

# Health care's tipping point...will price transparency be the answer?



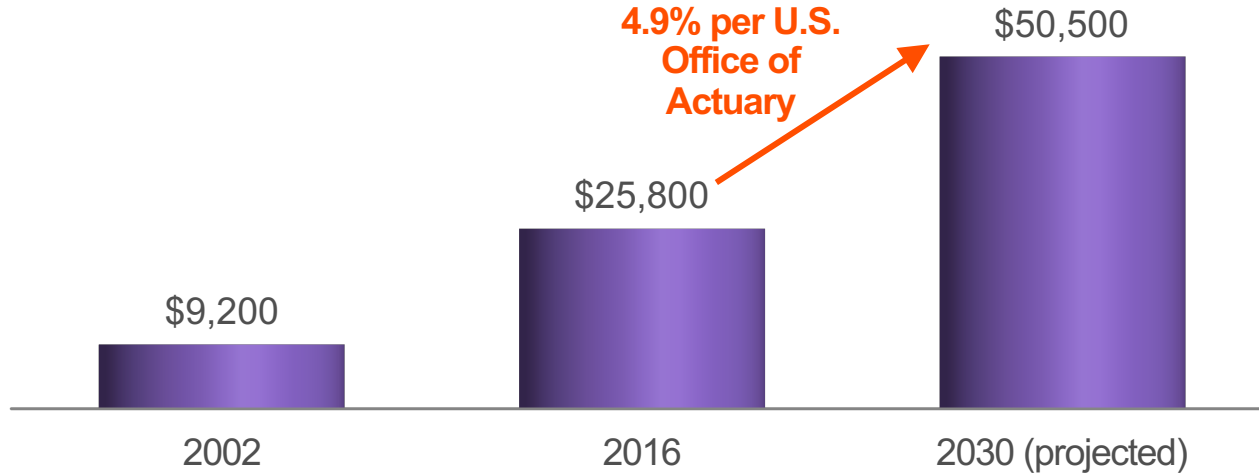
*Erika Johnson, MHSA, Vice President, Strategic Research  
ADFM Winter Meeting  
February 15, 2019*

**Vizient** Research Institute

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# How far to the tipping point?

Average annual health care spending per working household  
(Insurance premiums and out-of-pocket expenditures)



Median compensation (wages plus health benefits)

\$68,600

\$105,800

\$149,000

Health spending as percentage of compensation

13.4%

24.4%

33.9%

Sources: Girod CS, Weltz SA, Hart SK. Milliman Medical Index, 2016. <http://www.milliman.com/uploadedfiles/insight/periodicals/mmi/2016-milliman-medical-index.pdf>; Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group; U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2016.

1958



2012



23.1 Days



3.3 Days

Cost = days of median wages

1958



22.7 Days

2012



3.9 Days

**Cost = days of median wages**

1958



8.5 Days

**Cost = days of median wages**

2012

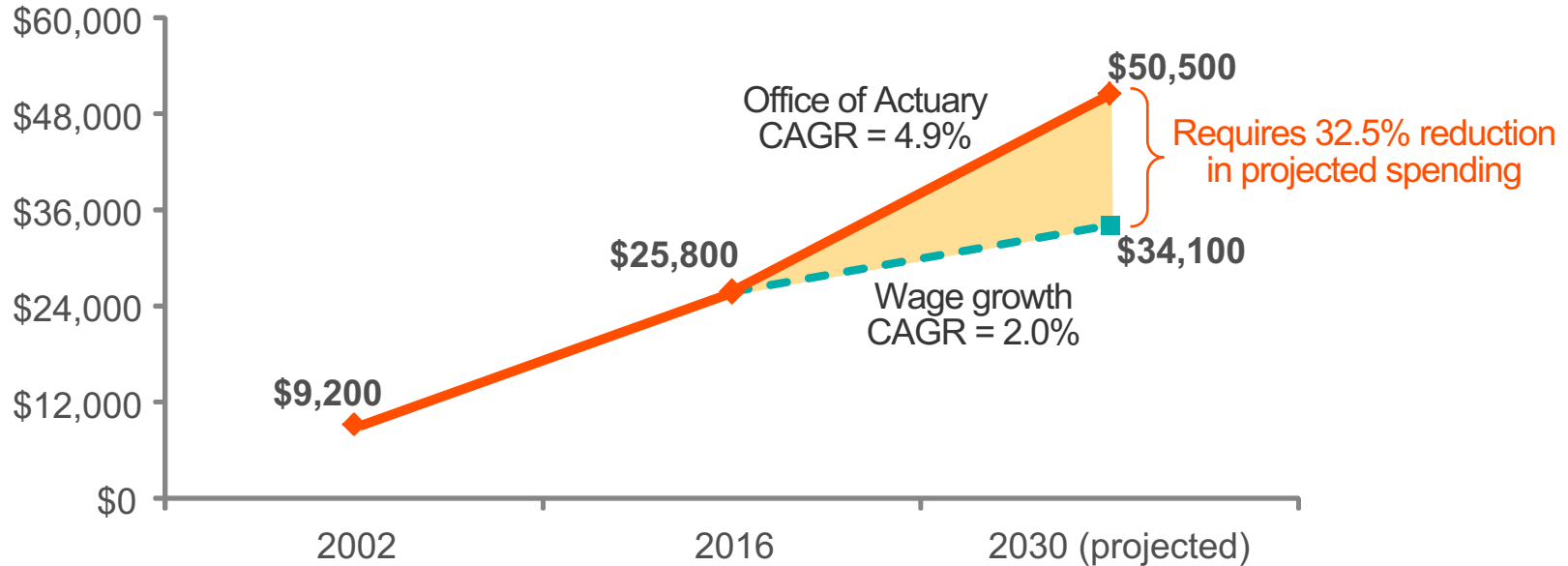


63.7 Days

**Cost = days of median wages**

# How much can middle America afford for health care?

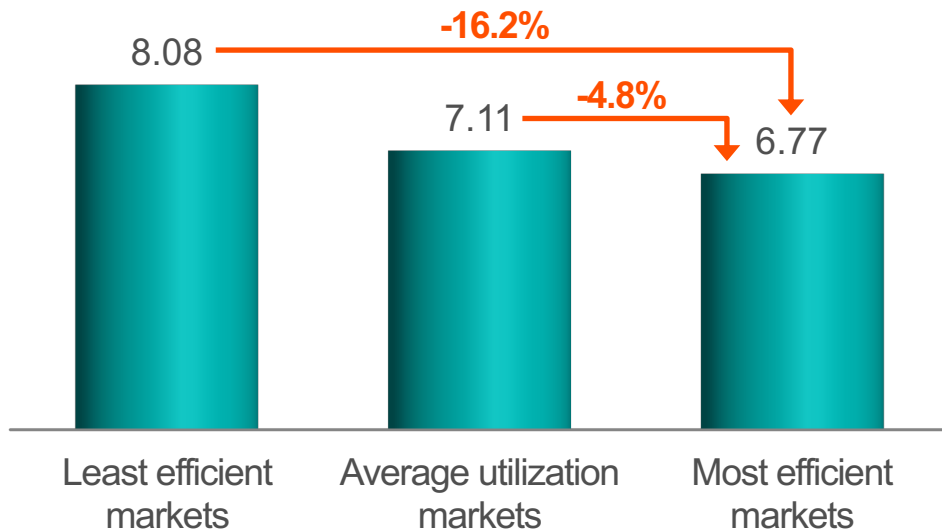
## Trajectory of health care spending per working household, 2002-2030



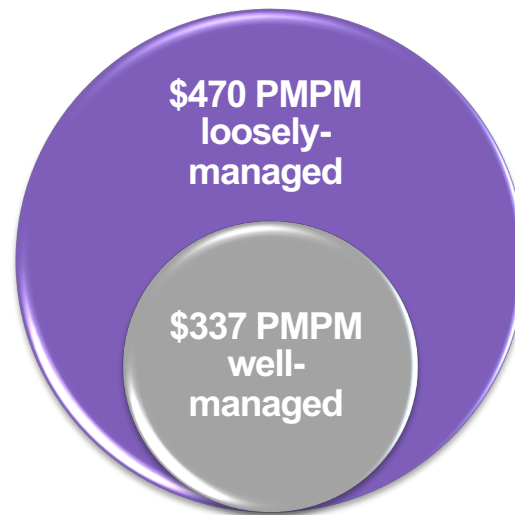
***First do no harm: to avoid further erosion of middle class standard of living – not to improve it – requires a reduction of over 30% in projected health care spending vs. Office of Actuary forecast***

# Ten percent waste reduction an ambitious target for actively working population

## Standard service units PMPM approach



## Milliman “loosely-managed vs. well-managed”

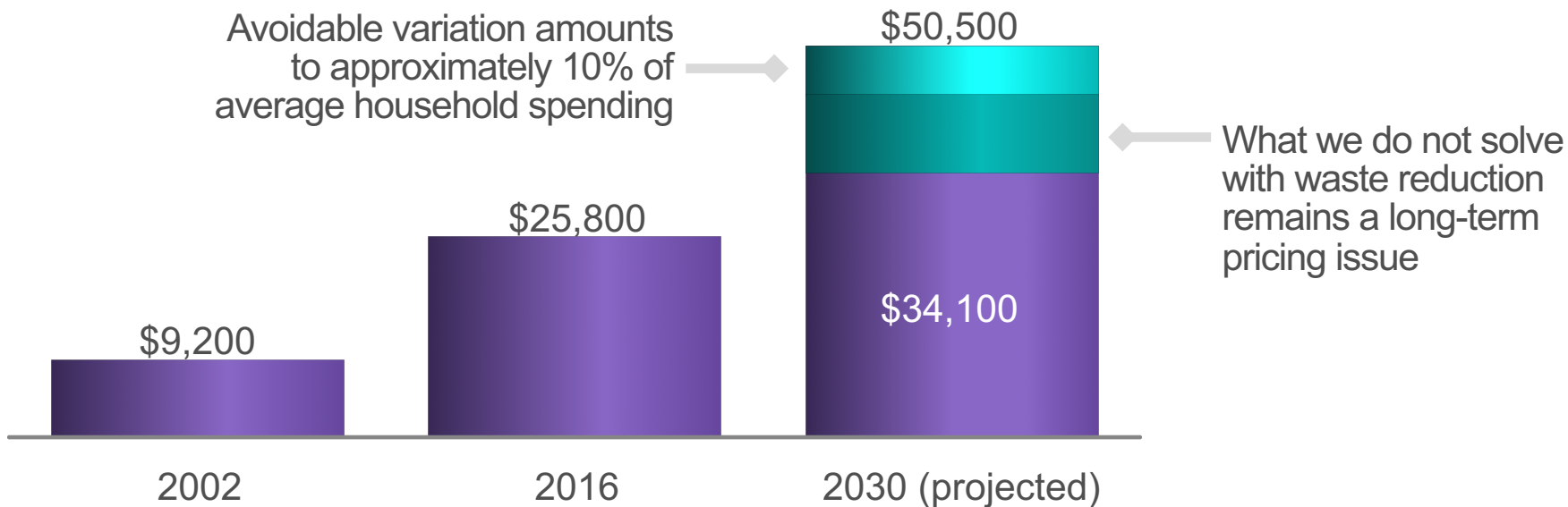


7% ← **Weighted average waste reduction potential in commercially insured population** → 17%



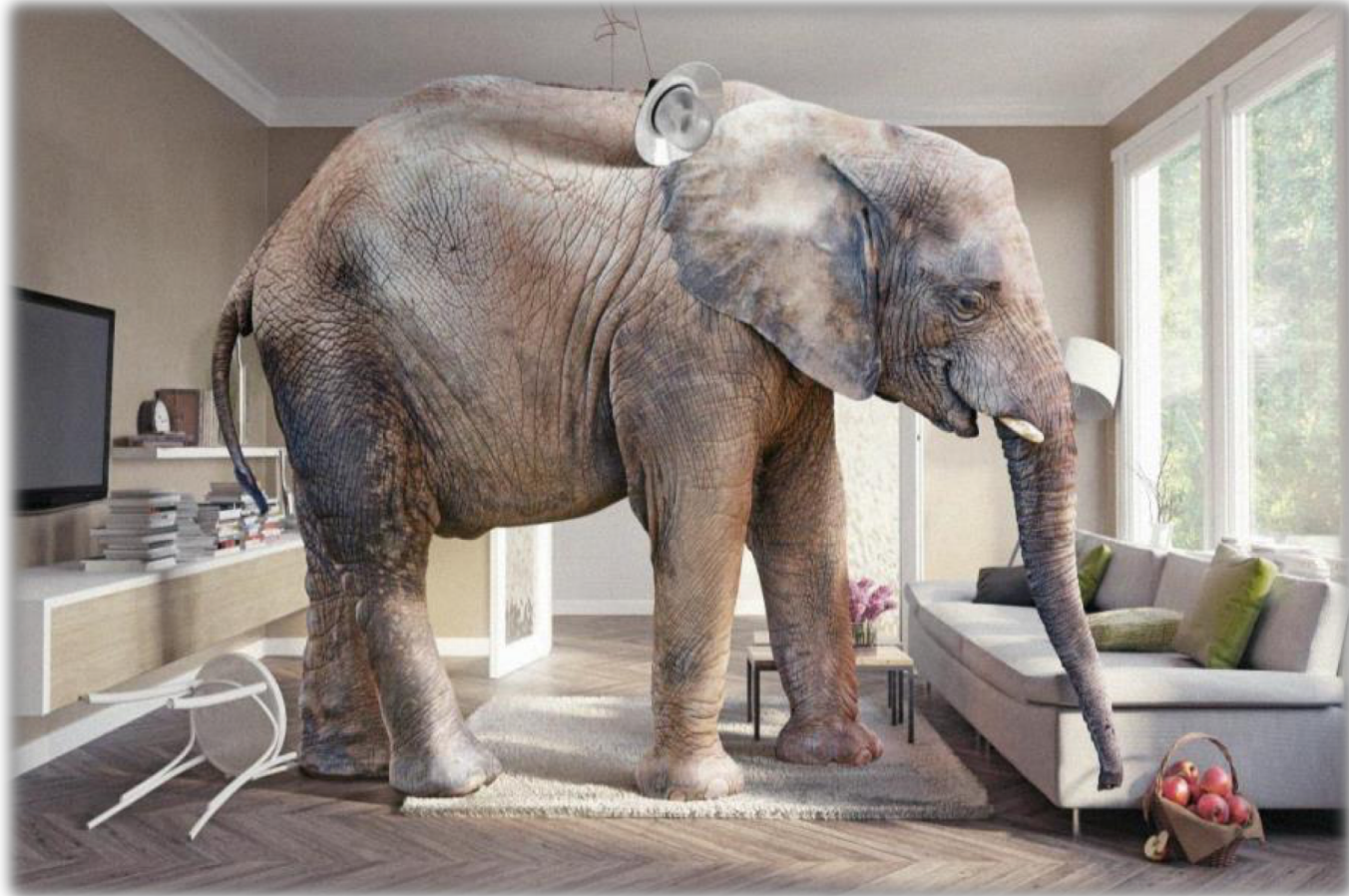
# Avoidable utilization only one-third of middle class affordability dilemma

## Health care spending per working household (insurance premiums and out-of-pocket)



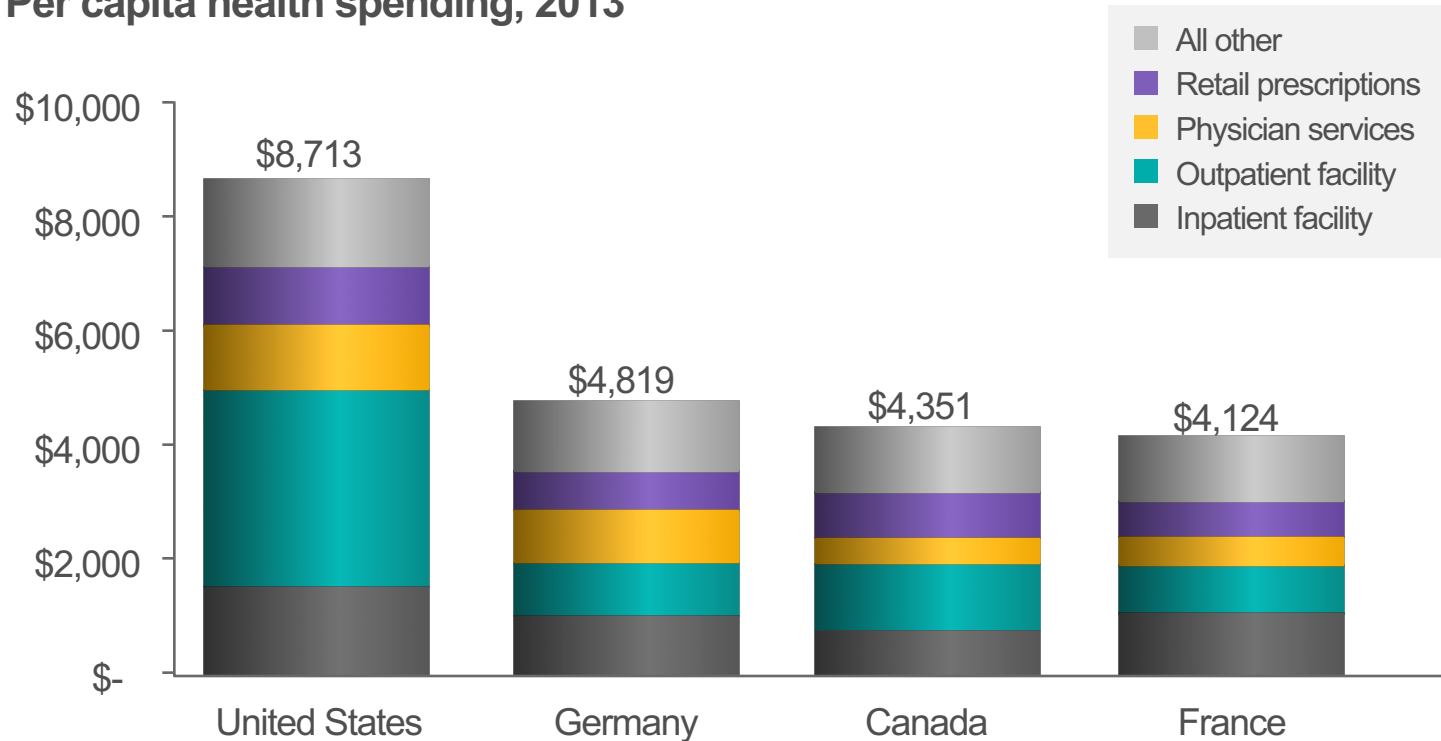
Source: Girod CS, Weltz SA, Hart SK. Milliman Medical Index, 2016. <http://www.milliman.com/uploadedfiles/insight/periodicals/mmi/2016-milliman-medical-index.pdf>; Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group; U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2016; Milliman analysis of commercial claims, 2015.

# Waste reduction not enough...prices are too high



# U.S. health spending out of step with OECD peers

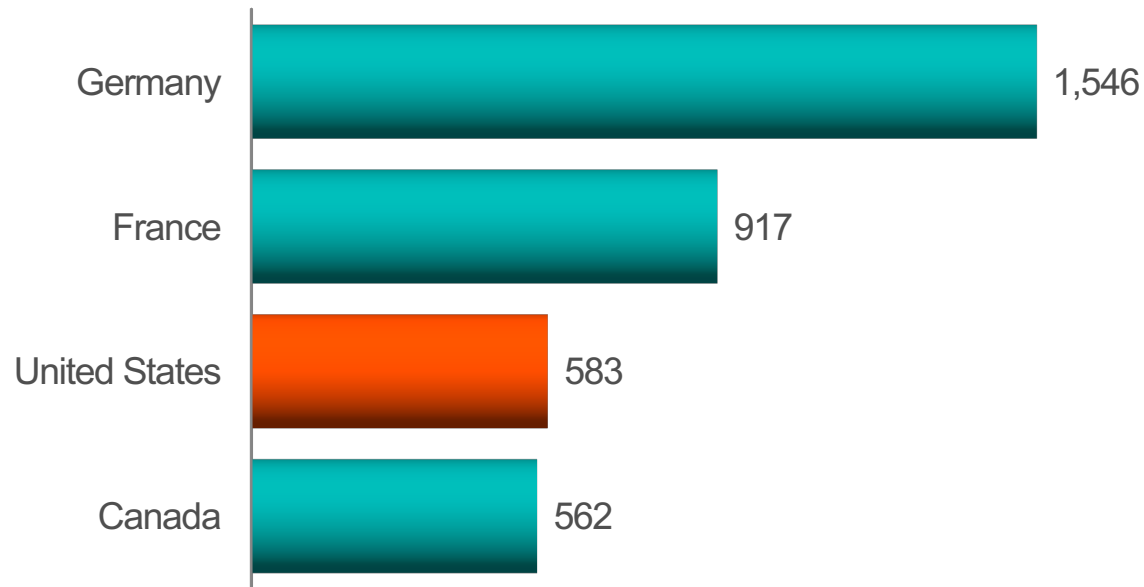
## Per capita health spending, 2013



Source: Analysis of data from the OECD, 2011-2013: <https://data.oecd.org/health.htm> and the Medical Group Management Association, 2011: <http://www.mgma.com/>

# U.S. inpatient utilization low, but spending is high

## Inpatient days per 1,000 population



## Inpatient cost per 1,000 population (in USD PPP)

\$1.0 million

\$1.1 million

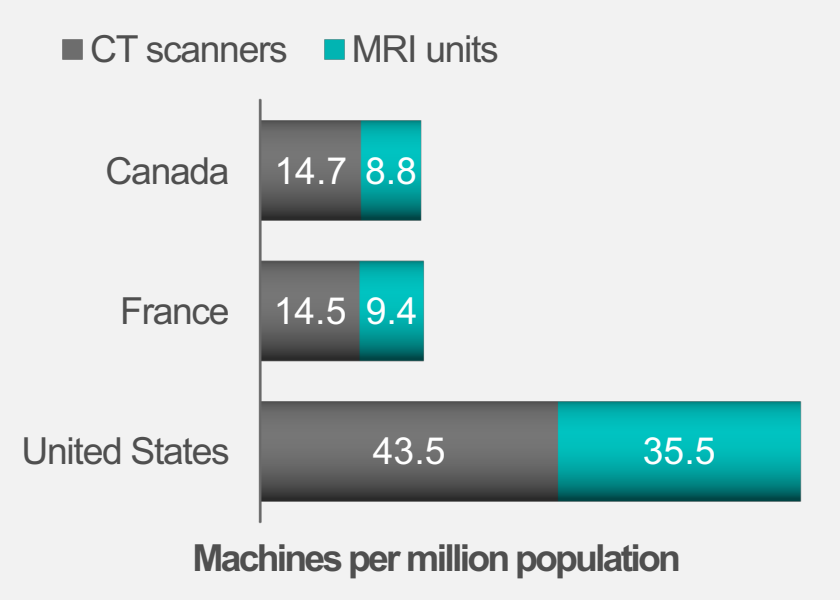
\$1.6 million

\$0.8 million

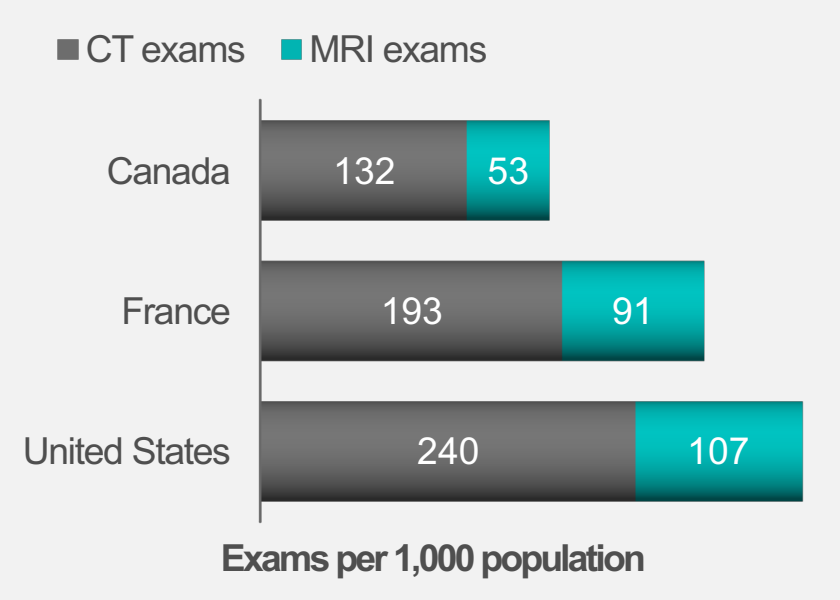
**Average hospital revenue per inpatient day in U.S. = \$2,700 compared with \$600 to \$1,400 in other OECD countries...U.S. commercial prices are even higher**

# Higher imaging capacity in U.S. linked to higher utilization but lower productivity

### Major imaging capacity by country



### Major imaging utilization by country

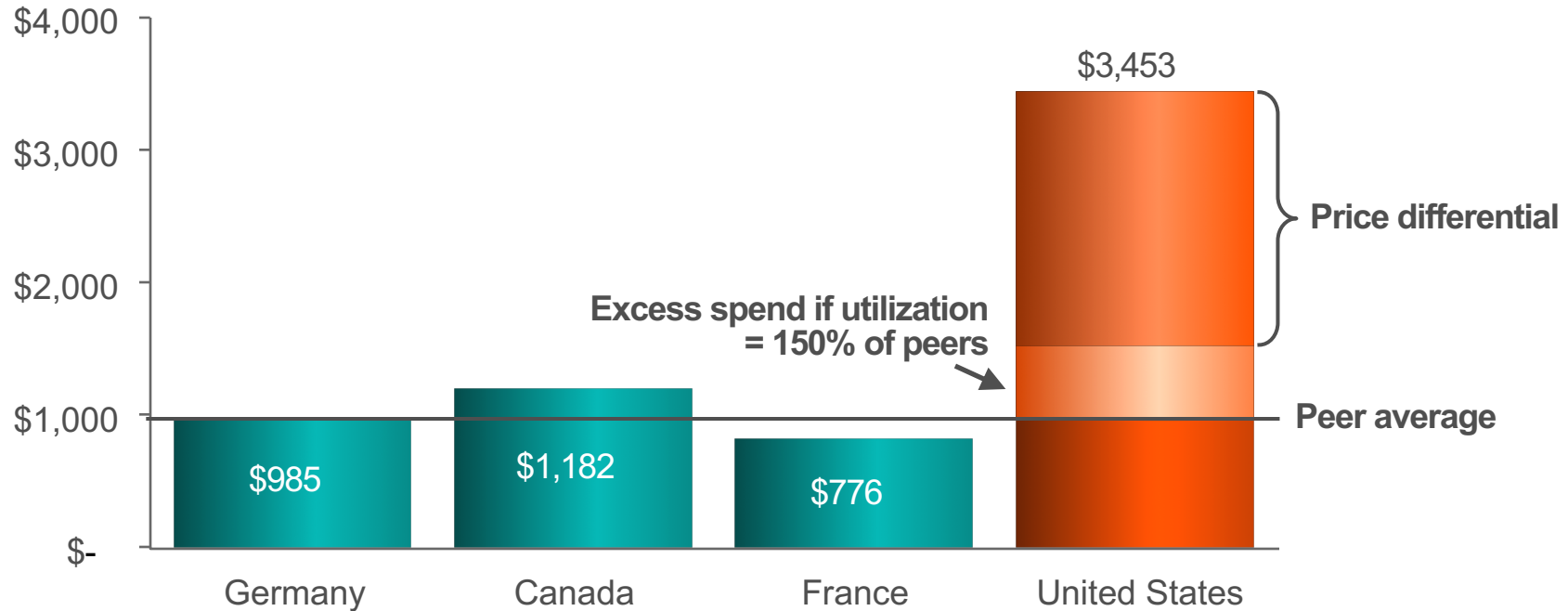


**U.S. productivity (exams per machine) is 50% to 60% of Canada and only 30% to 40% of France...higher fixed costs per exam contribute to higher unit prices**

Source: Analysis of data from the OECD, 2013: <https://data.oecd.org/health.htm>

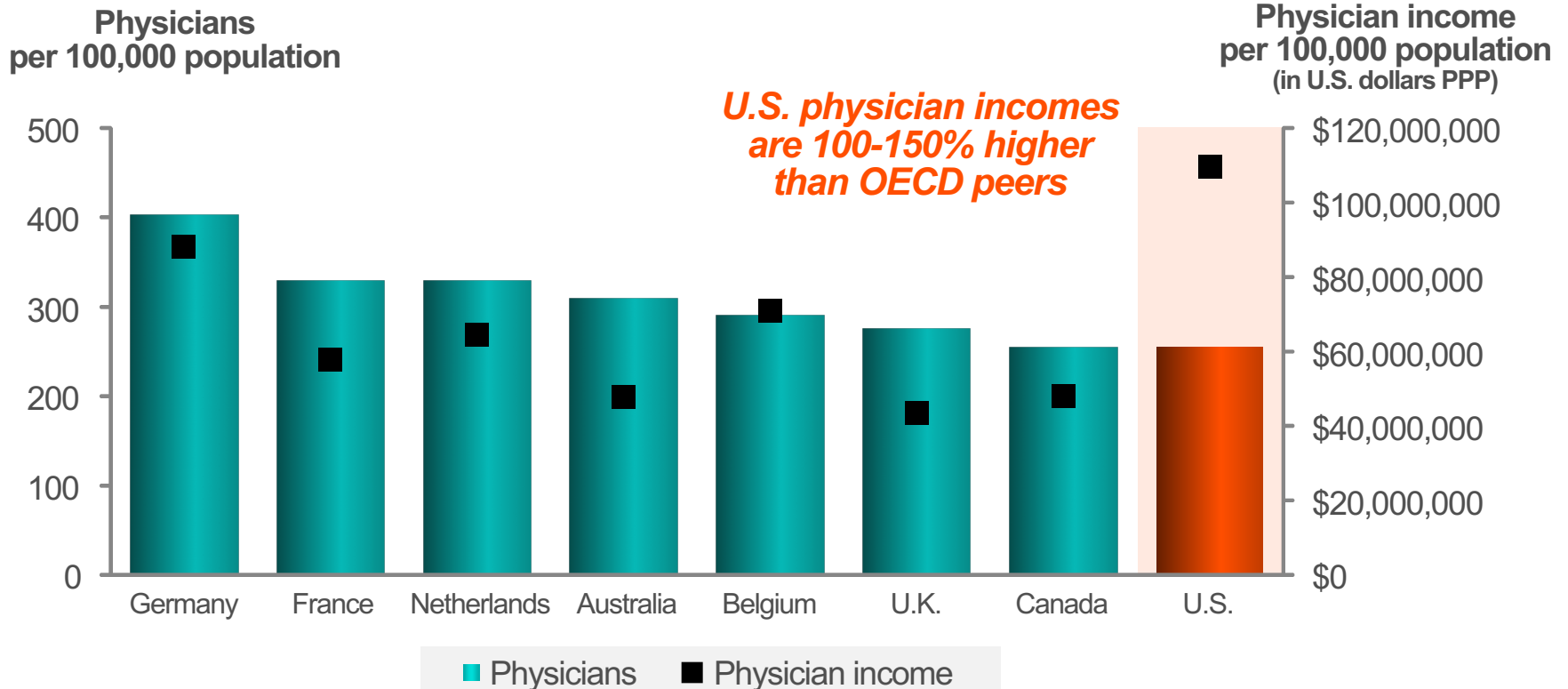
# Price is major driver of outpatient facility spending gap

## Outpatient facility per capita health spending, 2013



Source: Analysis of data from the OECD, 2011-2013: <https://data.oecd.org/health.htm> and the Medical Group Management Association, 2011: <http://www.mgma.com/>

# U.S. has lowest physician supply but highest physician spending

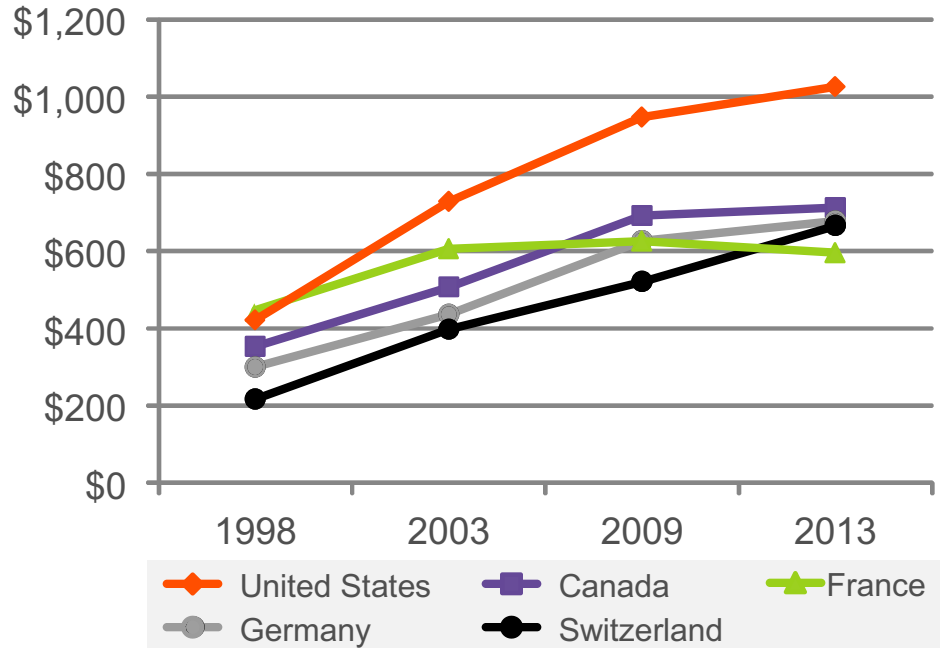


Notes: 1. Physician index and salary data include general practitioners and specialists. 2. All data is provided for self-employed physicians with the exception of UK specialist income. 3. Physician income for France, Germany, and U.S. was estimated based on applying a 3.5% CAGR to salaries reported in 2011.

15 Source: Analysis of data from the OECD, 2011-2013: <https://data.oecd.org/health.htm> and the Medical Group Management Association, 2011: <http://www.mgma.com/>.

# U.S. spending on Rx reflects compound impacts of volume and price

## Total expenditure on pharmaceuticals per capita (1998-2013)



- U.S. per capita Rx spending now 40% to 72% higher than OECD comparators
- U.S. writes roughly 50% more prescriptions per capita vs. other western countries
- Manufacturer prices 25% to 100% higher in U.S.
- Launch price per month for new cancer Rx was \$100 in 1970, \$1,000 in 2000, and \$10,000 now

Note: Includes spending on prescription and over-the-counter medications

16 Sources: OECD Health at A Glance, Expenditure on pharmaceuticals per capita (2001, 2005, 2011, 2015); Kanavos et al. (2013). Higher US Branded Drug Prices And Spending Compared To Other Countries May Stem Partly From Quick Uptake of New Drugs. Health Affairs, 32(4), 753-61; Commonwealth Fund International Health Policy Survey (2013); Peter B. Bach, MD, Memorial Sloan Kettering Cancer Center.



# Forty-year-old solutions like swinging a broken hammer

- Hill-Burton and Medicare cost reimbursement led to excess inpatient capacity in the 1970s...managed care plans pounced
- Reducing hospitalizations worked in 1988 – not the answer in 2018
- Avoidable utilization (inpatient and outpatient) accounts for only 1/3 of the middle class affordability crisis...the lion's share is price
- Preoccupation with risk transfer to providers takes eye off the ball; doing less will help, but paying less is shortest route
- Rube Goldberg payment schemes take decades to implement and almost always have unintended consequences
- No chance middle class can afford health care by 2030 unless unit prices fall significantly

# Think tanks, insurers, and billionaires can't be wrong...price transparency has to work



“Is everybody ready to have real pricing power brought to bear in a way that could destabilize the health-care sector? It means upsetting a lot of apple carts.”

– RWJ Foundation



**BlueCross  
BlueShield**

“The Blue Cross Rewards<sup>SM</sup> program is our way of highlighting provider location options for group members while helping them save, earn monetary incentives and maintain their health.”

– BCBS of Michigan



Goal = produce “simplified, high quality and transparent healthcare at a reasonable cost.”

– Amazon/Berkshire/JP Morgan health venture, January 30, 2018 press release

Sources: 1. Robert Wood Johnson Foundation (RWJ). [How price transparency can control the cost of health care](#). RWJ website. Published March 1, 2016. 2. New Blue Cross Blue Shield of Michigan rewards program encourages employer group members to ‘shop’ for affordable care [press release]. Detroit, MI: MI Blues Perspectives; September 18, 2018. 3. Amazon, Berkshire Hathaway and JPMorgan Chase & Co. to partner on U.S. employee healthcare [press release]. Seattle, WA: Business Wire; January 30, 2018.

# The logic

- Classic economic theory says demand falls as prices rise
- High deductible health plans (HDHPs) designed to trigger price shopping as financial responsibility shifted to patients
- Three-fold variation in prices common within metro markets for “shoppable” services
- Price transparency tools readily available – insurer tools even calculate patient share using deductibles/copays
- Middle class households struggling to make ends meet; they will jump at opportunity to save money

# Vizient study of health care consumer behavior



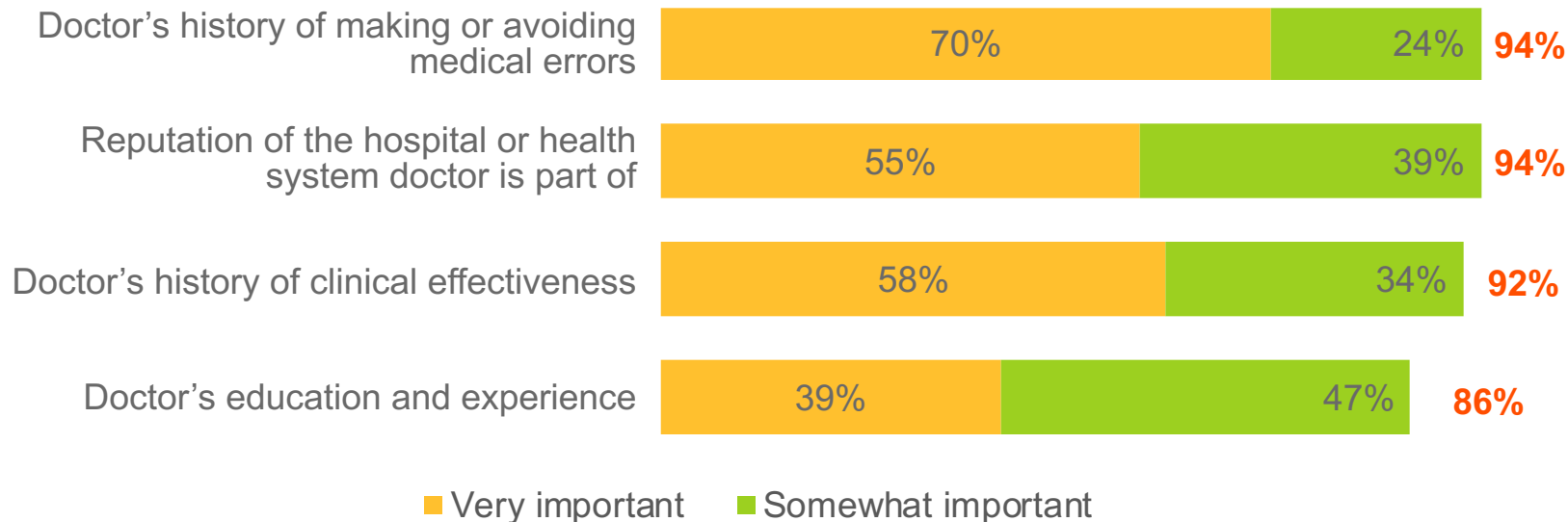
*at the* UNIVERSITY *of* CHICAGO

- What do consumers think about when choosing a doctor or hospital? What matters most?
- How do patients evaluate quality? Will they pay more for better?
- Do consumers shop on price? Does price transparency work?

***National survey, one-on-one in-depth interviews, and 5 focus groups  
of commercially insured middle class consumers***

# Conceptually, consumers say clinical quality is important when selecting a new doctor

*Percentage of respondents rating each factor as important when picking a new doctor or specialist.*



Source: NORC at the University of Chicago Survey, June 2018.

# But cost and convenience tip scales when forced to decide

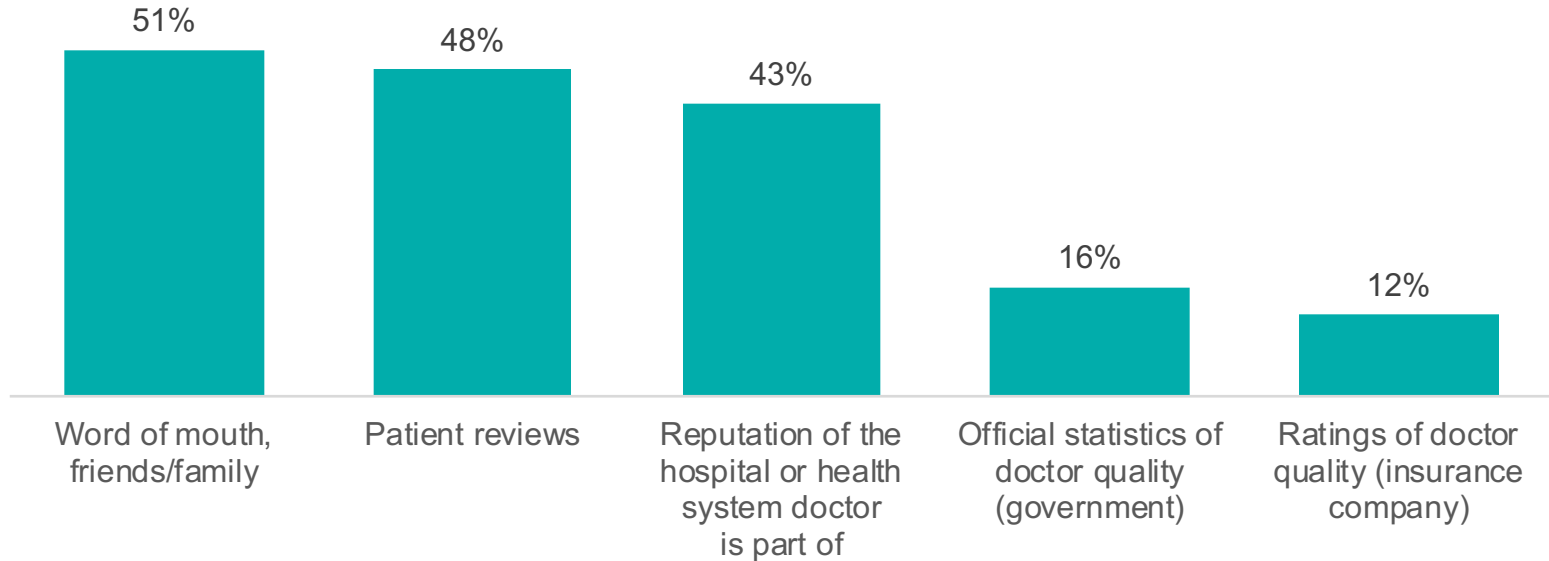
*Which three factors usually end up being most important when picking a new doctor or specialist?*

|  | Share selected |
|--|----------------|
| Out-of-pocket costs  | 44%            |
| How quickly you can get an appointment   | 41%            |
| Whether doctor is part of a hospital or health system used for other health care | 37%            |
| Proximity of doctor's location to your home or work place                        | 36%            |
| Doctor's history of clinical effectiveness                                       | 26%            |
| Reputation of the hospital or health system the doctor is part of                | 24%            |
| Doctor's history of making or avoiding medical errors                            | 23%            |
| Details about doctor's education and experience                                  | 18%            |

Source: NORC at the University of Chicago Survey, June 2018.

# Patient reviews and reputation three times as important as quantifiable indicators of clinical quality

*Which 3 types of information are the best indicators of whether you can expect higher or lower quality care from a doctor or specialist?*

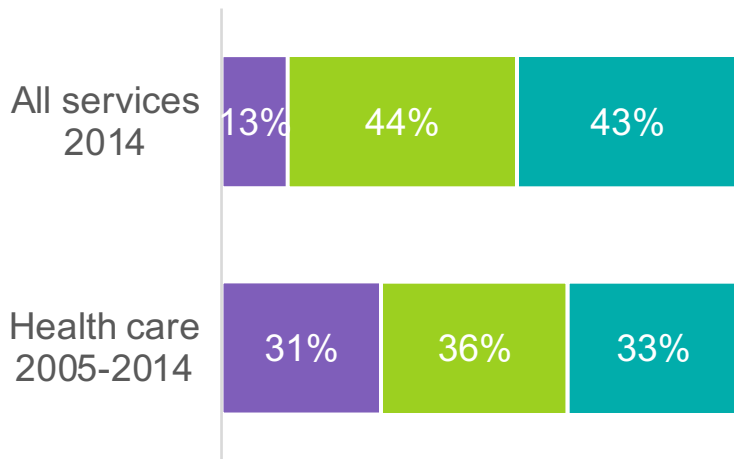


Source: NORC at the University of Chicago Survey, June 2018.

# Consumer reviews more polarized in health care...has implications in “reputation” market

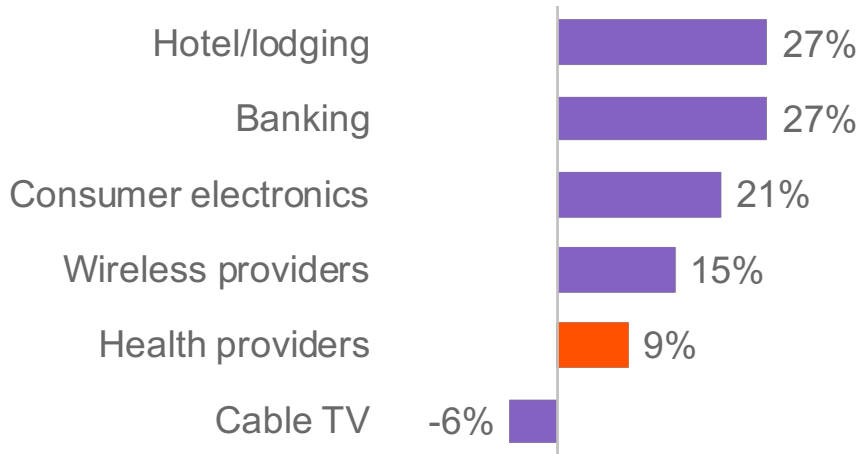
## Yelp review distribution

■ 1 star ■ 2-4 stars ■ 5 stars



**2/3 of health care reviews either 1 or 5 stars**  
**Health providers over twice as likely to receive 1-star review vs. other industries**

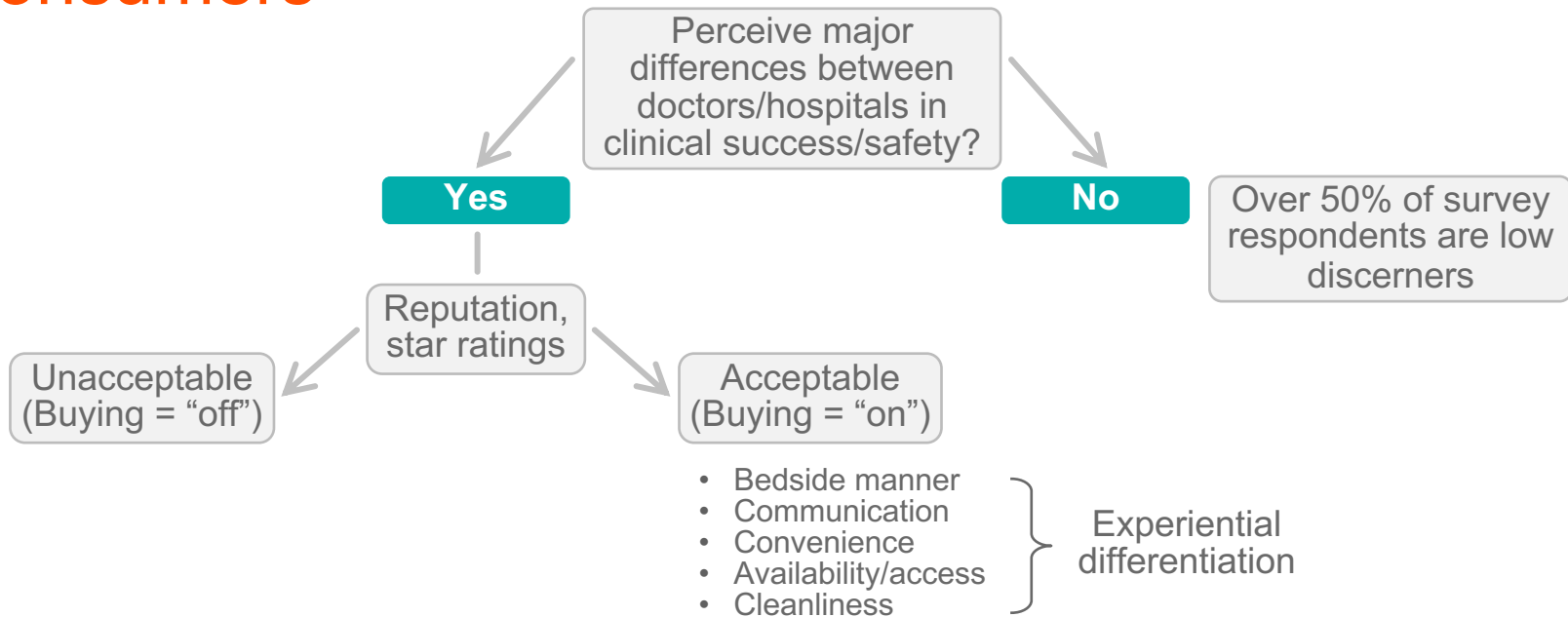
## Accenture net promoter score (% consumer promoters - % consumer detractors)



Sources: 1. Ranard BL, et.al. Yelp reviews of hospital care can supplement and inform traditional surveys of the patient experience of care. *Health Affairs*. 2016; 35(4): 697-705. 2. Pilon A. [Yelp reviews are getting more positive AND more negative](#). Small Business Trends website. Published January 24, 2015. 3. Stephan J-P, MacCracken L. [Think your patients are loyal? Think again](#). Accenture website. Published 2016.



# Quality is a binary variable to most health care consumers



***For the typical consumer, highly polarized ratings – based on experiential factors not incremental clinical quality – create an “on/off” switch***

# How discerning is the typical consumer?

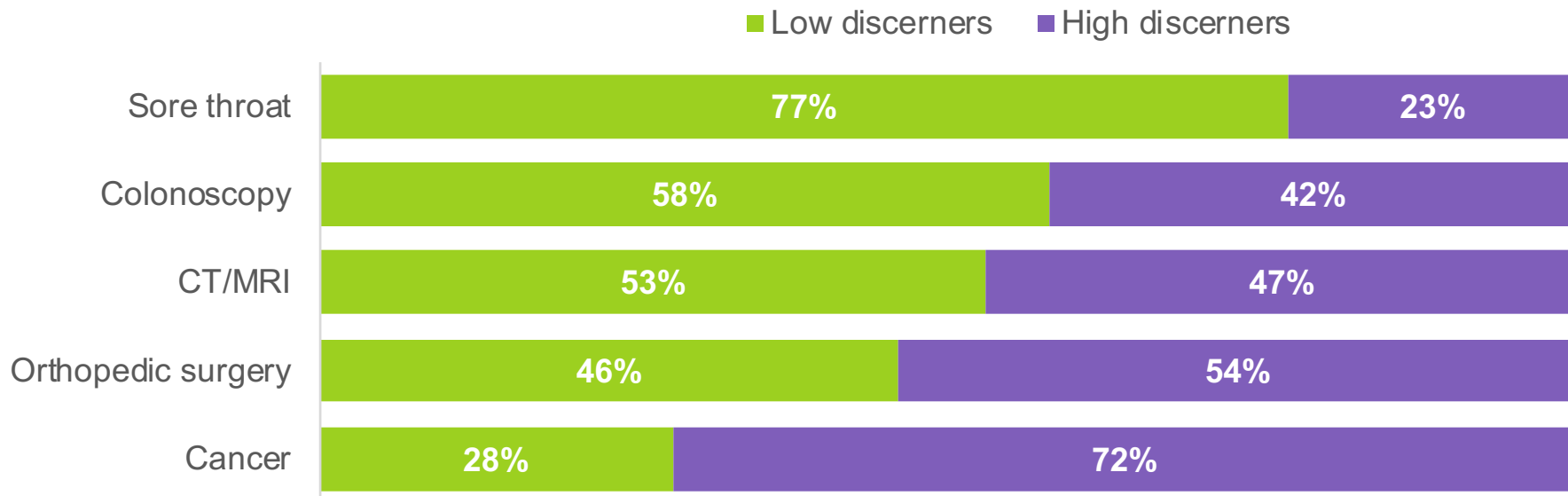
*Think about the extent to which doctors provide services based on the most up-to-date scientific knowledge. Do you think there would be major differences or no differences depending on which doctor you choose to go to?*

High discerners answered 4 or 5



Source: NORC at the University of Chicago Survey, June 2018.

# Discernment steadily grows as severity increases



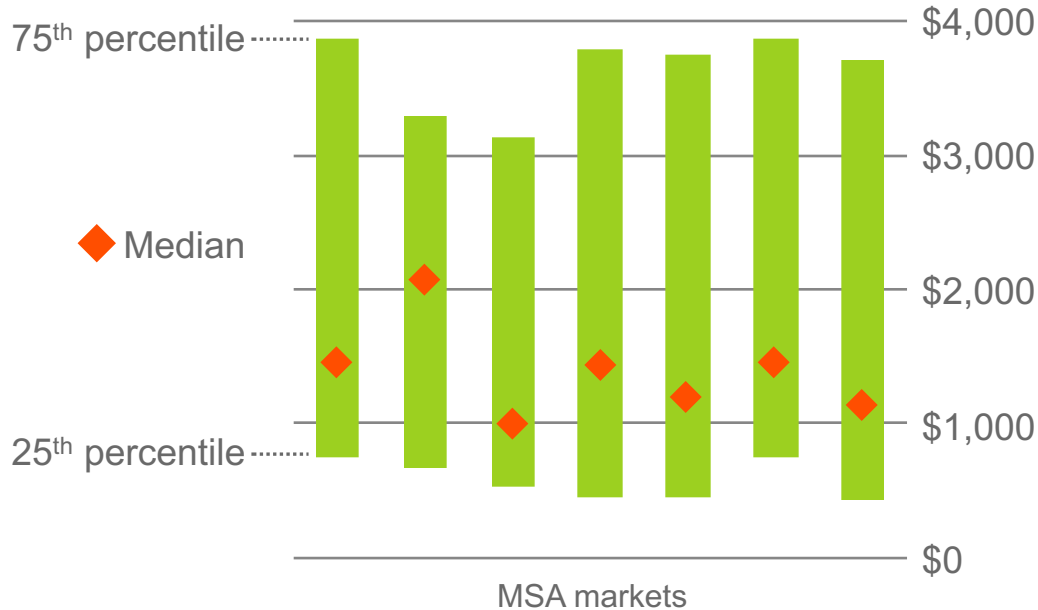
***“For brain surgery, I want #1; for knee surgery, I could go with #6 or #7”***

***“It all comes down to what’s wrong with you...for minor stuff, I’d go to Walgreens”***

Source: NORC at the University of Chicago Survey June 2018 and Focus Groups August 2018.

# What consumers say they'll do not always what they end up doing

## Intra-market price variation, non-emergent CT/MRI

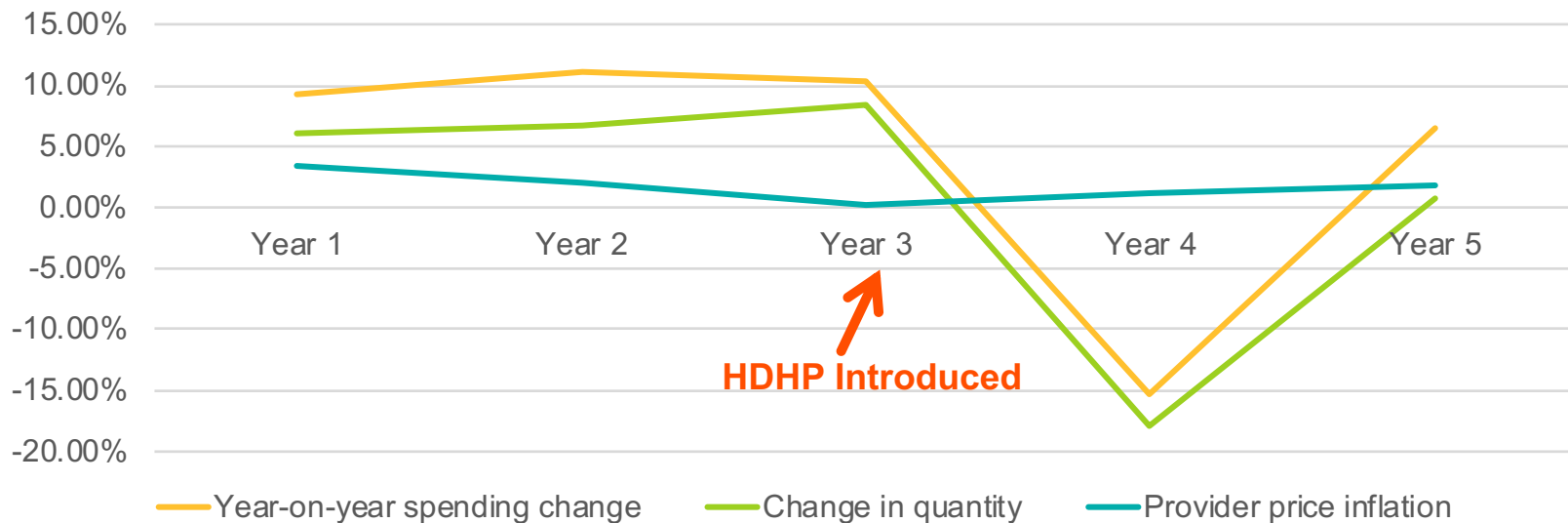


*Despite consumers saying they would opt for lower-priced imaging, as many patients are paying \$3,000 to \$4,000 for CT/MRI as those who are paying only hundreds in the same market*

Source: Milliman analysis of commercial claims, 2016.

# High deductibles trigger shut down, not shopping

## Annual change in spending, price, and quantity (before/after introduction of HDHP)



***“...plans appear to reduce health care costs by decreasing the use of both appropriate (such as cancer screening) and inappropriate (such as low-severity ED visits) health services” - Health Affairs, 2017***

Source: Brot-Goldberg ZC, et al. What does a deductible do? The impact of cost-sharing on health care prices, quantities, and spending dynamics. *The Quarterly Journal of Economics*. 2017;132(3): 1261–1318.

# Two consumer archetypes, neither one scared

## “Avoider”

|                     |
|---------------------|
| Younger             |
| Healthier           |
| Occasionally/rarely |
| Low/moderate        |
| Low/moderate        |
| Low                 |
| No                  |

*“When I’m in open enrollment, I don’t think about having cancer or a heart attack...I worry about paying for tuition or vacation.”*

## Age

Health status  
Hit deductible/OOP?  
Annual spending  
Health savvy  
Price savvy  
Worried?

## “Acclimated”

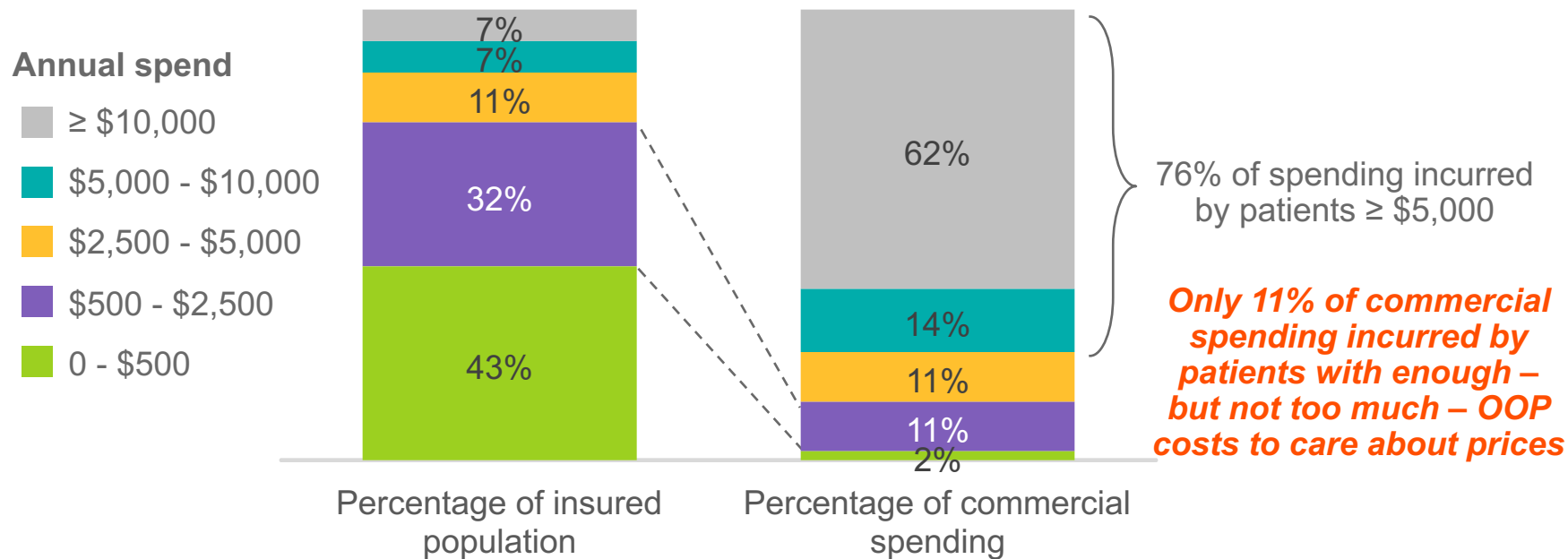
|                         |
|-------------------------|
| Older                   |
| Complex/chronic illness |
| Regularly               |
| High                    |
| High                    |
| High                    |
| No                      |

*“I track my progress toward my out-of-pocket throughout the year...it doesn’t take much to hit my deductible.”*

Source: NORC at the University of Chicago Focus Groups, August 2018.

# In the end, price-sensitive spending much too small to generate hoped-for system savings

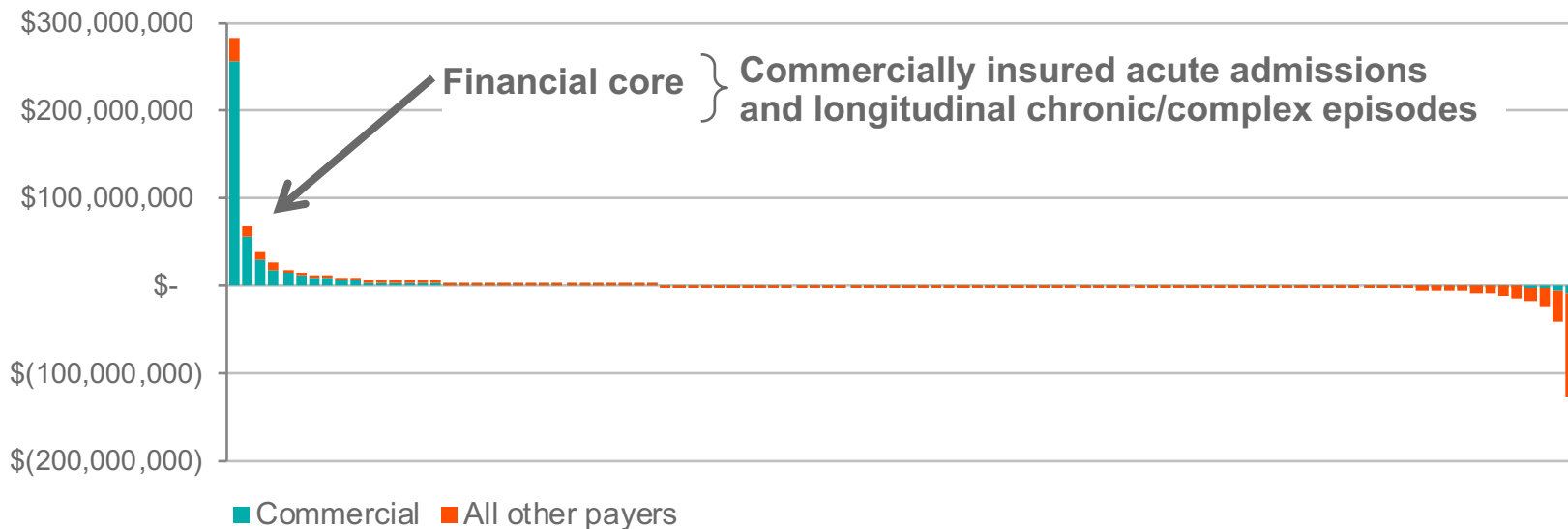
## Distribution of commercially insured beneficiaries and spending



Source: [Analysis of data from Agency for Healthcare Research and Quality Medical Expenditure Panel Survey \(MEPS\)](#), 2014. MEPS website.

# Blast from the past...remember the “S-curve”

## Distribution of operating margin by patient percentile



***For the typical tertiary/quaternary hospital, 234% of total operating margin comes from only 10% of all patients... for smaller hospitals, 3x total margin arises from most profitable 10%***

Source: Analysis of member hospital data in the Vizient Clinical Data Base and Vizient Financial Data Base, 2017.



# Very little price sensitivity for “core” patients

- 50% of core patients incur  $\geq$  \$20,000 in allowed hospital charges
- 80% incur allowed hospital charges  $\geq$  \$10,000
- 100% incur  $\geq$  \$5,000 in allowed hospital charges
- HDHP deductible threshold = \$1,350
- 40% of core patients meet HDHP deductible threshold again within 2 years
- Average operating margin/core patient = \$20,484

Source: Analysis of member hospital data in the Vizient Clinical Data Base and Vizient Financial Data Base, 2015-2017.

# What consumers want...and don't want

## What fell flat with focus groups:

- Amazon-like pricing tool to shop for services
- Extended term, interest-free payment plans offered by hospitals



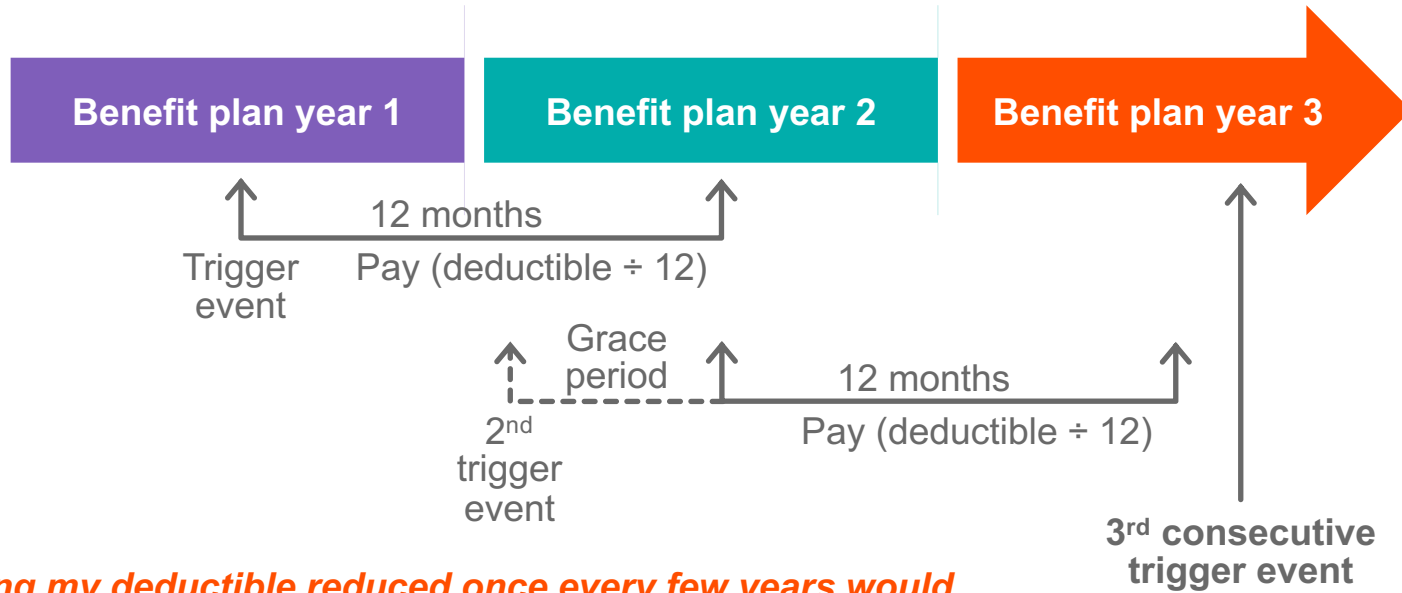
## What tested well with focus groups:

Partial relief from deductibles and OOP limits in exchange for loyalty to single health system

# A different tack: target the “acclimated core”

- Design affinity/loyalty programs focused on complex/chronic patients – the “acclimated core”
- Best bet = work with local payers/employers to preempt objections to patient incentives
- Reduce or waive deductible for patients with targeted complex/chronic conditions when services rendered by health system with comprehensive services
- Reduce care fragmentation, lower costs > benefit incentives
- Radical shift from ACO concept – focuses on treating sickest population cohort, not wellness measures for healthy majority
- Incentives directed to provider’s most valuable patients, with genuine savings potential to sponsoring payers

# A straw man: “third year free”



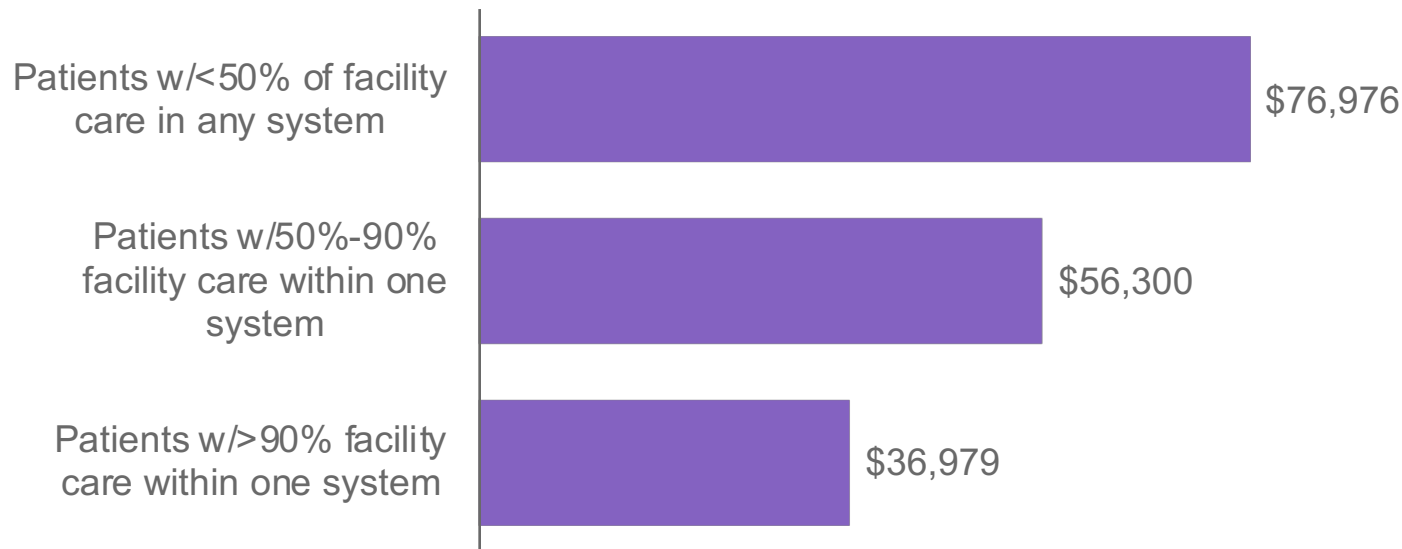
*“Having my deductible reduced once every few years would be good because I have a long-term condition. For me personally, it helps out. I definitely agree with it. I like the idea of staying within the system.”*

*- Focus group participant, Vizient/NORC at the University of Chicago study of consumer behaviors*

**3<sup>rd</sup> consecutive deductible is forgiven**

# The pitch to payers: reduce fragmentation, save money

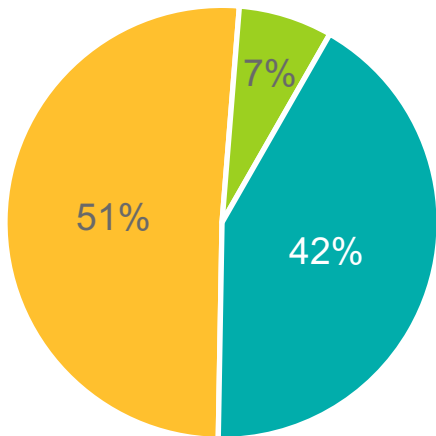
**Average 3-year episode spend, advanced chronic illness  
(Medicare claims as proof of concept proxy)**



Source: Vizient Research Institute analysis of Medicare claims, 2014-2016.

# Waiving third consecutive deductible has big ROI if Medicare experience indicative

**Assumption: Medicare experience directionally similar to commercial chronic cohort**



**Distribution of Medicare patients with advanced chronic illness as proxy**

- Receive > 90% of facility care from one health system
- Receive 50-90% of facility care from one health system
- Receive < 50% of facility care from one health system

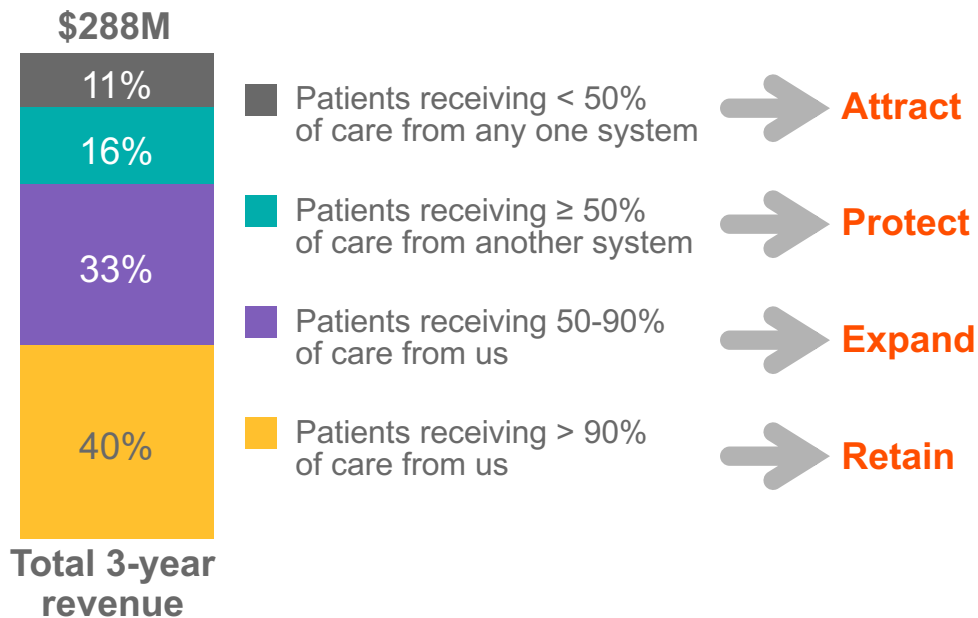
- No savings on 51% of chronic cohort already tightly aligned with single health system
- 34% savings on 42% of cohort loosely aligned with one system
- 52% savings on 7% of cohort highly fragmented currently
- Weighted average savings = 18% across chronic illness cohort
- \$18,650 savings per patient over 3-year period

***If \$1,500 deductible waived once every 3 years for advanced chronic disease, payer ROI would be 12:1 across entire beneficiary cohort***

Source: Vizion Research Institute analysis of Medicare claims, 2014-2016, and the Vizion Financial Data Base, 2015-2017.

# What if we absorb the deductible waiver?

Commercially insured patients with advanced chronic illness who incur  $\geq$  \$1,500 at our health system for 3 consecutive years



- Waiving \$1,500 deductible once in 3 years  $\rightarrow$  \$5.25M in foregone revenue
- Effective discount on \$288M is 1.8%
- Benefit targeted at “acclimated core” patients

Source: Vizient Research Institute analysis of Medicare claims, 2014-2016, and Vizient Financial Data Base, 2015-2017.

# Targeting core incentives higher yield/lower cost alternative to blanket discounts

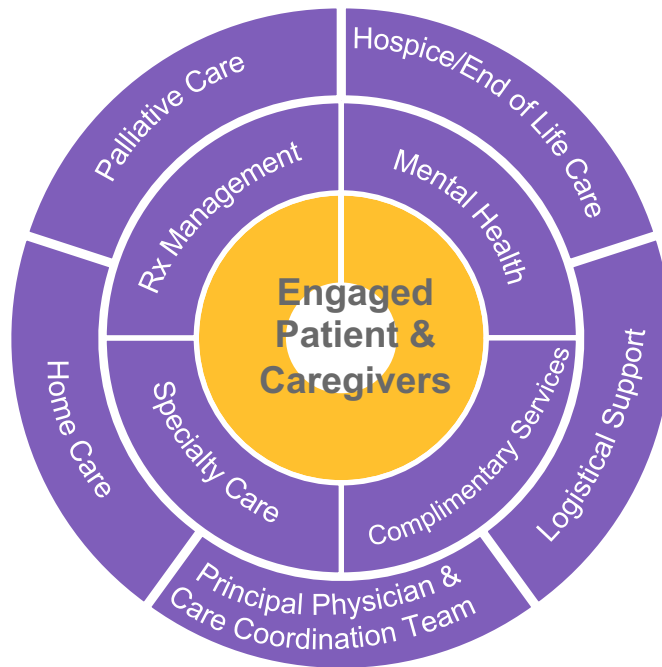
| Spot market discounts                     |                       | Targeted deductible incentives      |
|---|-----------------------|-------------------------------------|
| Avoiders                                  | Beneficiaries         | Acclimated core                     |
| Low – patients unaware at time of service | Visibility            | High – focus on deductibles/OOP     |
| Minimal                                   | Goodwill/loyalty      | Significant                         |
| Transient                                 | Duration              | Longitudinal                        |
| Increases                                 | Fragmentation         | Decreases                           |
| \$30 to \$40 million                      | Foregone revenue      | \$4 to \$5 million                  |
| 12% to 29% of annual operating margin     | Cost to health system | 1% to 3% of annual operating margin |

Sources: 1. Analysis of member hospital data in the Vizient Clinical Data Base, 2017, and Vizient Financial Data Base, 2015-2017. 2. Milliman analysis of commercial claims, 2016.



# Transforming the care approach for the chronically ill

## Chronic Disease Medical Home Model



Depending on the site and patient population, each service may be:

- (a) provided through a core chronic/complex care team, or
- (b) supported by the care team and delivered through external health system providers or community resources.

*\*Complimentary services may include physical therapy, occupational therapy, rehab services, hospice/end of life care, palliative care, home care, etc.*

# The yin...

- Intuition and classical economic theory were wrong – high deductibles cause patients to shut down, not shop
- Quality to consumers is binary, not linear – they won't pay more for “better” unless scared
- Prices too high to matter; consumers avoid until unable, then quickly over their heads
- Two consumer archetypes – avoiders and acclimated – and neither is particularly worried about OOP exposure
- Hospitals viewed as benevolent creditors – consumer anxiety much lower than expected
- Don't panic – wrong time to discount, right time for caution
- Core patients – our most profitable – almost sure to hit OOP limit; unit prices irrelevant
- Unconventional thinking – focus on acclimated core not avoider majority – best path forward

## ...And the yang



- Health care unaffordable for many today, on path to overwhelm middle class households
- Utilization/waste reduction only soften the blow – prices unsustainably high
- Price transparency intuitively appealing but will not have impact hoped for
- Short-term reprieve for providers, long-term dilemma for America
- Future without external price controls difficult to envision

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