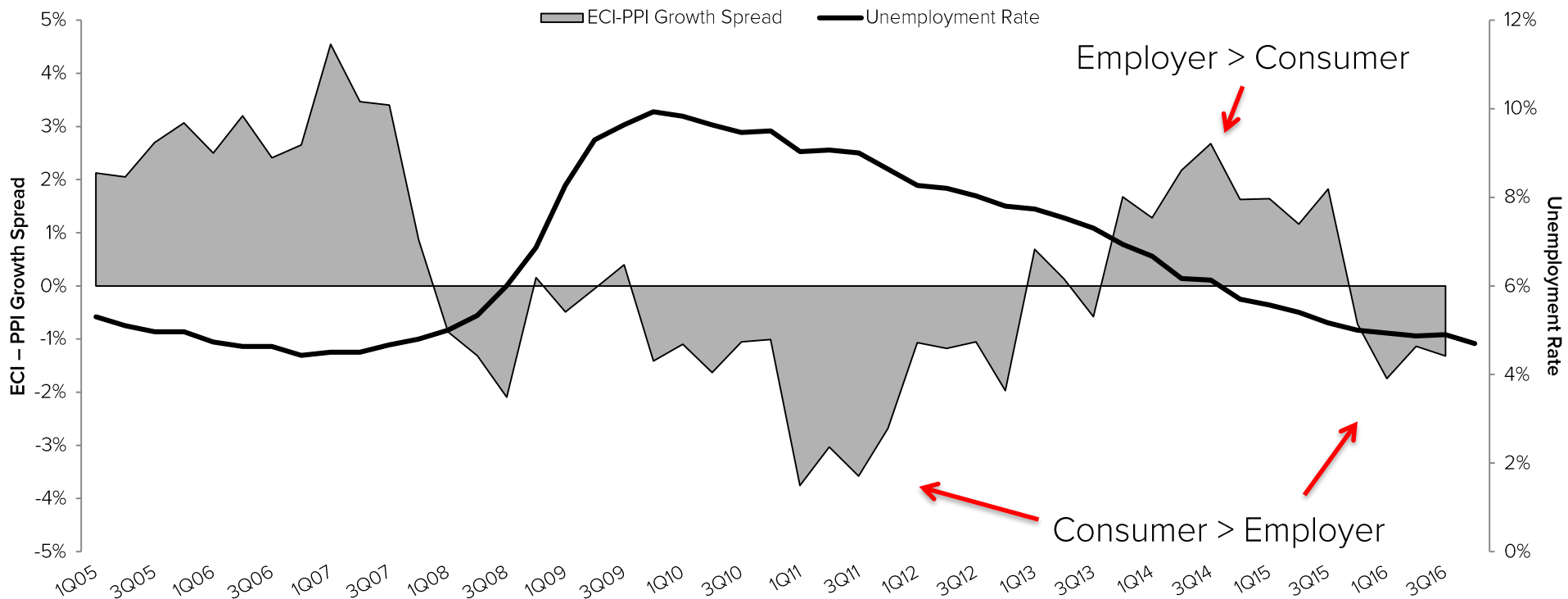


PLAN SELECTION ATTRITION AND HIGH CHURN

2 MILLION PLANS OF ATTRITION EXPECTED IN OE4



COST SHIFTING BACK TO MEDICAL CONSUMER

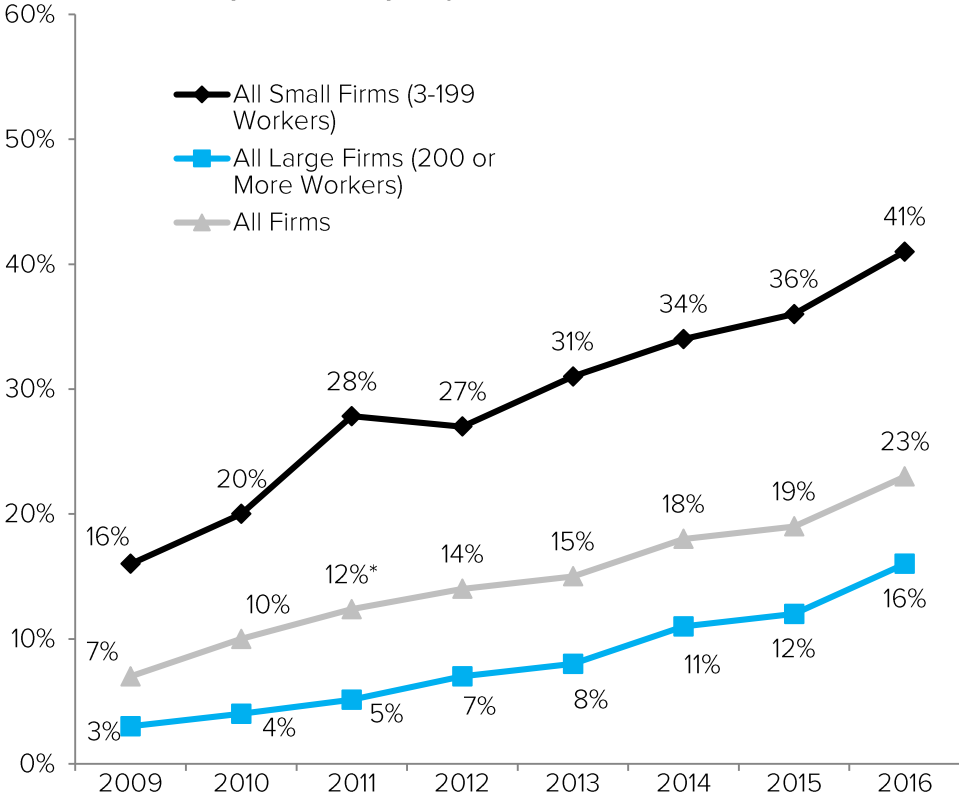


EMPLOYEES ABSORBING MARGINAL COSTS

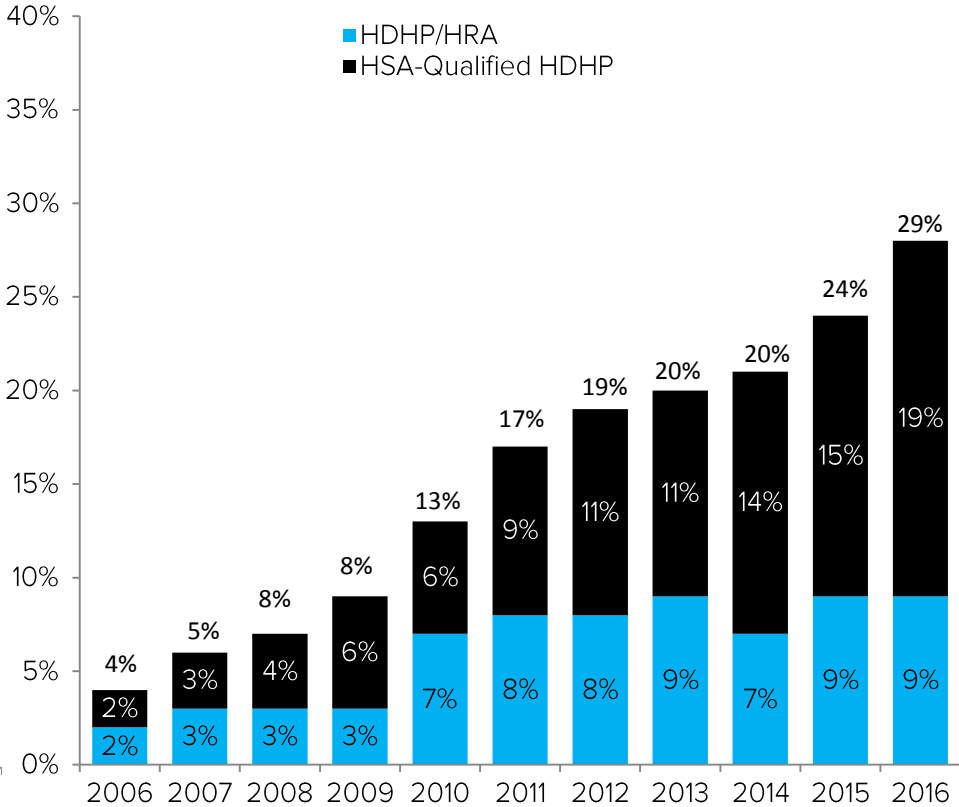
PPI includes co-pays and deductibles and ECI does not. A negative spread means employers are pushing cost sharing to their employees.

COST SHIFTING ACCELERATED 2015 & 2016

% of Covered Workers Enrolled in a plan with a General Annual Deductible of \$2,000 or more for single Coverage By Firm Size, 2009-2016



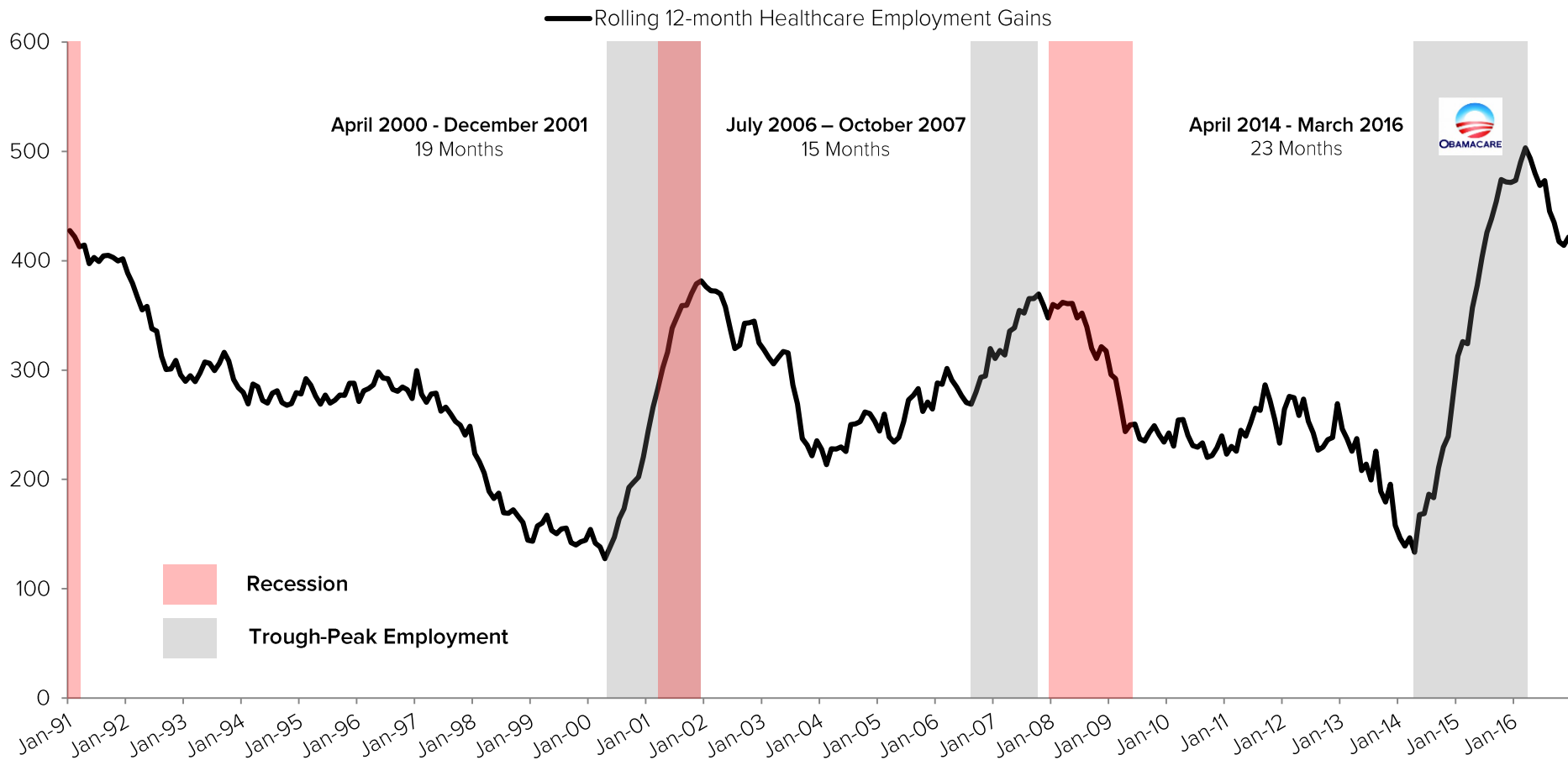
% of Covered Workers Enrolled in an HDHP/HRA or an HSA-Qualified HDHP, 2006-2016



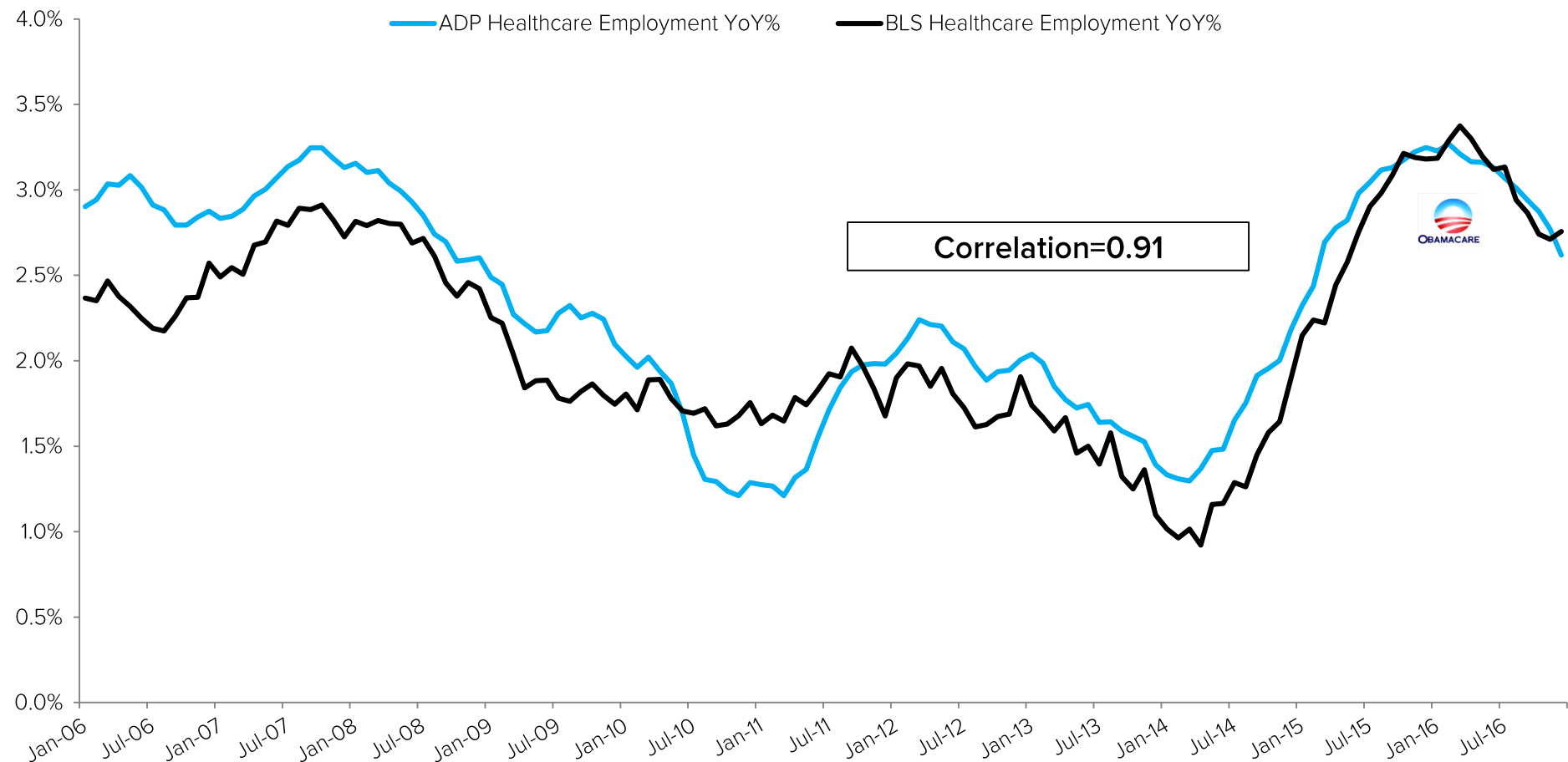


CURRENT HEALTHCARE EMPLOYMENT TRENDS

HEALTHCARE EMPLOYMENT

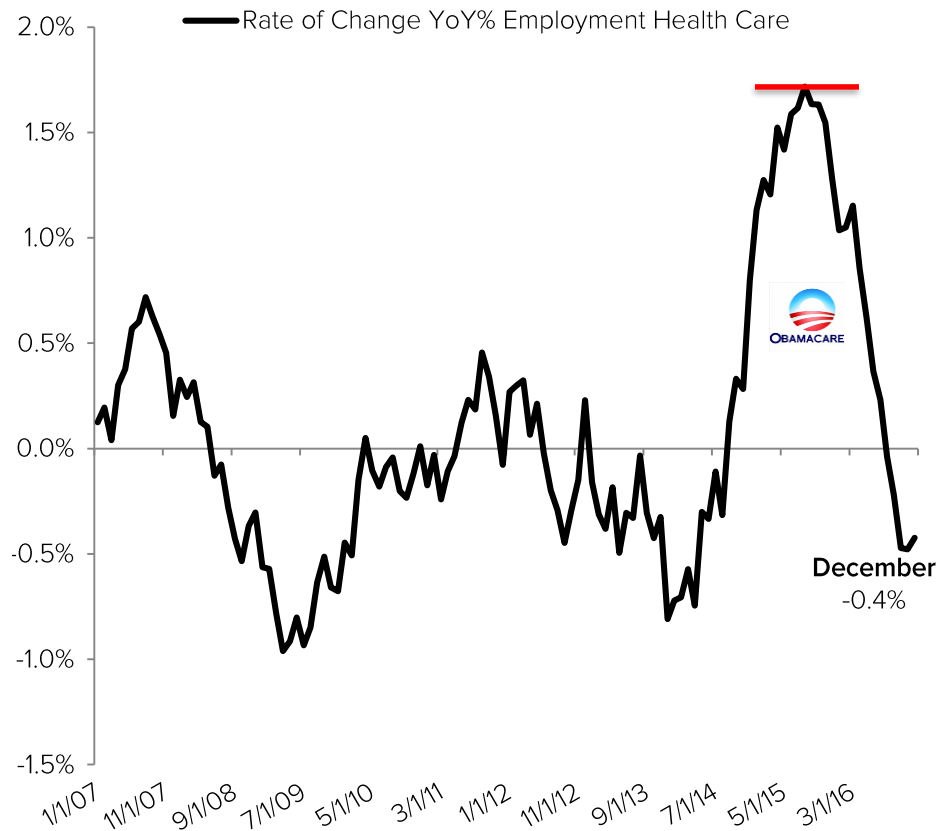
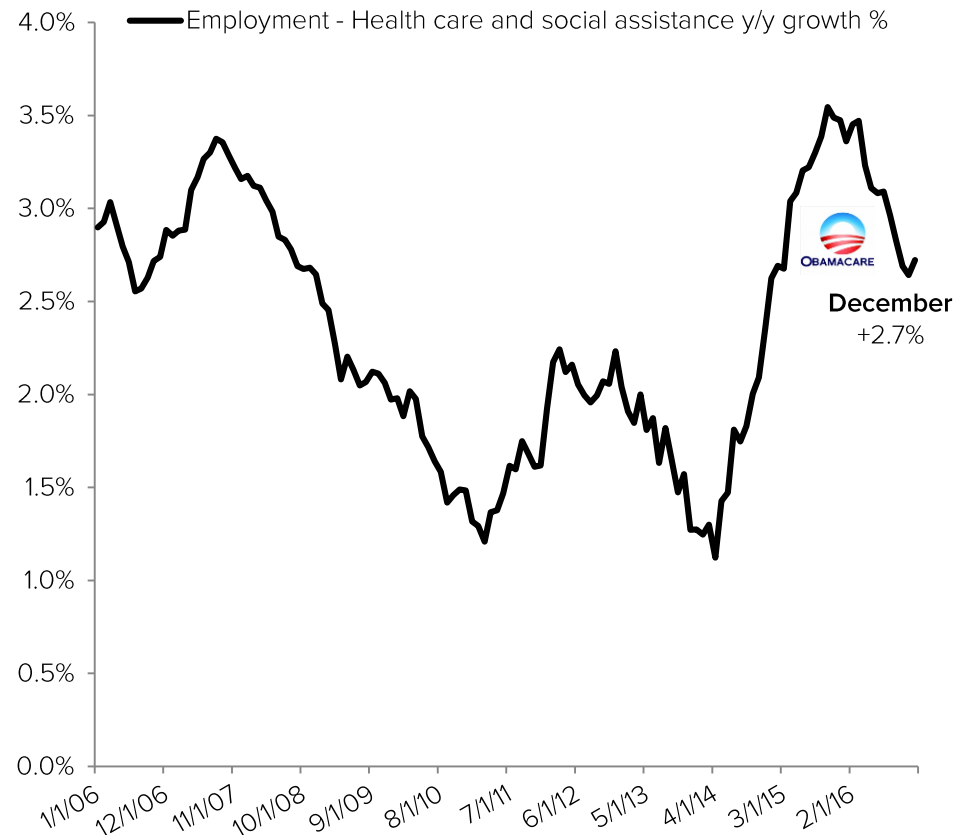


NONFARM VERSUS ADP EMPLOYMENT

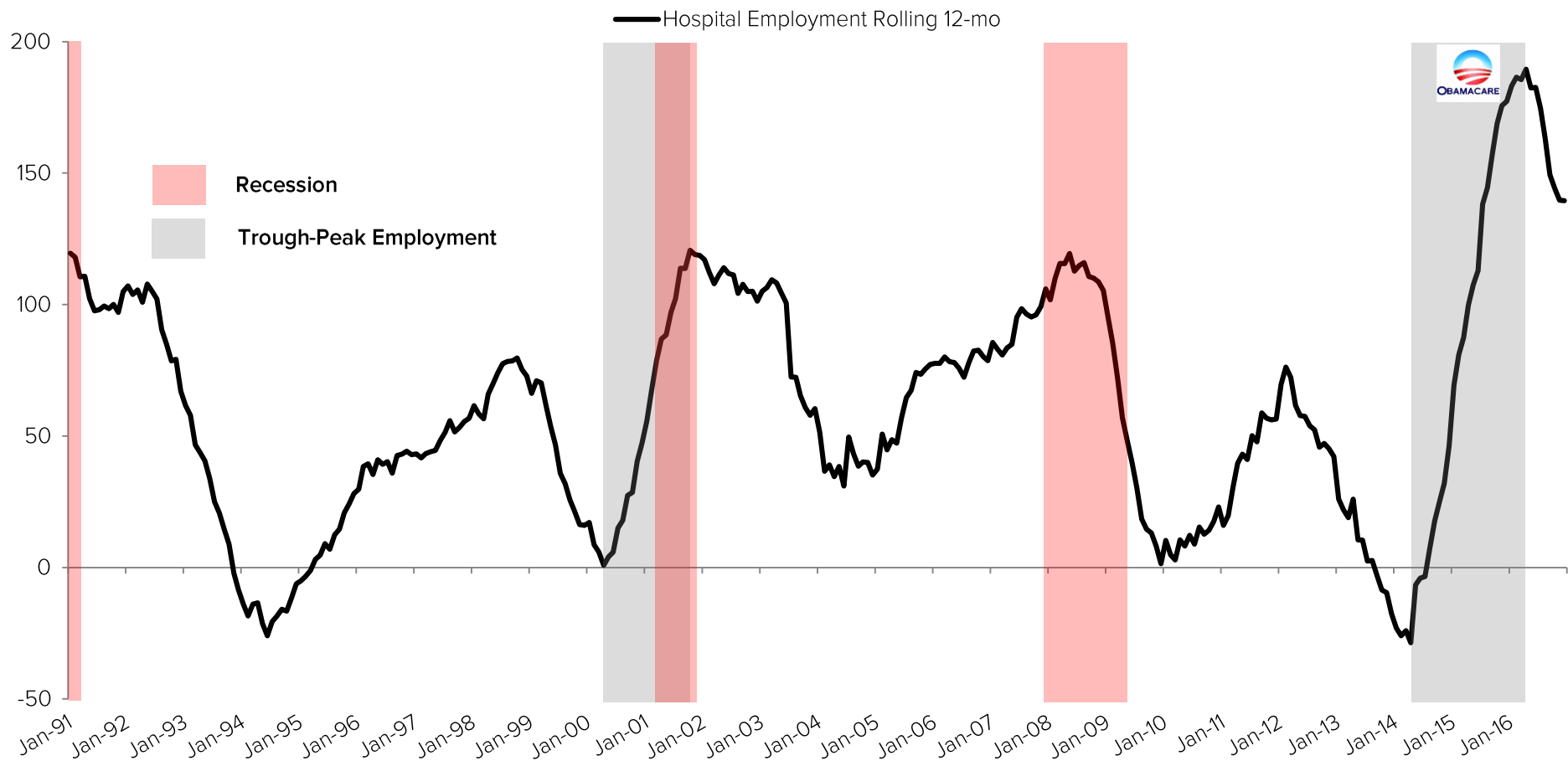


HEALTHCARE EMPLOYMENT

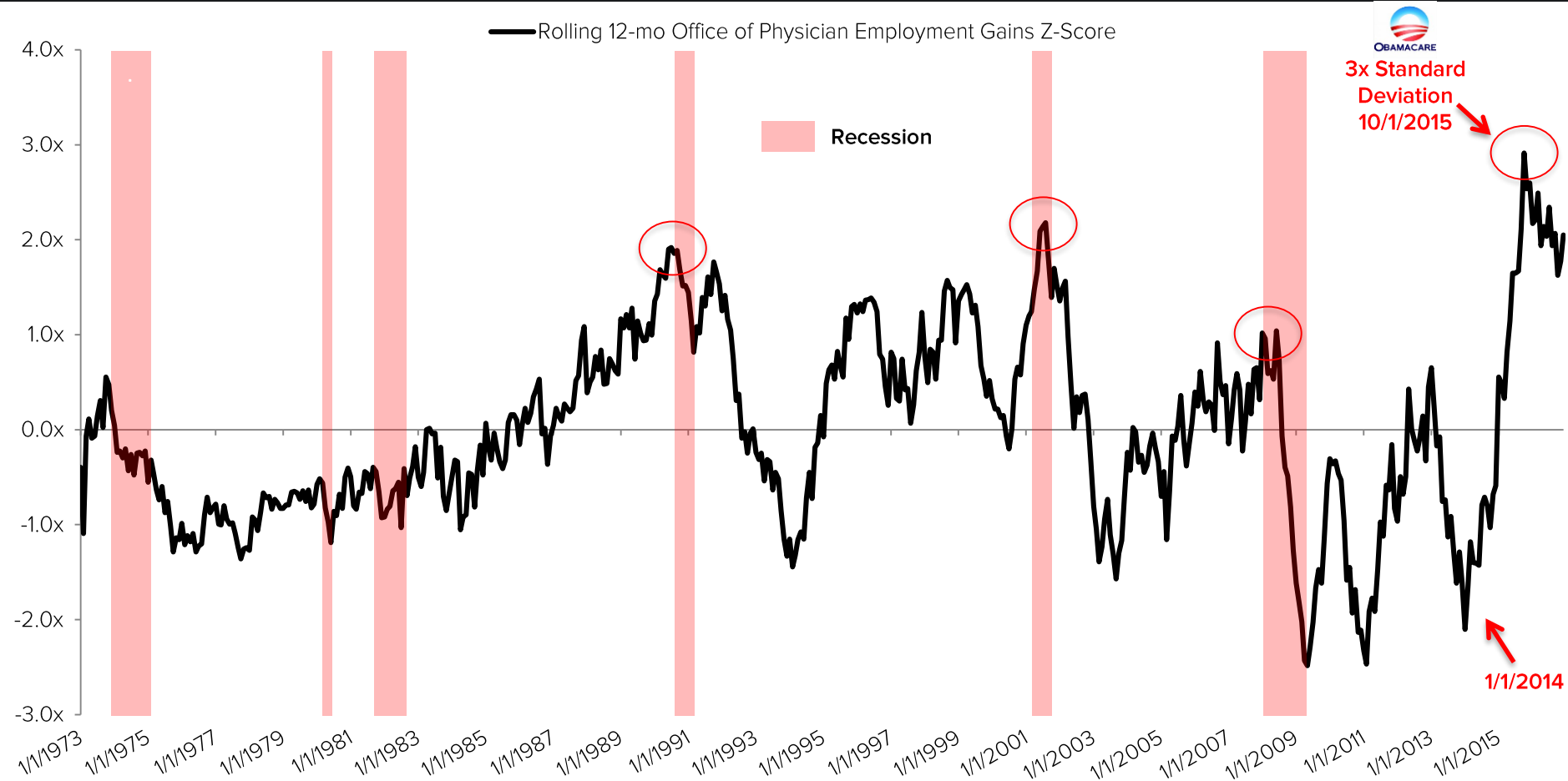
CONTINUES TO SLOW...



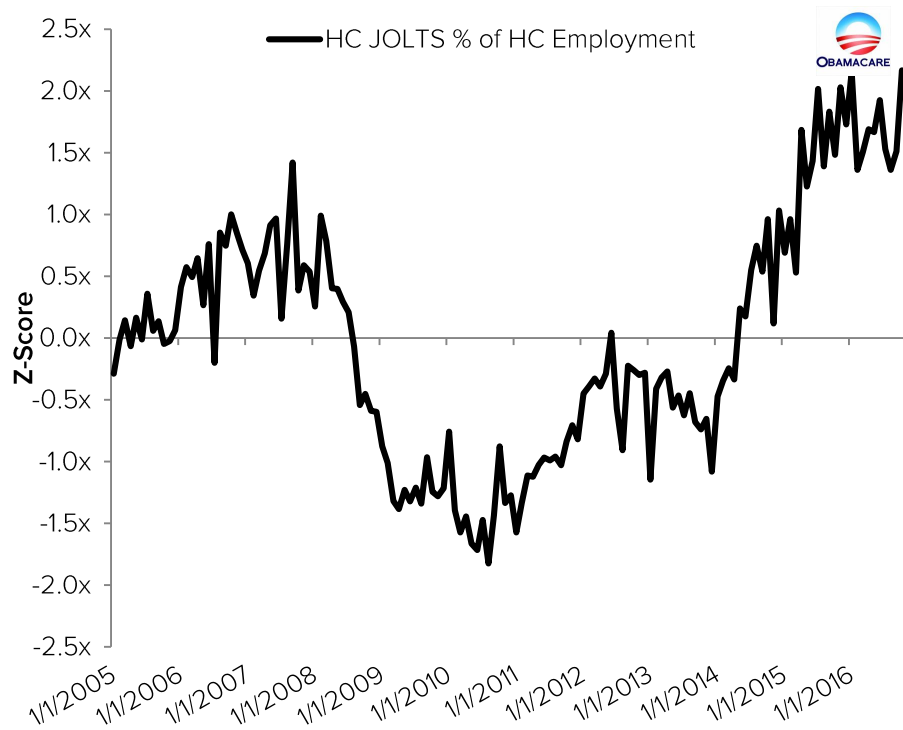
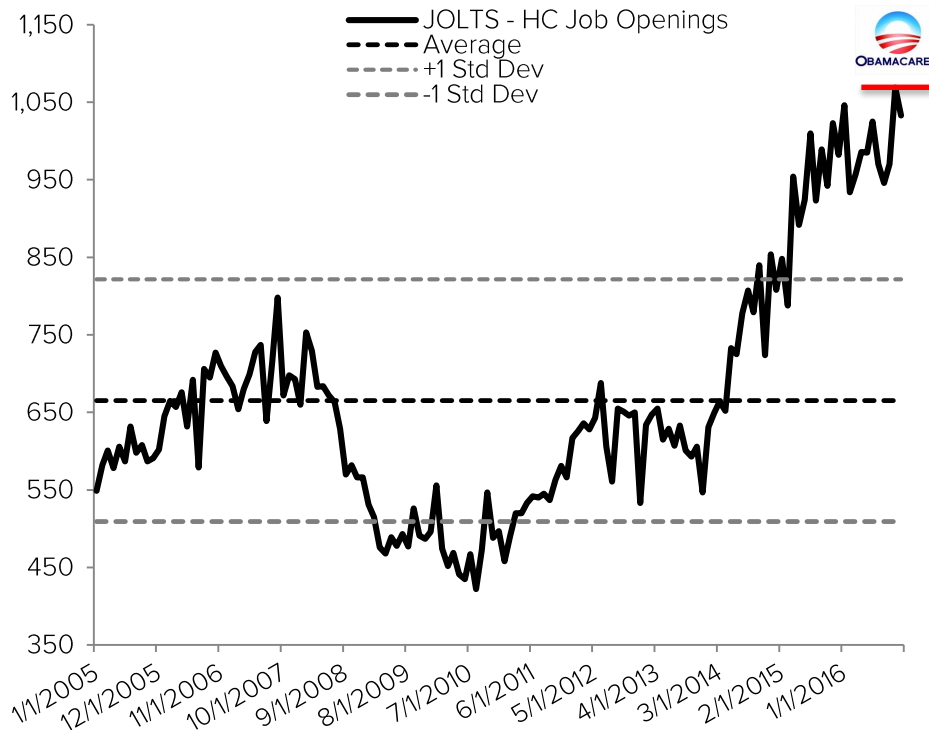
HOSPITAL EMPLOYMENT GAINS



PHYSICIAN EMPLOYMENT GAINS



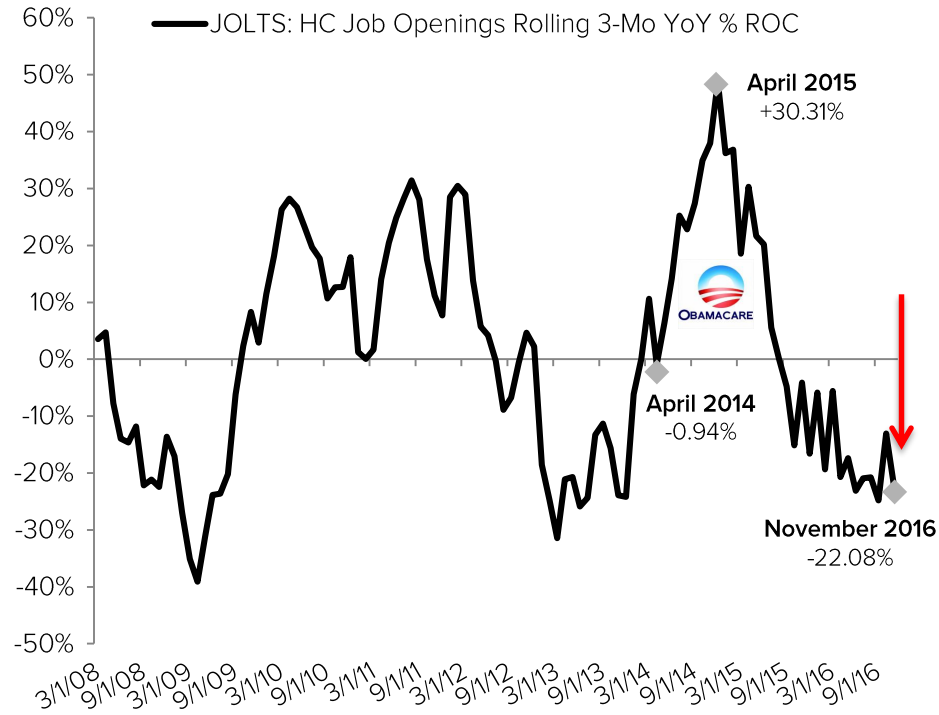
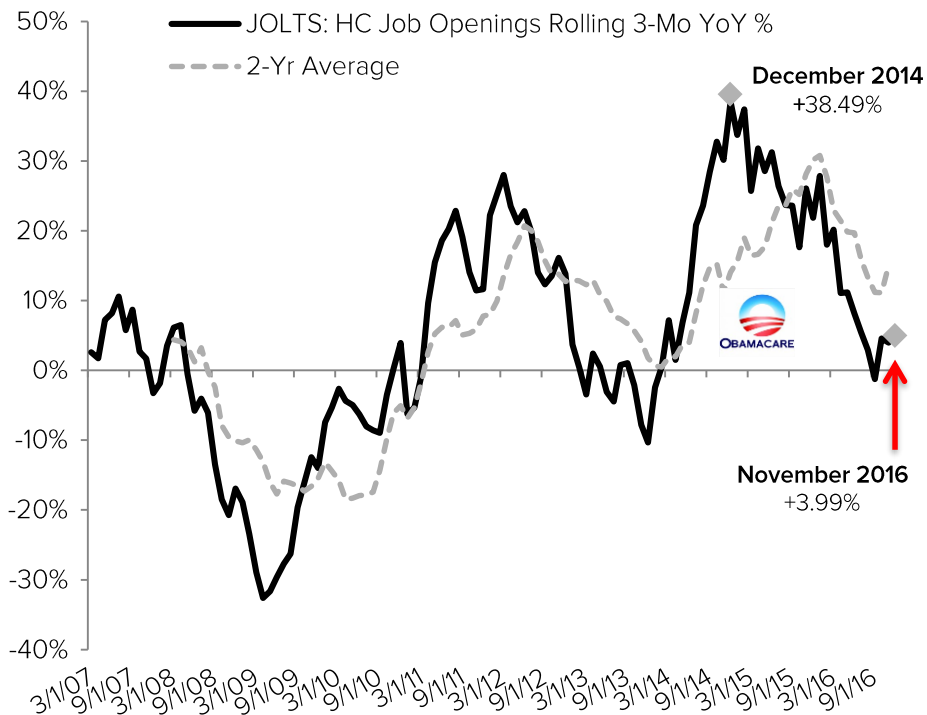
HEALTHCARE JOB OPENINGS (JOLTS)



HEALTHCARE JOB OPENINGS EXTREME...

We have observed similar patterns across multiple metrics tied to medical consumption, enrollment, and employment suggesting that the Healthcare Economy is extended.

HEALTHCARE JOB OPENINGS (JOLTS)



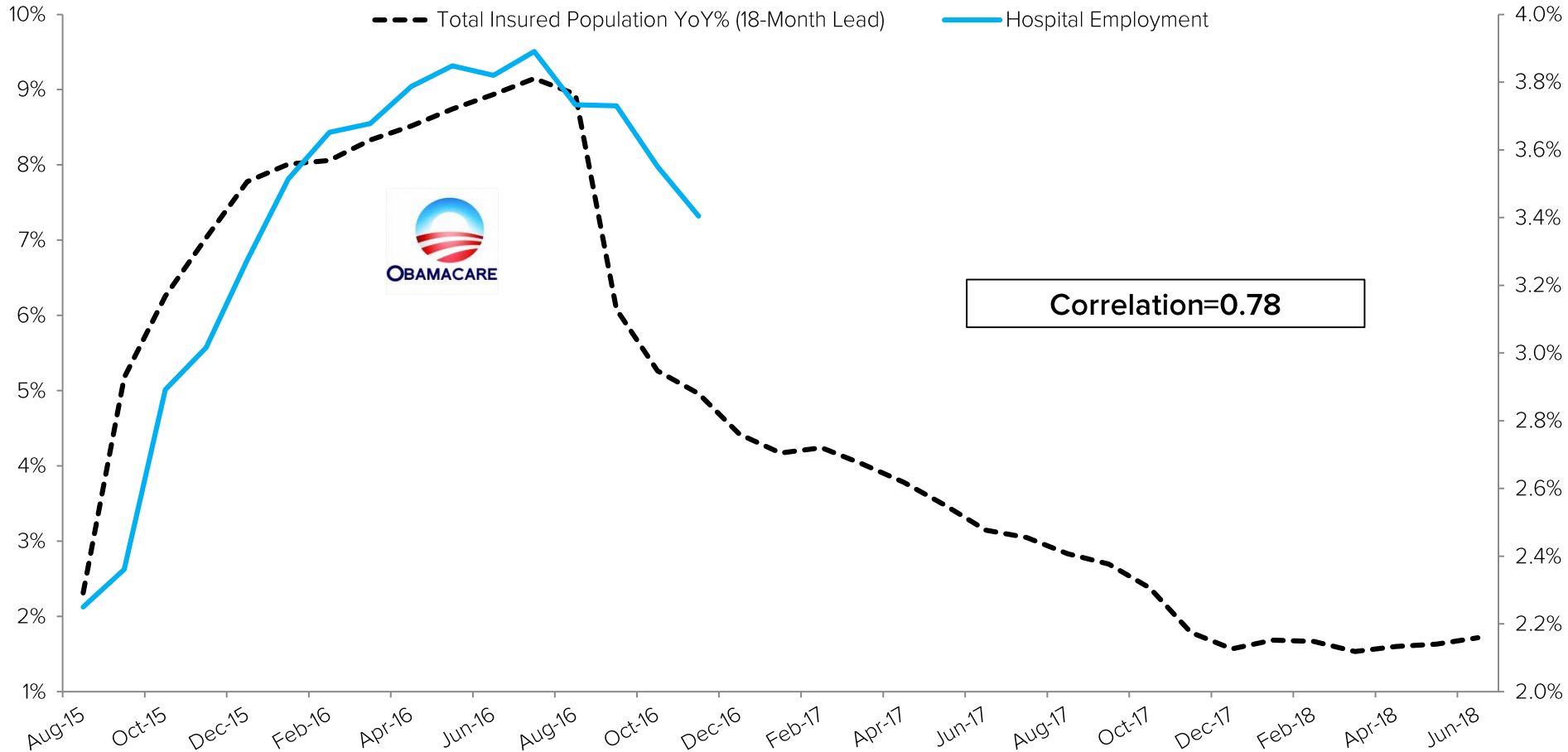
HEALTHCARE JOB OPENINGS SLOWING...

After peaking in December 2014, Healthcare Job Openings posted the slowest growth in approximately 2-years. We expect growth to slow further as we comp out of stimulus.

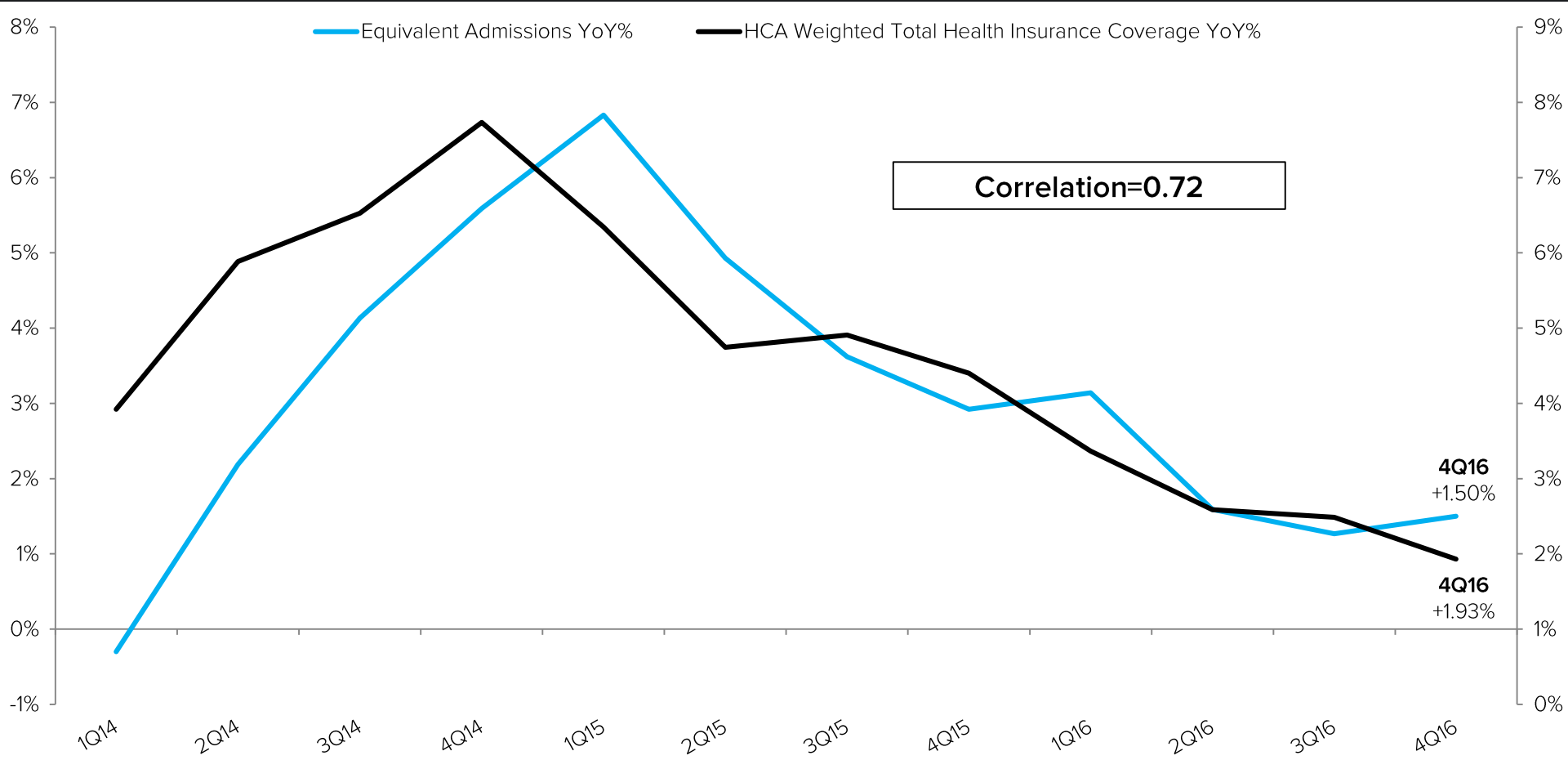


#FUNDAMENTALS

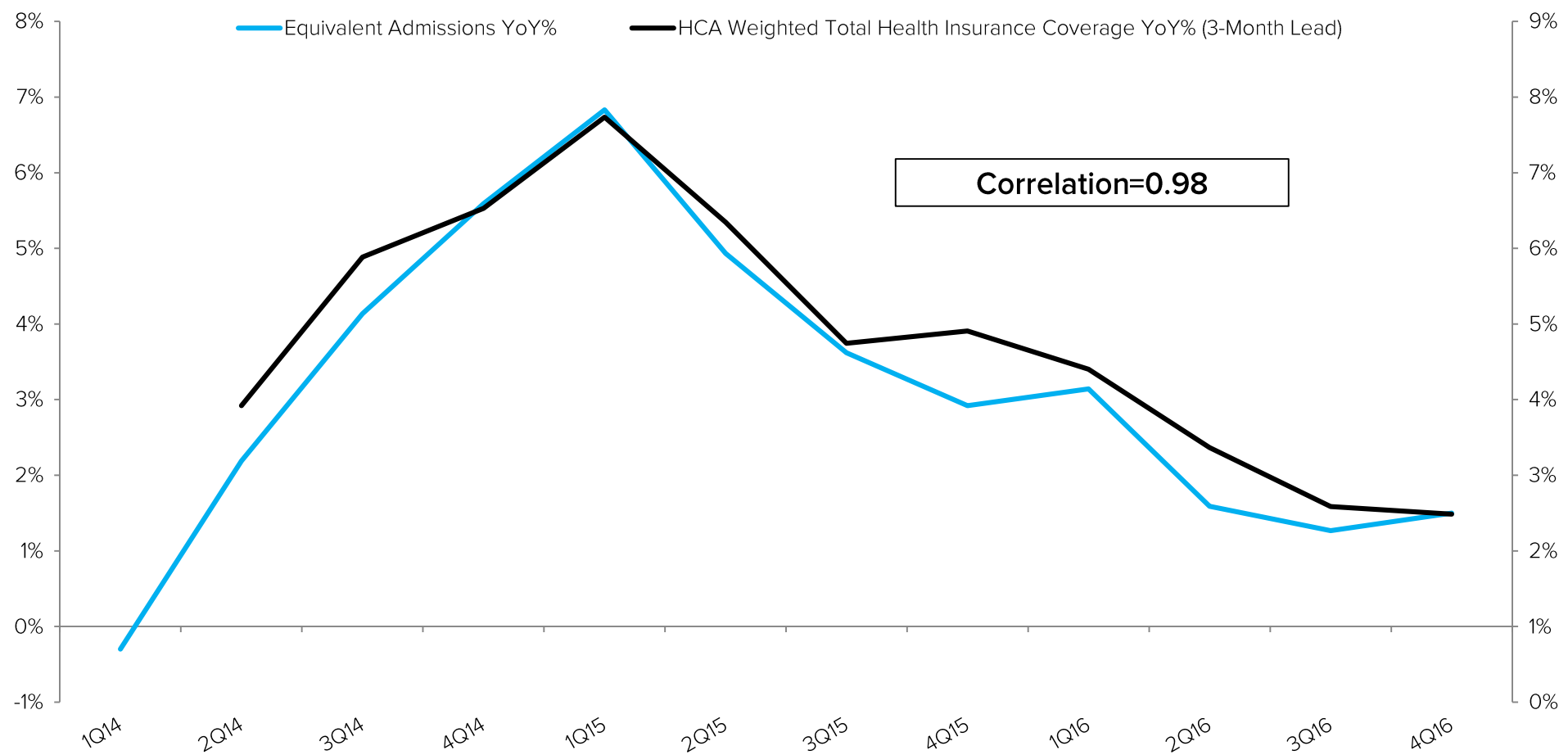
INSURED POPULATION DRIVES HOSPITAL EMPLOYMENT



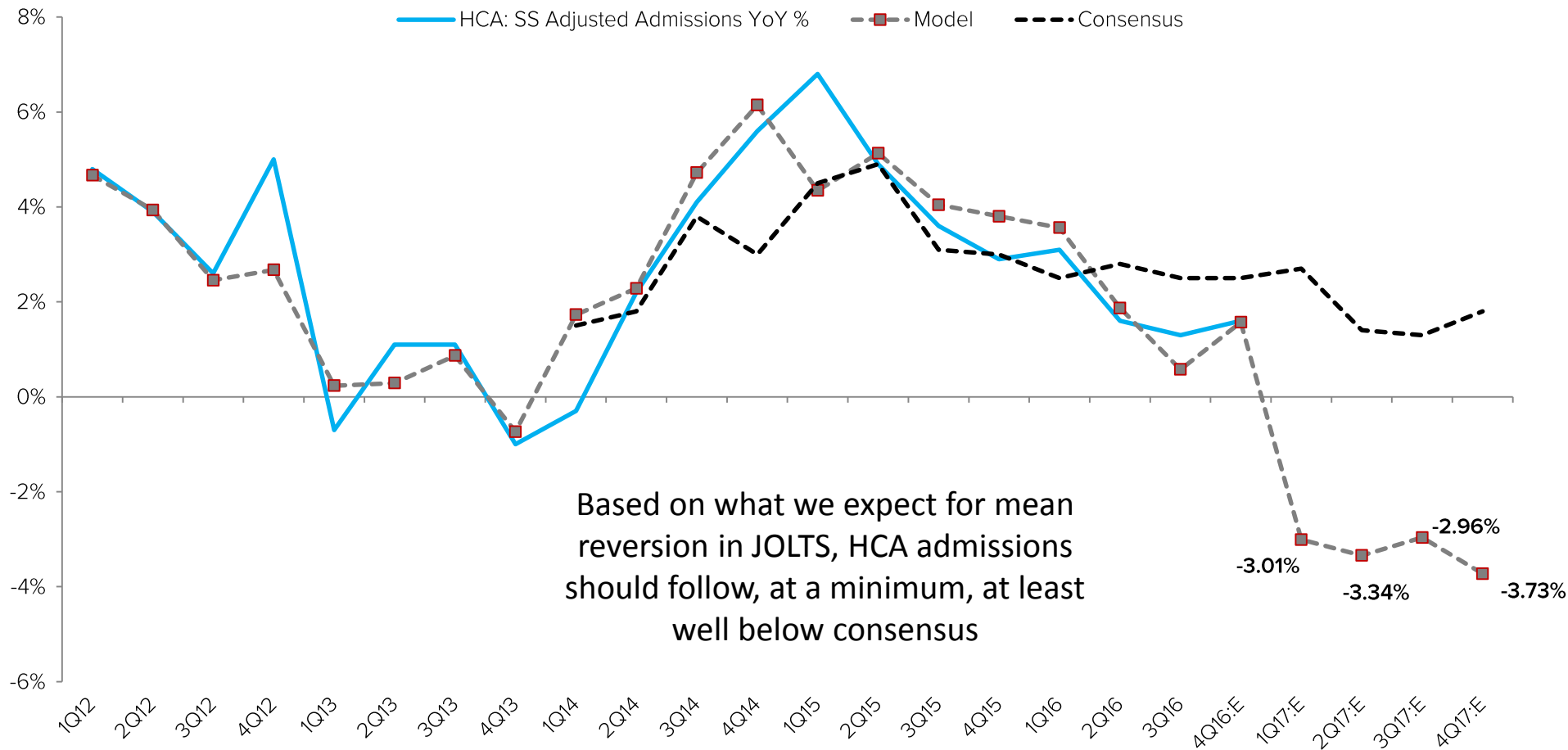
COVERAGE DRIVES ADMISSIONS



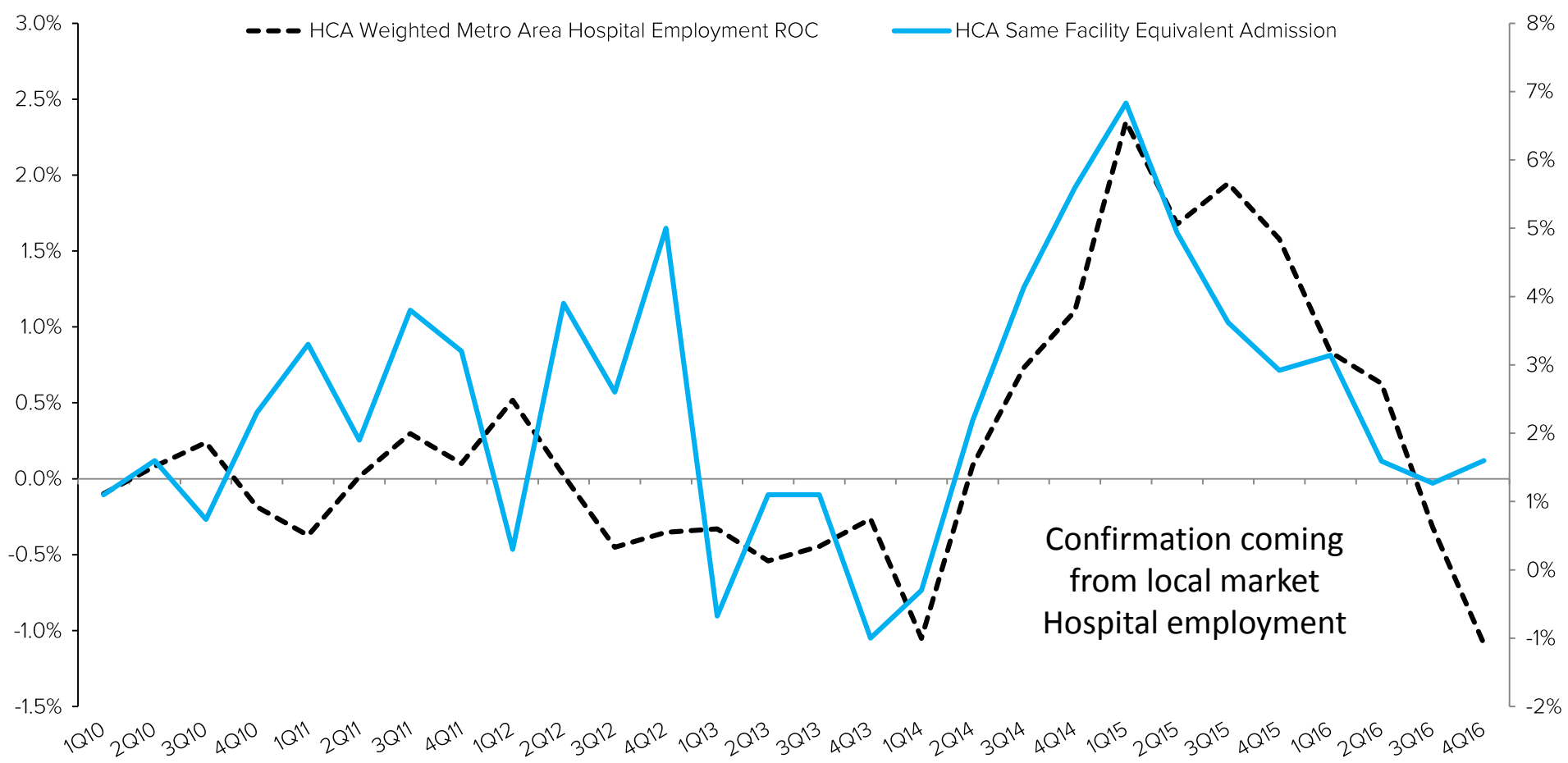
COVERAGE LEADS ADMISSIONS



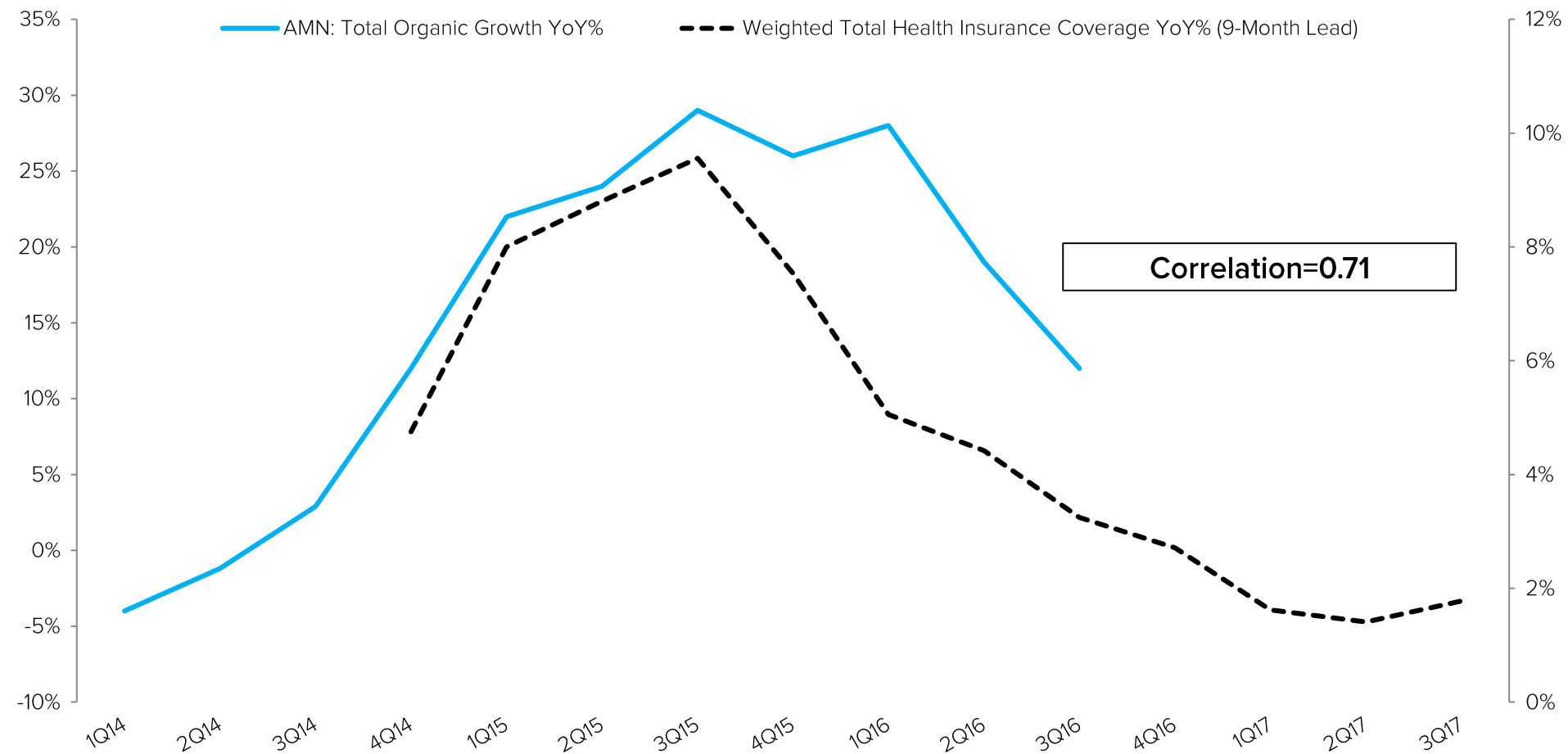
HCA ADMISSIONS JOLTS FORECAST



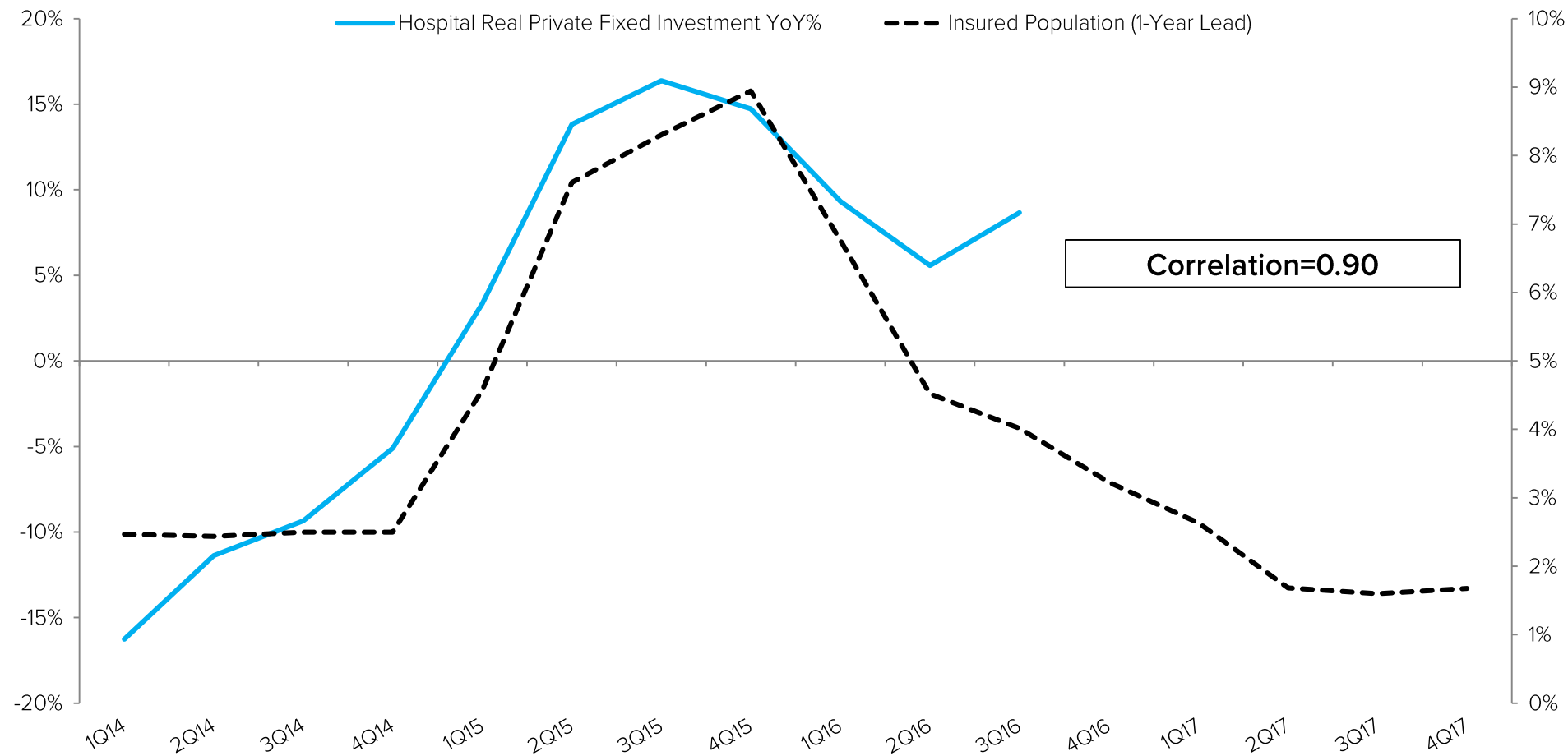
HCA METRO AREA HOSPITAL EMPLOYMENT



INSURED POPULATION LEADS AMN ORGANIC GROWTH



INSURED POPULATION DRIVES HOSPITAL CAPEX

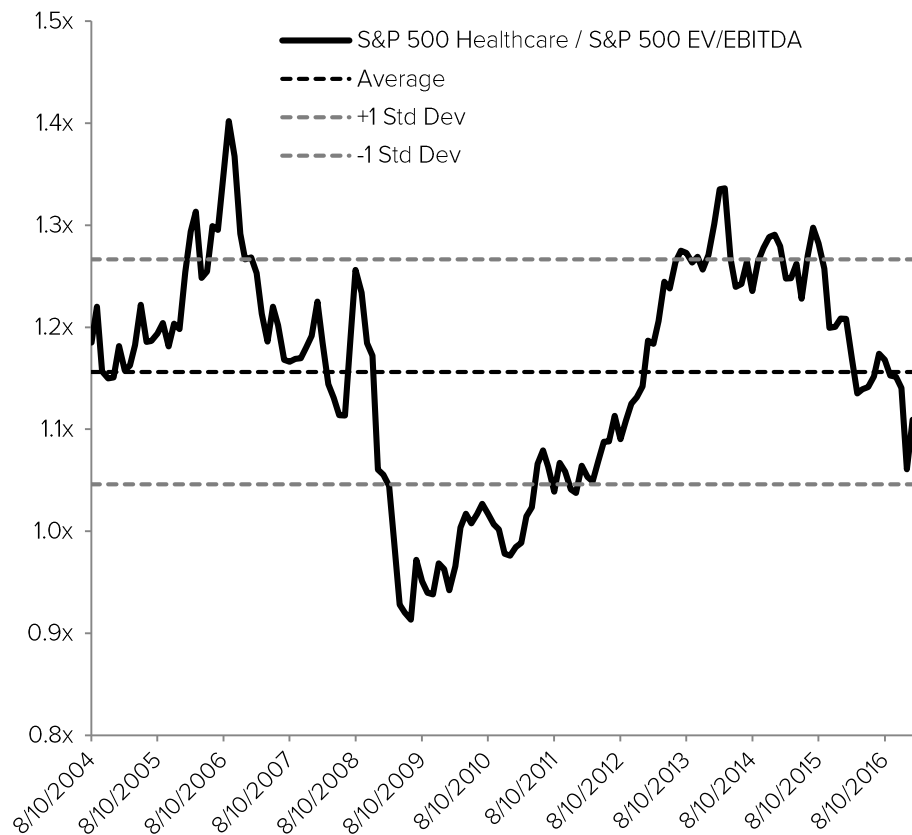
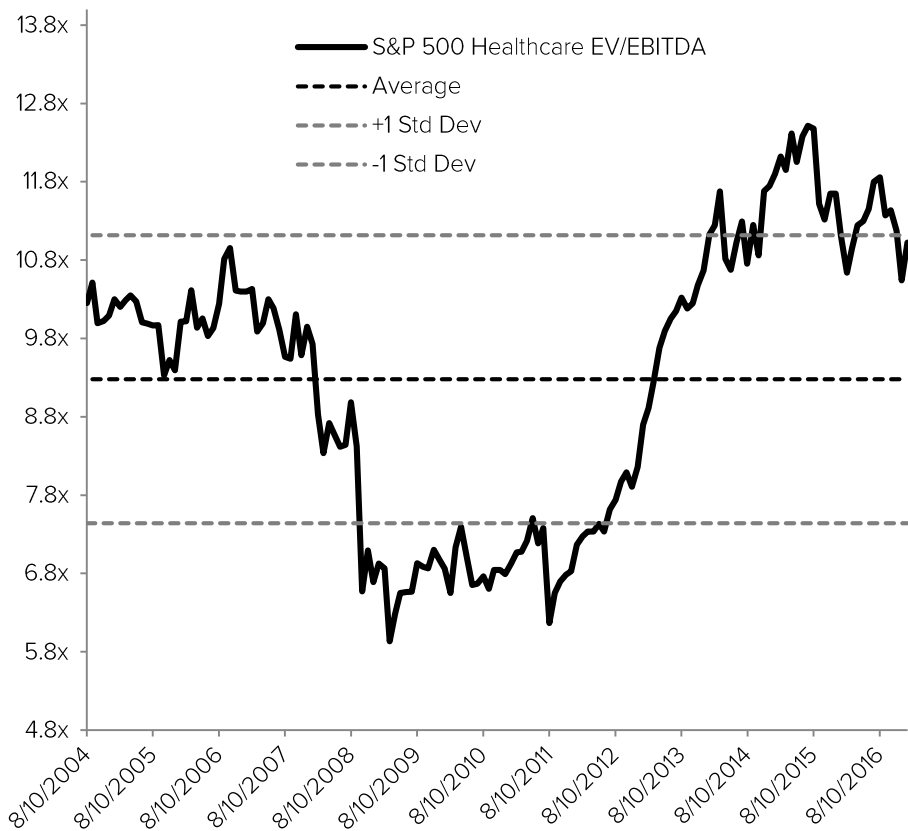




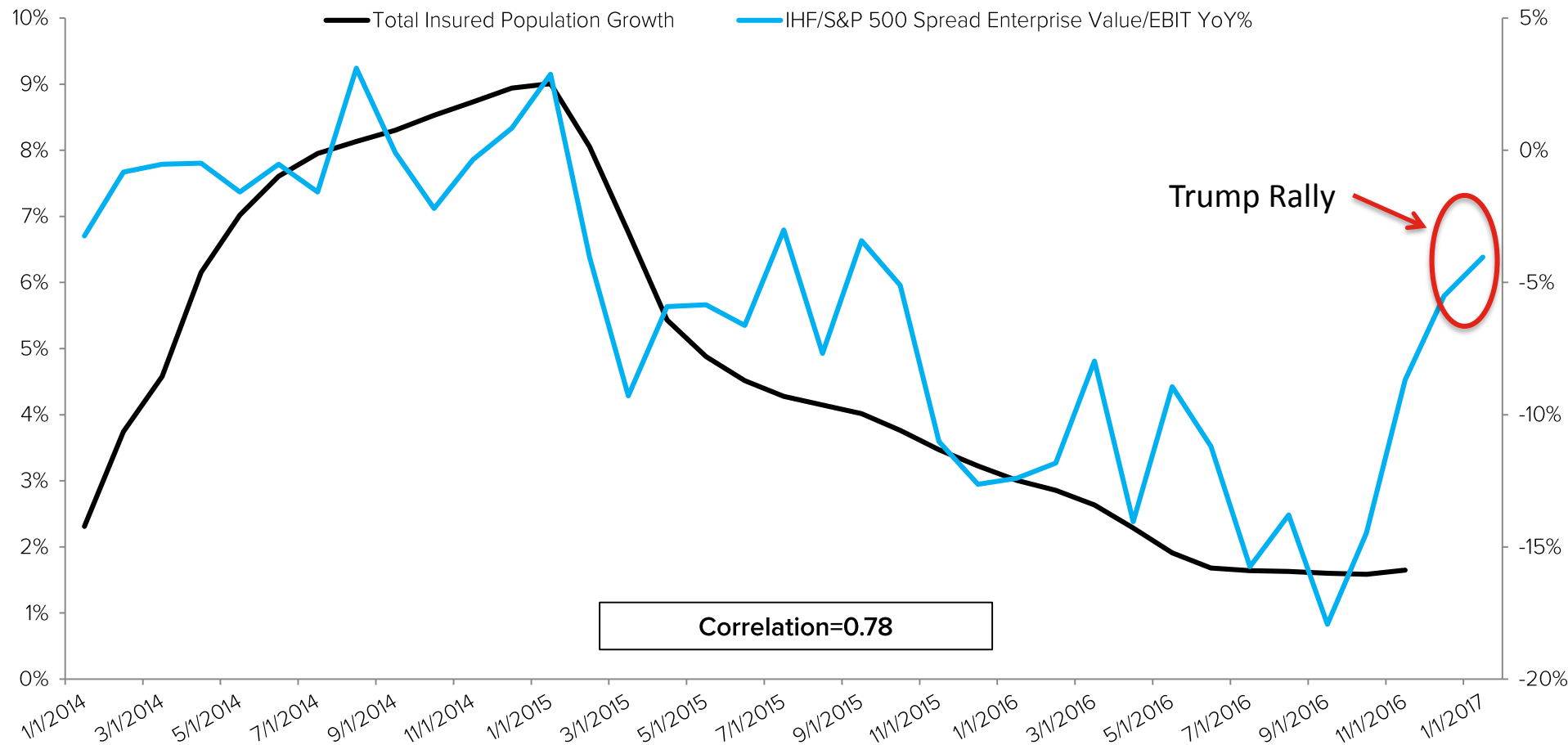
VALUATION | SENTIMENT | PRICE

HEALTHCARE NTM EV/EBITDA

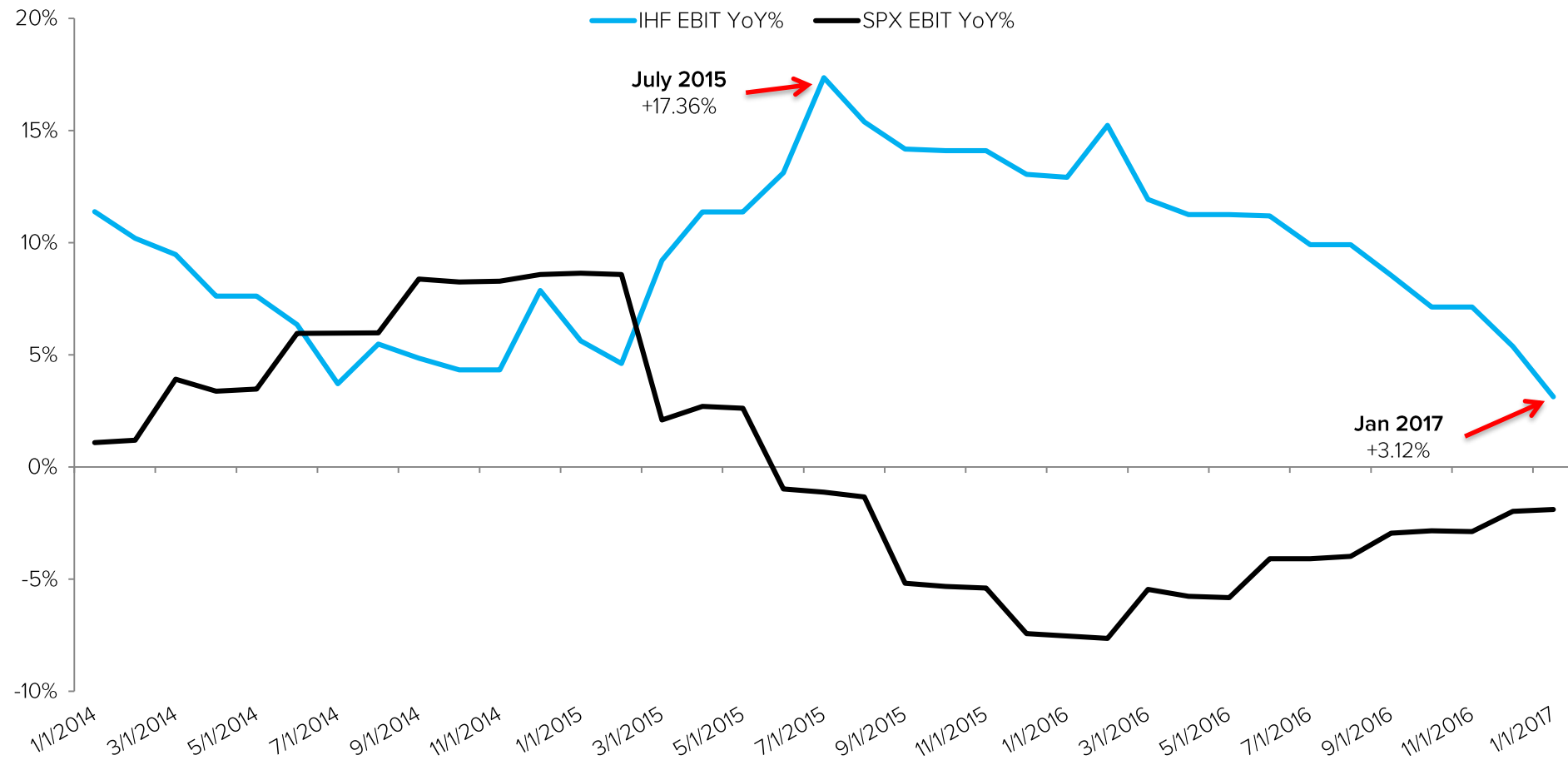
EXTENDED ABSOLUTE / BELOW RELATIVE



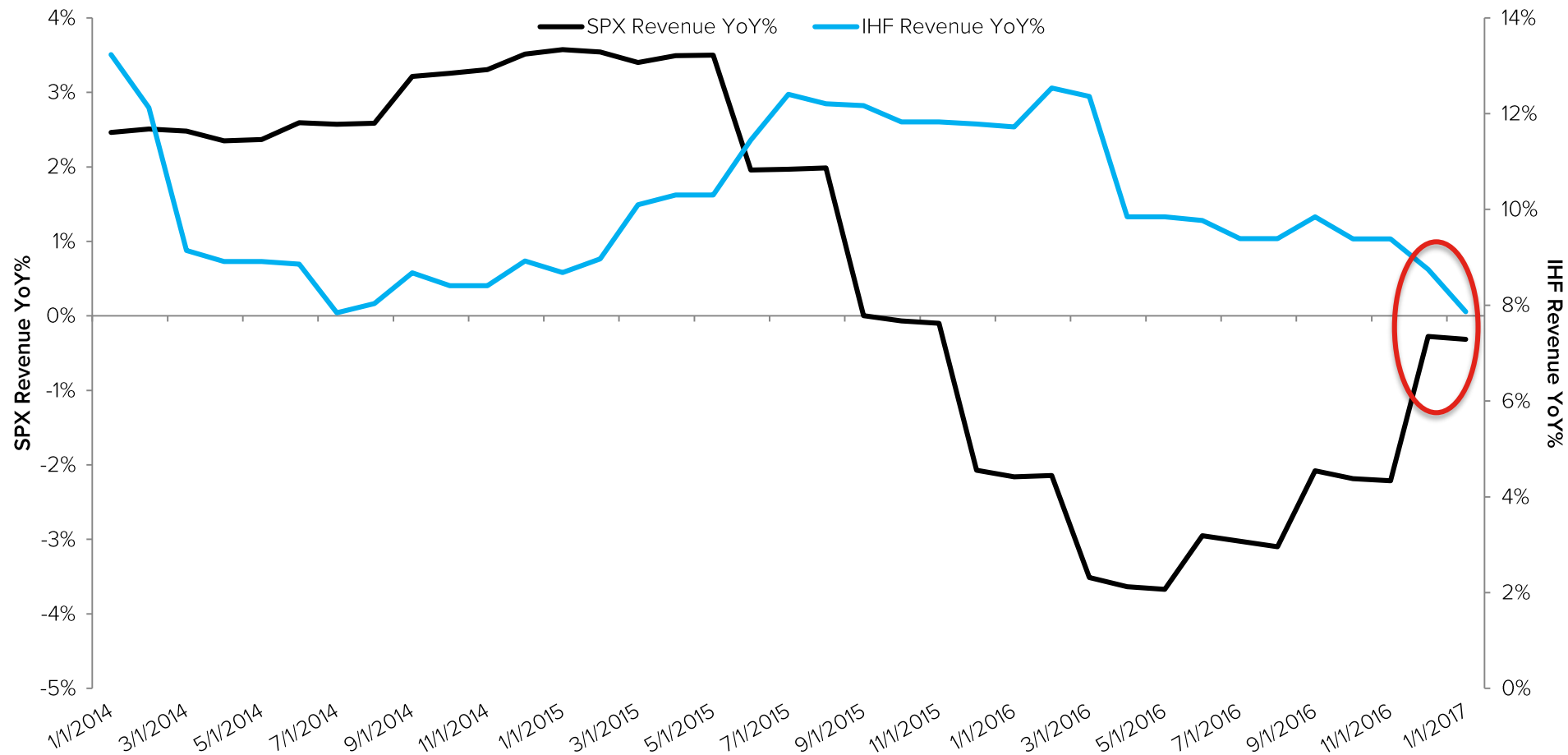
LOW GROWTH GETS LOW MULTIPLES



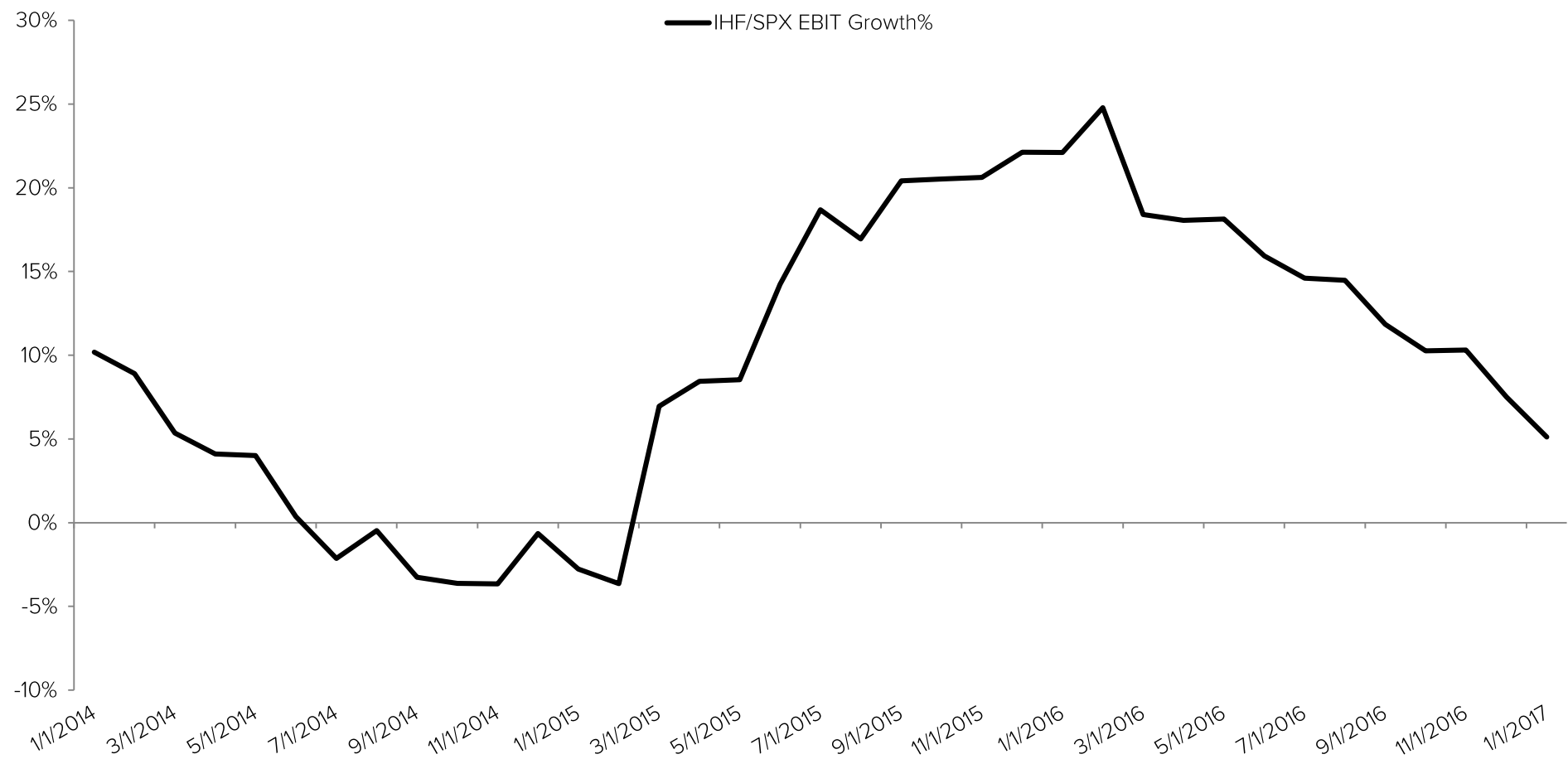
GROWTH PREMIUM HAS PEAKED



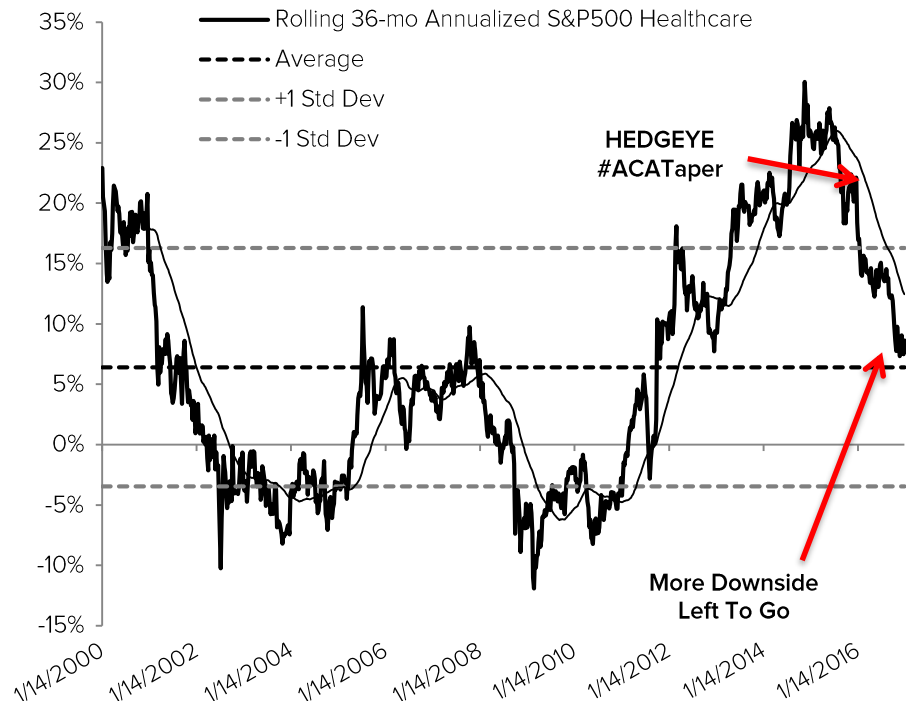
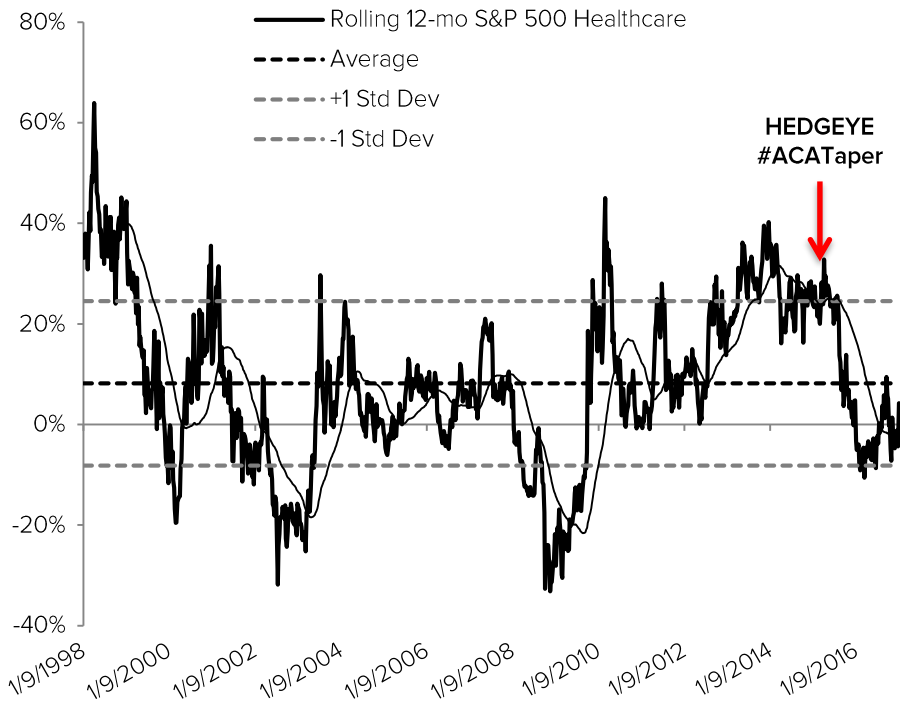
EASY VS HARD COMPARISONS



PROFITS SLOWING FOR PROVIDERS



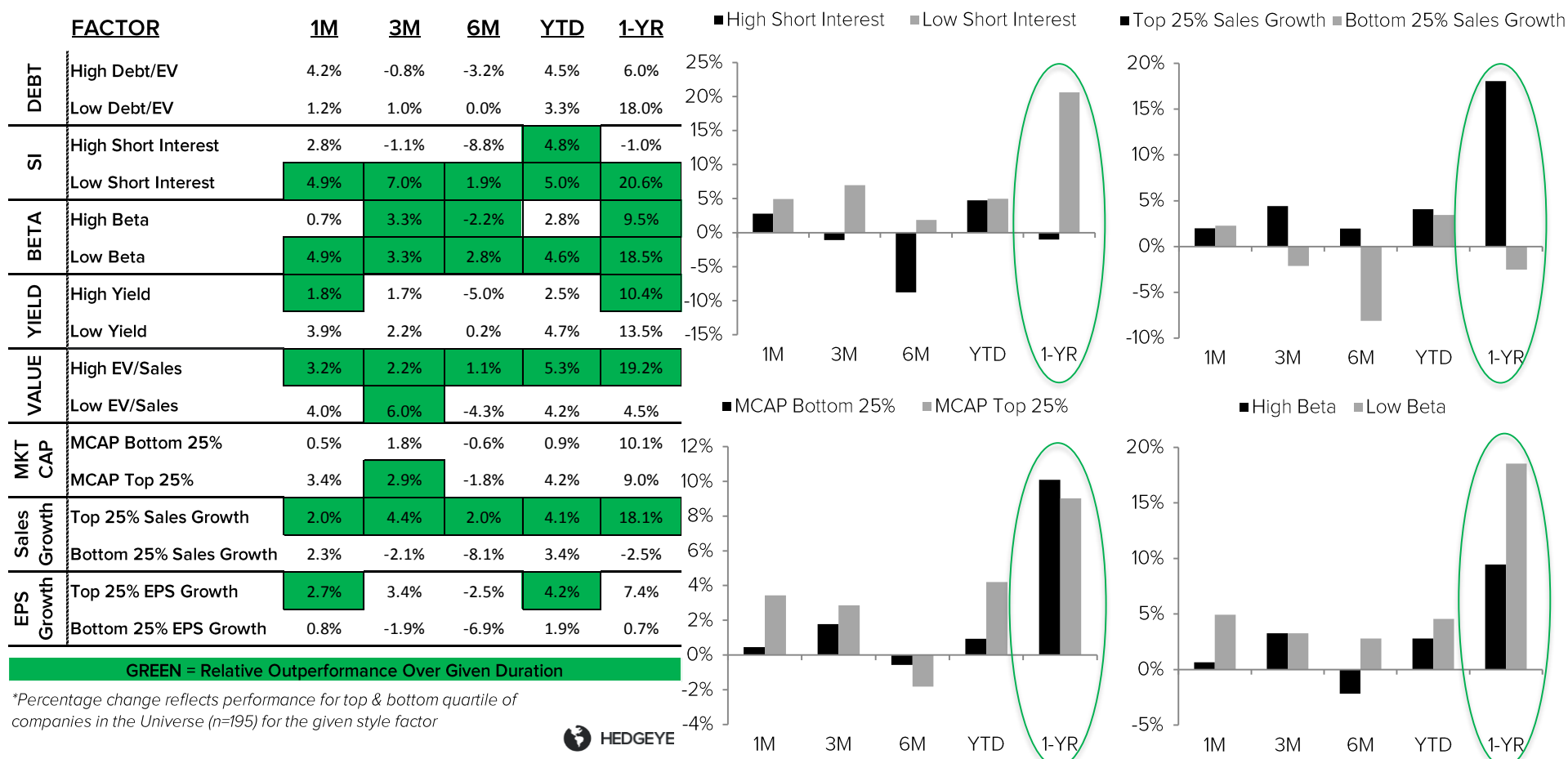
HISTORICAL PERFORMANCE



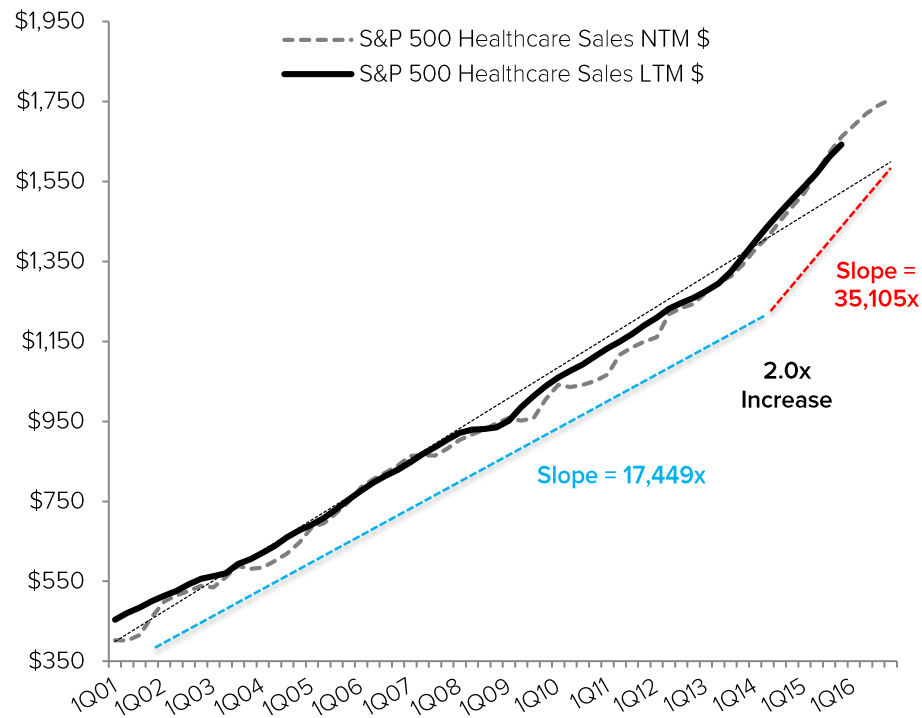
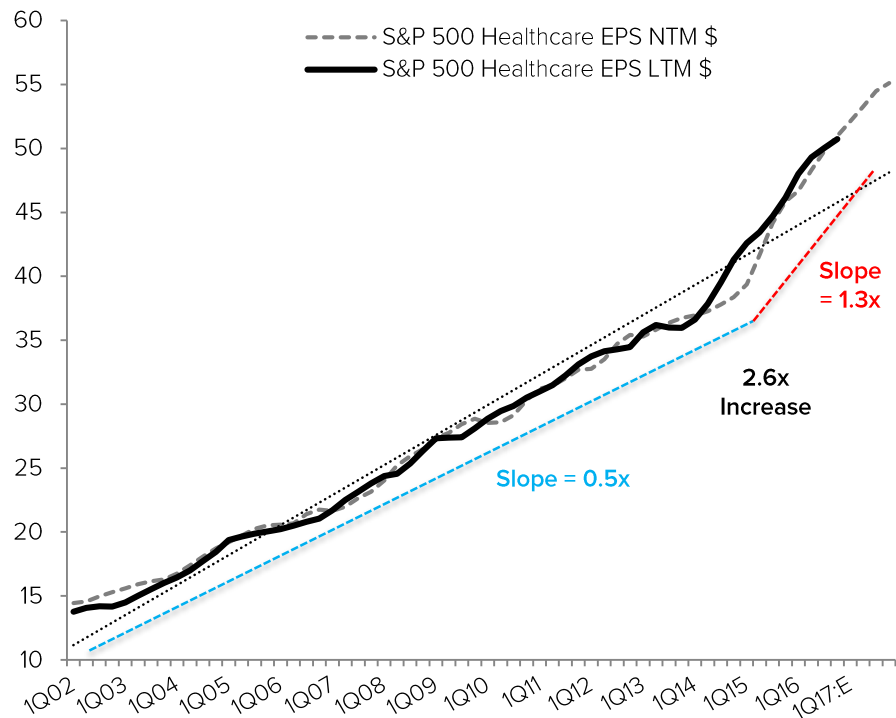
HEALTHCARE UNDERPERFORMANCE TO CONTINUE

We expect Healthcare to continue to underperform due to the factors we addressed previously and that we remain extended on a 3-yr absolute basis.

STYLE FACTOR PERFORMANCE (1/16/17)



CONSENSUS EXPECTING CONTINUED GROWTH



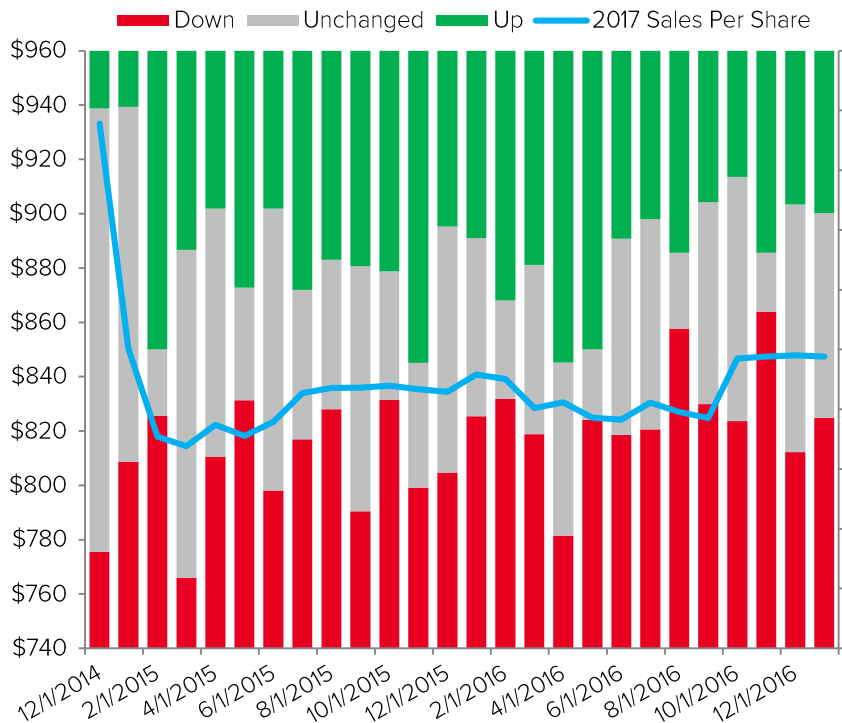
CONSENSUS DEVIATING FROM LONG-TERM TREND

Reasonable given level of M&A and Stimulus.... but likely to mean revert amid slowing growth. Rate of change significant with slope increase 2.0x for Sales and 2.8x for EPS (> Sales due to operating leverage).

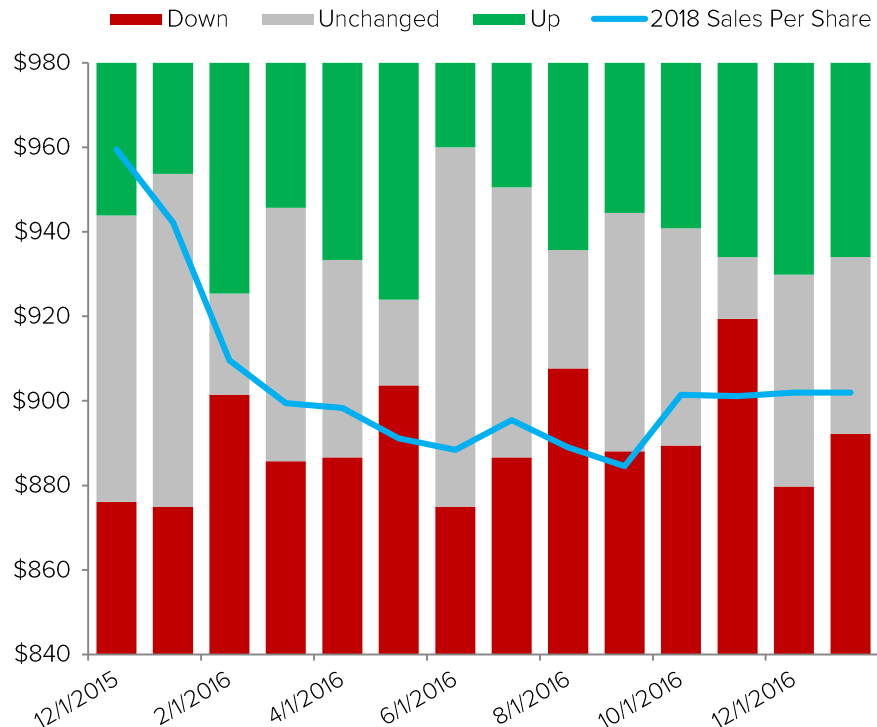
CONSENSUS ESTIMATE REVISIONS MODESTLY NEGATIVE

2017/2018 SALES ESTIMATES TRENDING LOWER

2017 Sales Per Share Estimates
North American Health Services



2018 Sales Per Share Estimates
North American Health Services



VALUATION MONITOR | ONLY HCIT IN THE GREEN

Friday, January 06, 2017

Absolute

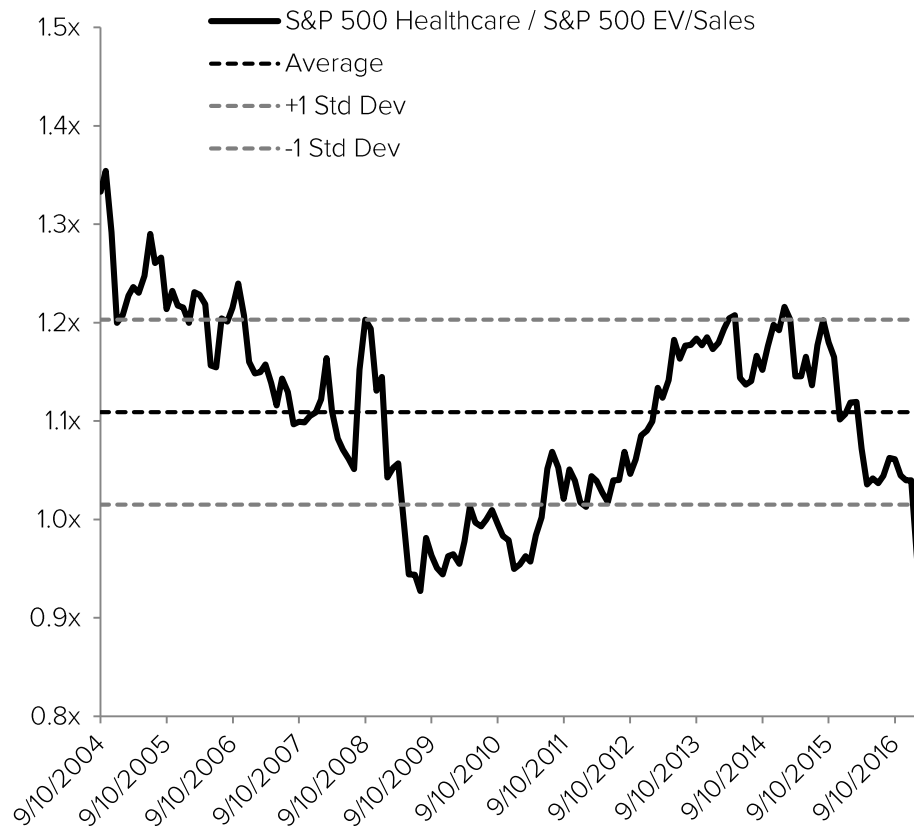
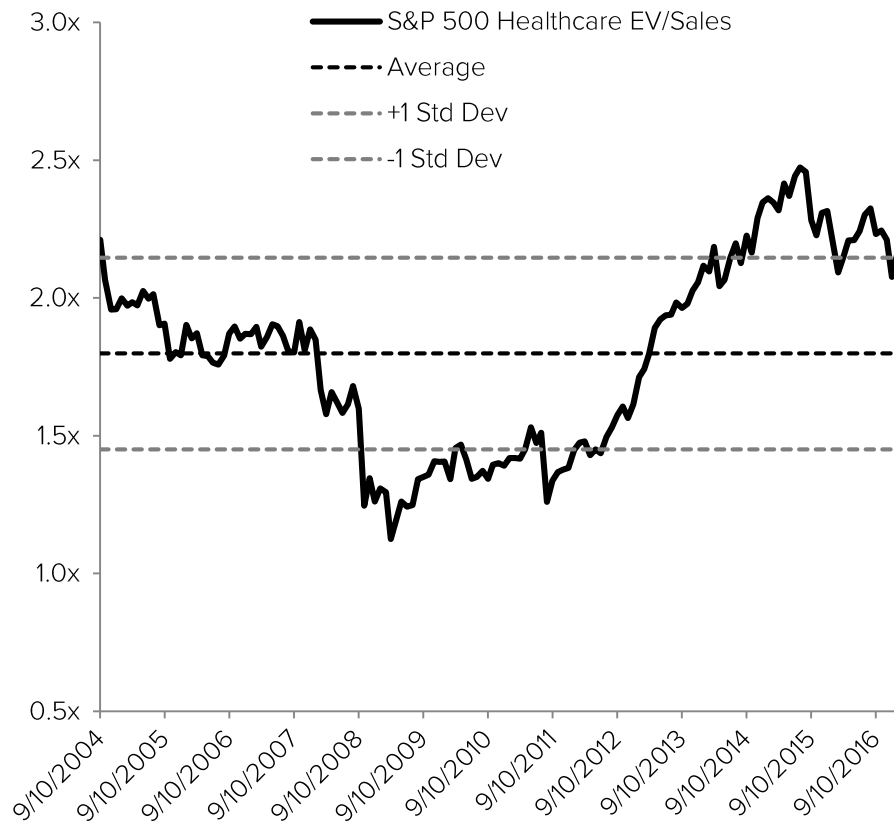
Index	EV/EBITDA					Current EV/Sales	EV/Sales				Current P/E	P/E					
	Current EV/EBITDA	Z-Score					Current EV/Sales	Z-Score				Current P/E	Z-Score				
		1 Yr.	3 Yr.	5 Yr.	10 Yr.			1 Yr.	3 Yr.	5 Yr.			10 Yr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
S&P 500	10.4x	0.6	1.1	1.3	1.8	2.2x	0.9	1.3	1.4	1.9	17.2x	1.0	1.4	1.3	1.7		
S&P 500 Health Care	10.9x	-0.7	-1.0	0.3	0.9	2.1x	-0.7	-0.9	0.3	1.0	14.8x	-0.5	-1.3	-0.2	0.4		
Industry																	
Equipment & Supplies	13.0x	-0.4	0.8	1.1	1.7	3.8x	0.1	1.0	1.4	1.9	17.9x	-0.5	0.4	0.9	1.0		
Providers & Services	8.1x	-0.9	-1.5	-0.5	0.0	0.4x	-1.1	-1.7	-1.0	0.3	14.3x	0.5	-0.6	0.3	0.7		
Technology	9.1x	-1.8	-1.9	-2.4	-1.0	3.0x	-1.9	-2.0	-2.4	-0.6	18.5x	-2.0	-2.0	-2.5	-1.8		
Biotechnology	9.7x	0.0	-1.1	-1.3	-0.9	5.3x	0.0	-1.2	-0.7	0.0	12.3x	0.0	-1.1	-1.4	-1.4		
Pharmaceuticals	11.4x	-1.0	-0.6	0.5	1.1	4.3x	-0.9	-0.2	0.6	1.2	14.9x	-0.9	-1.6	-0.1	0.7		
Life Sciences	15.7x	-0.4	0.0	0.7	1.3	4.1x	-0.1	0.3	0.9	1.5	19.8x	-0.7	-0.9	0.3	0.7		

Relative to S&P 500

Index	EV/EBITDA					Current EV/Sales	EV/Sales				Current P/E	P/E					
	Current EV/EBITDA	Z-Score					Current EV/Sales	Z-Score				Current P/E	Z-Score				
		1 Yr.	3 Yr.	5 Yr.	10 Yr.			1 Yr.	3 Yr.	5 Yr.			10 Yr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
S&P 500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
S&P 500 Health Care	1.0x	-1.4	-1.9	-1.4	-0.4	1.0x	-1.5	-2.0	-2.0	-1.2	0.9x	-1.4	-1.8	-2.2	-1.2		
Industry																	
Equipment & Supplies	1.2x	-1.0	0.4	0.9	1.2	1.7x	-0.6	0.7	1.1	1.0	1.0x	-1.5	-0.8	-0.4	-0.2		
Providers & Services	0.8x	-1.3	-1.7	-2.3	-2.7	0.2x	-1.4	-1.7	-2.2	-1.2	0.8x	-0.5	-1.4	-1.2	-0.7		
Technology	0.9x	-2.0	-1.8	-2.1	-1.7	1.4x	-2.1	-1.8	-2.1	-1.4	1.1x	-2.1	-2.0	-2.2	-2.2		
Biotechnology	0.9x	-0.4	-1.2	-1.5	-1.8	2.4x	-0.6	-1.4	-1.8	-1.8	0.7x	-0.7	-1.2	-1.6	-2.0		
Pharmaceuticals	1.1x	-1.5	-2.3	-0.5	0.4	2.0x	-1.5	-2.3	-1.0	0.1	0.9x	-1.4	-2.1	-2.0	-0.4		
Life Sciences	1.5x	-1.0	-1.2	0.0	0.5	1.9x	-0.9	-0.9	0.3	1.0	1.2x	-1.4	-2.0	-0.8	-0.8		

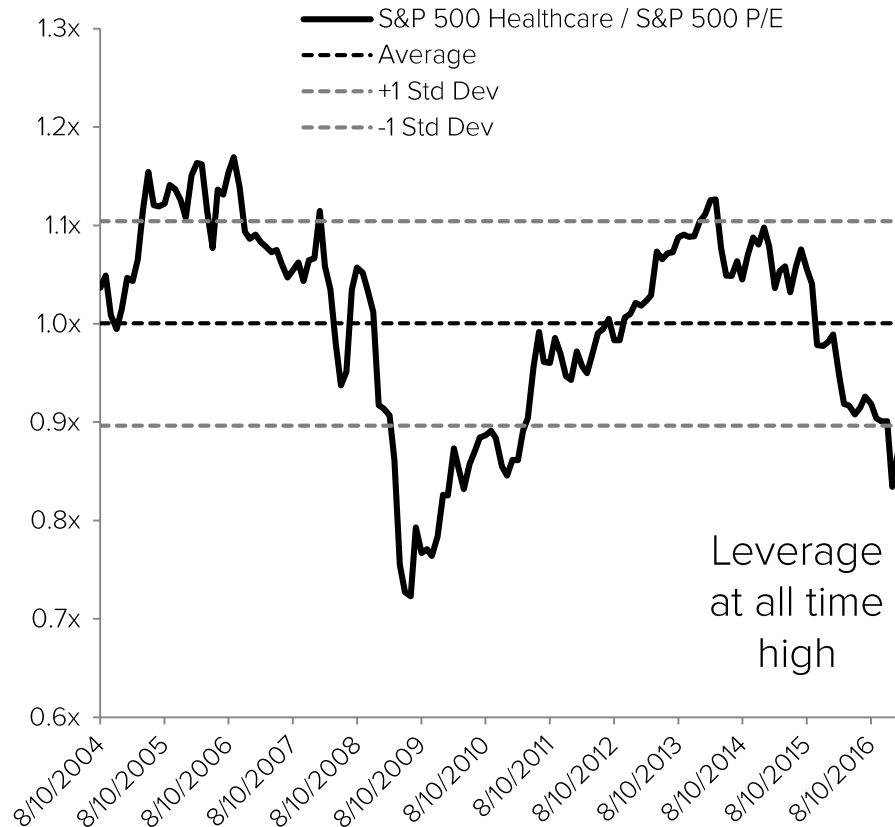
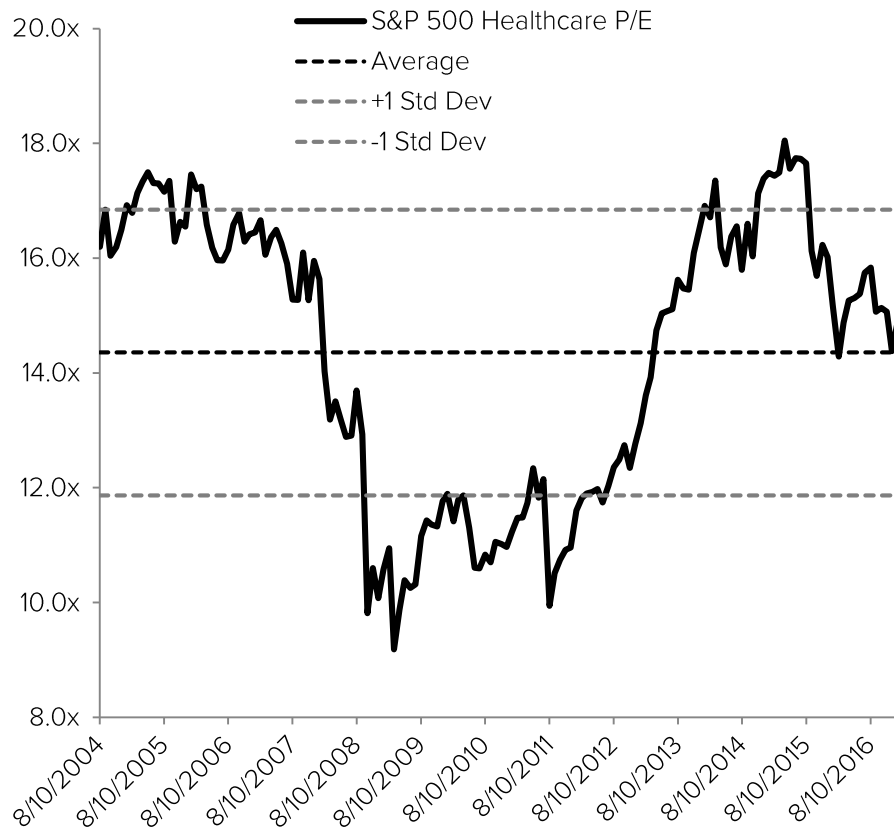
HEALTHCARE NTM EV/SALES

EXTENDED ABSOLUTE / BELOW RELATIVE



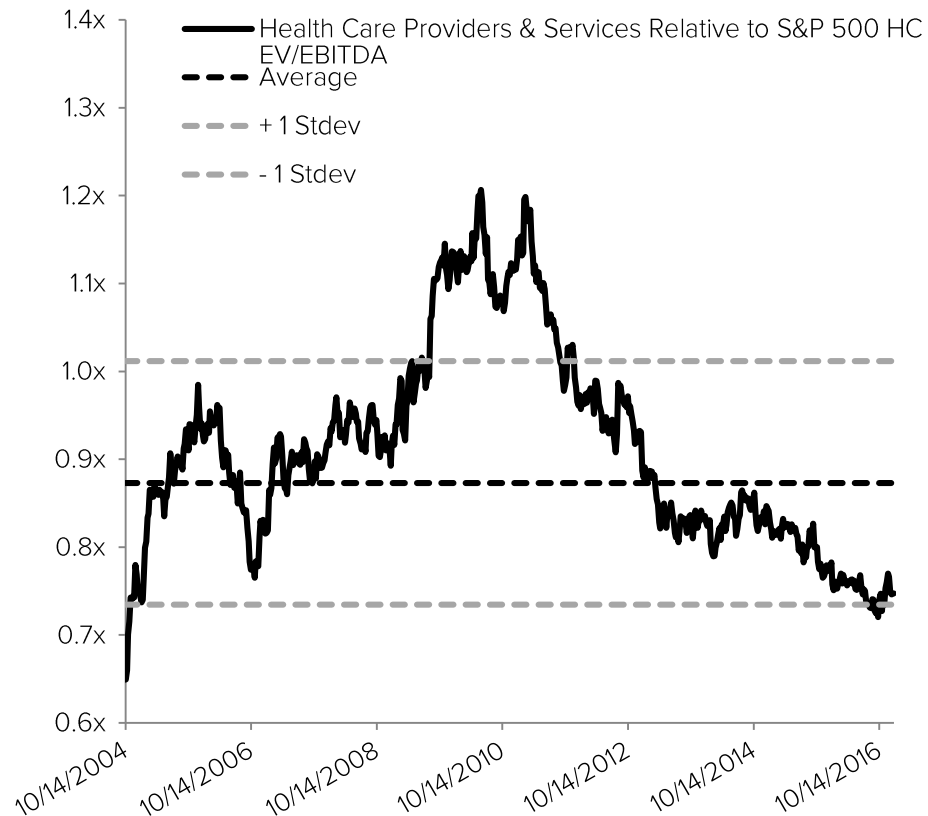
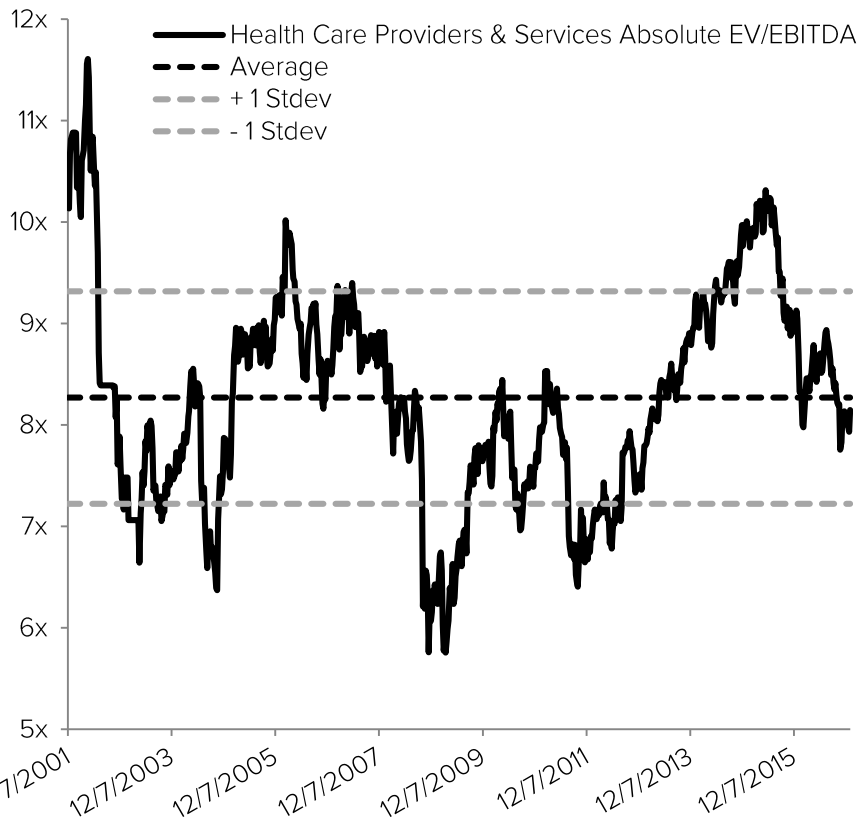
HEALTHCARE NTM P/E

IN-LINE ABSOLUTE / BELOW RELATIVE



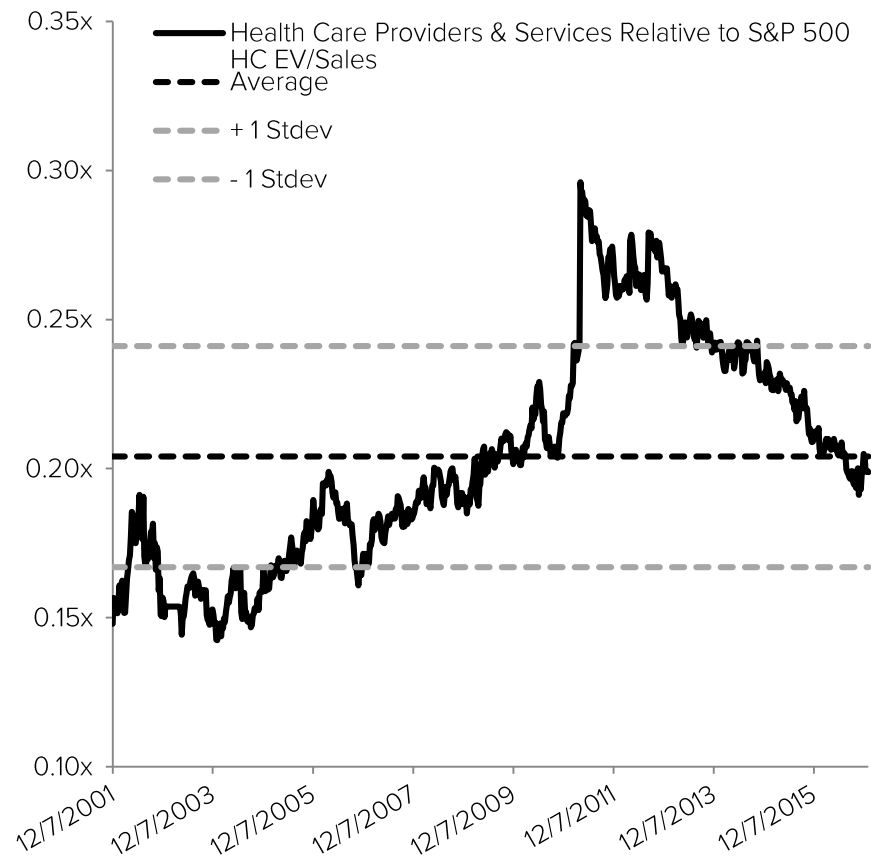
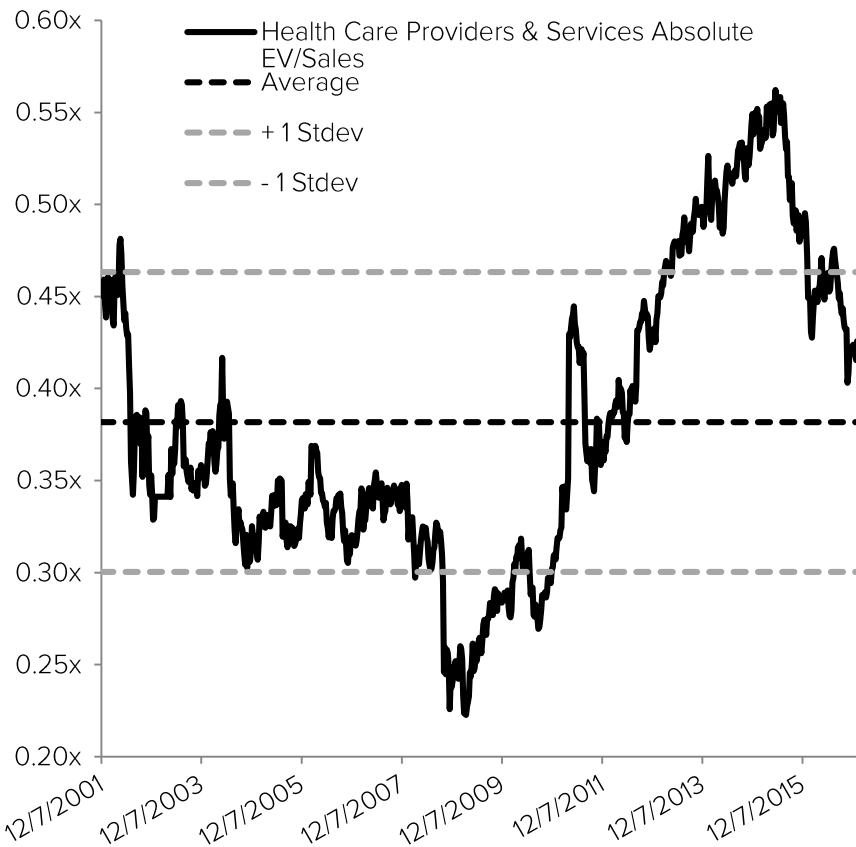
PROVIDERS/SERVICES NTM EV/EBITDA

IN-LINE ABSOLUTE / BELOW RELATIVE



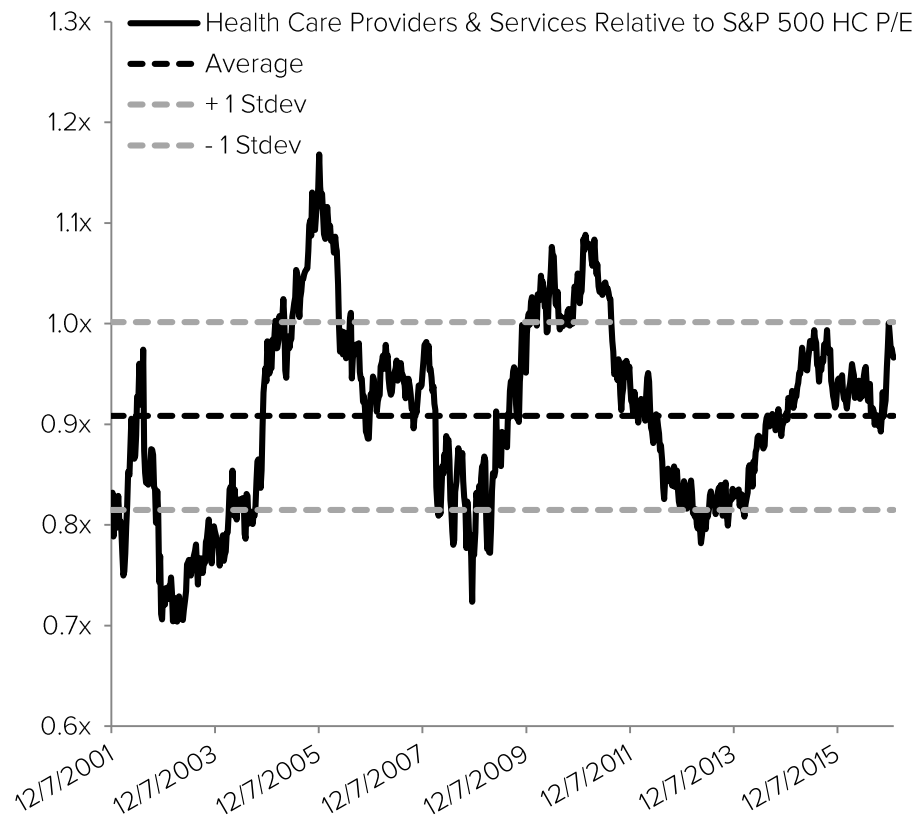
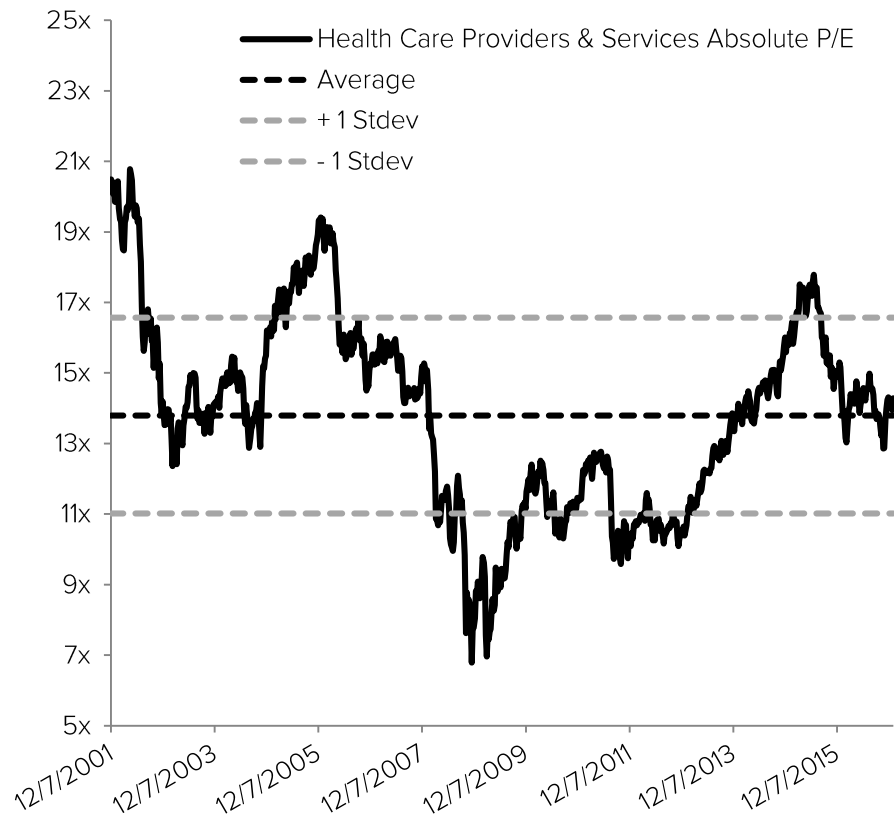
PROVIDERS/SERVICES NTM EV/SALES

IN-LINE ABSOLUTE / IN-LINE RELATIVE

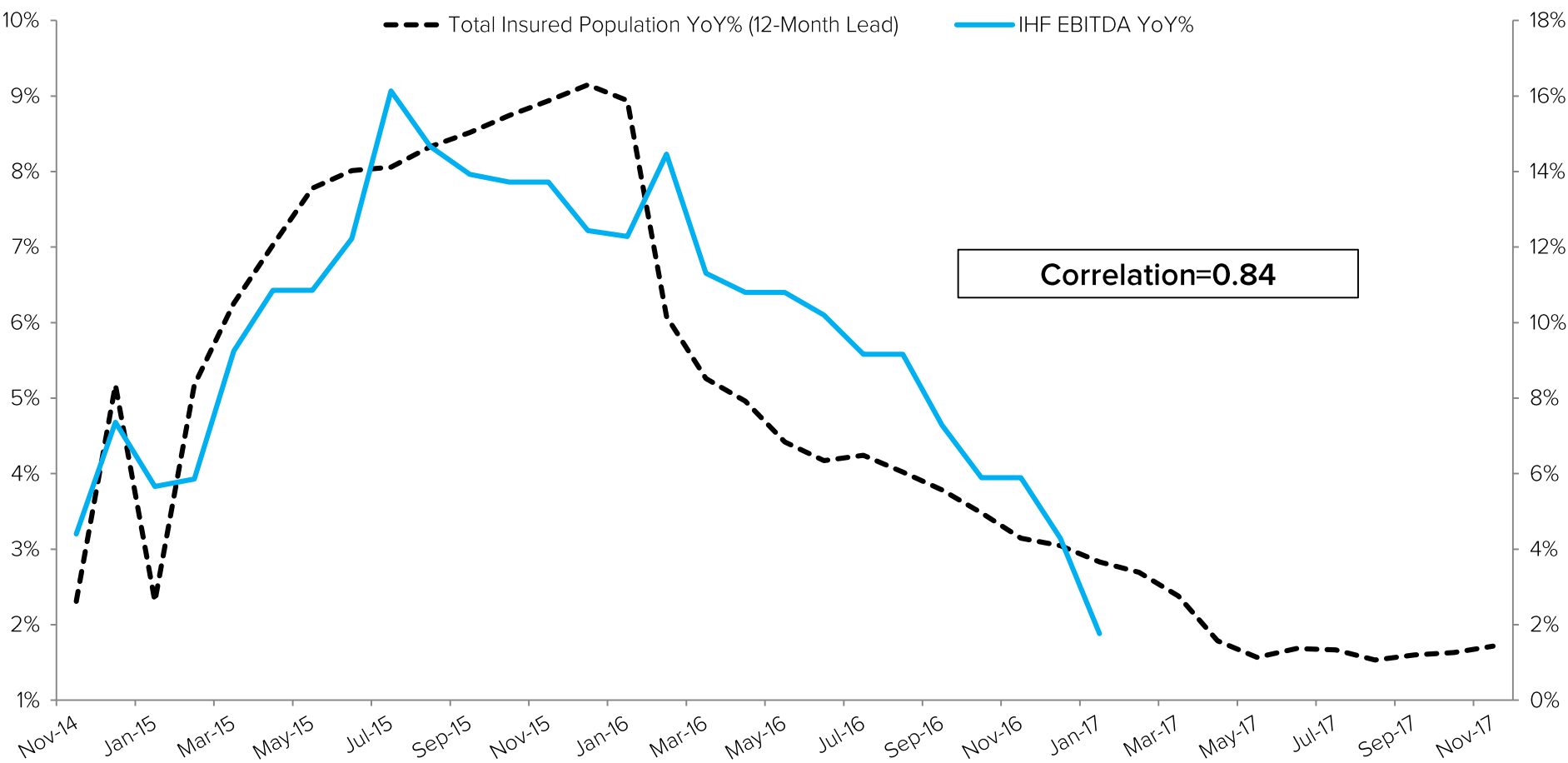


PROVIDERS/SERVICES NTM P/E

IN-LINE ABSOLUTE / EXTENDED RELATIVE

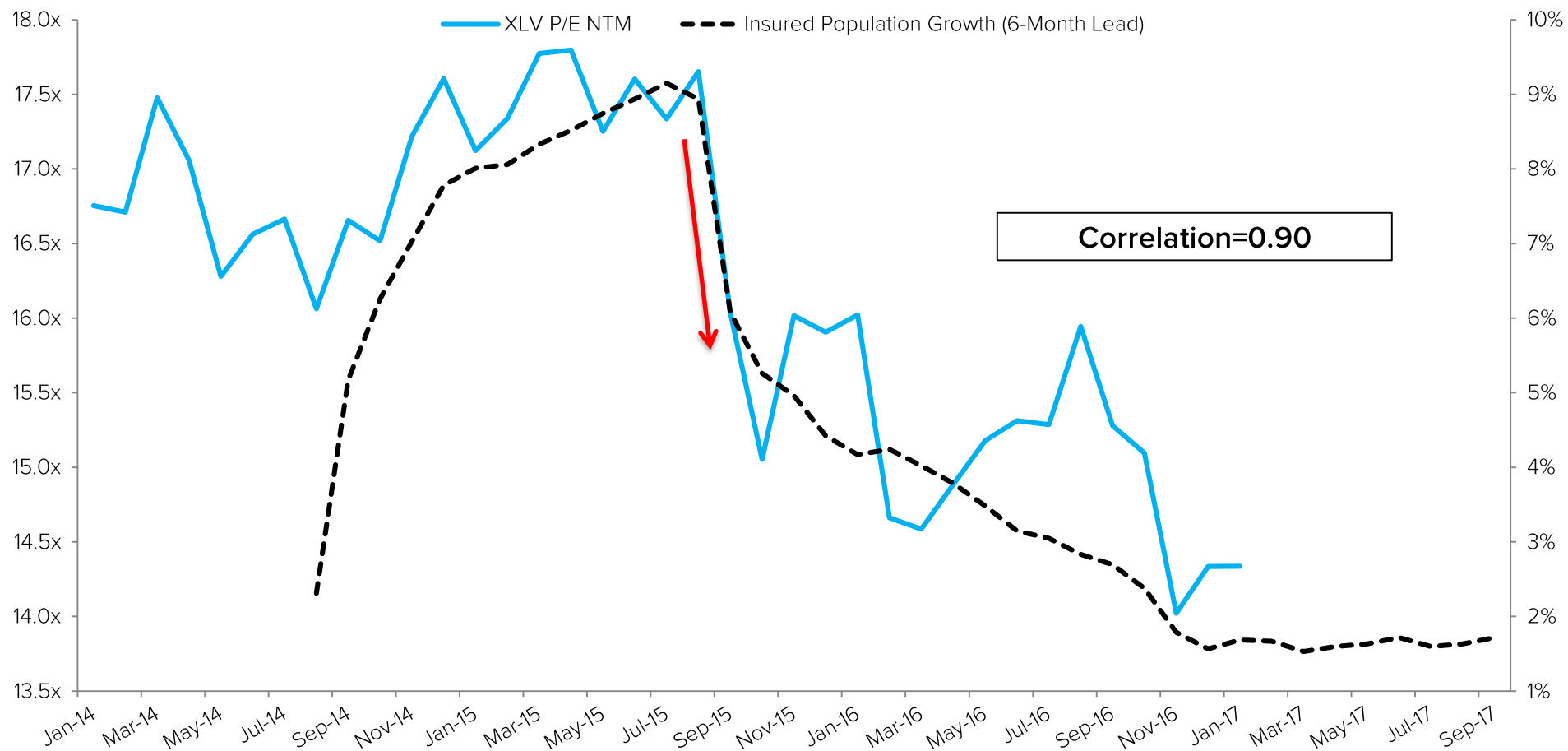


INSURED POPULATION DRIVES EARNINGS GROWTH

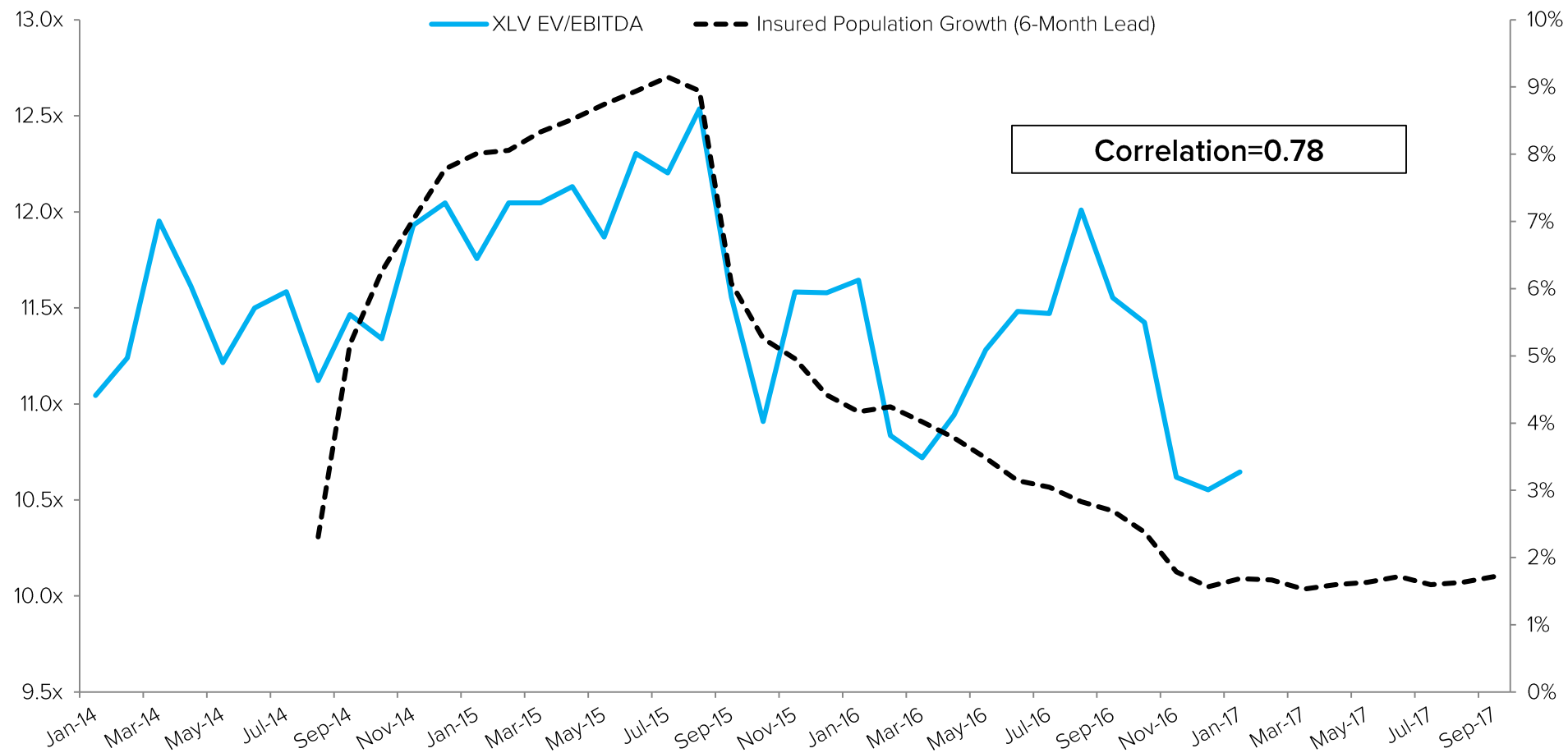


Correlation=0.84

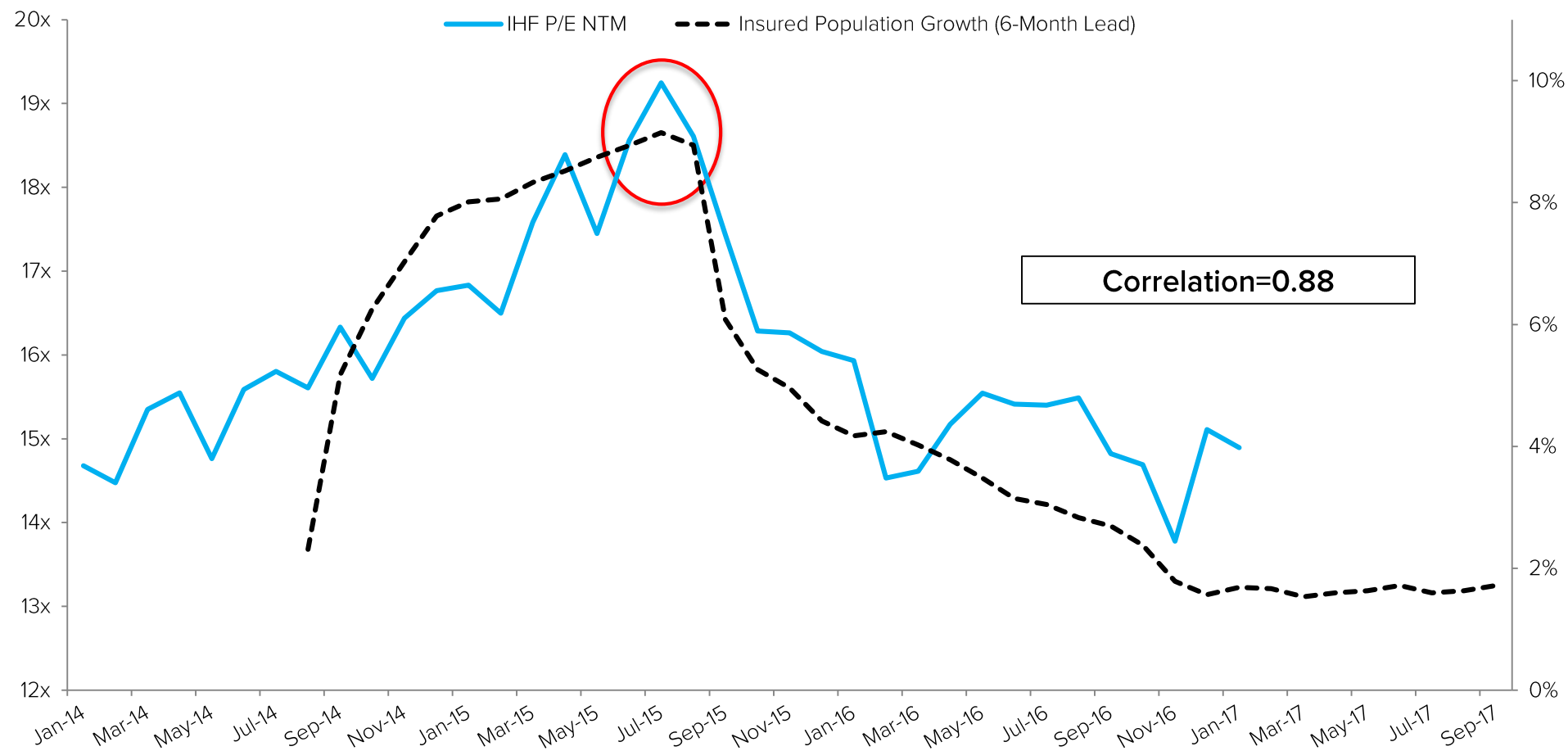
MULTIPLES COMPRESSING



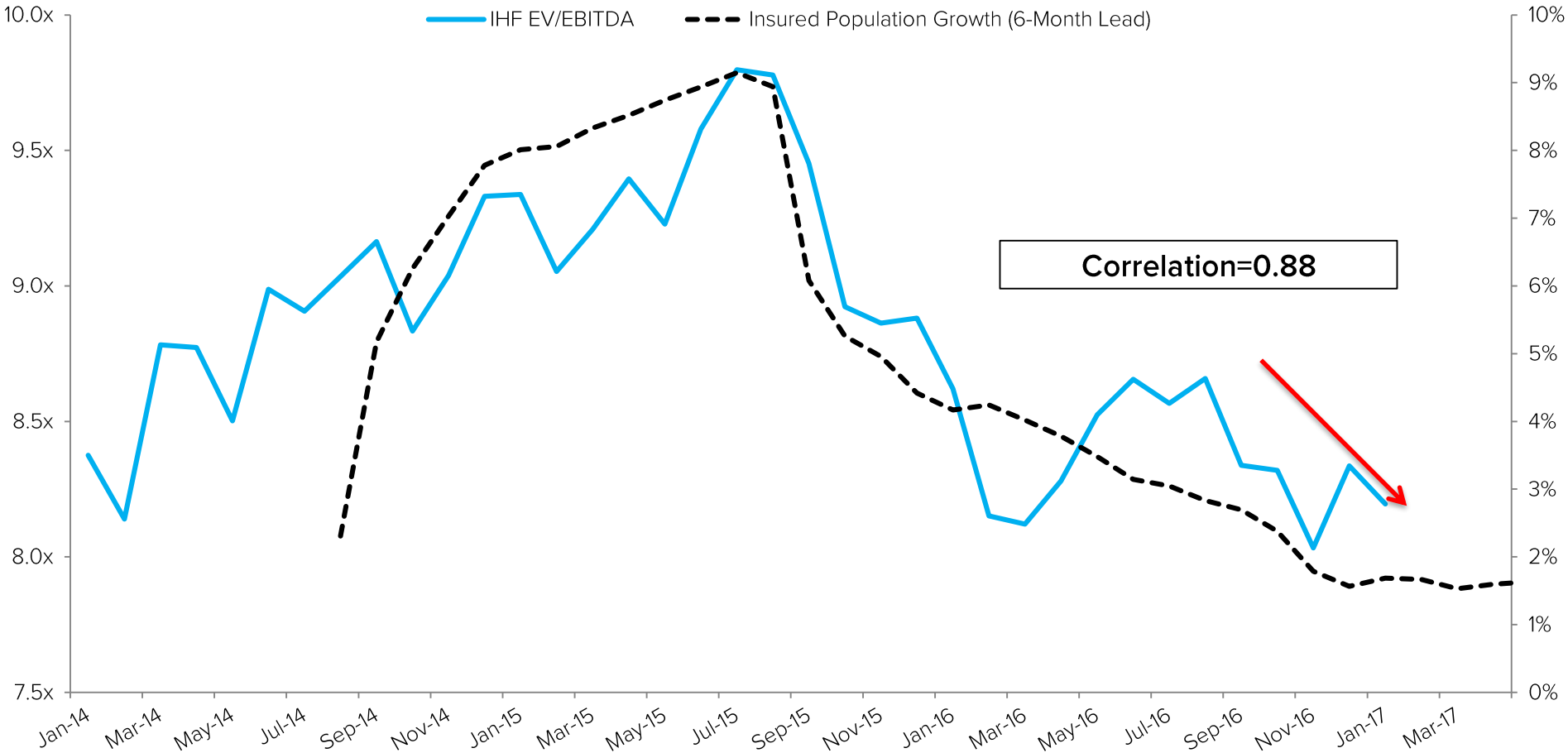
IT GETS WORSE FROM HERE



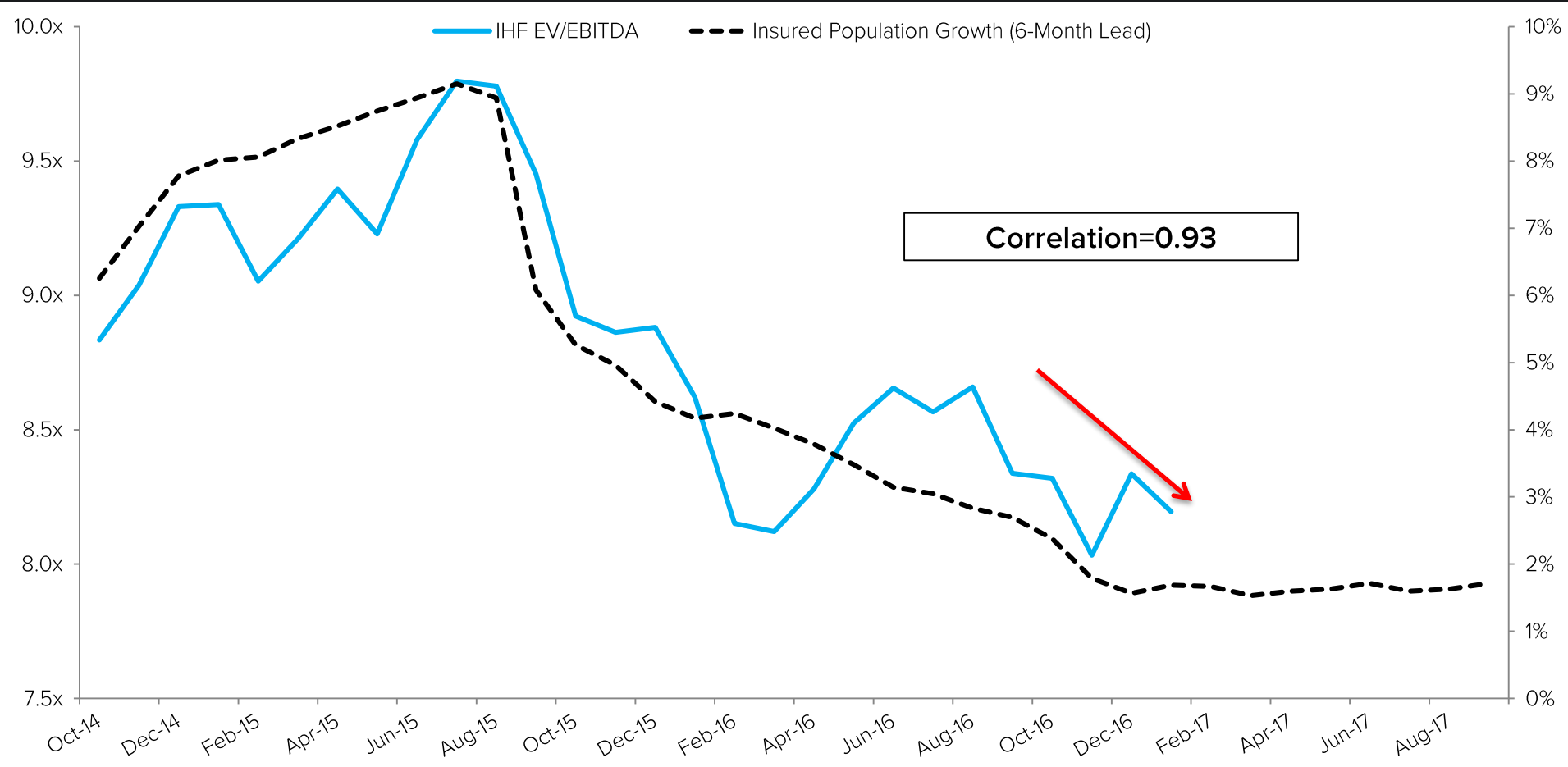
INSURED POPULATION AND PROVIDERS MOVE IN TANDEM



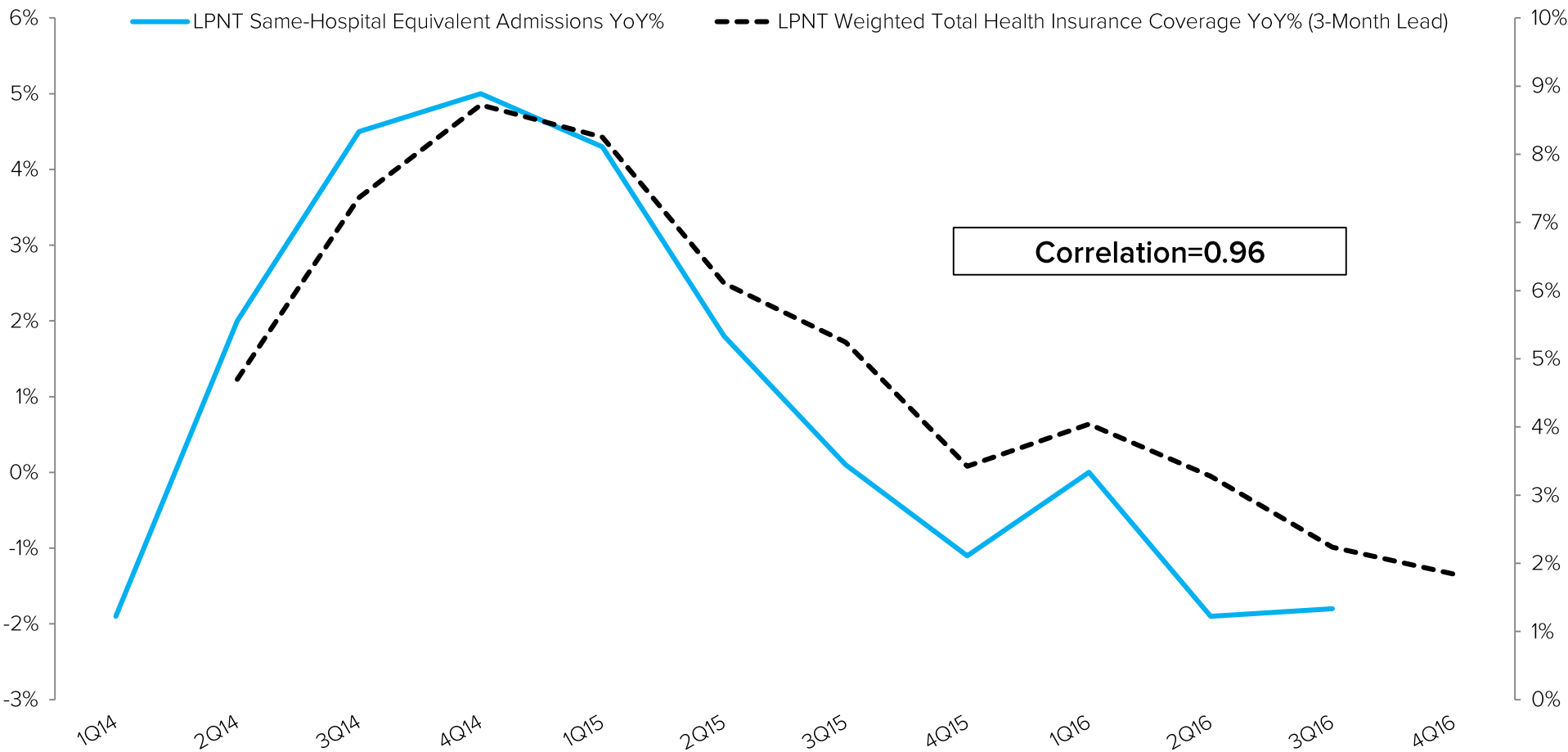
MULTIPLES HEADING LOWER



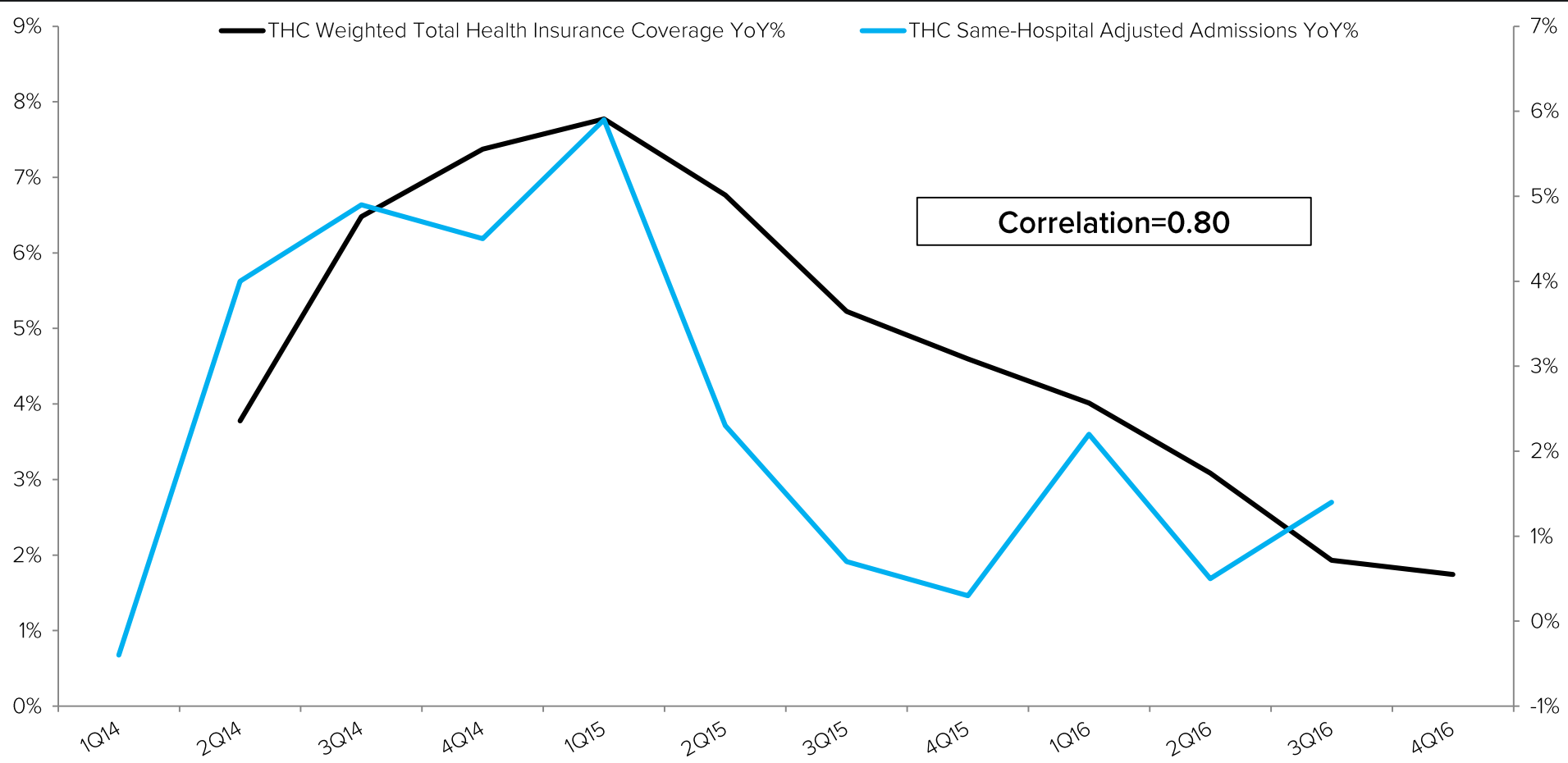
MULTIPLES HEADING LOWER



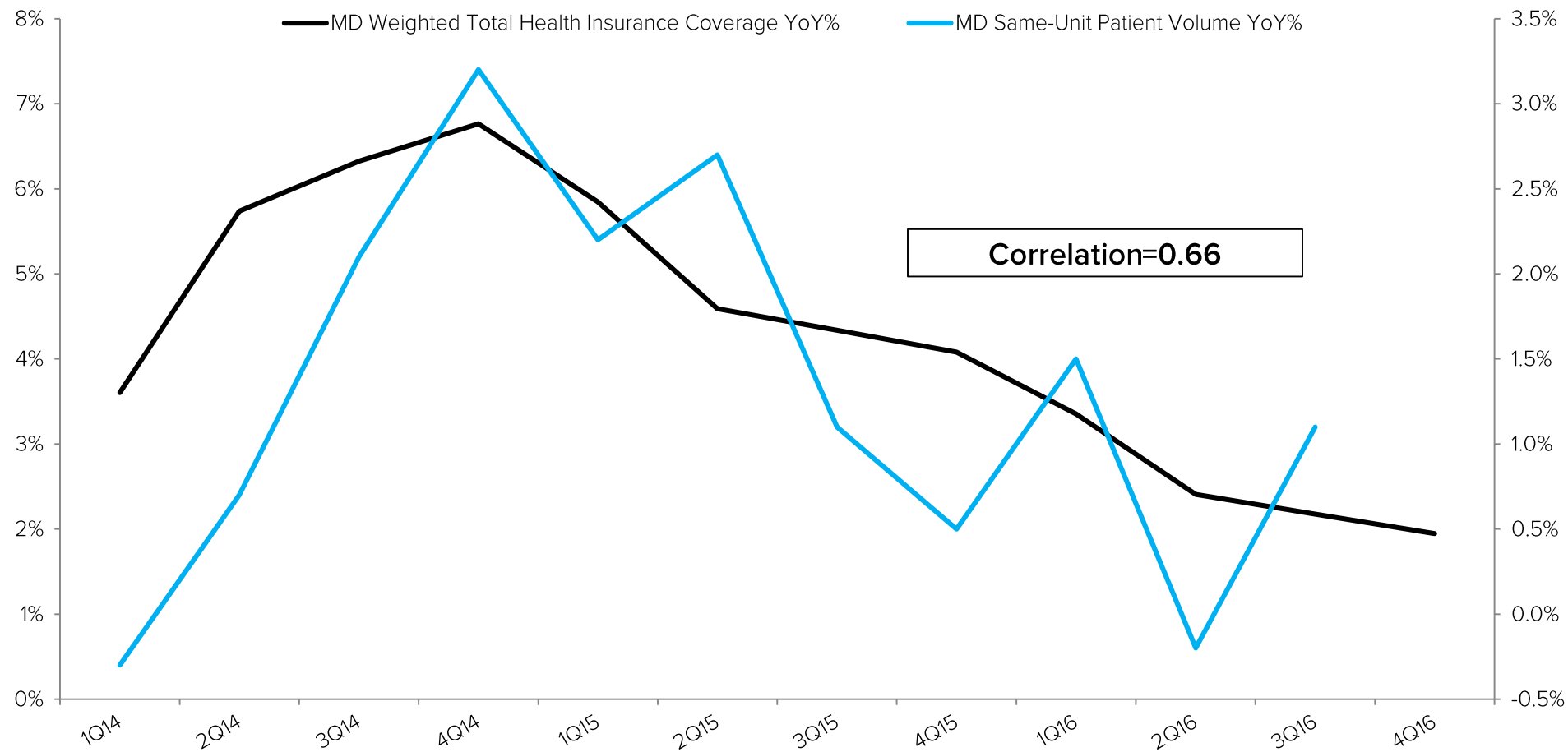
INSURED POPULATION LEADS ADMISSIONS



INSURED POPULATION DRIVES ADMISSIONS

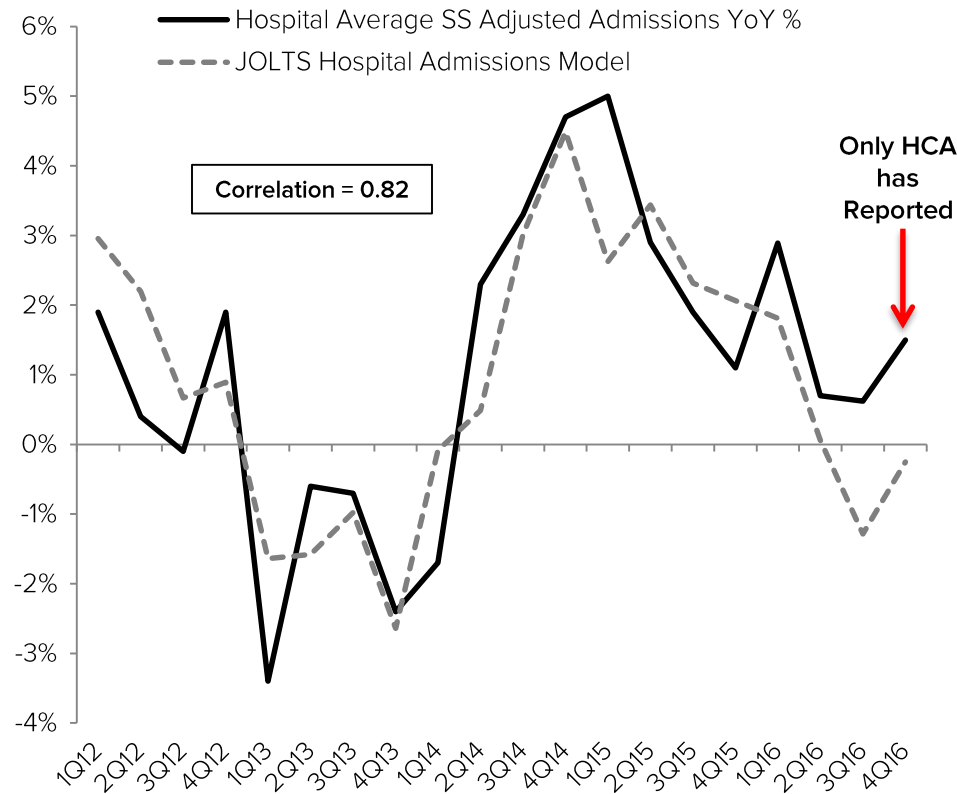
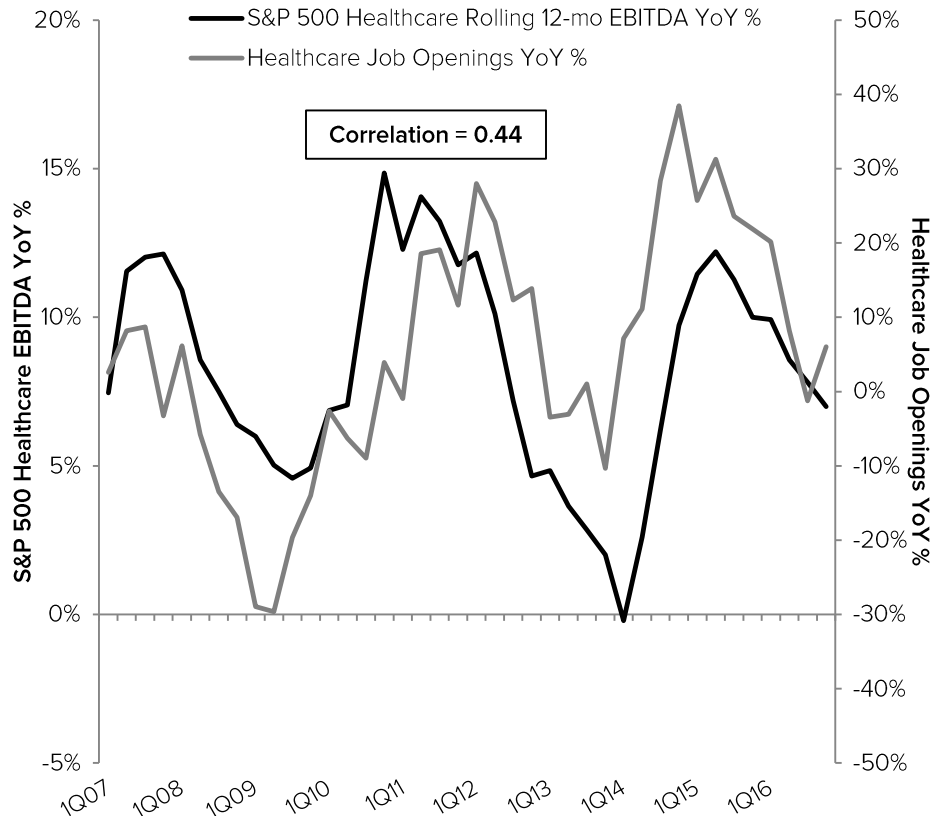


INSURED POPULATION DRIVES PATIENT VOLUME



HEALTHCARE GROWTH SLOWING

EBITDA AND ADMISSION GROWTH TIED TO JOB OPENINGS

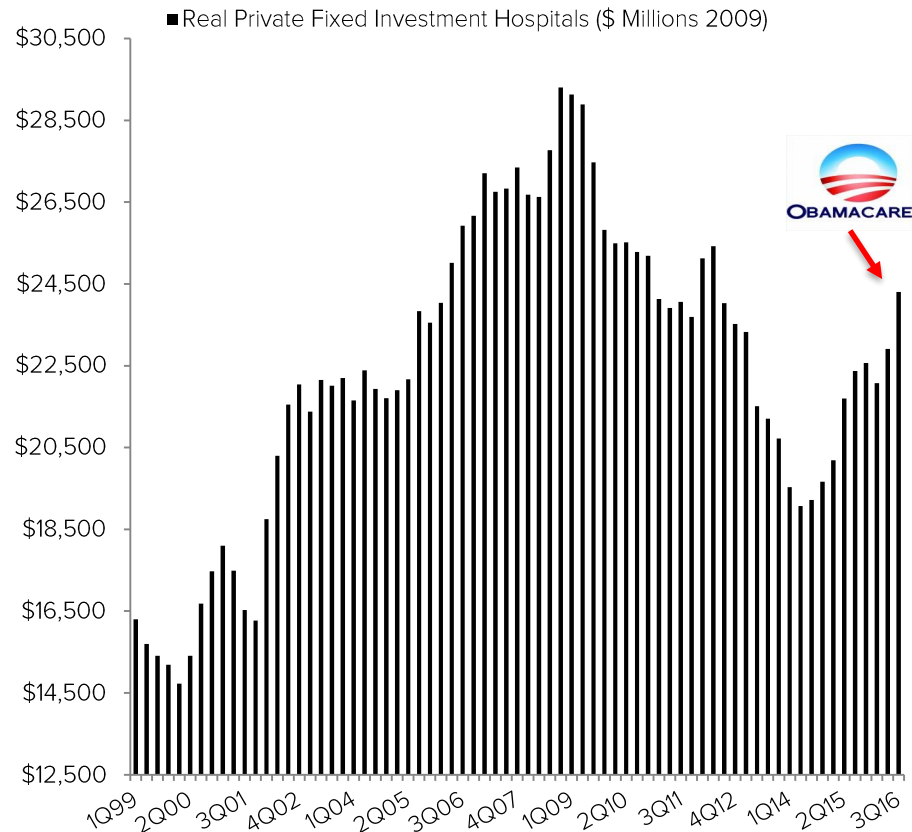
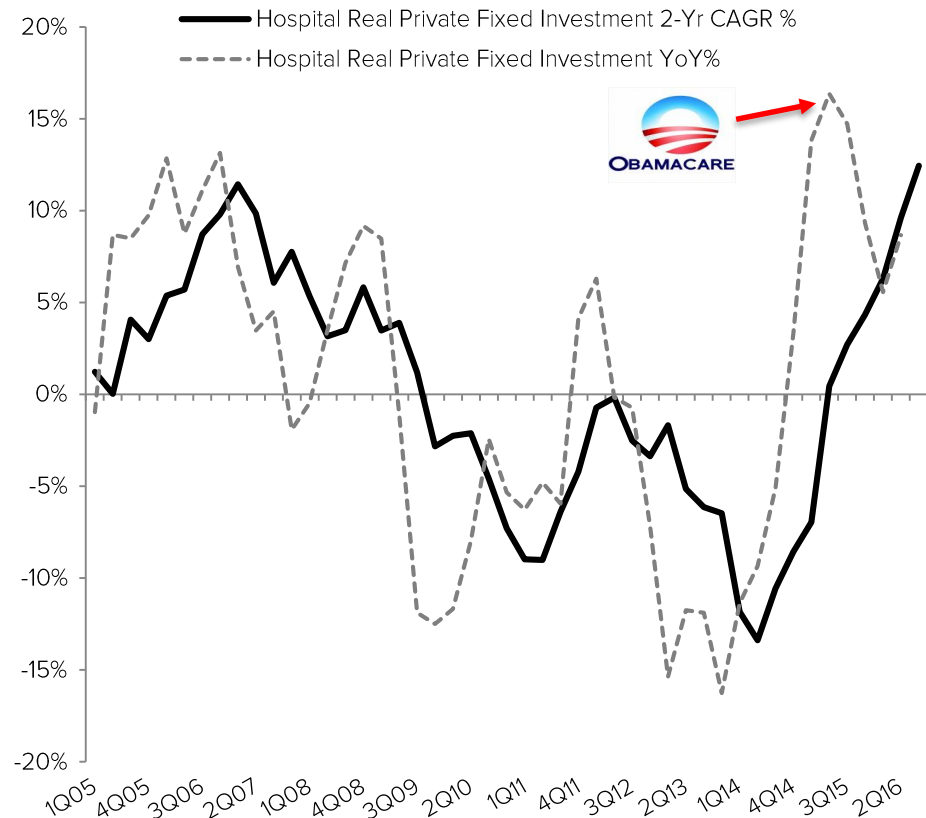




DEBT | M&A | CAPEX

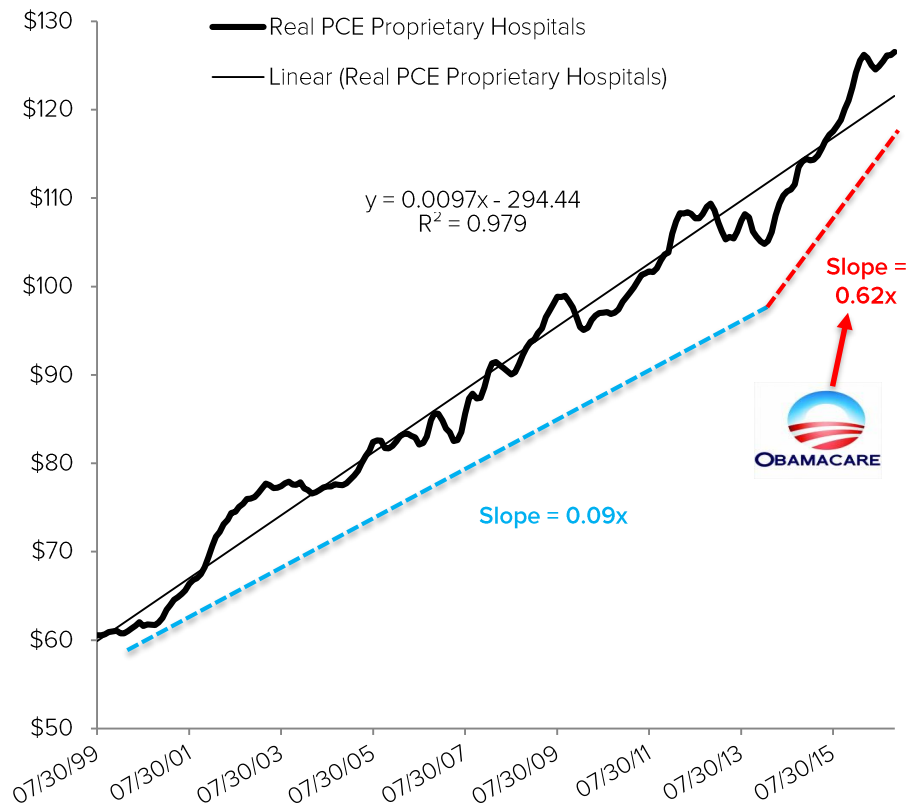
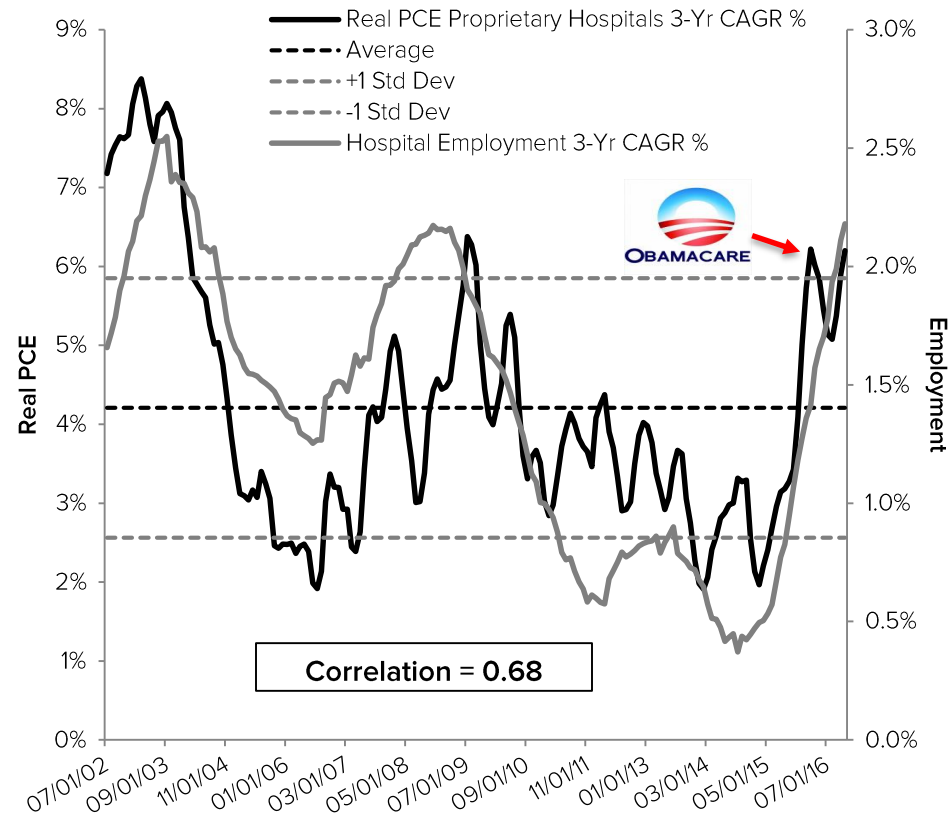
HOSPITAL PRIVATE FIXED INVESTMENT

HOSPITAL CAPEX COINCIDES WITH OBAMACARE STIMULUS

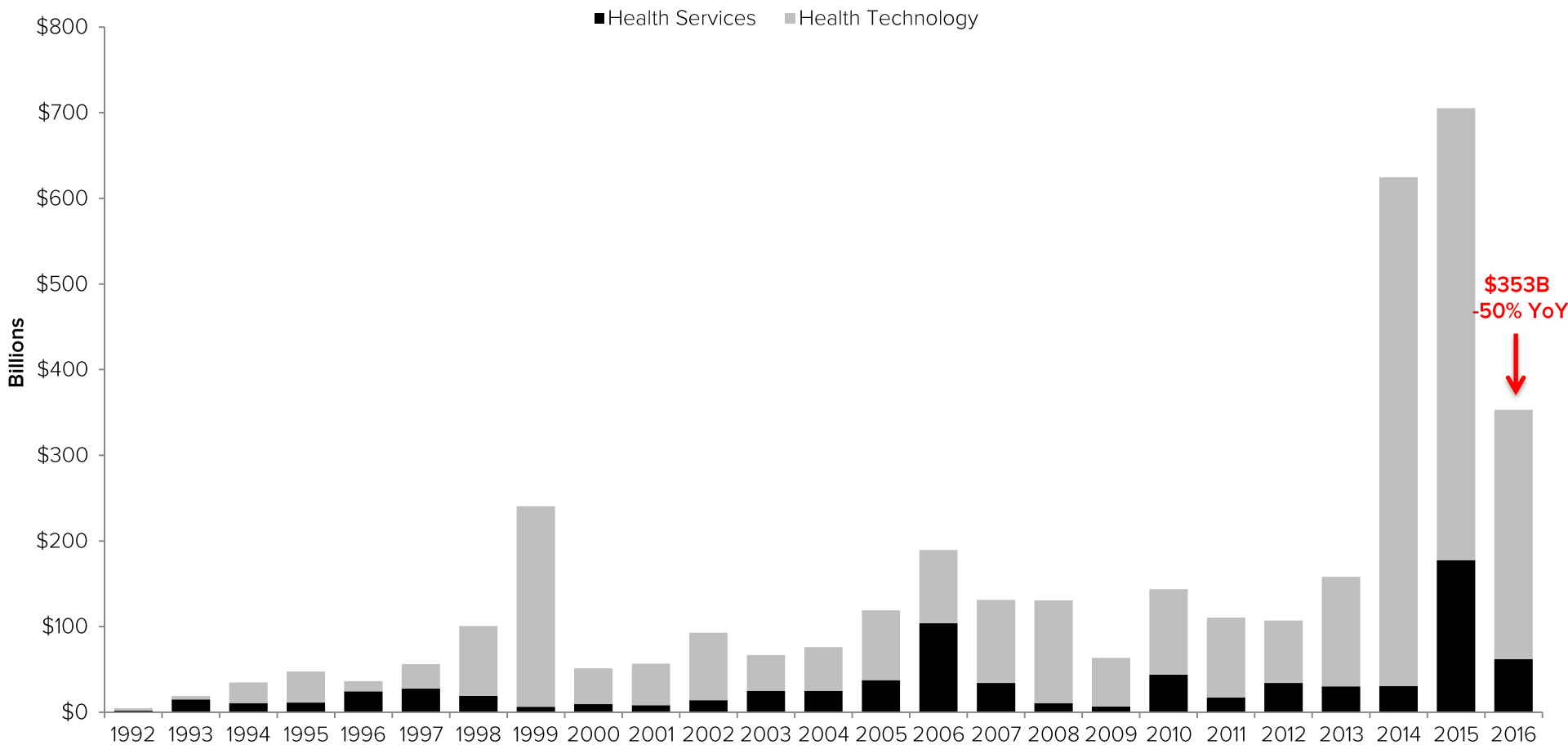


REAL PCE PROPRIETARY HOSPITALS

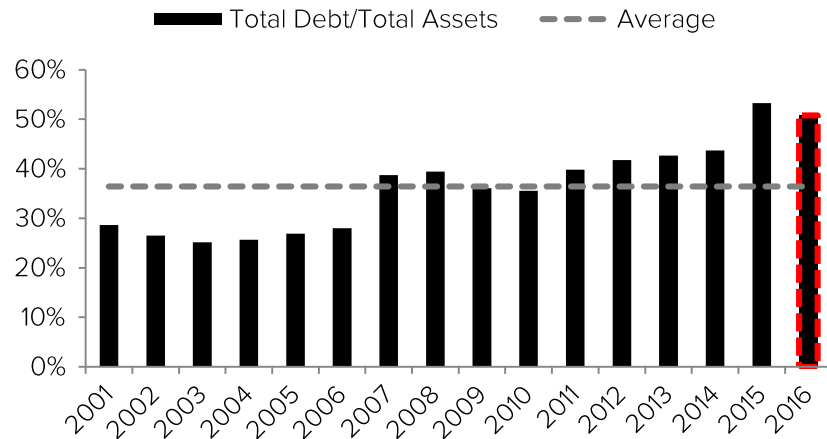
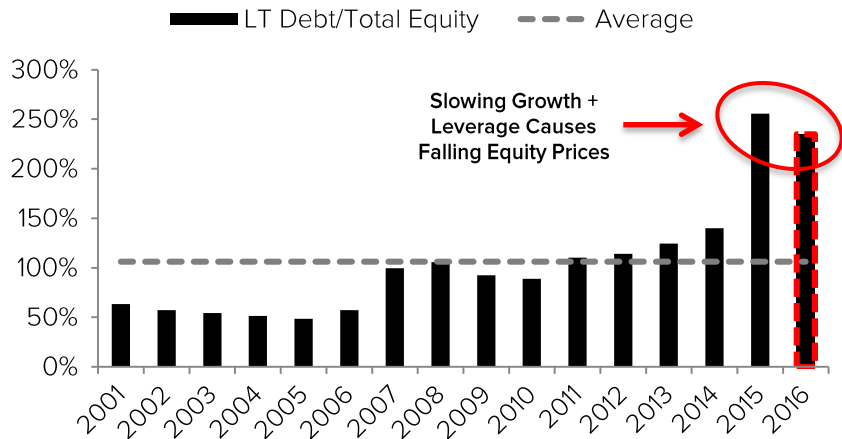
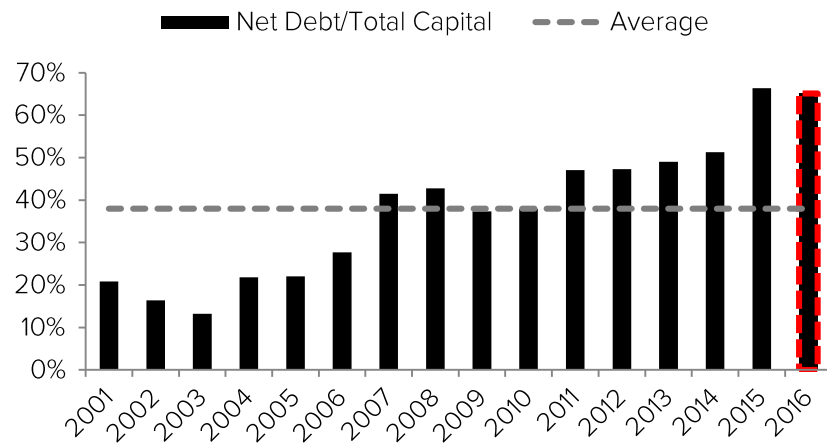
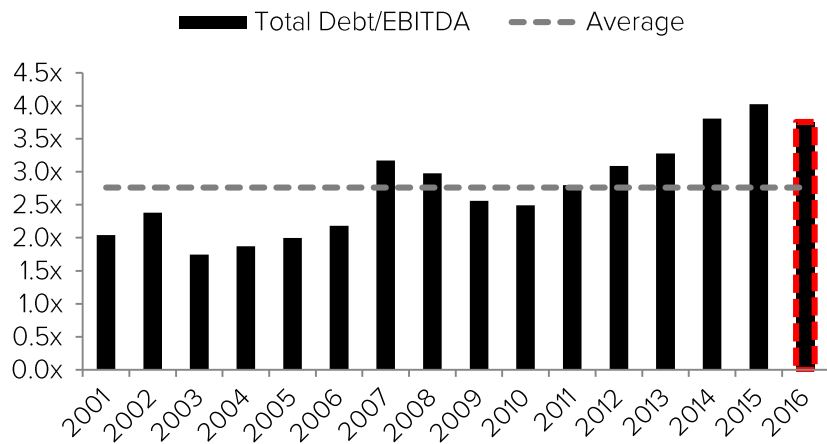
REAL PCE GROWTH ACCELERATED WITH NEWLY INSURED



GLOBAL HEALTHCARE M&A ACTIVITY

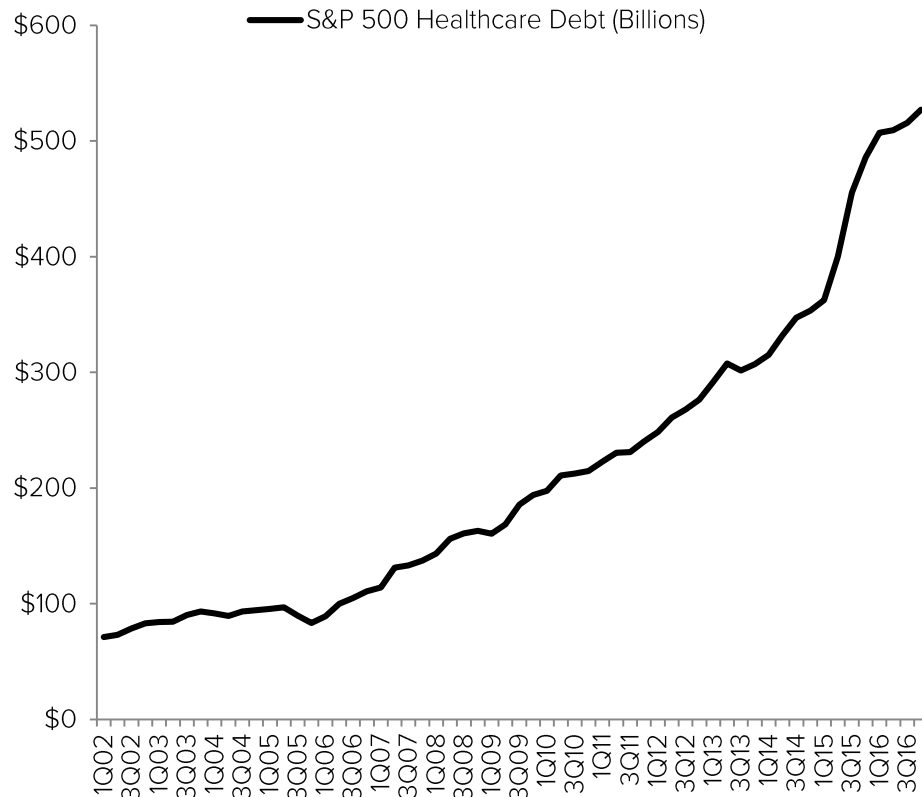
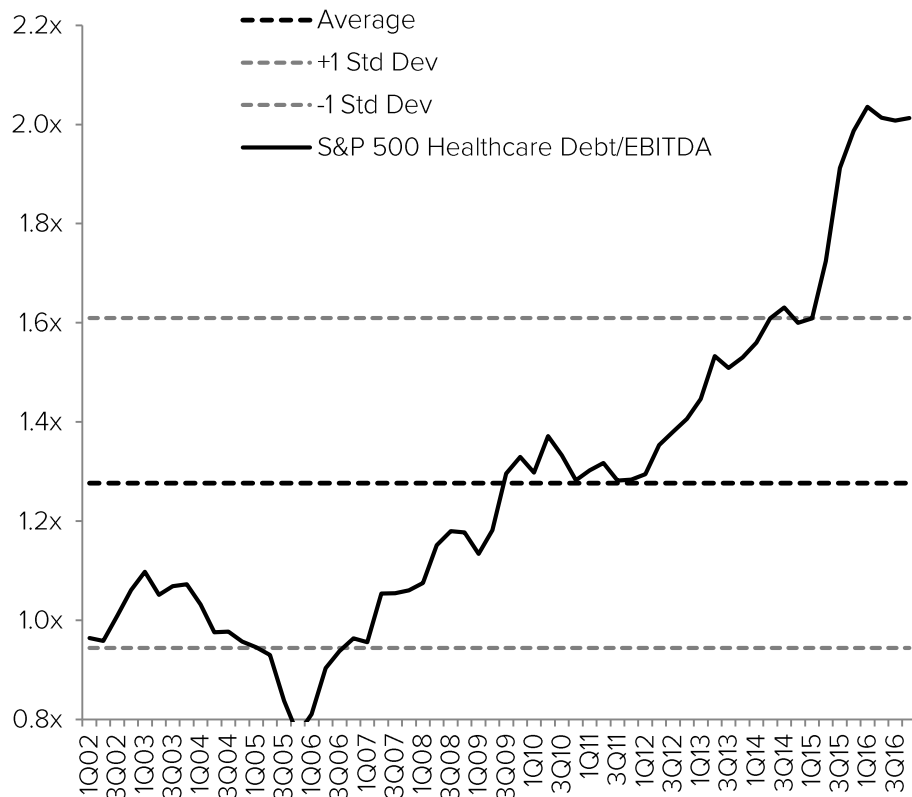


LEVERAGE NEAR 15-YEAR HIGHS



MASSIVE BALANCE SHEET EXPANSION FOR HEALTHCARE

500% DEBT INCREASE LAST 10-YEARS





#ACATAPER → #ACA2.0



EMILY EVANS

HEALTHCARE POLICY

HEDGEYE
TV

#POLICY

Q1 2017 POLICY MACRO THEMES

1

REPEAL & REPLACE...OR SOMETHING LIKE THAT

- Repeal and replace as much as reconciliation will allow
- Repeal and replace through regulatory action
- Replace with regular order

2

MEDICAID REFORM & PROGRAM OVERSIGHT

- Concerns over spending growth driving much decision making
- Governors want to keep Medicaid expansion but may trade for reform
- Oversight can solve some of the problem

3

DRUG PRICING

- Populist issue being exploited by Trump
- Trump crosses aisle?
- Even Democrats acknowledge it isn't that easy

Q1 MACRO THEMES – REPEAL & REPLACE - DIRECTION

1

CONSUMER-BASED SYSTEM

- Advance-able, refundable tax credits
- Purchased from any qualified source – broker, exchange, etc.
- Flexible benefit design

2

STATE-BASED SYSTEM

- Plan regulation sent to state level
- Medicaid reform - block/per capita grants
- Better coordination with tax subsidized populations
- Focus on 20% of population costing 80% budget

3

FLATTER EXPENDITURE CURVE

- Remove inflationary aspects of Medicaid program
- FMAP, Maintenance of Effort
- Essential Health Benefits

Q1 MACRO THEMES – REPEAL & REPLACE

1

REPEAL & REPLACE VIA RECONCILIATION

- Baseline list is 2015 reconciliation bill – know where the votes are
- Repeal of mandates, most taxes almost certain
- Replace to the extent reconciliation will allow – HSAs, mobile tax credits, etc.

2

REPEAL (& MAYBE REPLACE) VIA REGULATION

- Day One regulatory changes
- Section 1332 Waiver rule changes for DIY ACA
- Relaxation of insurance provisions

3

LONG TERM REPLACEMENT

- Those portions not addressed through Reconciliation and Regulation can be replaced via regular order
- Needs 8 Democrats

Q1 MACRO THEMES – 2015 RECONCILIATION PROVISIONS

Sec. 201	Recapture Excess advance Payments of Premium Tax Credits	Sec. 212	Repeal of Limitations on Contributions to Flexible Spending Accounts
Sec. 202	Premium Tax Credit and Cost Sharing Subsidies	Sec. 213	Repeal of Tax on Prescription Medications
Sec. 203	Small Business Tax Credit	Sec. 214	Repeal of Medical Device Excise Tax
Sec. 204	Individual Mandate	Sec. 215	Repeal of Health Insurance Tax
Sec. 205	Employer Mandate	Sec. 216	Deduction for Expenses Allocable to Medicare Part D
Sec. 207	Medicaid Expansion	Sec. 217	Repeal of Chronic Care Tax
Sec. 208	Repeal of DSH allotment Reductions	Sec. 218	Repeal of Additional Medicare Tax
Sec. 209	Repeal of Tax on Employee Health Insurance Premiums and Health Plan Benefits	Sec. 219	Repeal of indoor tanning services tax
Sec. 210	Repeal of Tax on Over the Counter Medication	Sec. 220	Repeal of Net Investment Income Tax
Sec. 211	Repeal of Tax on Health Savings Accounts		

Q1 MACRO THEMES – REPLACE VIA RECONCILIATION

1

TAX PROVISIONS

- Advance-able, refundable tax credit to purchase insurance from all sources
- Age adjusted
- Create standard deduction for health insurance
- Carrot approach instead of stick

2

EXPANDED USE OF HSA, FSA ACCOUNTS

- Allow spouses to make catch-up contributions
- Use for all qualified expenses if established within 60 days
- Set max contribution at combined OOP and annual deductible limits with cap

3

FUND HIGH RISK POOLS

- To address high need, high cost enrollees
- \$25 billion for administrative expenses

Q1 MACRO THEMES – REPEAL (REPLACE?) VIA REGULATION

1

DAY ONE REGULATORY ROLL BACK

- Big announcement after inauguration will set the tone
- Short list – relax EHBs, adjust SEP, grace period, allow any state approved plan to be QHP
- Needed before plans begin work on 2018

2

SECTION 1332 WAIVERS

- Rules established by Obama Administration very strict
- Expand number of states that could use waiver
- Twelve states have passed legislation

3

HHS FOLLOW-ON CHANGES

- Relax Section 1115 waiver process for Medicaid
- Better oversight of exchanges
- Better coordination between exchanges and Medicaid

Q1 MACRO THEMES – MEDICAID REFORM AND OVERSIGHT

1

CONGRESS HAS SOME QUESTIONS....

- December 19 letter to CMS
- Driven by cost and enrollment growth
- Sets up right environment for Price to demand oversight

2

GOVERNORS' RESPONSE

- Two thirds of state houses are occupied by Republicans
- Trump carried 12 states that expanded Medicaid
- Want to preserve federal dollars

3

PRESSURE FOR REFORM

- Combination of oversight and cost growth
- Trade federal financial support for cooperation on reform

Q1 MACRO THEMES – MEDICAID OVERSIGHT

1

ELIGIBILITY DETERMINATIONS

- GAO Study found that federal marketplaces did not adequately review for eligibility
- State redeterminations have been lax
- Presumptive eligibility assures payment of hospital services

2

CLASSIFICATION OF POPULATIONS

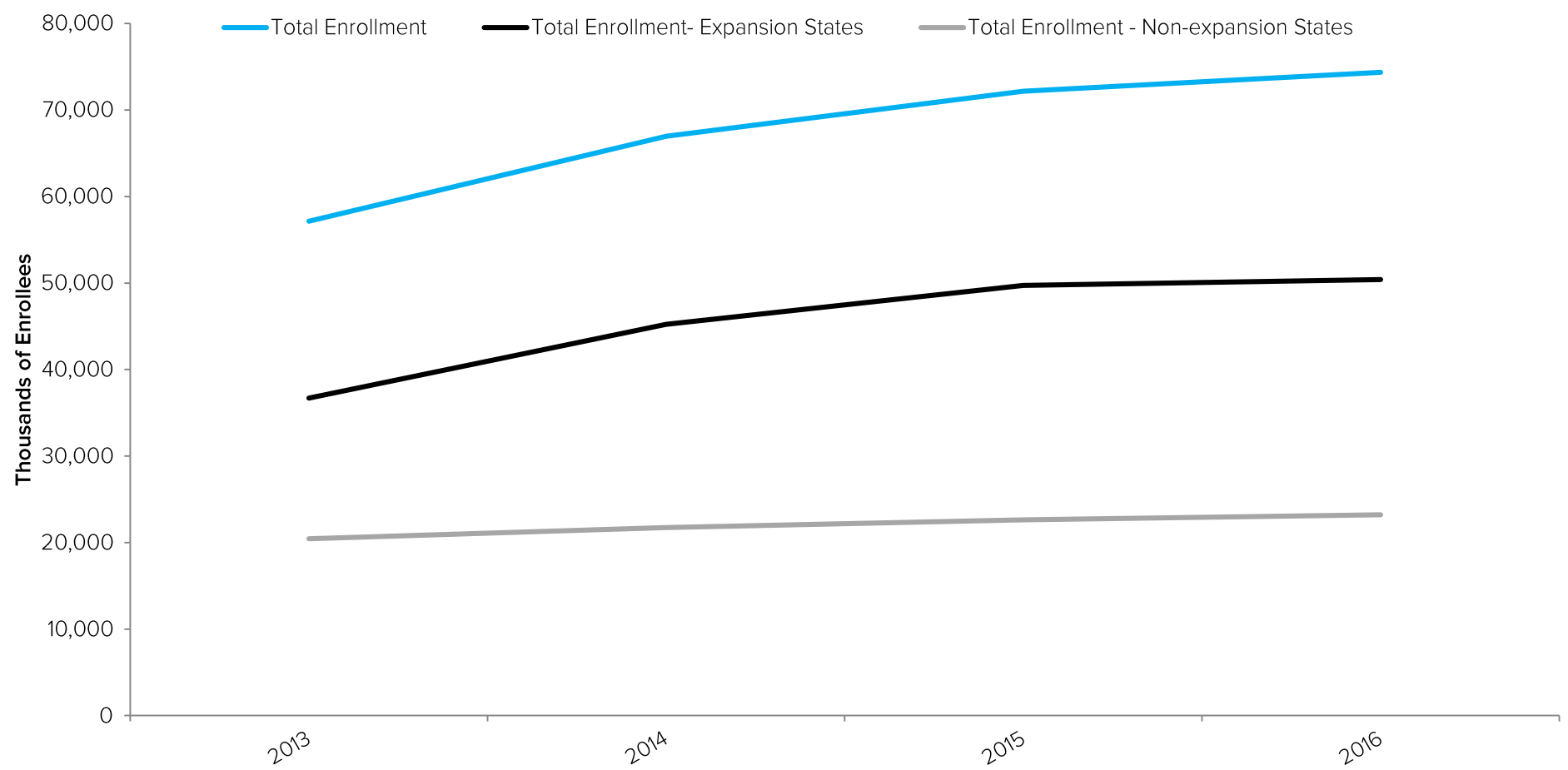
- Childless adults in expansion population with 100% FMAP becomes 50% FMAP if pregnant
- Classification of new enrollees into expansion population instead of tradition group
- Louisiana's shift from exchanges to Medicaid

3

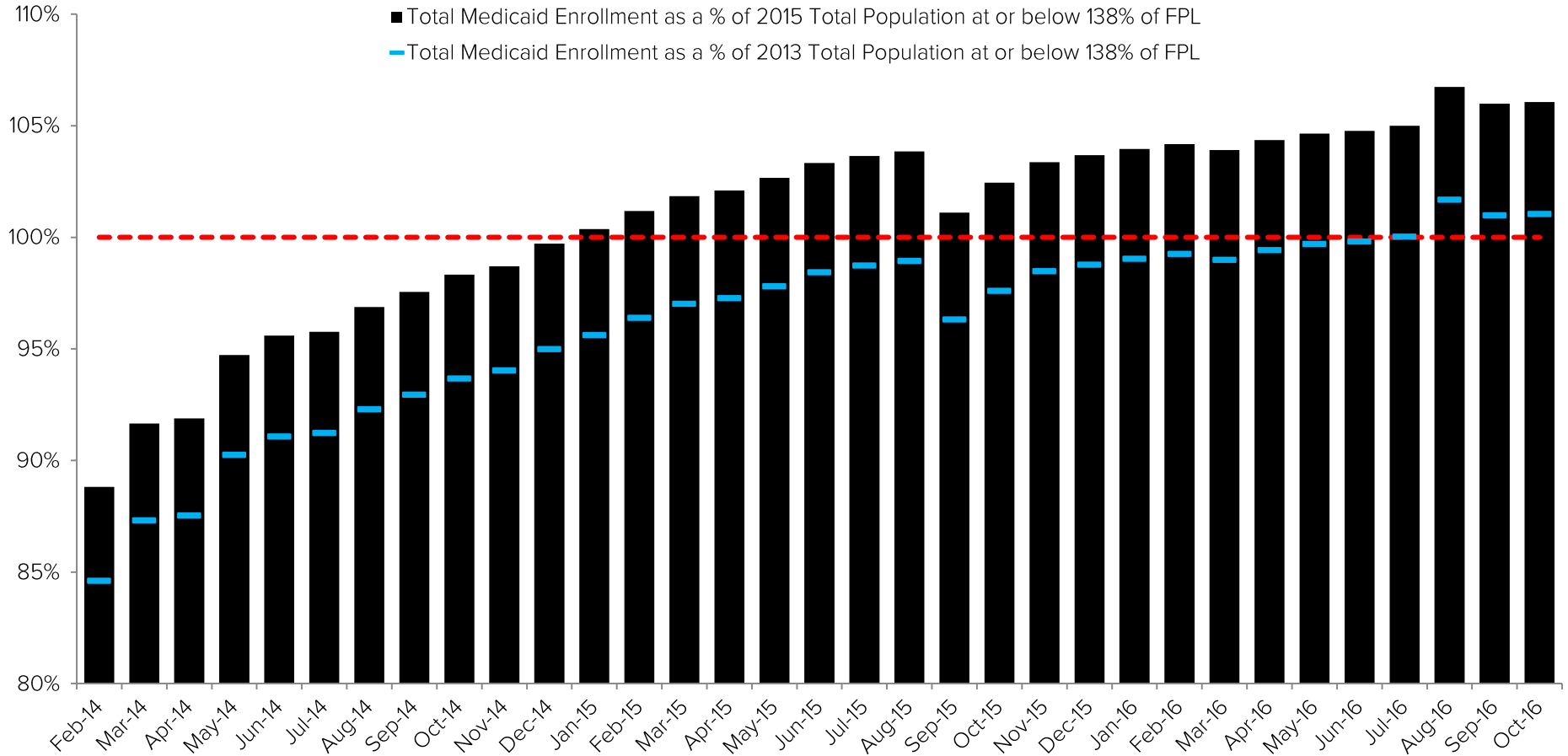
INCREASED CAPITATED PAYMENTS

- Congress suspects increased FMAP contributes to higher capitation rates
- Financial incentives provide little downward pressure

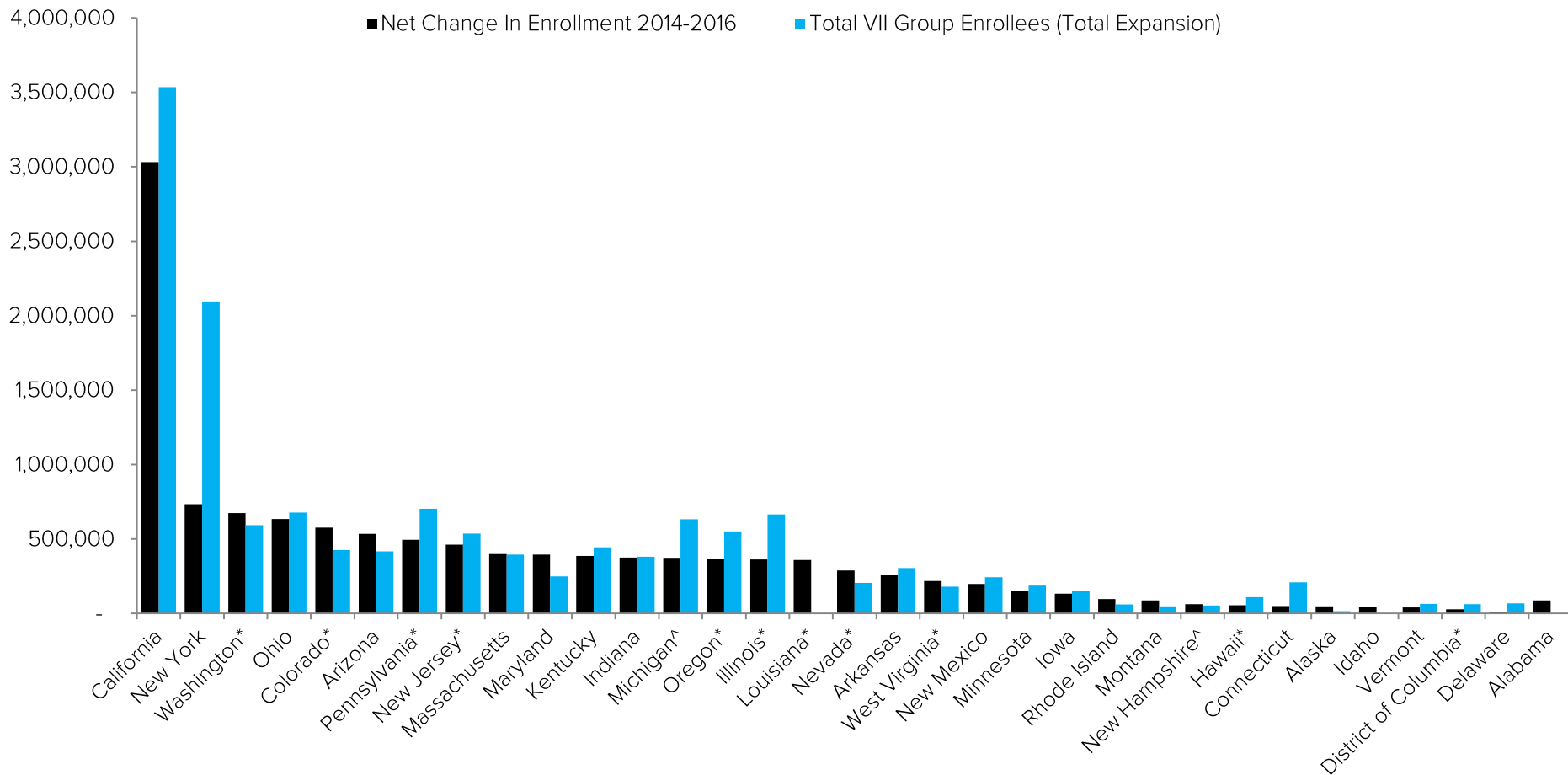
Q1 MACRO THEMES – MEDICAID REFORM AND OVERSIGHT



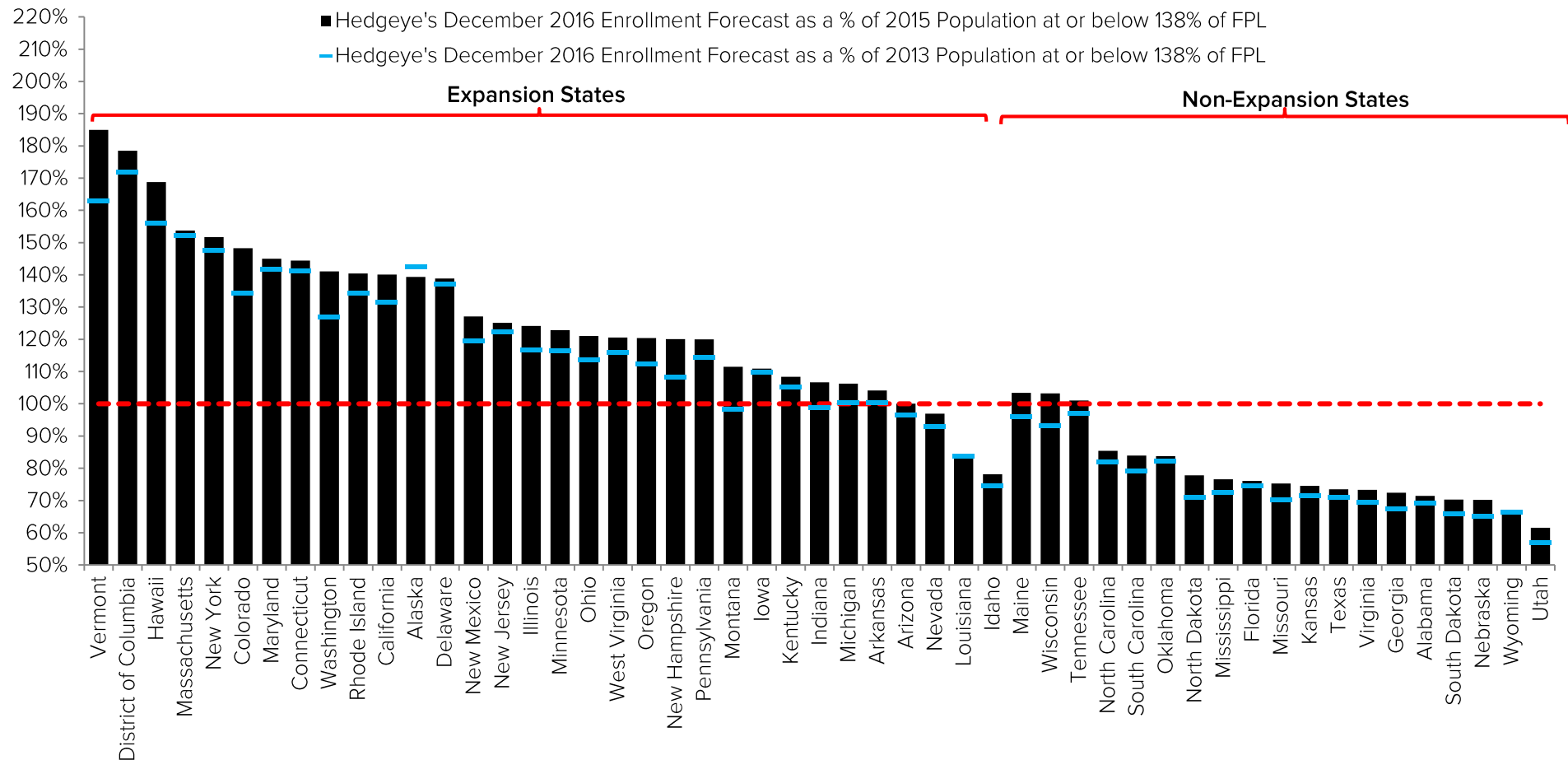
Q1 MACRO THEMES – MEDICAID REFORM AND OVERSIGHT



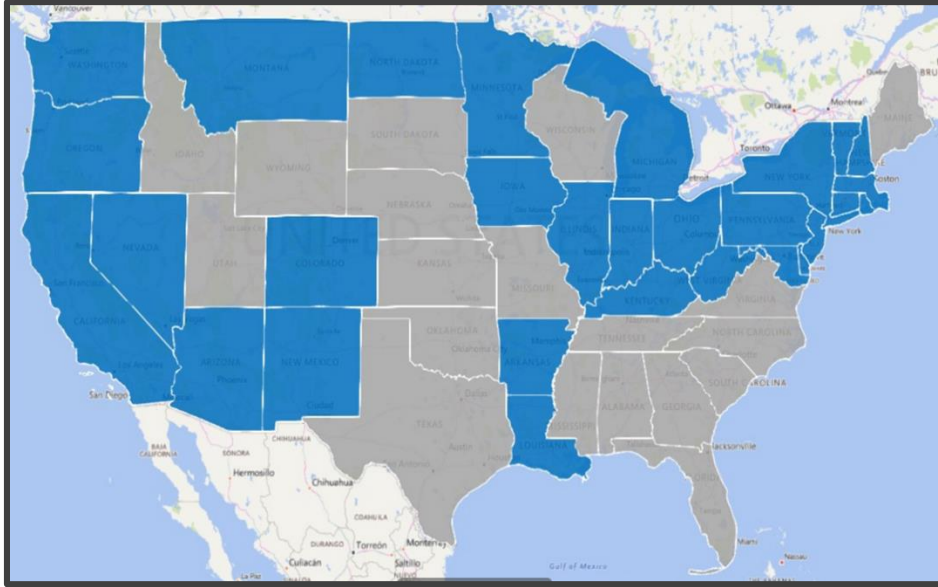
Q1 MACRO THEMES – MEDICAID REFORM AND OVERSIGHT



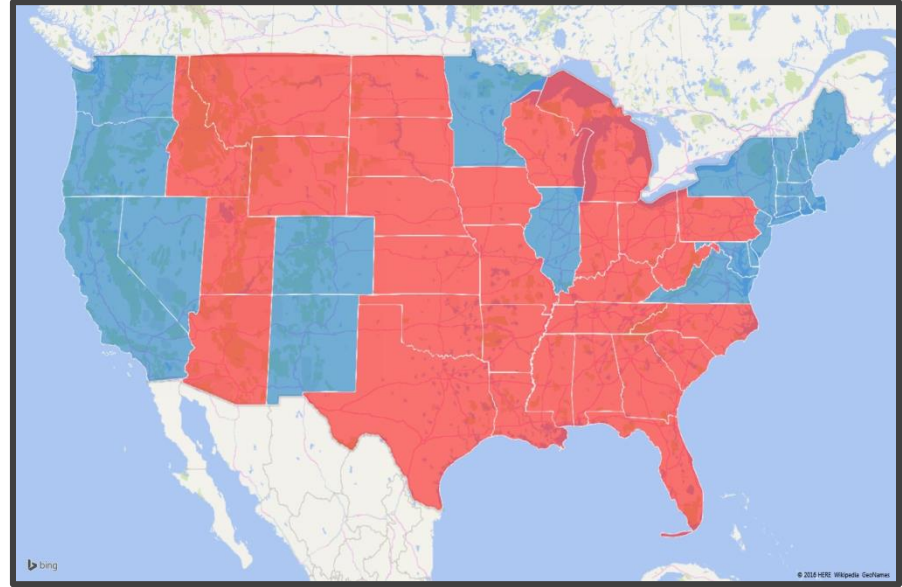
Q1 MACRO THEMES – MEDICAID REFORM AND OVERSIGHT



Q1 MACRO THEMES – MEDICAID REFORM AND OVERSIGHT



Expanded Medicaid Did Not Expand Medicaid



Trump

Clinton

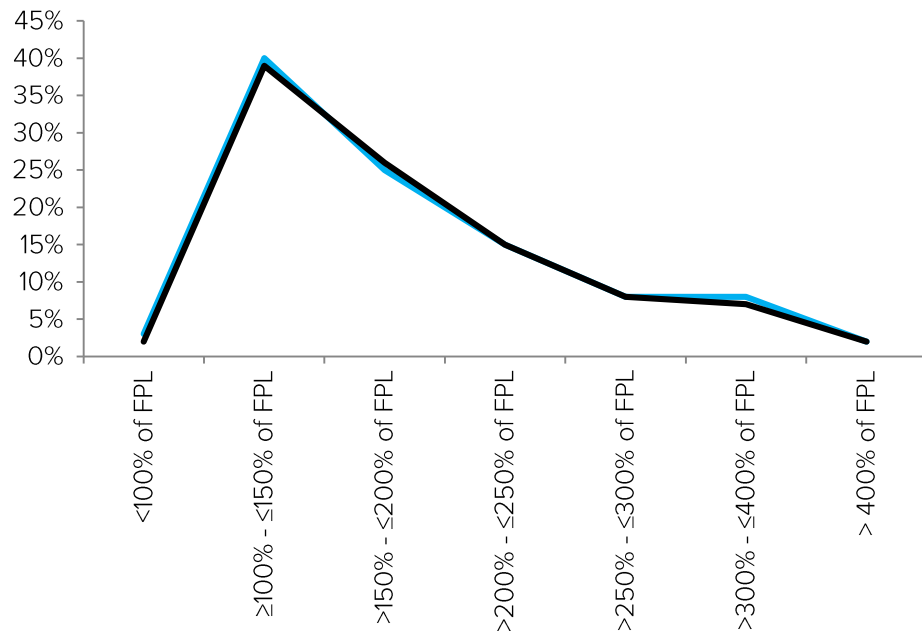
LOT OF RED STATES EXPANDED MEDICAID

Some want change like Kentucky; others want to retain program with perhaps some modification

Q1 MACRO THEMES – MEDICAID REFORM AND OVERSIGHT

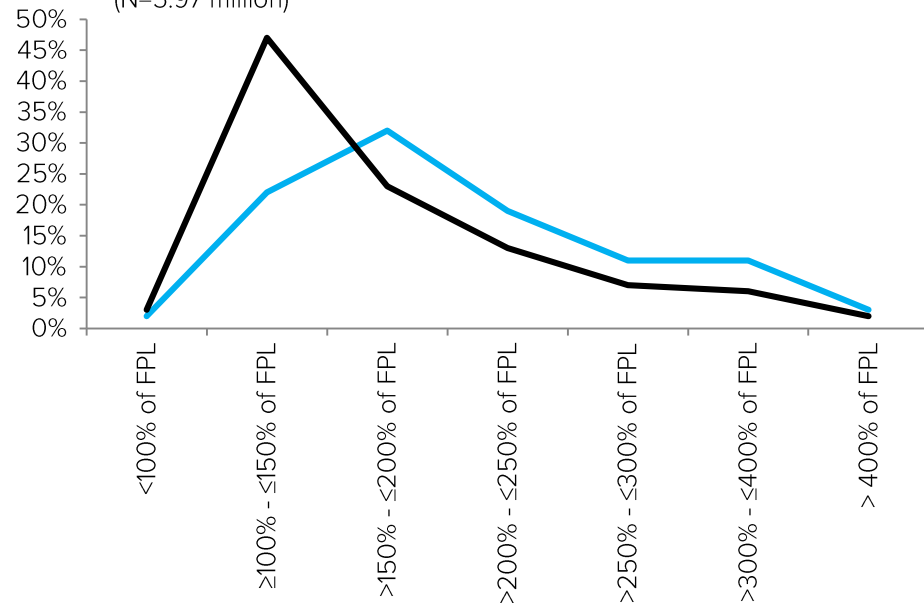
Plan Selections by Household Income (37 States)

— Total Plan Selections (N=8.31 Million)
— Plan Selections for Consumers Renewing Coverage (N=3.93 Million)



Plan Selections by Household Income - Expansion States (16) v Non-expansion States (21)

— Total plan selections for states that have expanded Medicaid (N=2.35 million)
— Total plan selections for states that have not implemented Medicaid (N=5.97 million)



MEDICAID -PER CAPITA PROGRAM

1

PAYMENT SYSTEM

- PMPM would align with managed care approach used by 2/3 of beneficiaries
- Federal allotment would be product of state's per capita allotment for each beneficiary category and the number of enrollees in those categories.
- DHS and GME payments “and other appropriate exclusions” would remain

2

PROGRAM MANAGEMENT

- Work/training requirement
- Medicaid dollars used as defined contribution for premiums including ESI plans
- Reasonable enforceable premiums for non-disabled populations
- Use waiting lists, enrollment caps & limited benefit packages for non-mandatory populations

3

STATE AUTHORITY AND WAIVERS

- Waiver process would be streamlined and simplified and budget neutral to federal government
- Successful waivers for managed care would be grandfathered and folded into state plan

Q1 MACRO THEMES – MEDICAID REFORM AND OVERSIGHT

PER CAPITA CALCULATION - FLORIDA

	Aged	Disabled	Adult	Child
Percent of Enrollment	24%	42%	14%	20%
2011 Total Per Capita	14,253.00	15,005.00	2,993.00	1,707.00
Inflation Adjustment	2,850.60	3,001.00	598.60	341.40
Est 2016 Per Capita	17,103.60	18,006.00	3,591.60	2,048.40
State Share of FMAP	37%	37%	37%	37%
State Share of Per Capita	6,311.23	6,644.21	1,325.30	755.86
Adjusted for number of enrollees	5,483,323,983	10,102,100,164	671,678,014	547,255,200

Q1 MACRO THEMES – DRUG PRICING

1

POPULIST ISSUE RIPE FOR EXPLOITATION

- Look for directionality not specifics
- May make Congress look bad if they respond poorly
- Could get relief by Trump Tower mea culpa

2

WOULD REQUIRE CROSSING THE AISLE

- Would contradict free-market approach of Congressional Republicans
- Might disrupt popular Part D program

3

EVEN DEMOCRATS ADMIT IT IS TOUGH PROBLEM

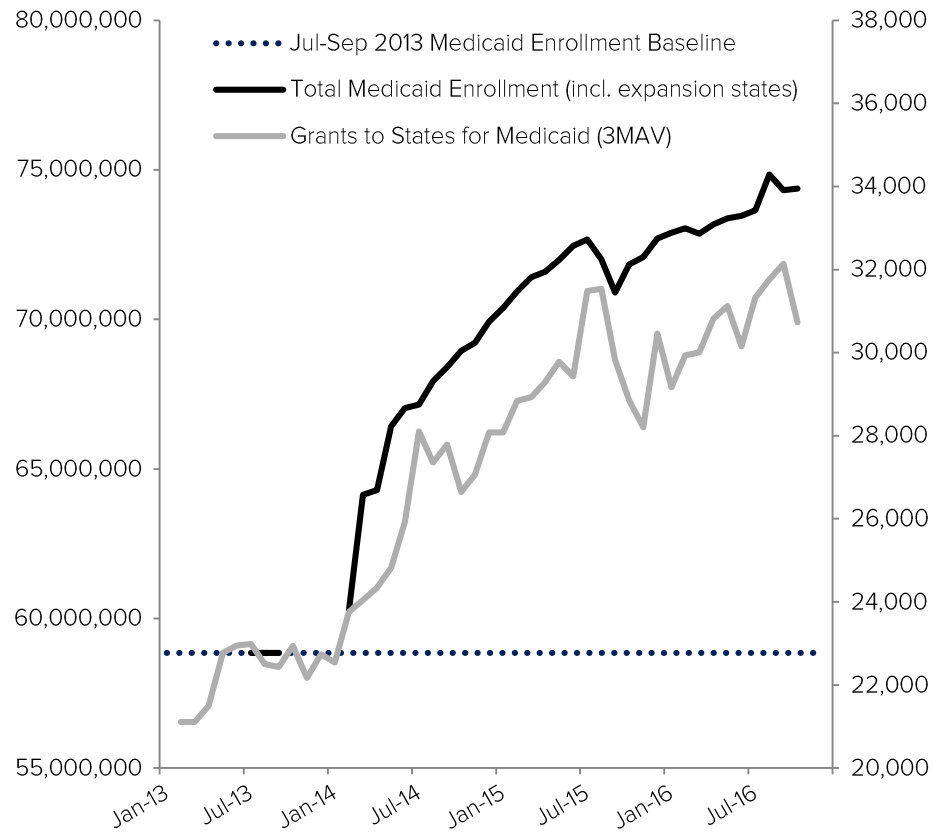
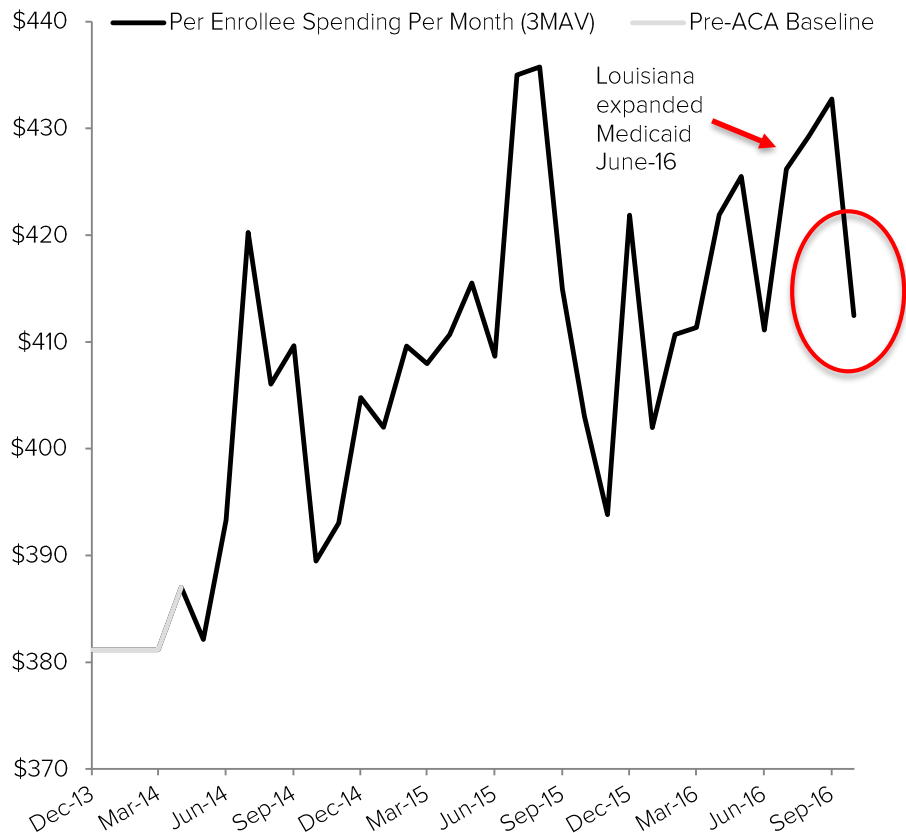
- Collins-McCaskill Report from December serves as guidance
- Attacks “Hedge Fund” model of pharmaceutical companies
- Separates bad actors from companies seriously involved in research and manufacturing



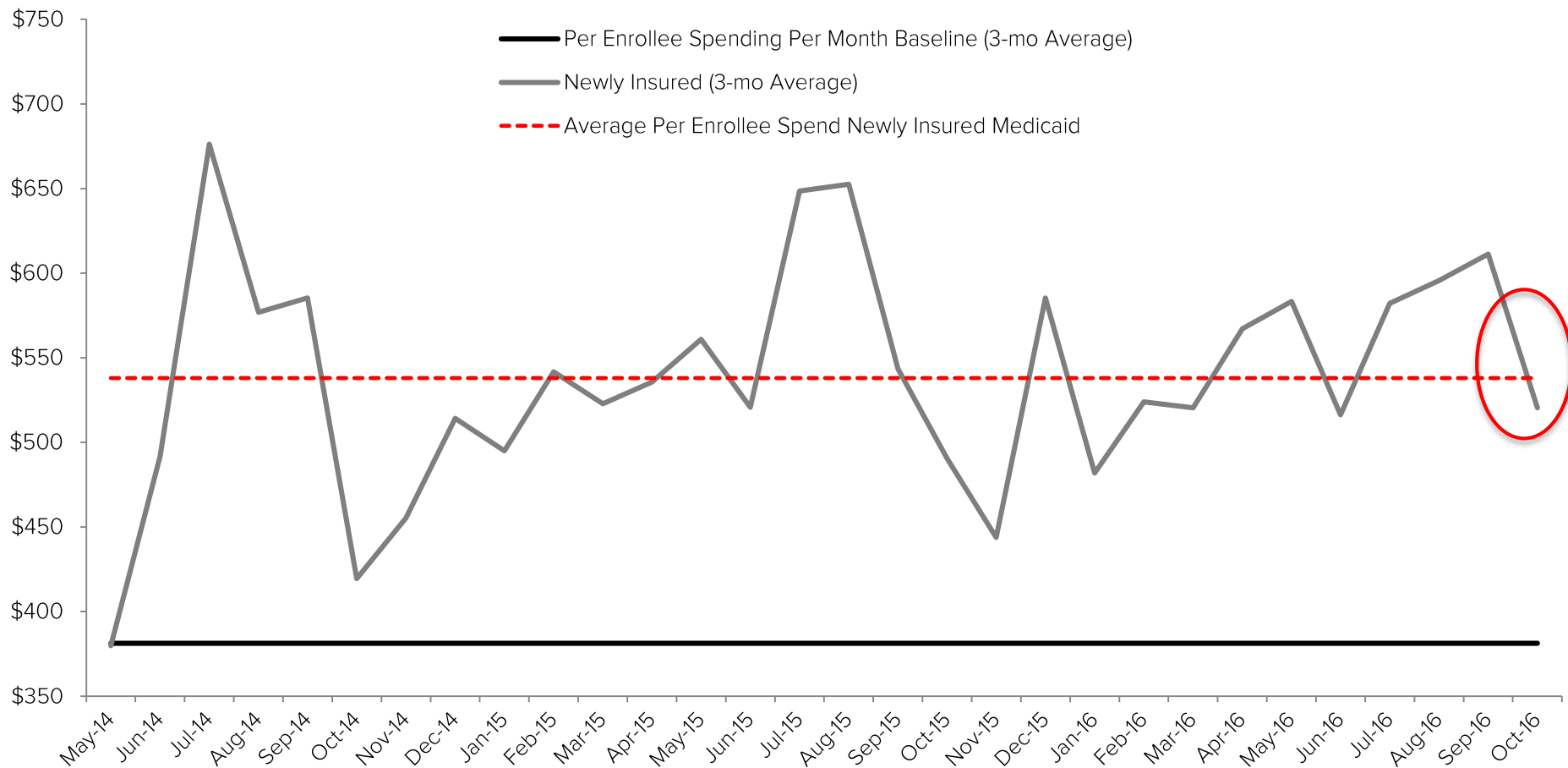
CURRENT MEDICAID METRICS

MEDICAID PER ENROLLEE SPEND

ENROLLMENT AND SPENDING PAST PEAK

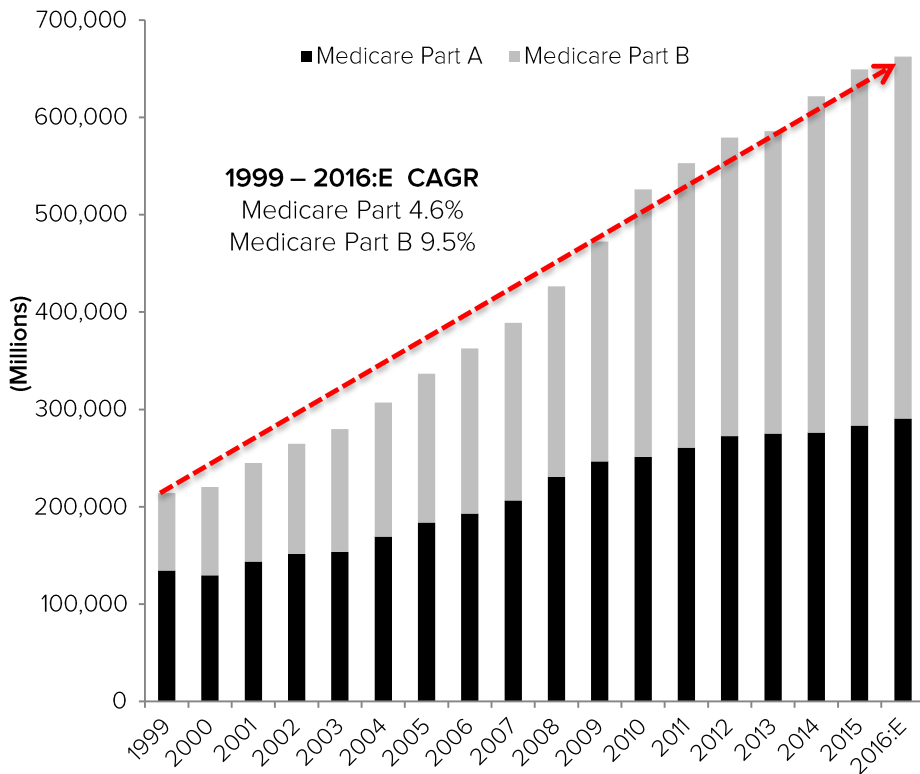
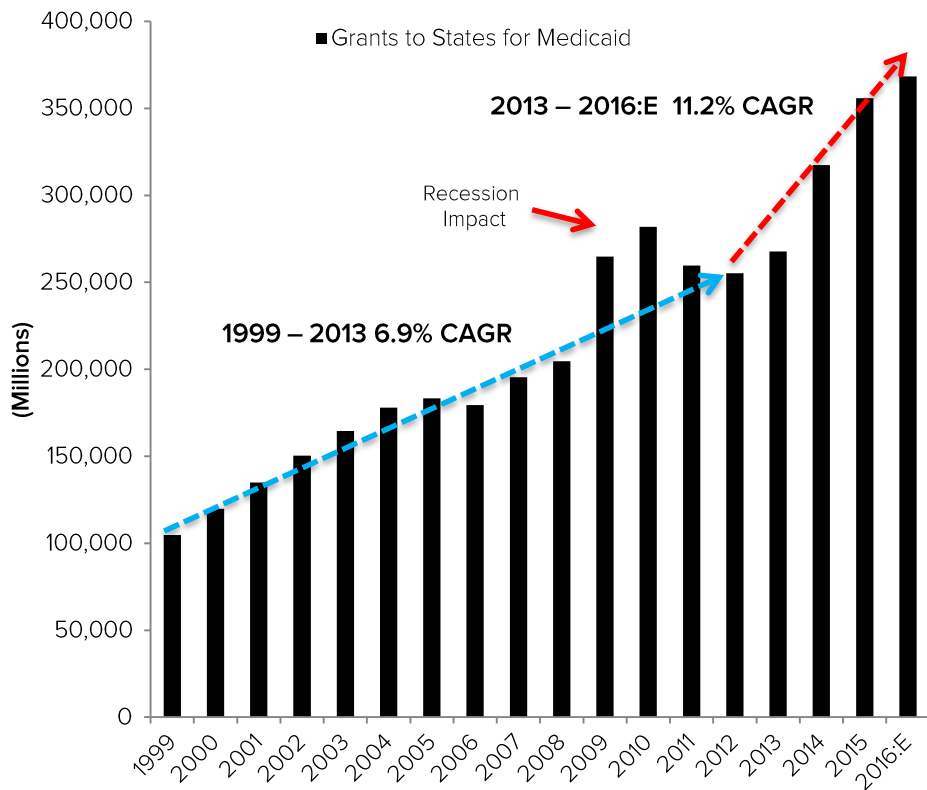


MEDICAID PER ENROLLEE SPEND

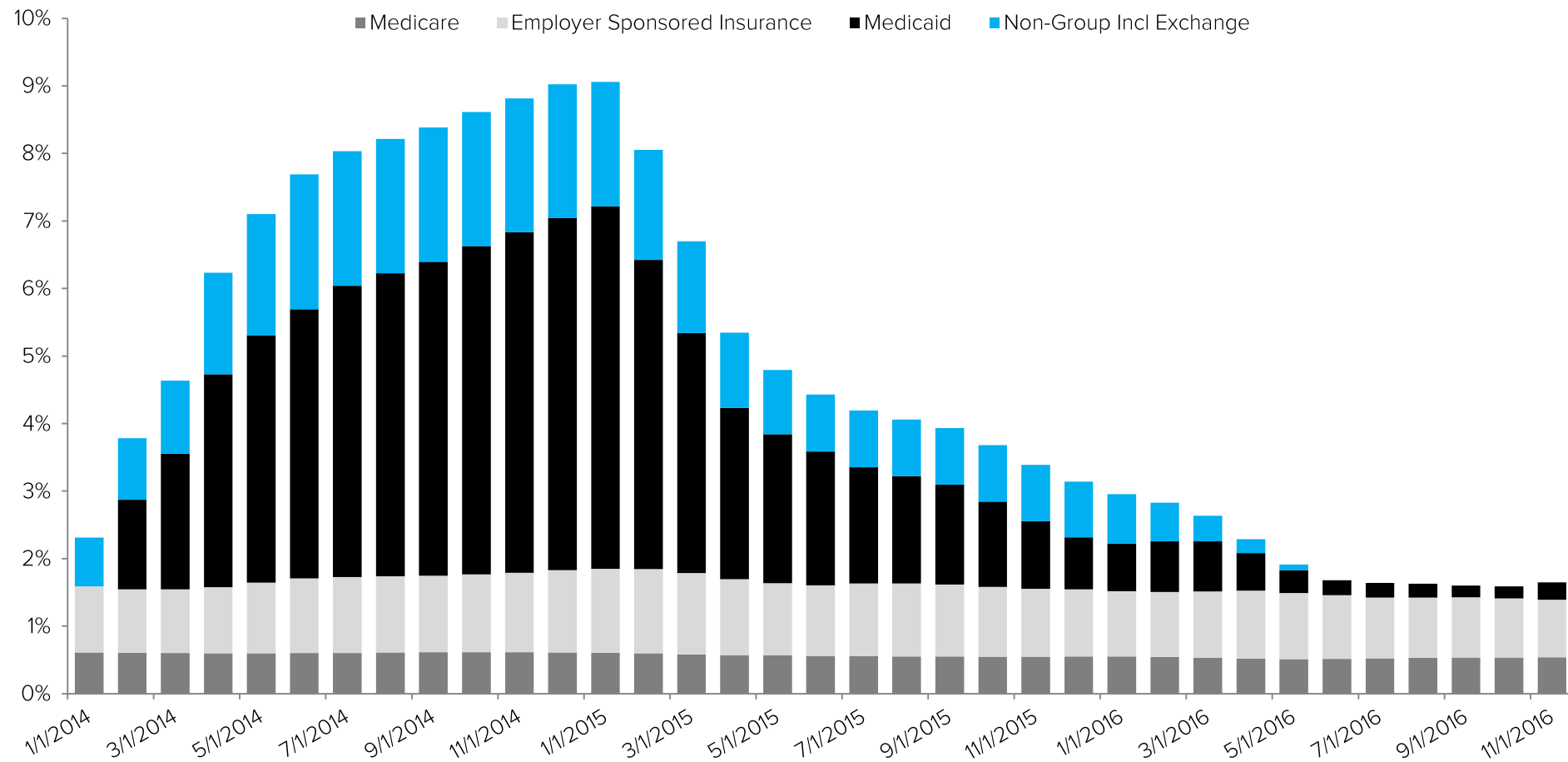


FEDERAL GOVERNMENT OUTLAYS

2013-2015 FASTEST GROWTH IN MEDICAID EX-RECESSION



INSURED POPULATION SLOWING



qa@hedgeye.com

Q&A

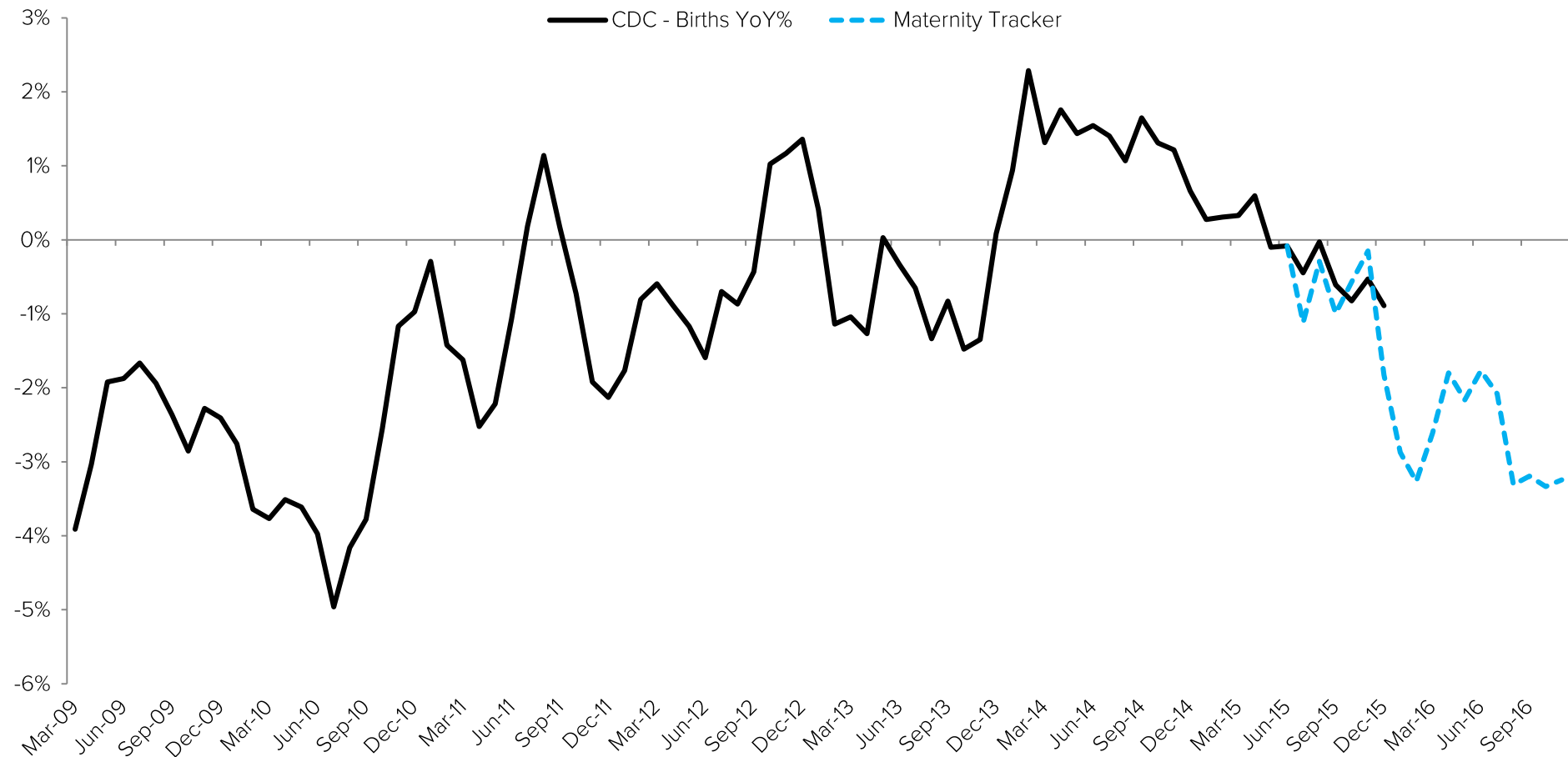


APPENDIX



#MATERNITY

MATERNITY CONTINUES NEGATIVE



FACILITY WEIGHTED MATERNITY

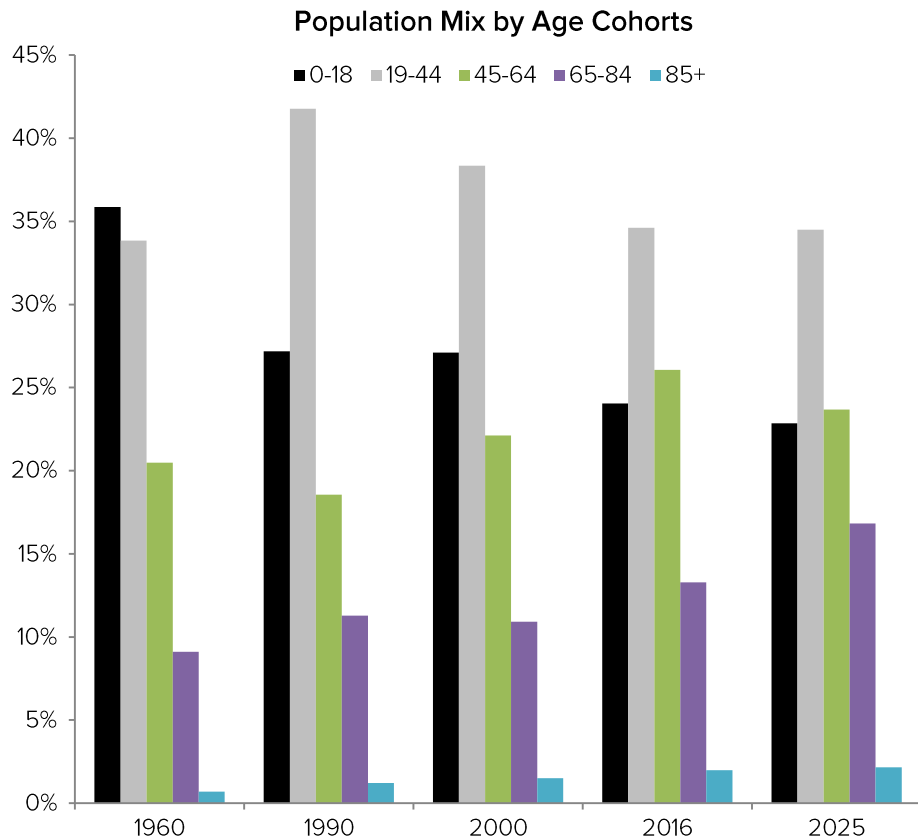
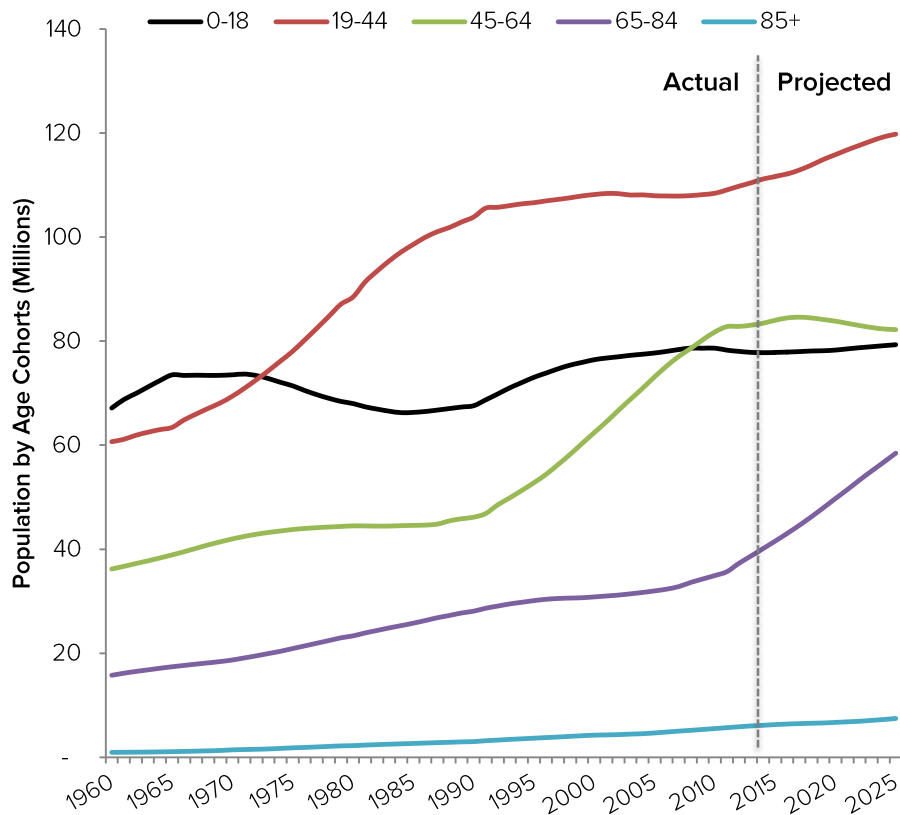
	3Q15	4Q15	1Q16	2Q16	Jul-16	Aug-16	Sep-16	3Q16	Oct-16	Nov-16 (P)	4Q16
Maternity Tracker/CDC Regression (yr/yr)	-1.0%	-1.8%	-2.5%	-1.8%	-3.0%	-4.2%	-2.4%	-3.2%	-3.4%	-3.97%	-3.7%
HCA - Maternity Tracker (wtd, yr/yr)	-0.9%	-1.6%	-2.8%	-1.3%	-2.9%	-5.1%	-3.3%	-3.7%	-4.1%	-3.9%	-4.0%
THC - Maternity Tracker (wtd, yr/yr)	0.2%	-1.0%	-2.4%	-0.8%	-3.0%	-4.4%	-2.1%	-3.1%	-3.1%	-3.9%	-3.5%
CYH - Maternity Tracker (wtd, yr/yr)	-0.6%	-1.7%	-3.3%	-0.8%	-2.5%	-4.3%	-1.4%	-2.8%	-2.2%	-3.0%	-2.6%
MD - Maternity Tracker (wtd, yr/yr)	-0.7%	-1.4%	-1.8%	-1.4%	-3.0%	-4.5%	-3.1%	-3.5%	-3.9%	-4.0%	-4.0%
LPNT - Maternity Tracker (wtd, yr/yr)	-1.5%	-0.2%	-2.6%	0.5%	0.6%	-1.5%	-2.6%	-1.2%	-2.4%	-1.8%	-2.1%
AHS - Maternity Tracker (wtd, yr/yr)	-1.8%	-1.9%	-2.0%	-1.9%	-3.3%	-4.1%	-2.7%	-3.4%	-3.1%	-3.5%	-3.3%



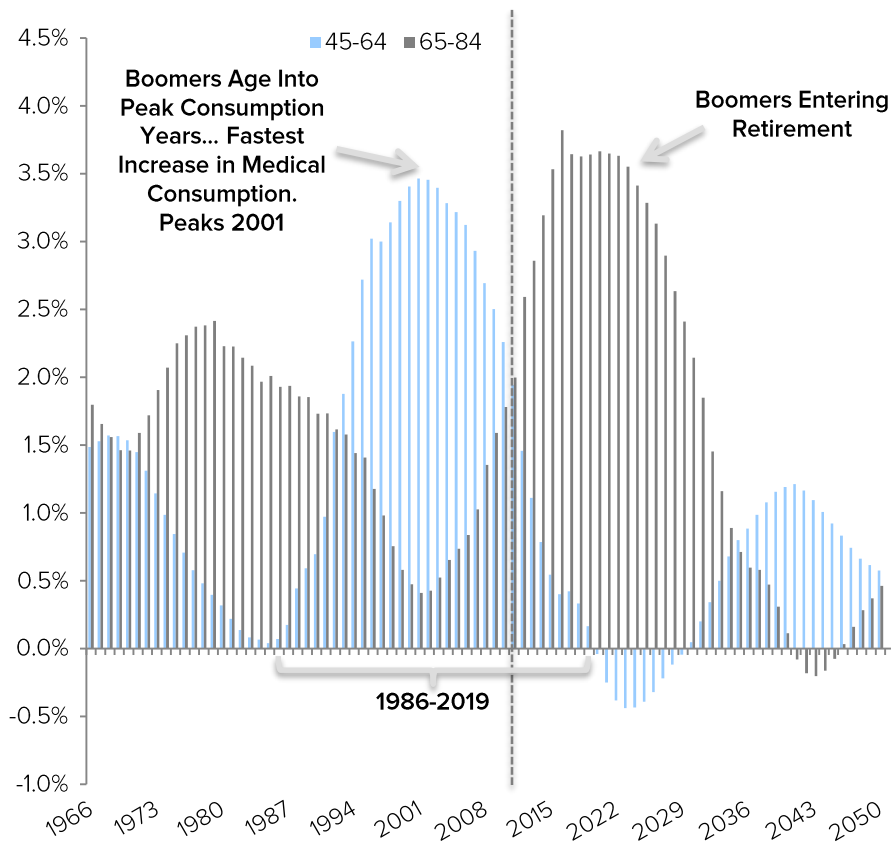
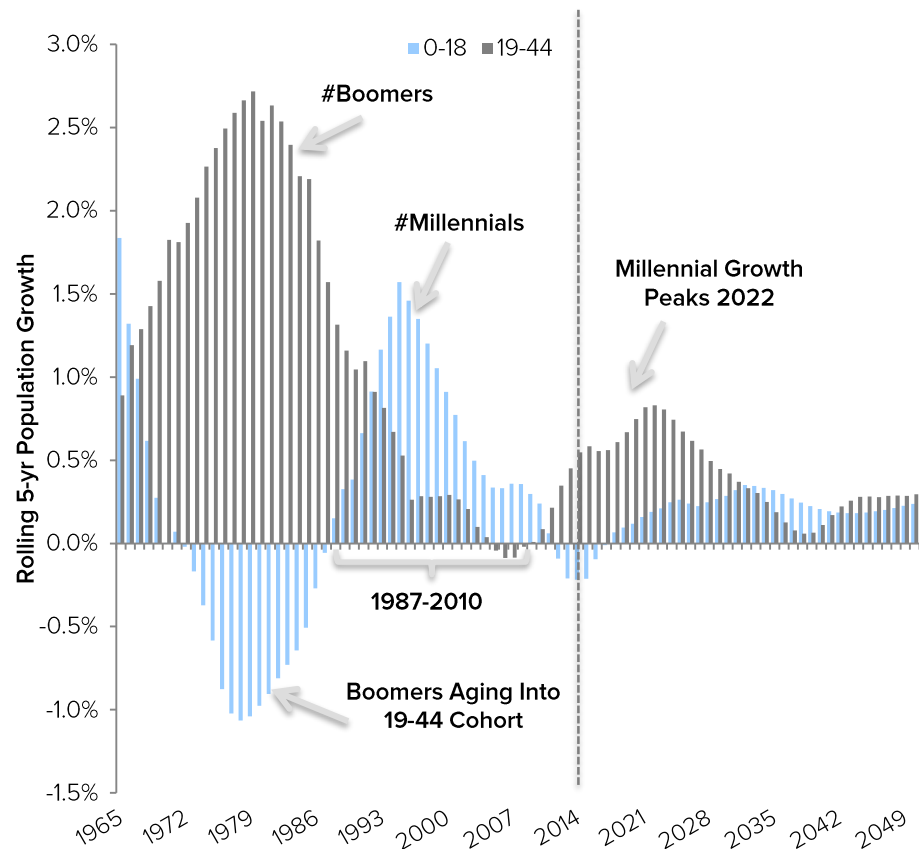
#DEMOGRAPHICS

CENSUS POPULATION ESTIMATES

“THE GRAYING OF AMERICA” IS OVERSTATED



POPULATION GROWTH OVER TIME

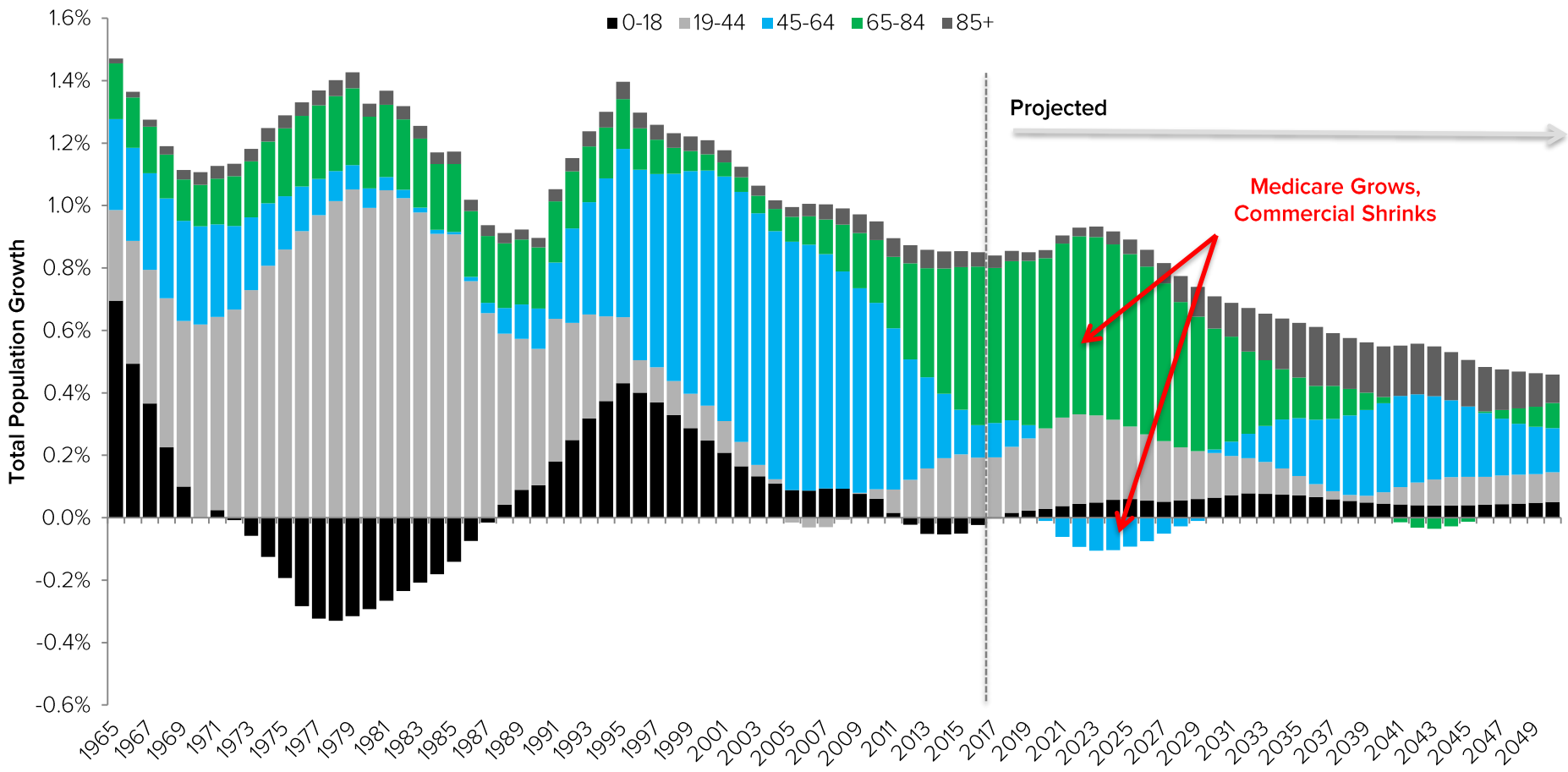


\$124K + NEEDED FOR 90% CHANCE

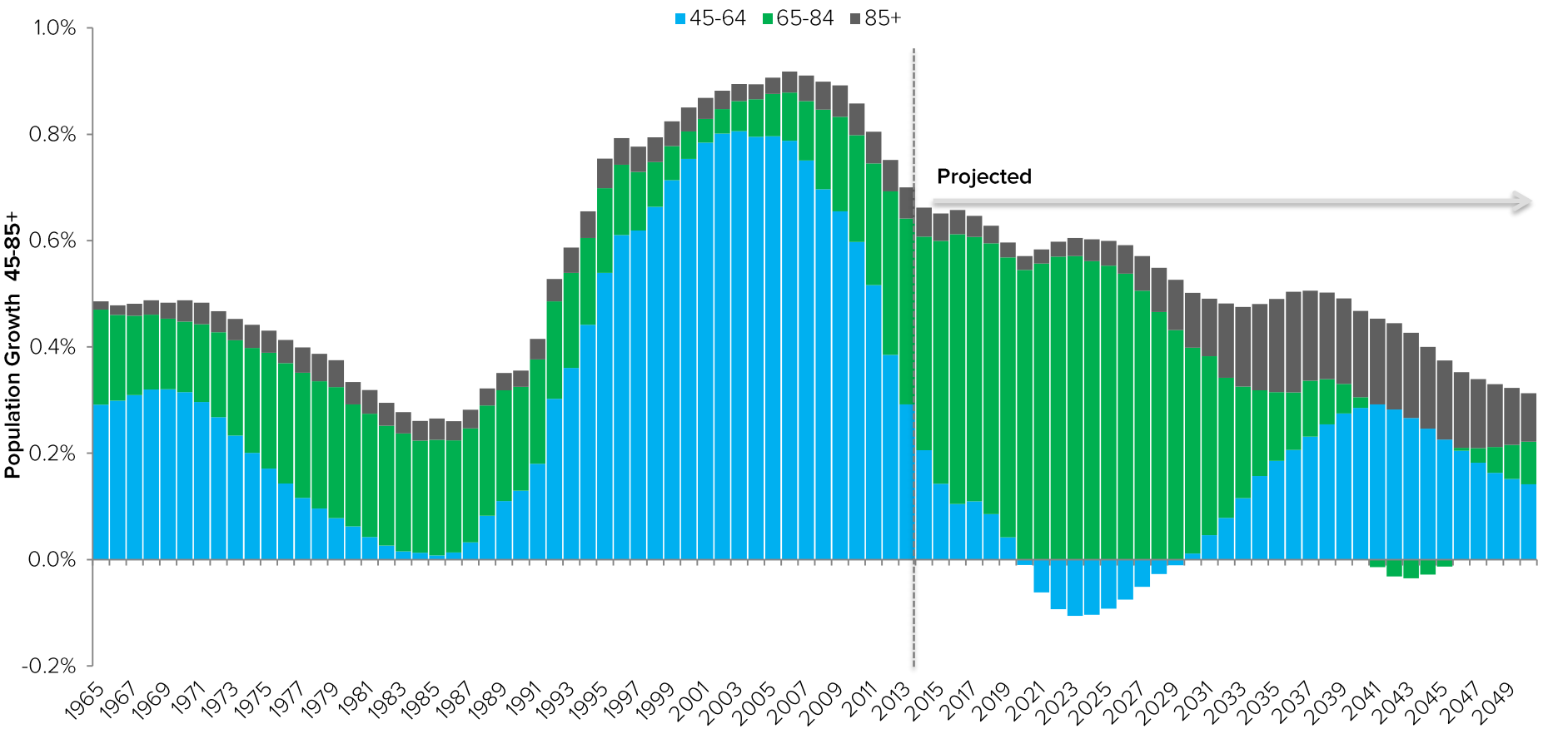
Amount of Savings Needed for Health Expenses for People Eligible for Medicare: Unlike the Last Few Years, the News Is Not Good, by Paul Fronstin, Dallas Salisbury, and Jack VanDerhei, EBRI ([Click Here](#))

- Medicare beneficiaries pay a share of their health expenses out-of-pocket because of program deductibles and other cost sharing. In 2012, Medicare covered 60 percent of the cost of health care services for Medicare beneficiaries ages 65 and older, while out-of-pocket spending accounted for 13 percent, and private insurance covered 15 percent.
- In 2015, a 65-year-old man needs \$68,000 in savings and a 65-year-old woman needs \$89,000 if each has a goal of having a 50 percent chance of having enough money saved to cover health care expenses in retirement. If either instead wants a 90 percent chance of having enough savings, \$124,000 is needed for a man and \$140,000 is needed for a woman. This analysis does not factor in the savings needed to cover long-term care expenses.
- Savings targets increased between 6 percent and 21 percent between 2014 and 2015. For a married couple both with drug expenses at the 90th percentile throughout retirement who want a 90 percent chance of having enough money saved for health care expenses in retirement by age 65, targeted savings increased from \$326,000 in 2014 to \$392,000 in 2015.

AGING POPULATION GROWTH

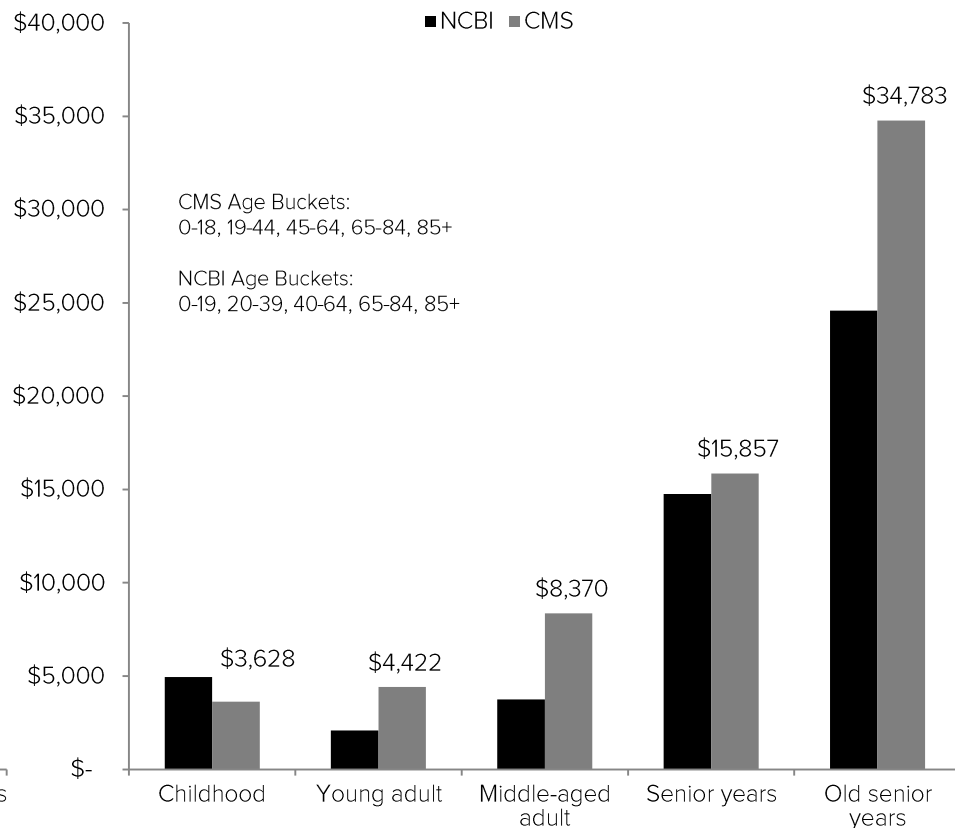
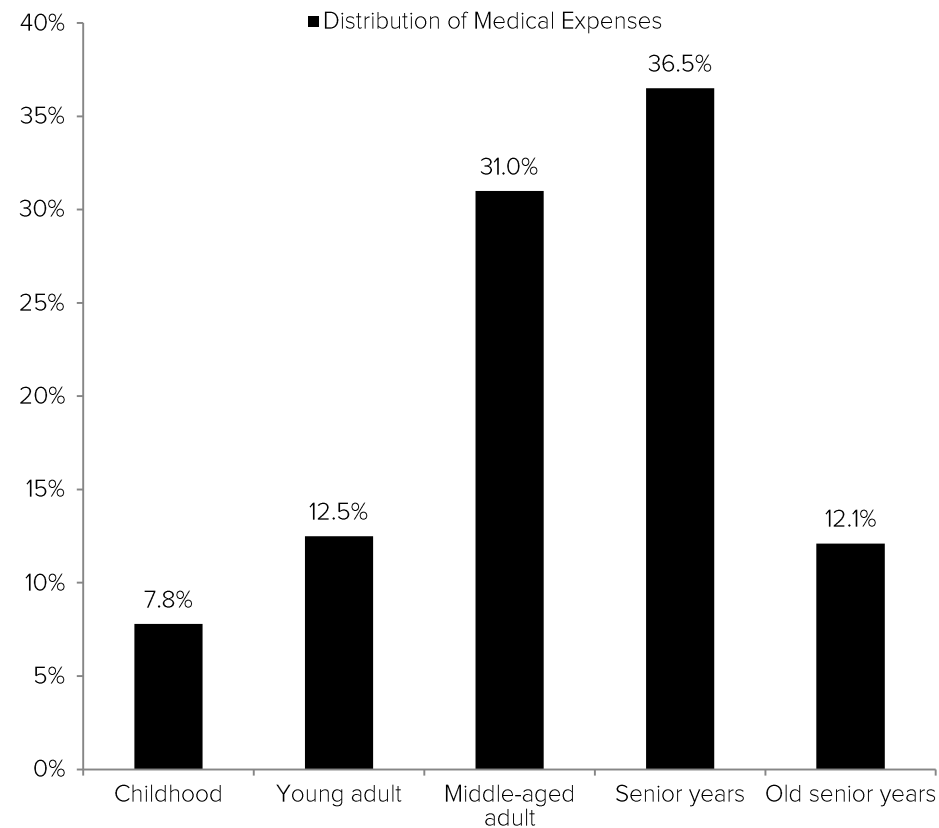


AGING POPULATION GROWTH



DISTRIBUTION MEDICAL EXPENSES

AGE 40-84 PEAK MEDICAL CONSUMPTION



DISTRIBUTION MEDICAL EXPENSES

Table 3

Age-Specific Annual and Lifetime Per Capita Expenditure. Life Table Cohort, and Survivors

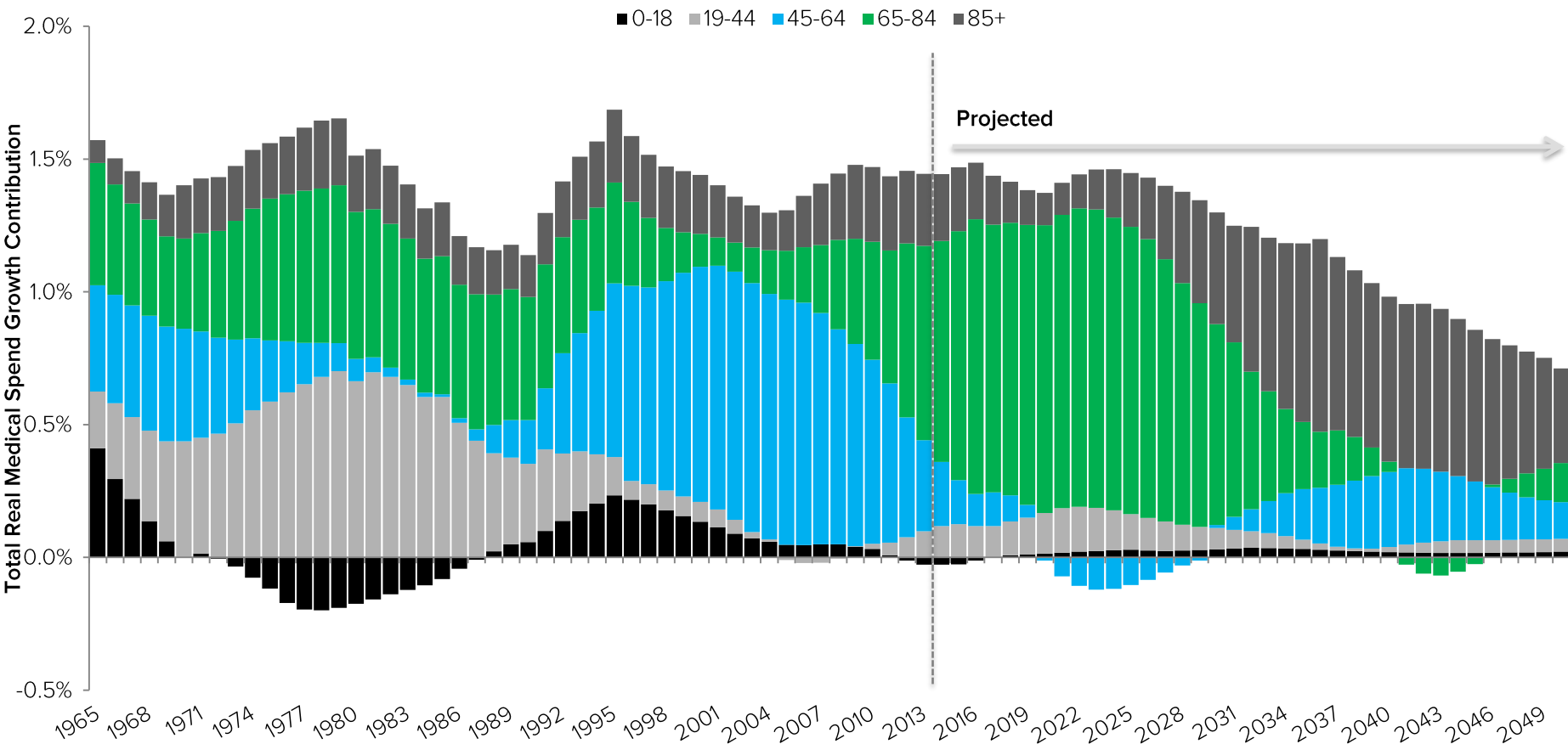
Age	Life Table Cohort			Survivors	
	Annual Per Capita Expenditure	Lifetime Per Capita Expenditure (LEba)	Relative Lifetime Expenditure (RLEba)	Annual Per Capita Expenditure	Lifetime Per Capita Expenditure
0	\$ 3,432	\$ 316,579	100.0%	\$ 2,920	\$ 316,579
20	\$ 1,448	\$ 291,745	92.2%	\$ 1,255	\$ 296,363
40	\$ 2,601	\$ 252,082	79.6%	\$ 1,929	\$ 262,124
65	\$ 10,245	\$ 153,944	48.6%	\$ 7,702	\$ 188,658
85	\$ 17,071	\$ 38,400	12.1%	\$ 7,688	\$ 113,685

Table 4

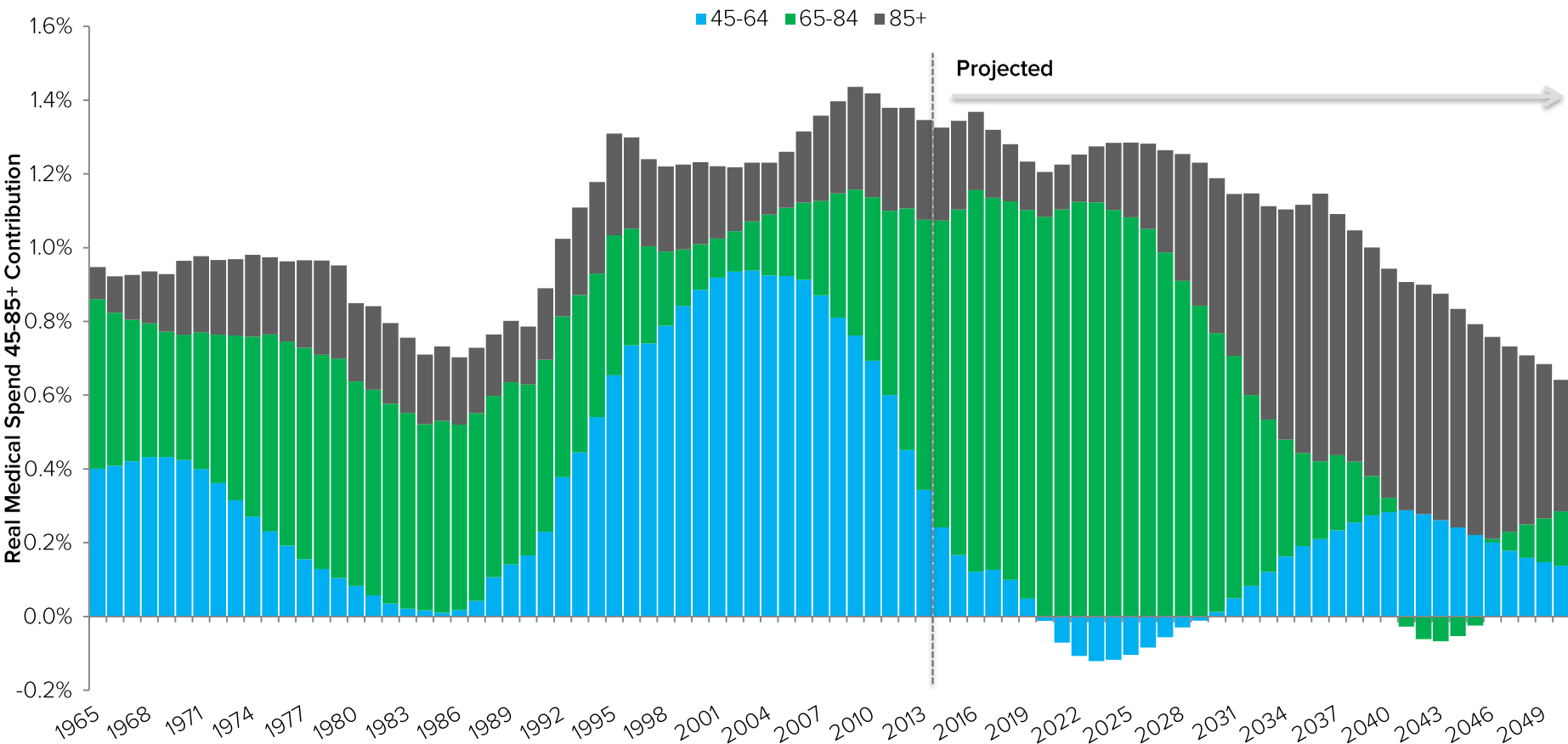
Relative Lifetime Per Capita Expenditure at Different Age Intervals, Life Table Cohort, and Survivors (Year 2000 Dollars)

Relative Lifetime Expenditure During	Life Table Cohort	Survivors
Childhood (0-19)	7.8%	6.4%
Young Adult (20-39)	12.5%	10.8%
Middle-Aged Adult (40-64)	31.0%	23.2%
Senior Years (65-84)	36.5%	23.7%
Old Senior Years (85+)	12.1%	35.9%

AGING AND MEDICAL SPEND

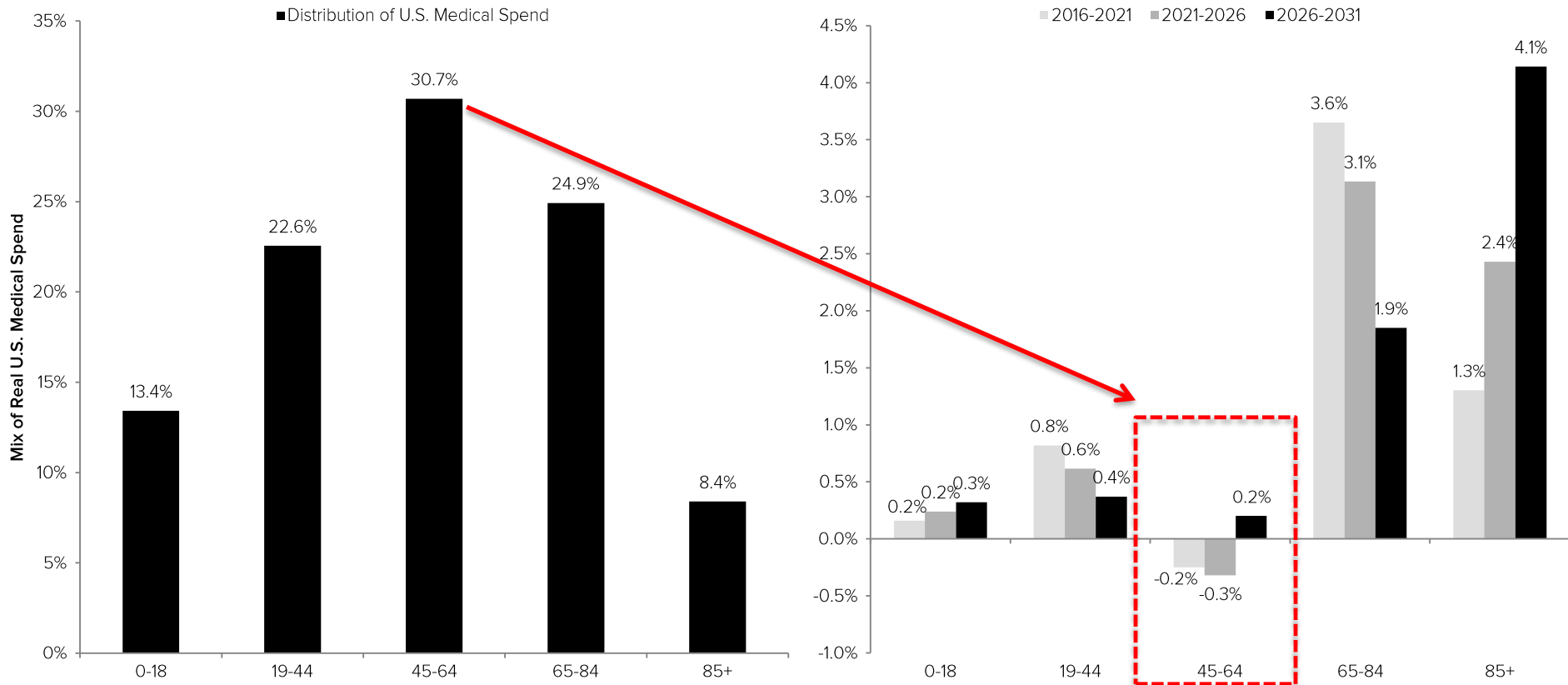


AGING AND MEDICAL SPEND



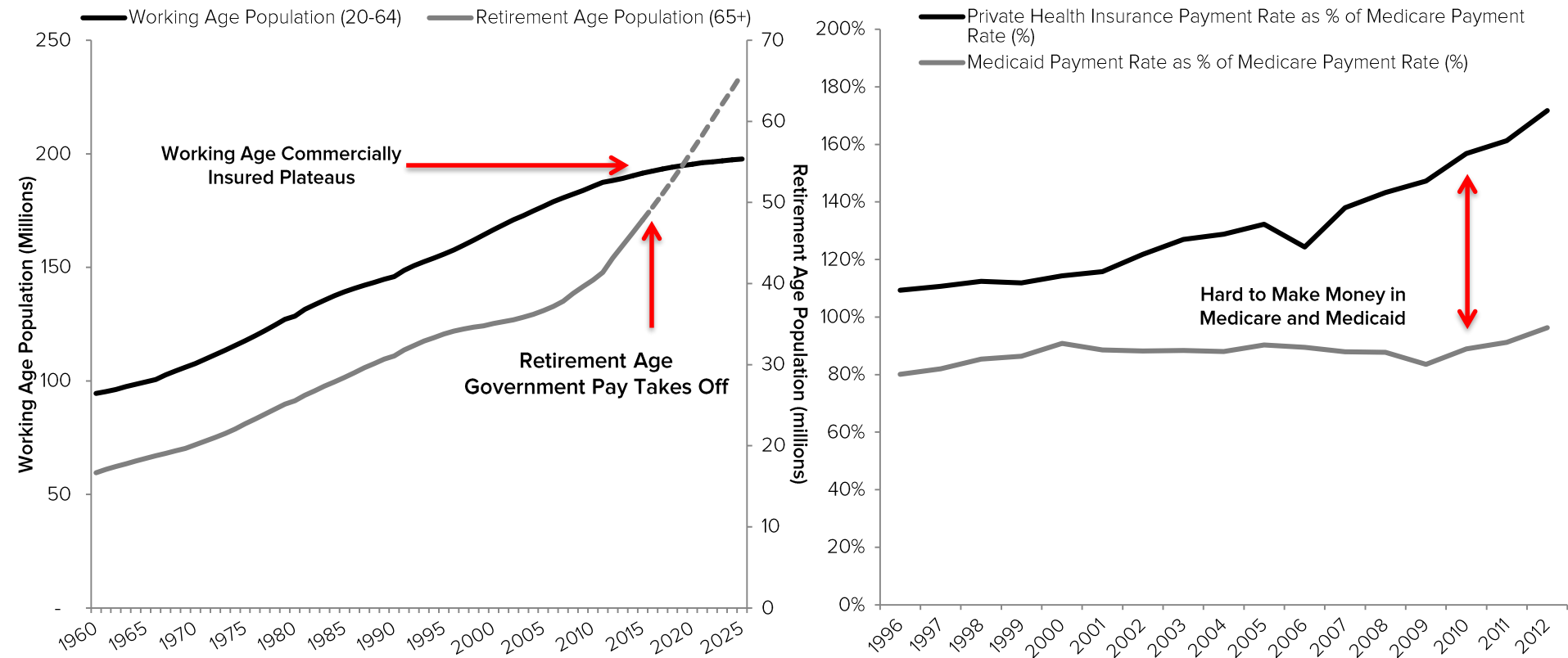
DISTRIBUTION TOTAL MEDICAL SPEND

NEGATIVE GROWTH IN LARGEST SPENDING COHORT



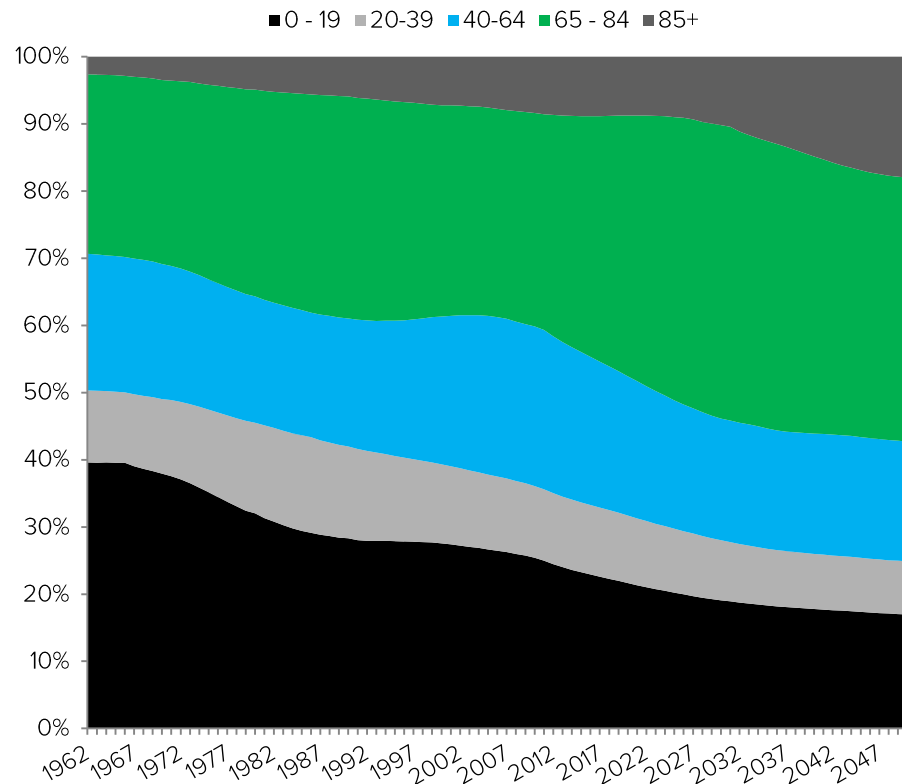
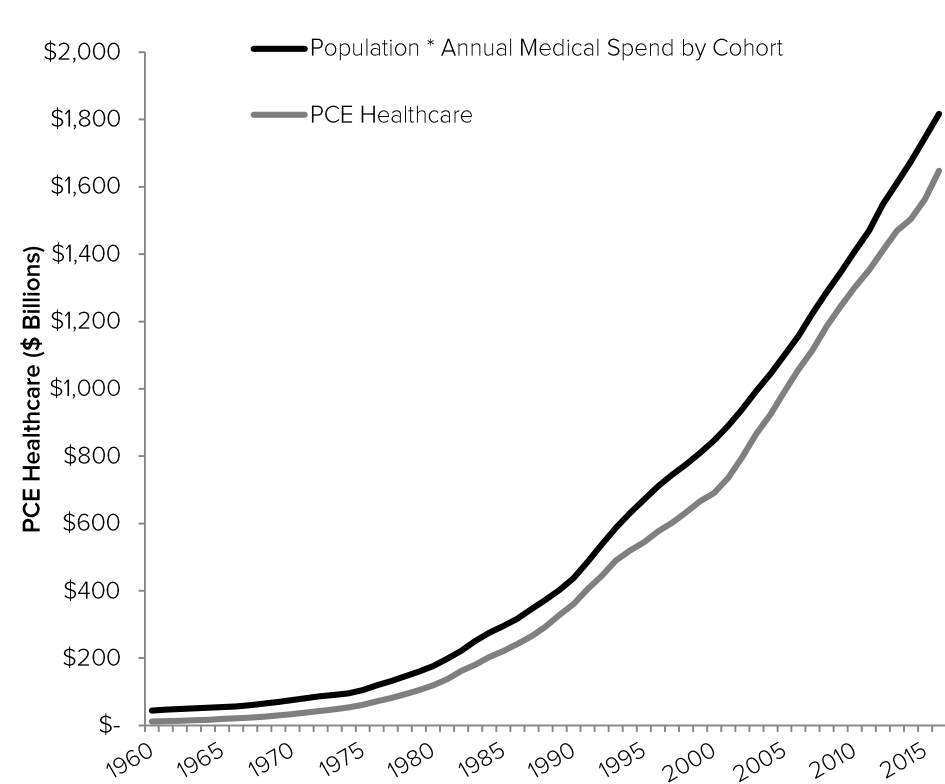
MIX SHIFT TOWARD GOVERNMENT PAY

HARD TO MAKE MONEY IN MEDICARE AND MEDICAID

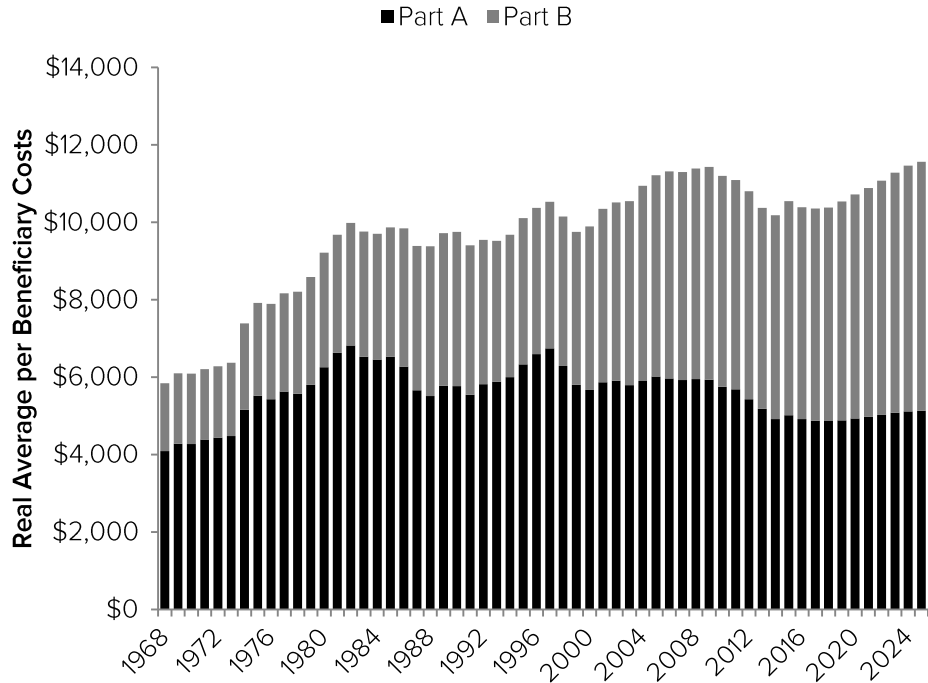
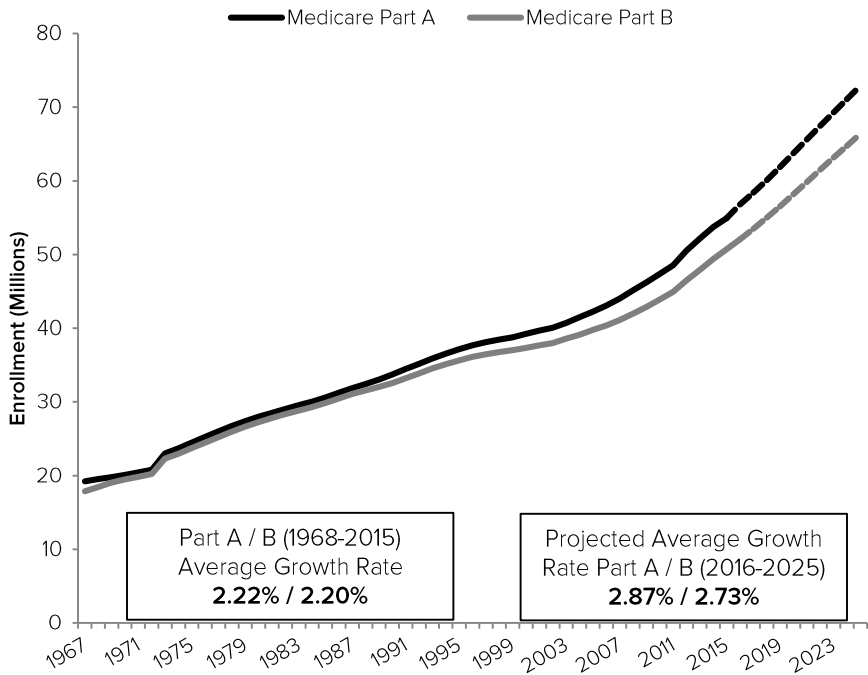


PCE AND MIX OF MEDICAL SPEND

COMMERCIALLY INSURED BUCKET SHRINKING



PROJECTED MEDICARE ENROLLMENT



REAL AVERAGE PER BENEFICIARY COST FLAT

While Medicare Enrollment increases, the real average per beneficiary cost is forecasted to remain essentially flat compared to 2009 peak. CMS forecasting decline in Part A expense, which is consistent with reform efforts.

CONCLUSIONS

1

COMMERCIAL INSURANCE DOLLARS SLOWING

The number and spending level in the most valuable part of the market is slowing. The annual contribution to growth from aging is too modest to offset the larger trend of population deceleration.

2

MEDICARE POPULATION ACCELERATES, BUT...

Margins in Medicare already trail privately insured reimbursements across many care areas. While the population is accelerating, it will displace higher margin business. The resulting mix will be of lower value per unit.

3

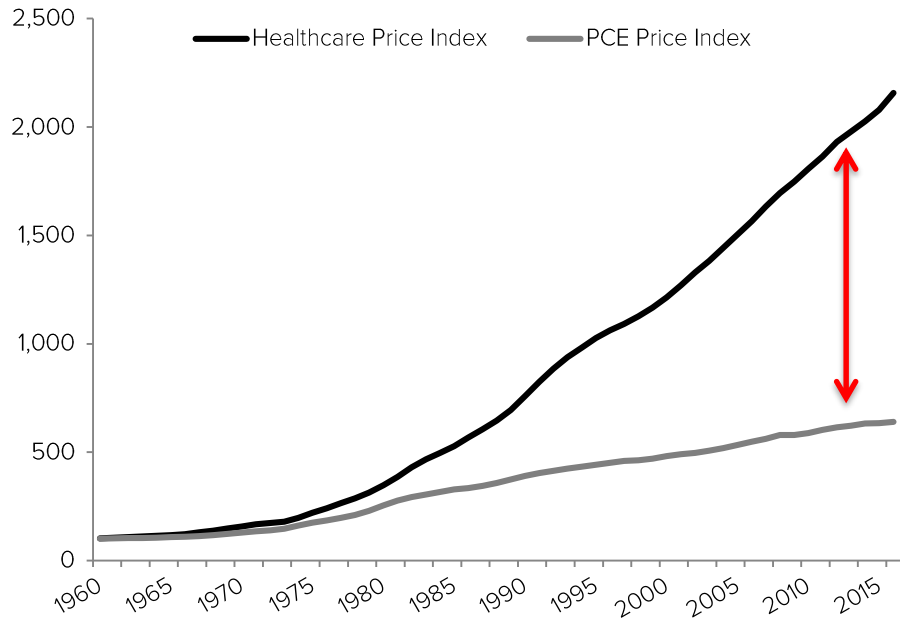
MEDICARE PER CAPITA SPENDING FORCED LOWER

As limited federal spending grows slower than the Medicare population expands, real spending per beneficiary will fall, driving efforts to curb costs for providers.



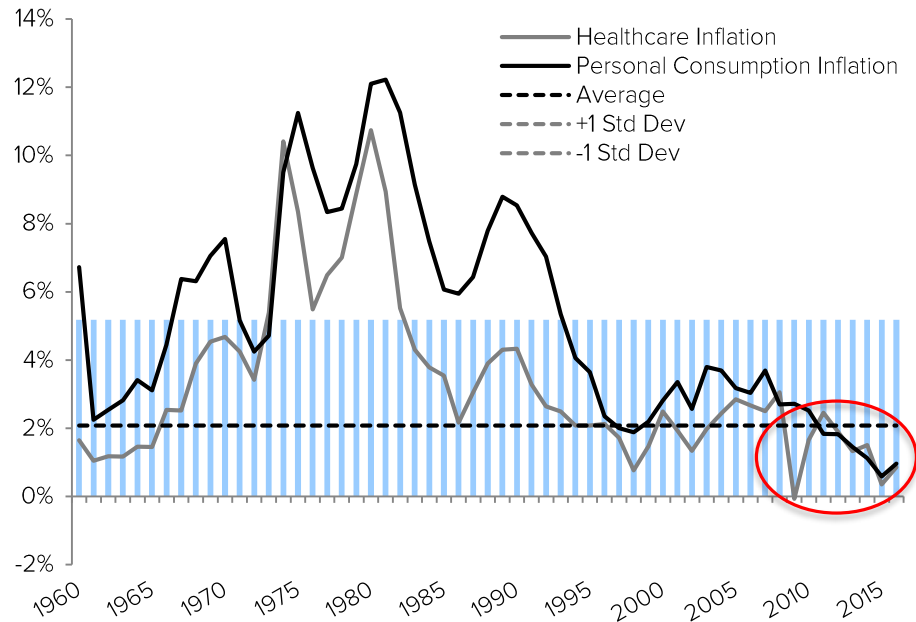
#AFFORDABILITY

LONG HISTORY OF EXCESS



400% HIGHER AFTER 50 YEARS

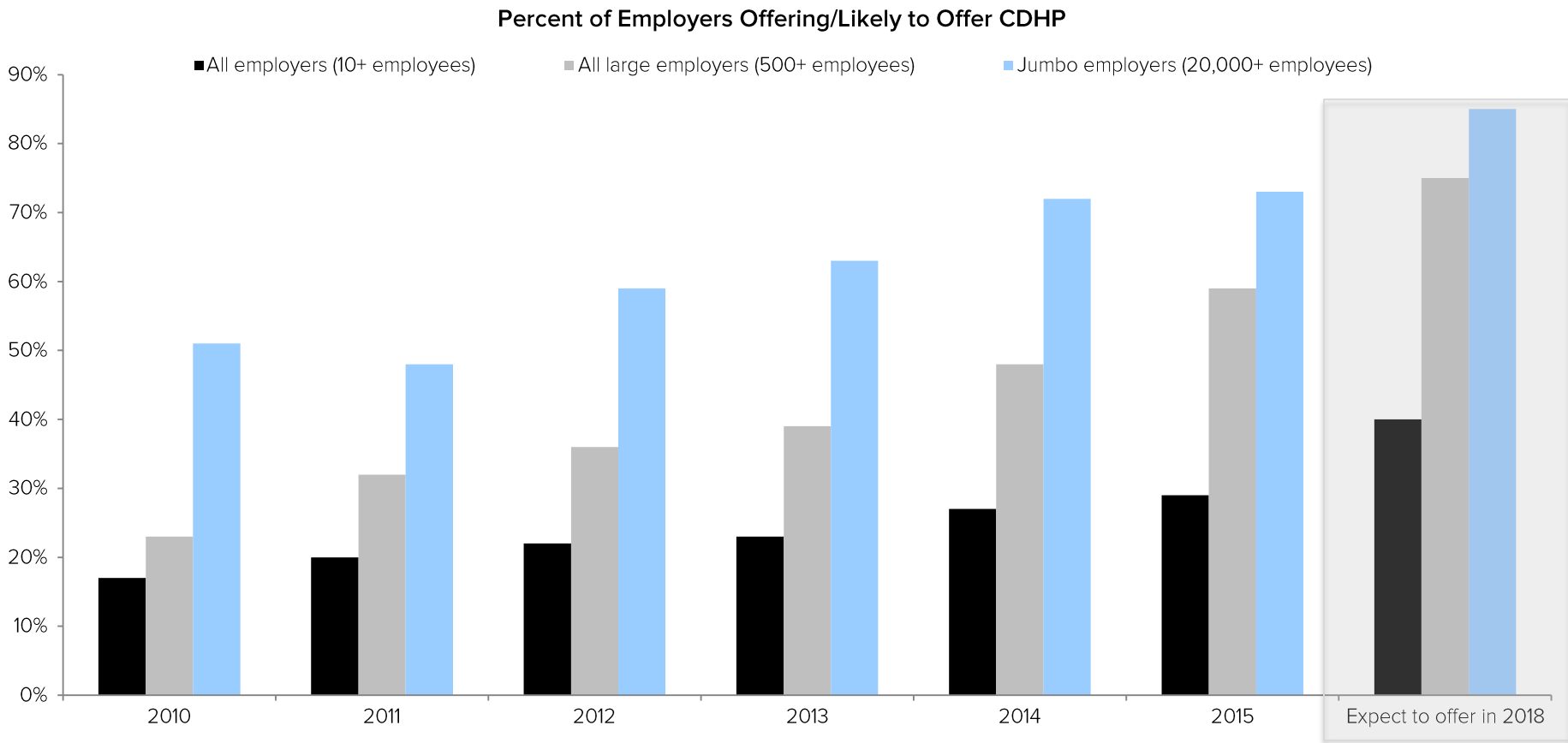
Healthcare inflation has exceeded broader market inflation for over 50 years with the cumulative increase now 400% higher.



HEALTHCARE DISINFLATION

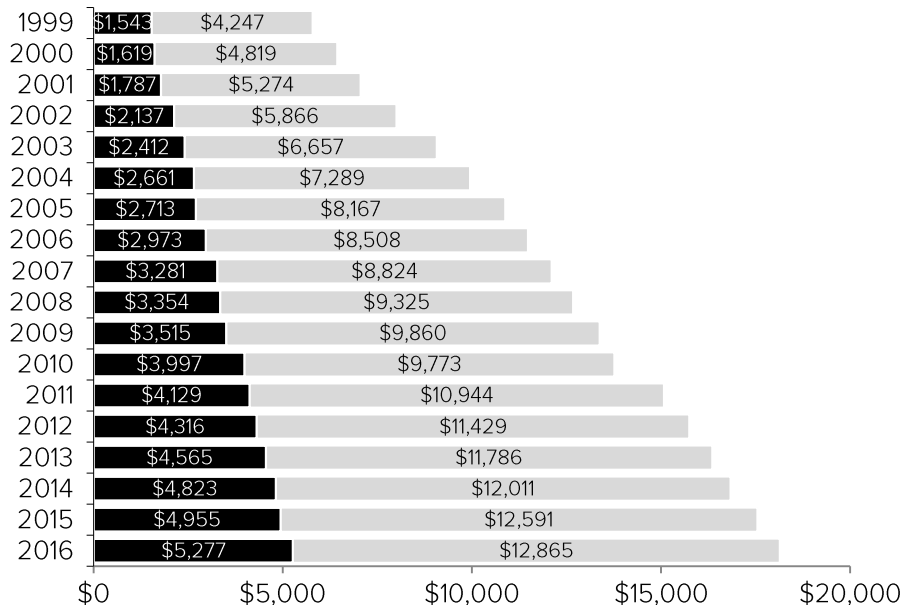
4 of the 6 years where Healthcare inflation has been **lower** than the broader market have occurred since 2008.

GROWTH IN CDHP ACCELERATING

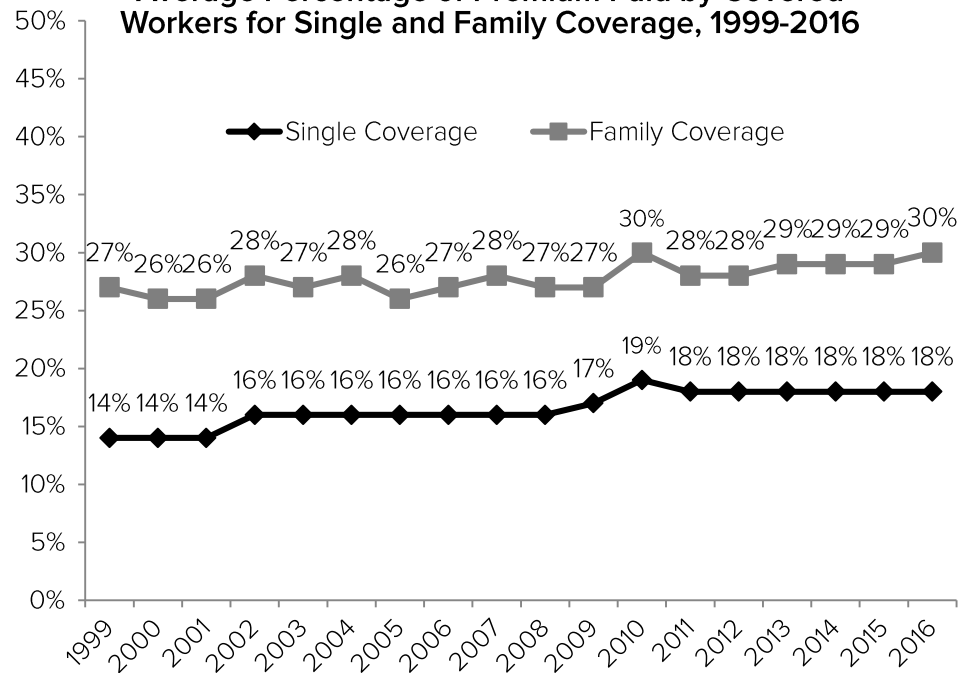


PREMIUM GROWTH EXCESSIVE

Average Annual Worker and Employer Contributions to Premiums and Total Premiums for Family Coverage, 1999-2016



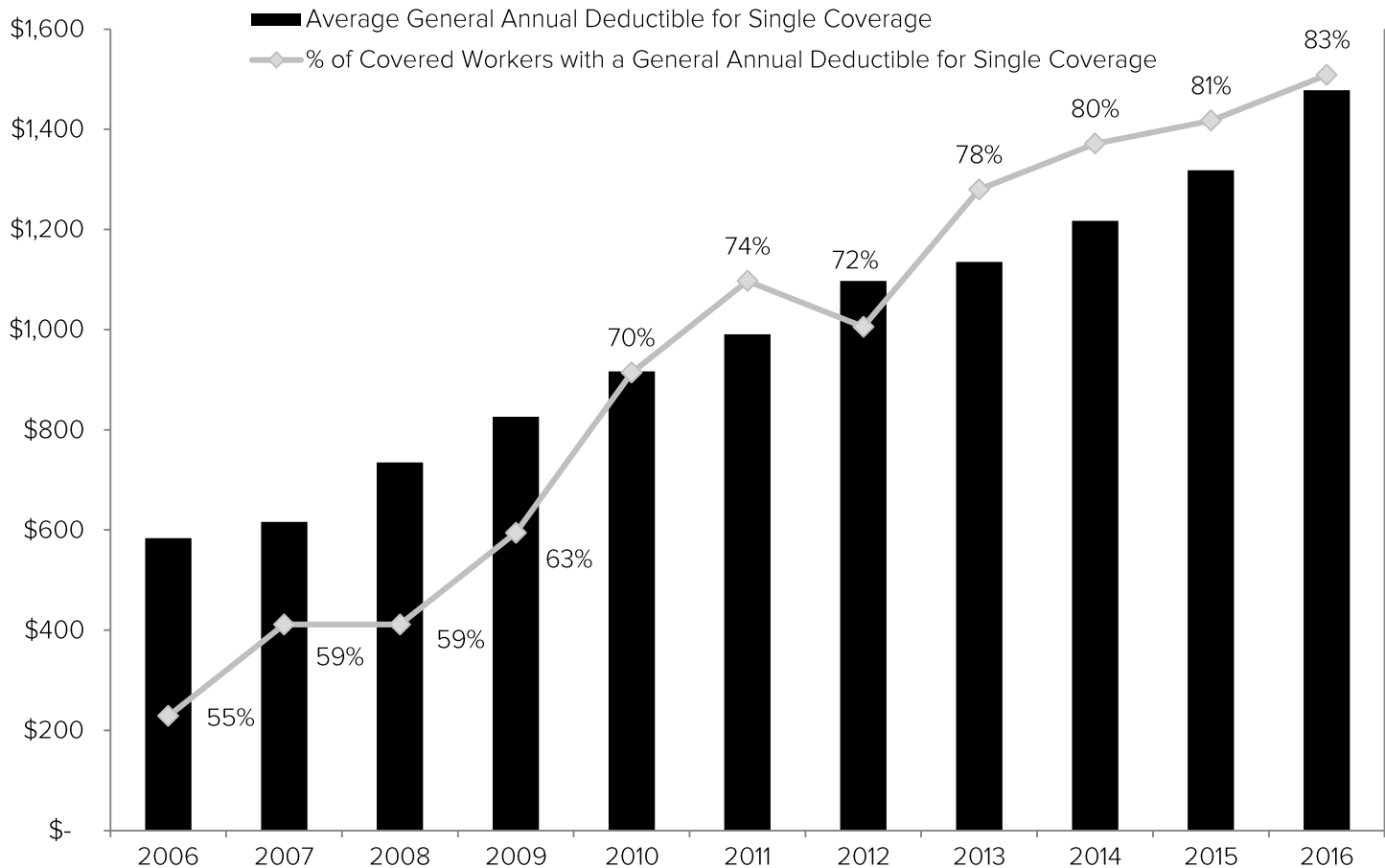
Average Percentage of Premium Paid by Covered Workers for Single and Family Coverage, 1999-2016



EMPLOYEES PAY FOR EXCESS INFLATION

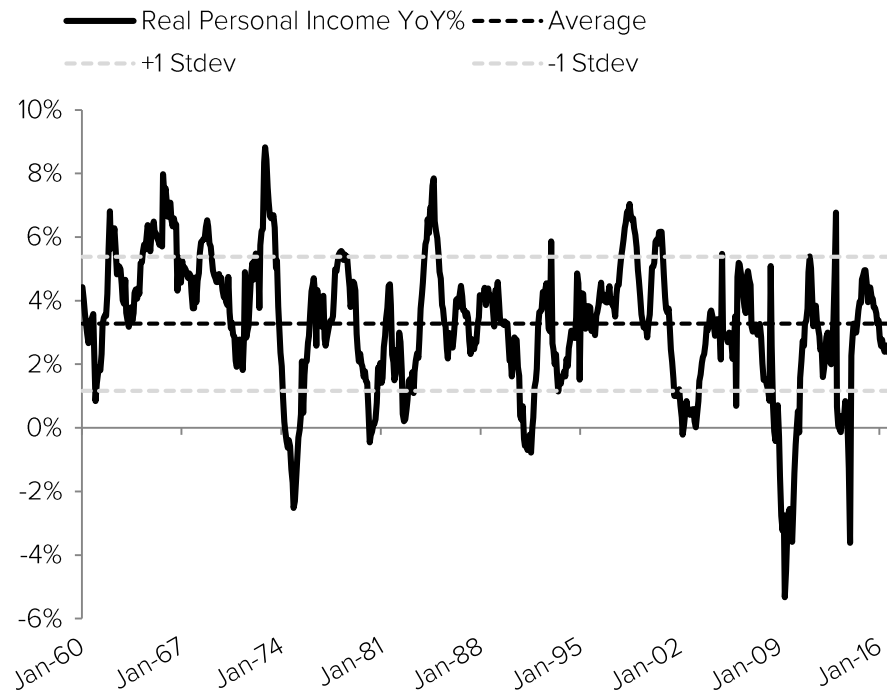
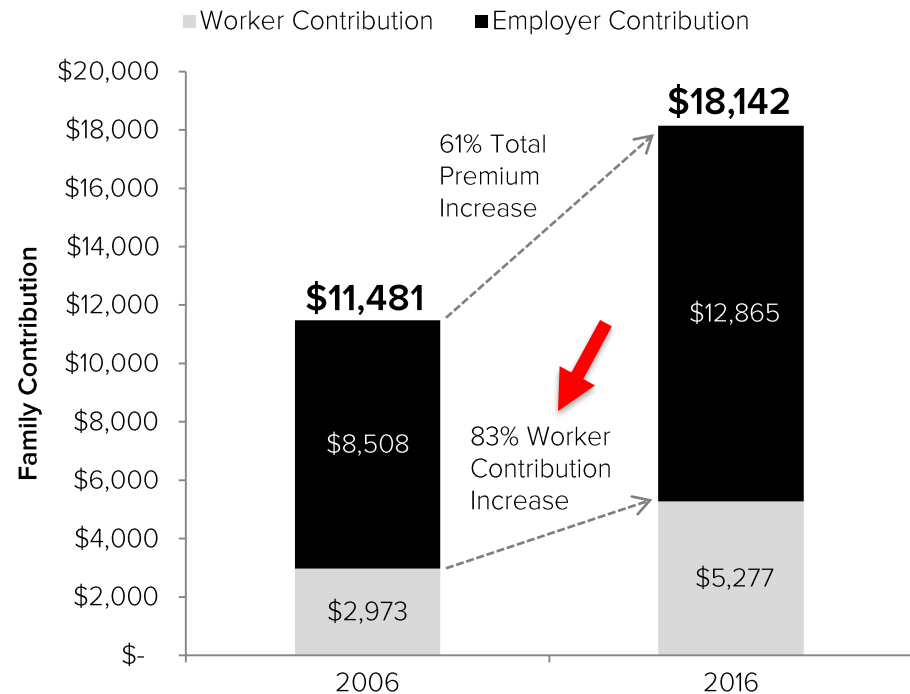
Excess inflation is paid for in large part by accelerating premiums. Aging accounts for a very small part of these dramatic increases.

DEDUCTIBLES NOW SIGNIFICANT



Growth in deductible prevalence, including HDHP, placing greater burden on employees.

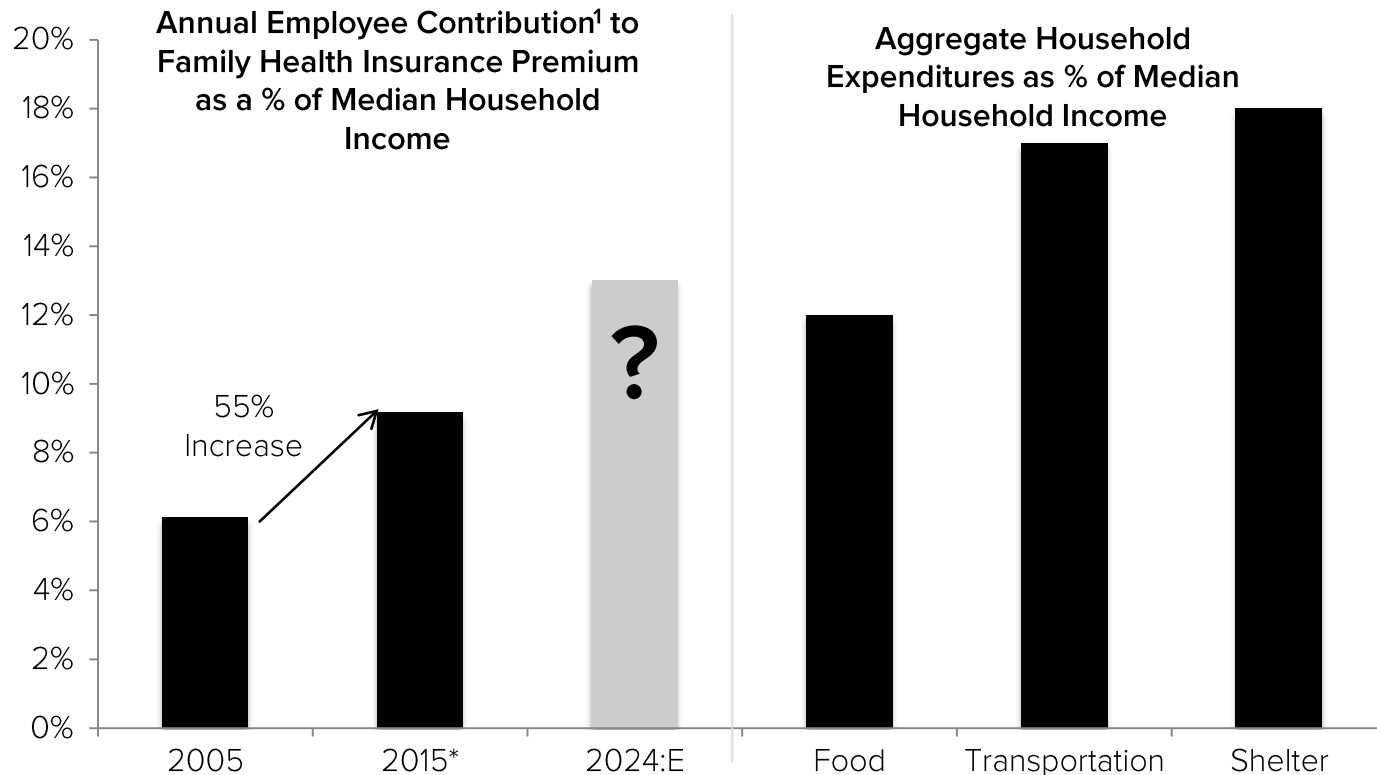
EMPLOYEE PREMIUM SHARE +83%



PREMIUMS HAVE GROWN FASTER THAN WAGES

Out-of-pocket worker contribution has increased 83% over the last decade (6.2% CAGR). Real personal income growth has averaged 2-3%.

INSURANCE VS MAJOR EXPENSES



¹Employee Sponsored Health Plans

*Based on 2013 Median Household Income Rolled Forward by 2-years Inflation 2%

Source: Kaiser Family Foundation, St. Louis Federal Reserve and HRM Estimates

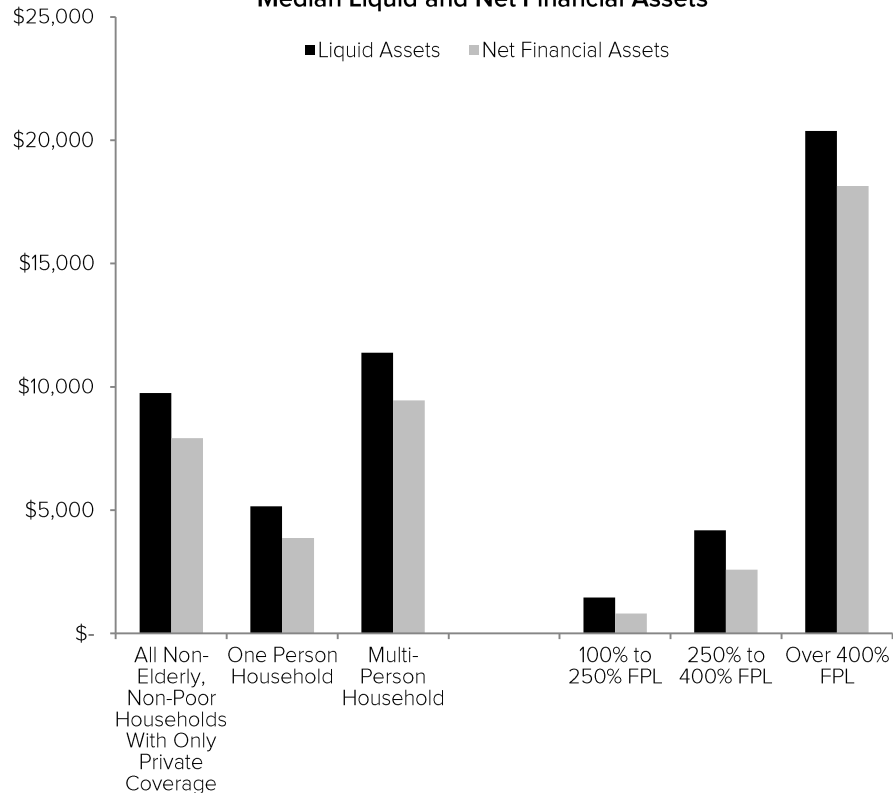
Annual employee contribution to annual premium has grown to almost 10% of Household Income. Food makes up 12%, while shelter 18%.

How much higher can it go?

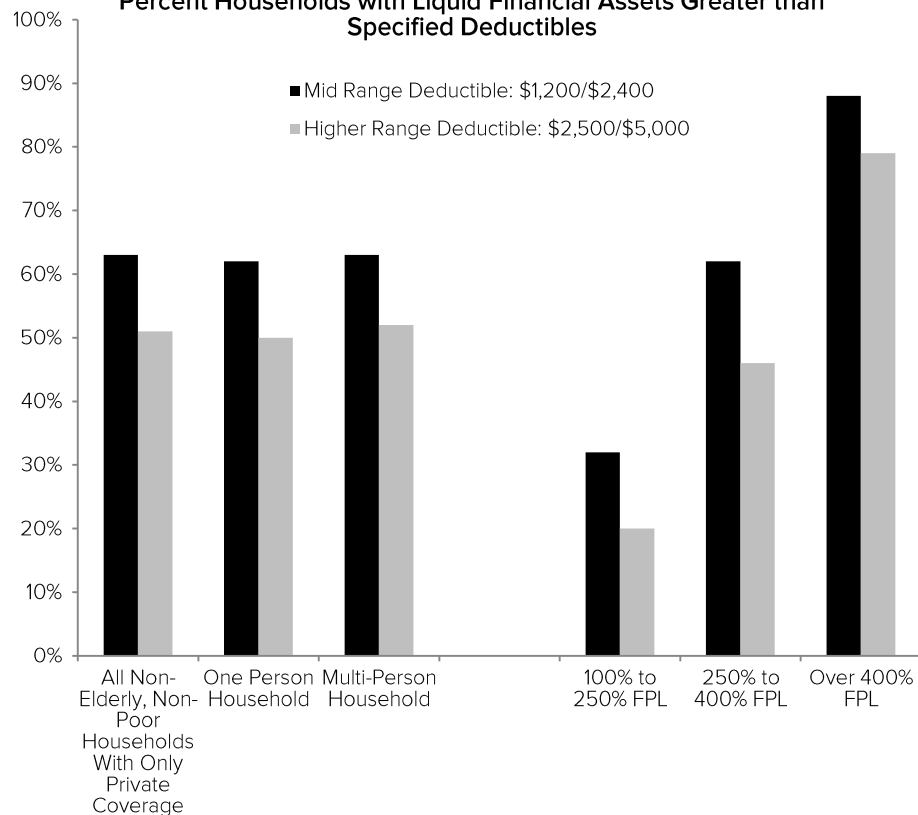
TOUGH TO COVER THE DEDUCTIBLE

LOW SAVINGS AND NO CASH ON HAND

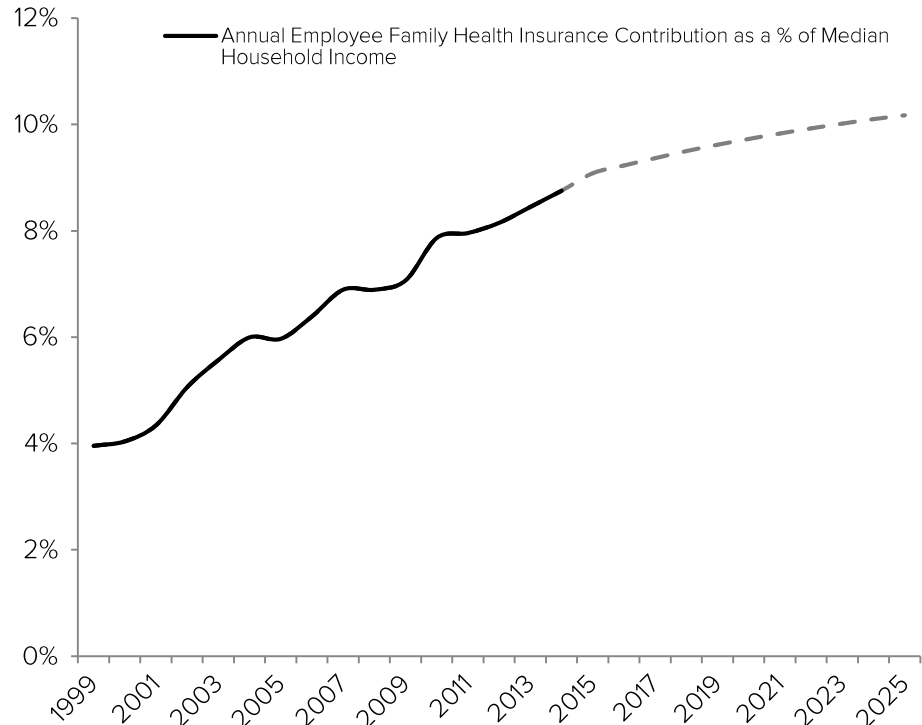
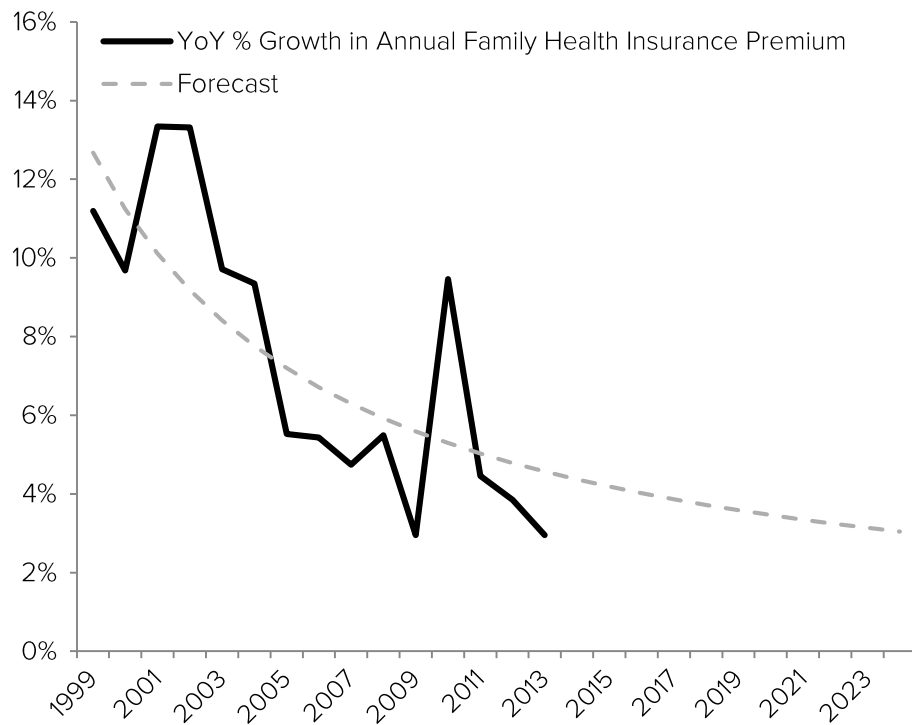
Median Liquid and Net Financial Assets



Percent Households with Liquid Financial Assets Greater than Specified Deductibles



PREMIUM GROWTH SLOWING

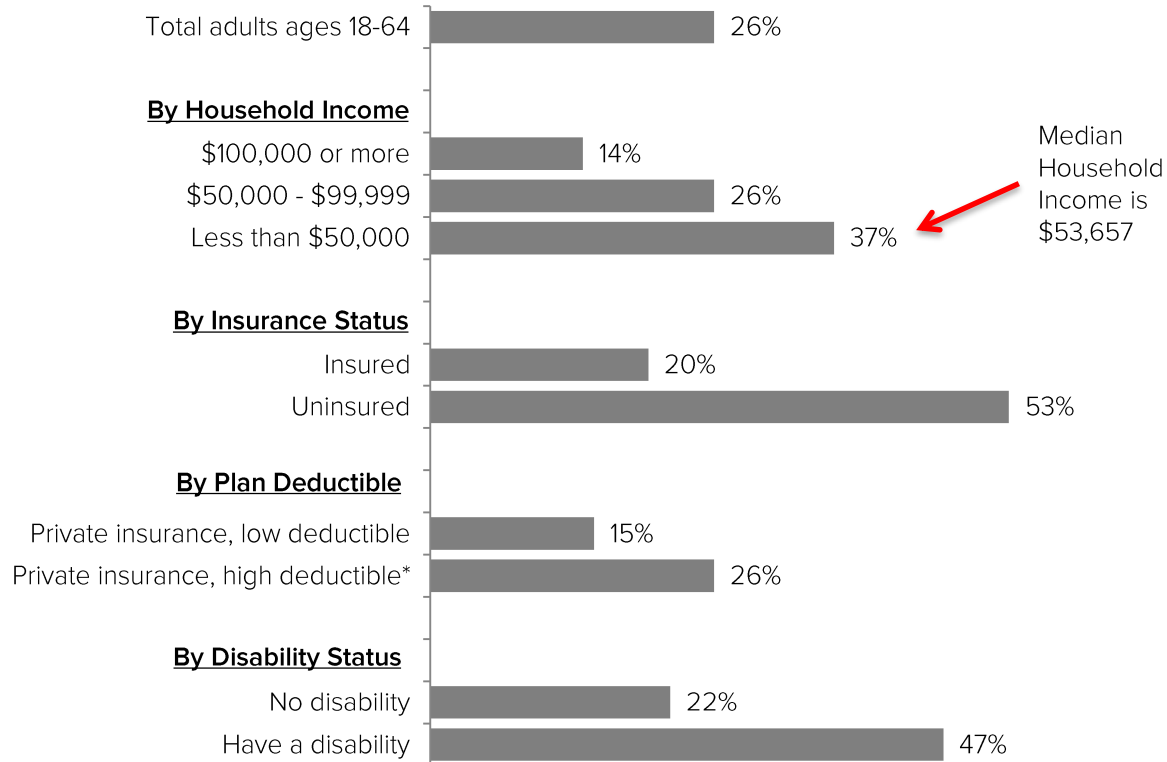


ON TARGET FOR 10% OF MEDIAN HOUSEHOLD INCOME

Growth in annual family insurance premium is slowing and long-term will ultimately reach parity with GDP (2-3%) and nominal household incomes.

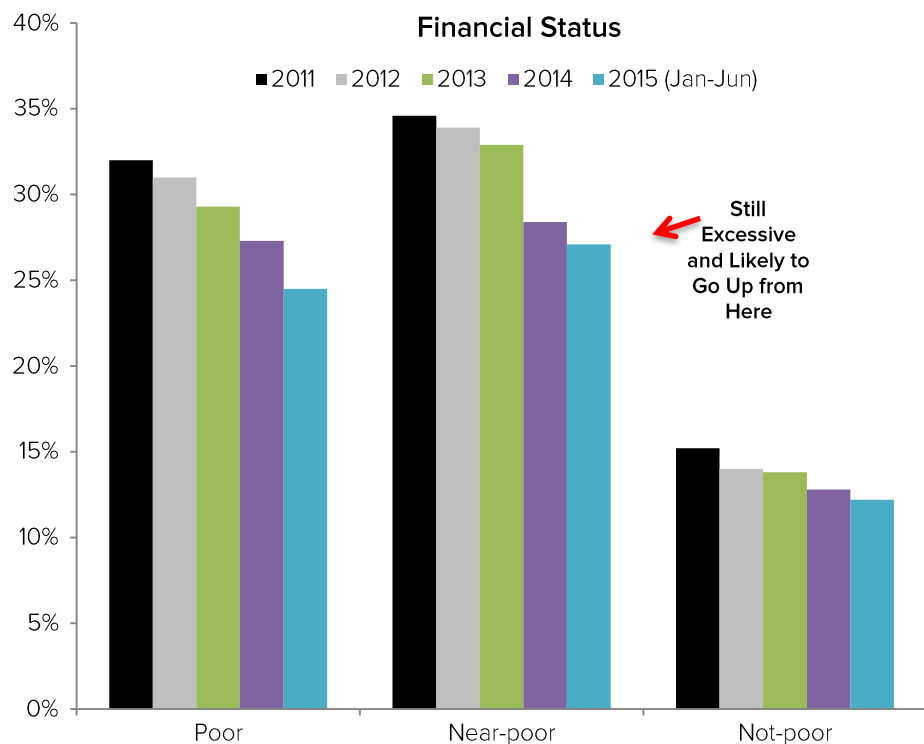
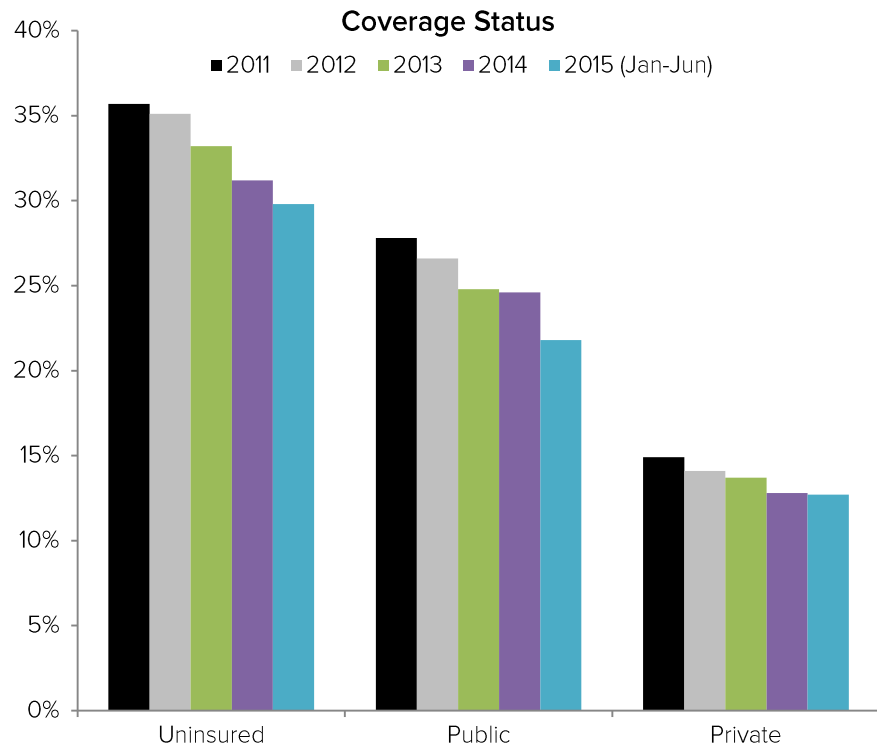
DIFFICULT PAYING MEDICAL BILLS

Reporting Problems Paying Medical Bills in Past Year (June 2016)



DIFFICULT PAYING MEDICAL BILLS

Percentage of persons under age 65 who are in families having problems paying medical bills in past 12 months



EXCHANGE ECONOMIC DISINCENTIVE

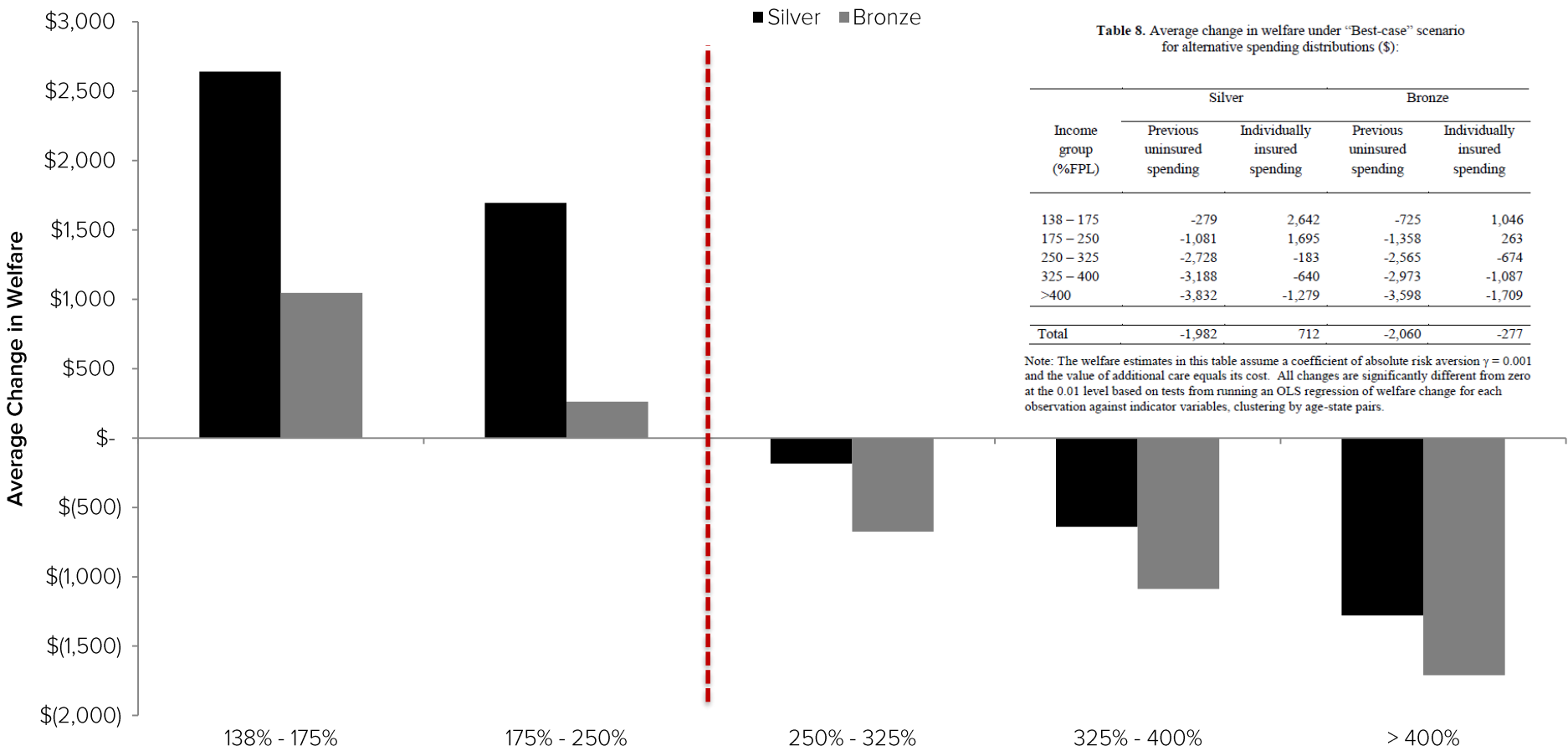


Table 8. Average change in welfare under “Best-case” scenario for alternative spending distributions (\$):

Income group (%FPL)	Silver		Bronze	
	Previous uninsured spending	Individually insured spending	Previous uninsured spending	Individually insured spending
138 – 175	-279	2,642	-725	1,046
175 – 250	-1,081	1,695	-1,358	263
250 – 325	-2,728	-183	-2,565	-674
325 – 400	-3,188	-640	-2,973	-1,087
>400	-3,832	-1,279	-3,598	-1,709
Total	-1,982	712	-2,060	-277

Note: The welfare estimates in this table assume a coefficient of absolute risk aversion $\gamma = 0.001$ and the value of additional care equals its cost. All changes are significantly different from zero at the 0.01 level based on tests from running an OLS regression of welfare change for each observation against indicator variables, clustering by age-state pairs.

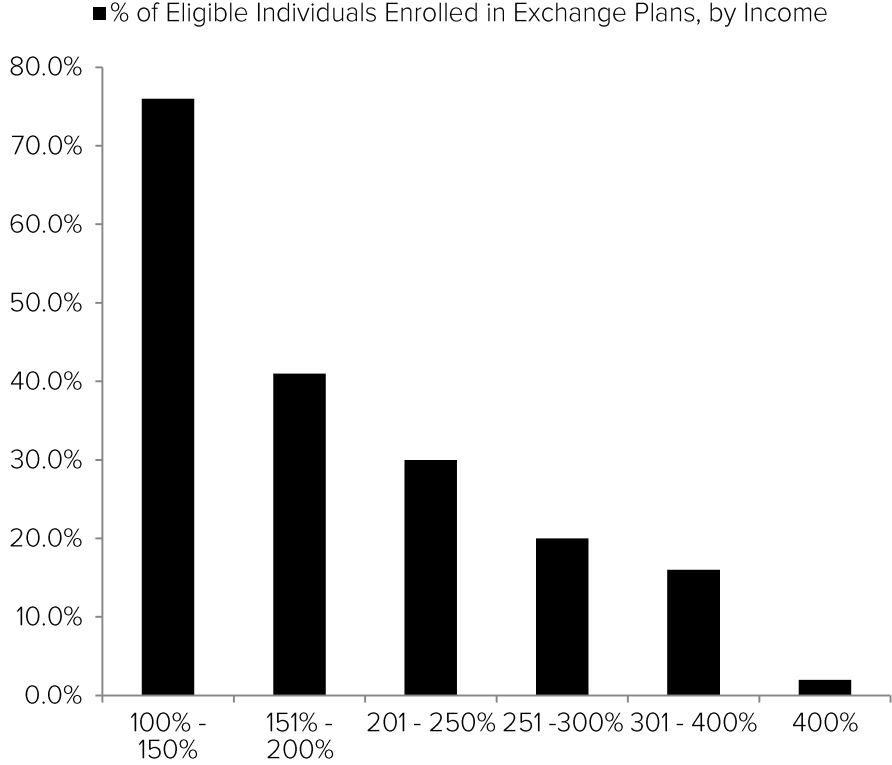
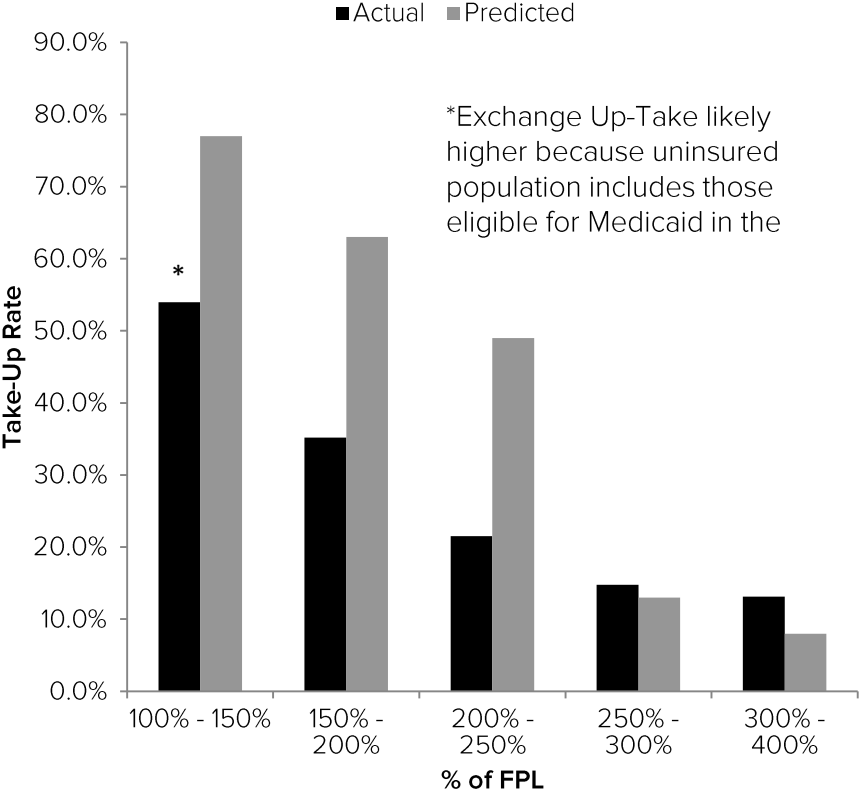
ACA PREDICTED TAKE-UP RATES

Table 9. Predicted take-up rates by income for alternative spending distributions (\$)

Income group	"Best case" scenario							
	Previous uninsured spending		Privately insured spending		Previous uninsured spending		Privately insured spending	
	Silver	Bronze	Silver	Bronze	Silver	Bronze	Silver	Bronze
138 – 175	8%	0%	75%	77%	26%	16%	100%	74%
175 – 250	0%	0%	46%	49%	16%	5%	90%	57%
250 – 325	0%	1%	7%	13%	2%	1%	53%	37%
325 – 400	1%	1%	3%	8%	1%	1%	38%	25%
>400	1%	1%	5%	5%	1%	1%	34%	21%
Total	2%	0%	32%	35%	11%	5%	69%	46%

Note: For the base scenario (columns 1-4), the coefficient of absolute risk aversion γ equals 0.0003 and the value of additional care is assumed to equal one-half its cost. For the "Best-case" scenarios, risk aversion $\gamma = 0.001$ and value of additional care equals its cost.

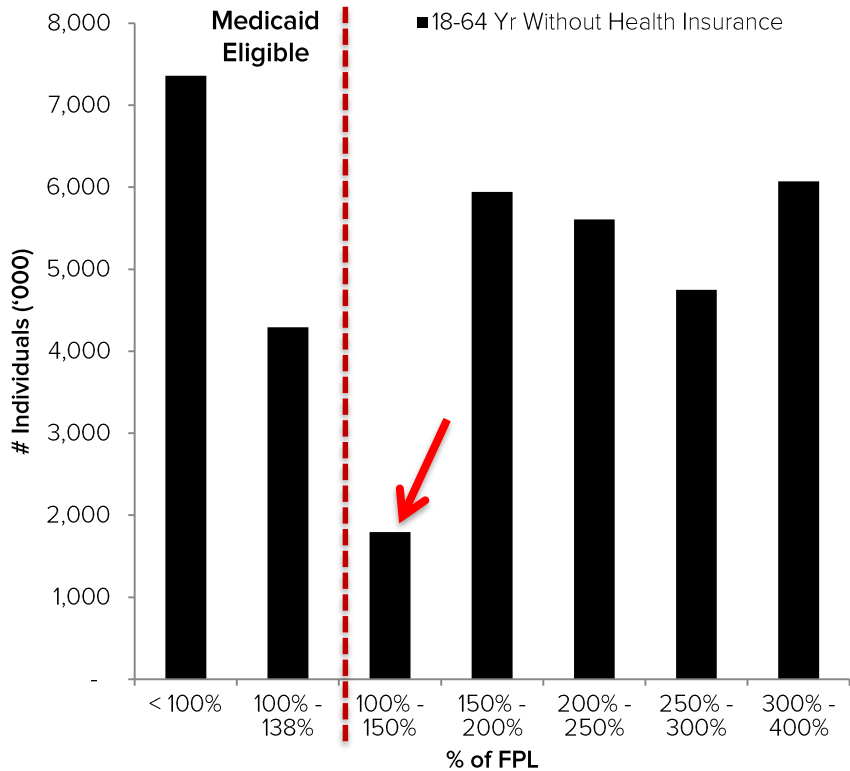
ACA GREAT IF YOU'RE SUPER POOR



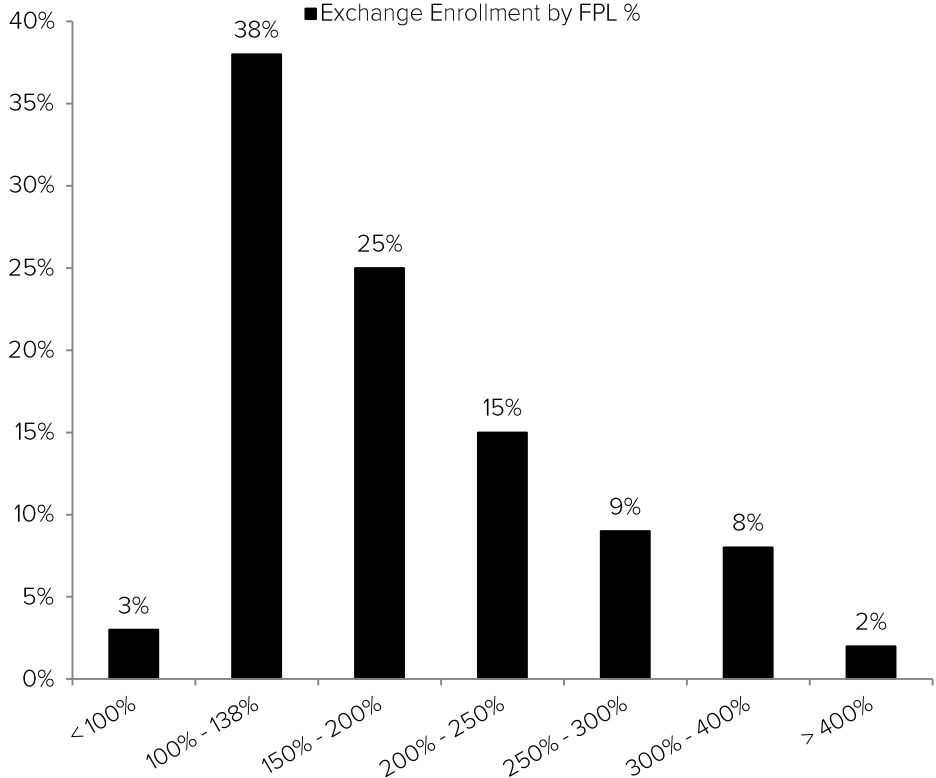
Number of potential eligible exchange enrollees determined using 2013 American Community Survey data on the Uninsured and Non-group populations prior to implementation of the health insurance exchanges. Analysis is limited to the 37 states relying on healthcare.gov in 2015.

ACA ENROLLMENT BY FPL

2013 Pre-ACA

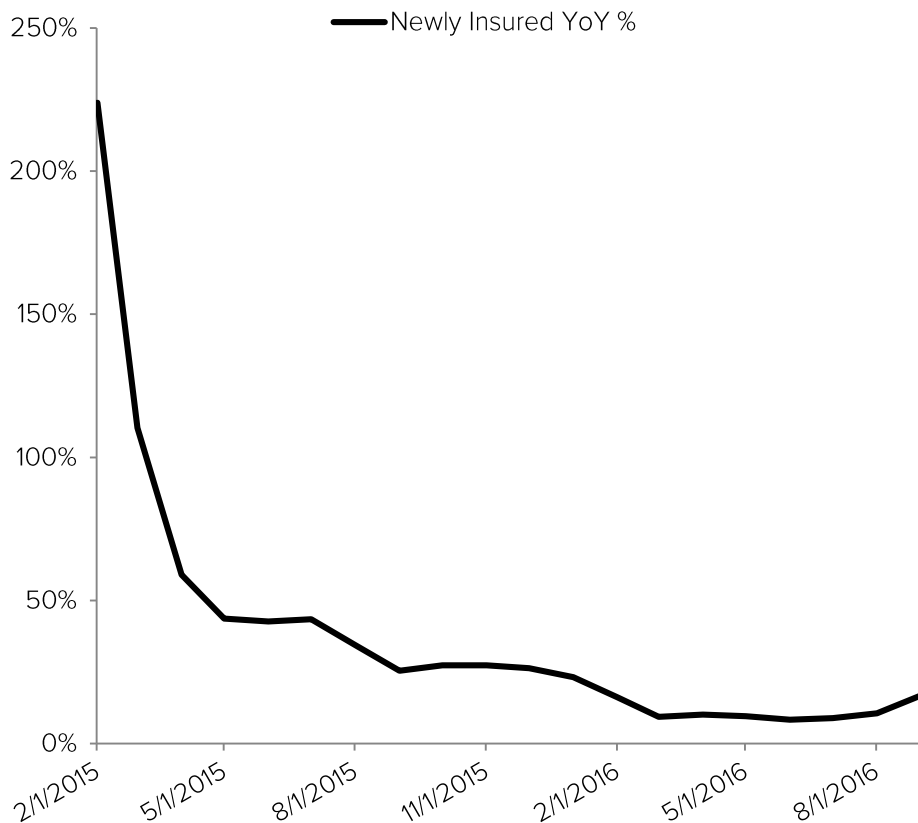
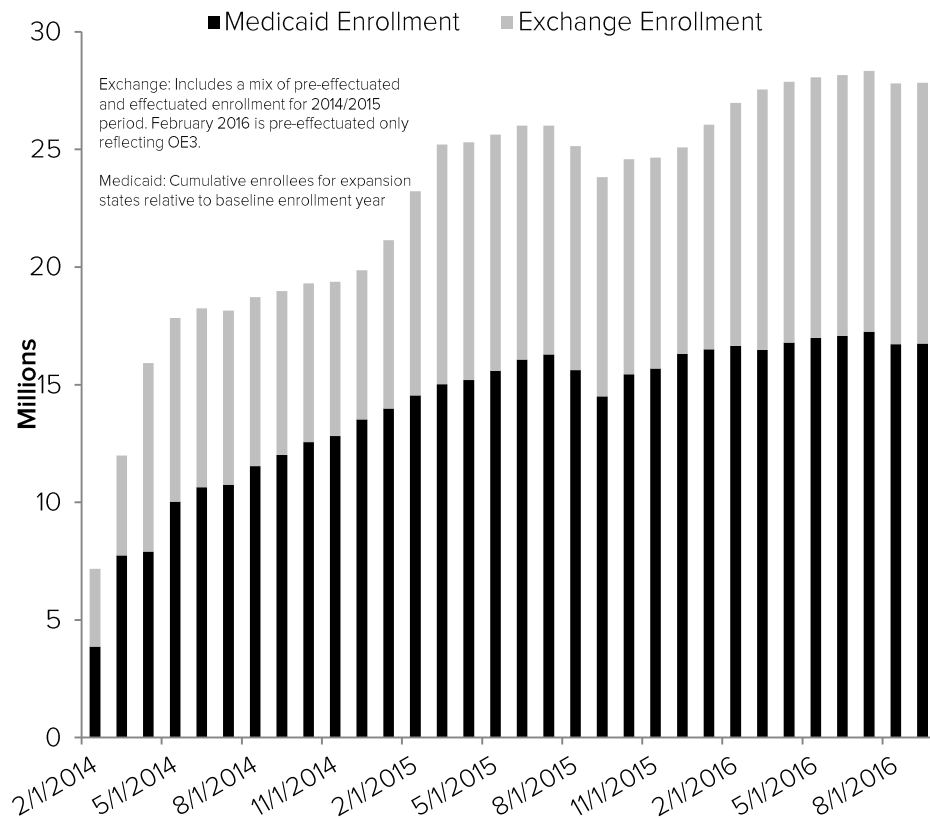


2015



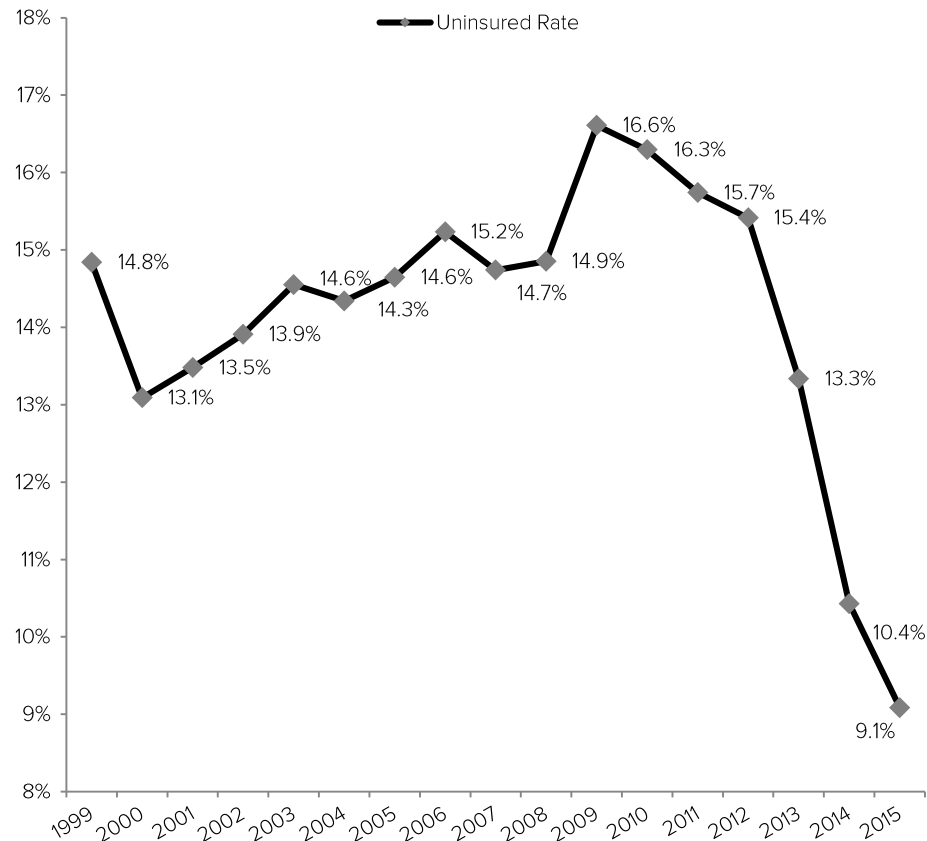
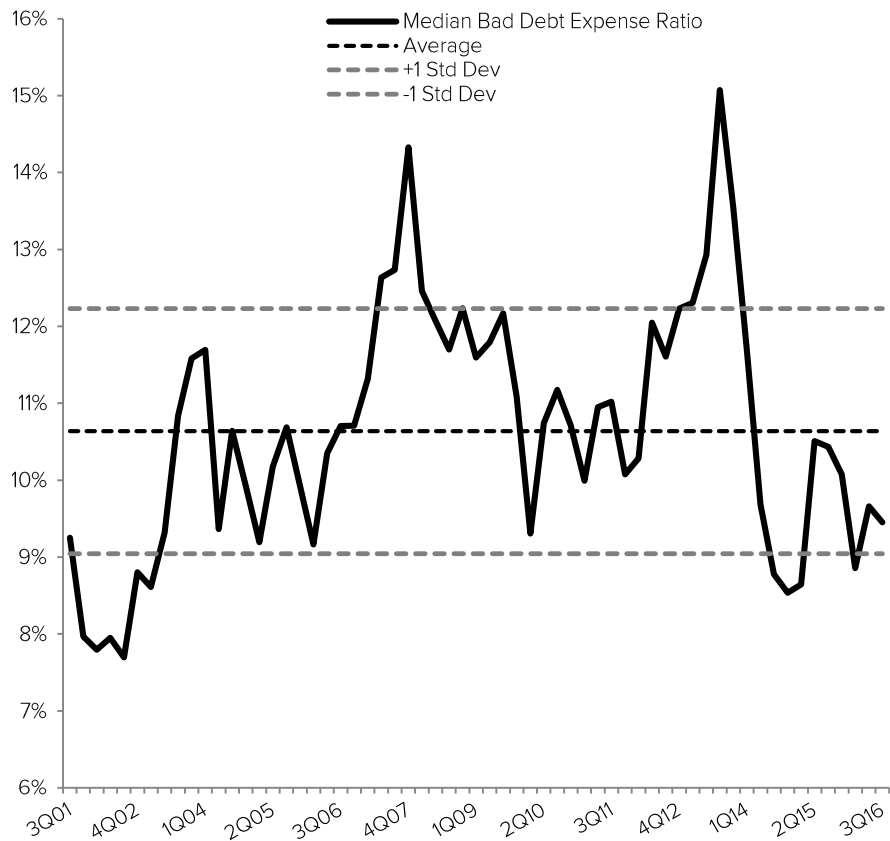
28+ MILLION NEWLY INSURED

60% MEDICAID EXPANSION / 40% EXCHANGE

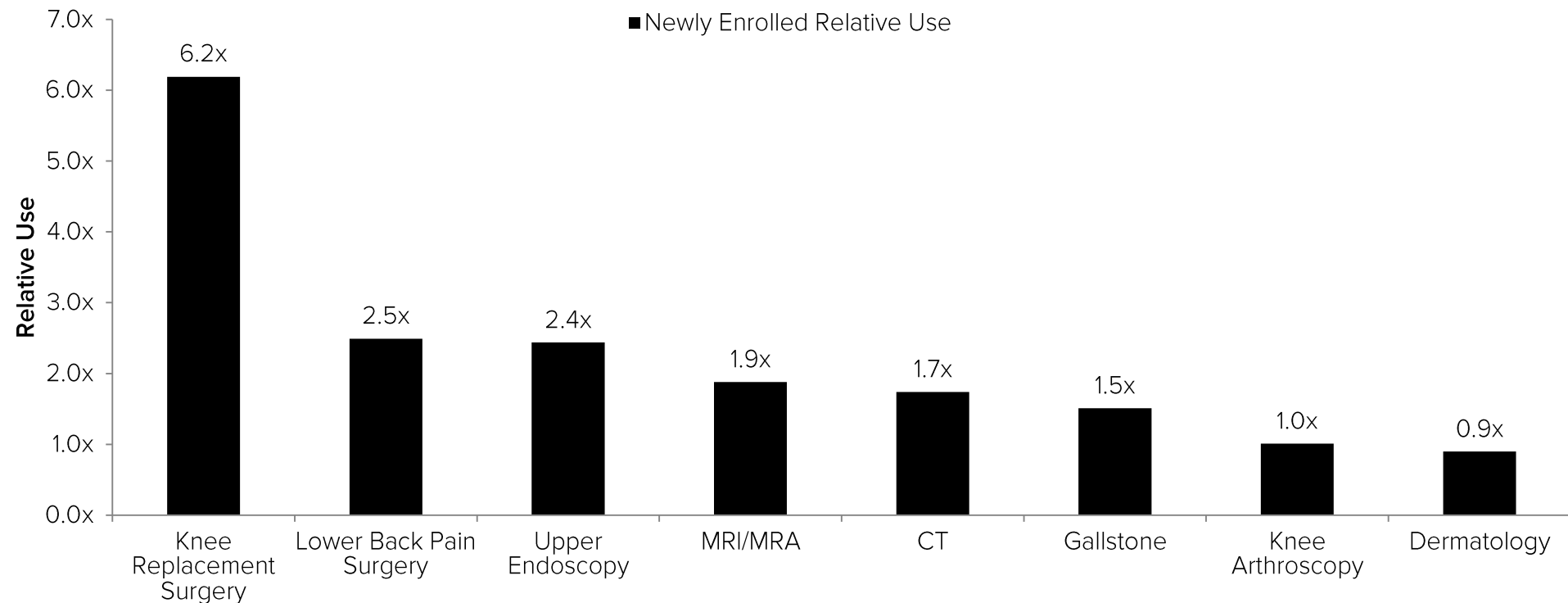


UNINSURED RATE ALL-TIME LOW

SHARP DECLINE IN HOSPITAL BAD DEBT EXPENSE



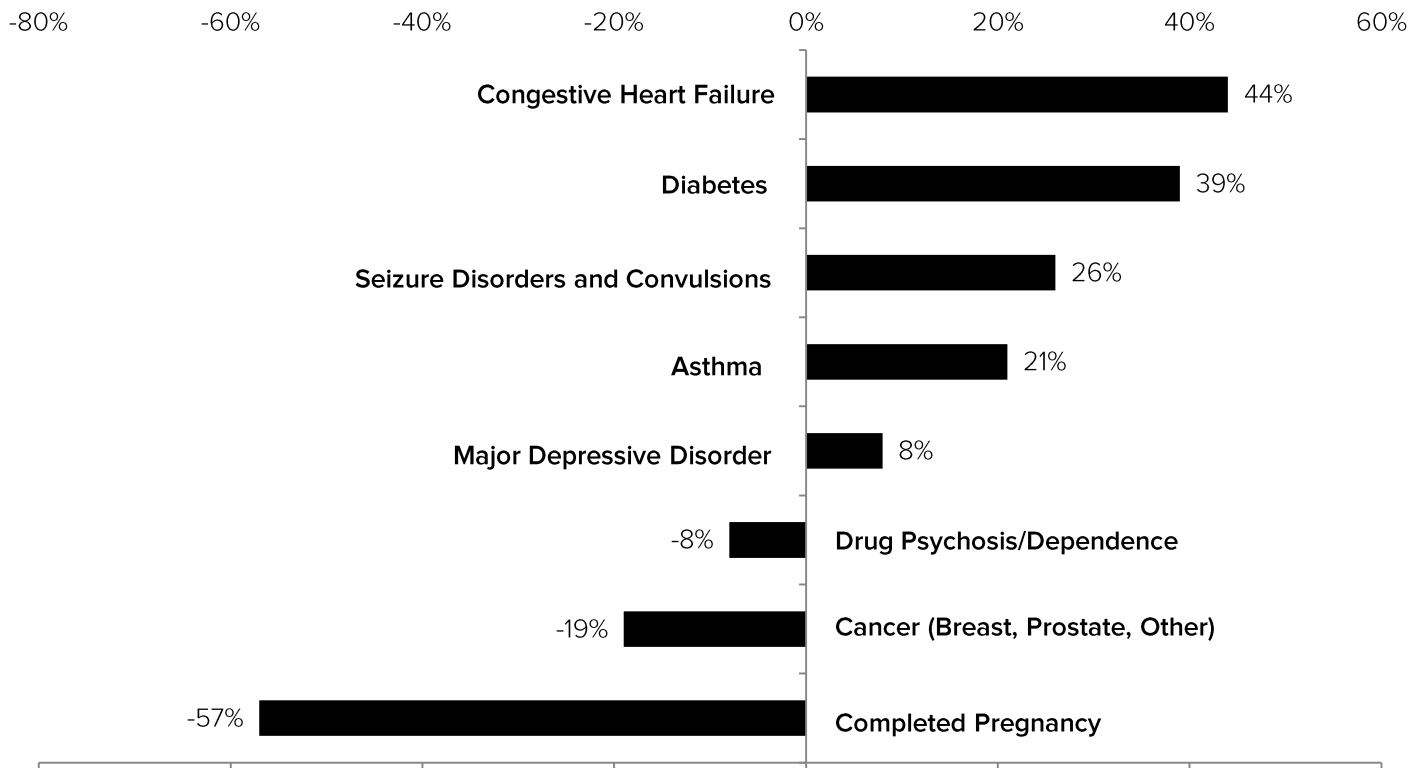
PENT-UP DEMAND NEWLY INSURED



SOCIETY OF ACTUARIES ANALYSIS OF KS CLAIMS DATA

HIGHER PREVALENCE OF DISEASE

Prevalence Rates of Specific Top Conditions, Exchange Compared to Off-Exchange



For more information contact:

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