



SCHOOL OF PUBLIC HEALTH

CENTER FOR VALUE-BASED INSURANCE DESIGN

UNIVERSITY OF MICHIGAN

Embracing ‘Precision’ Medicine: How to Improve Health and Be Able to Afford It

创新的医保支付手段也 不可忽视

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China embraces precision therapy

Strong genomics record bodes well for health-care revolution.

China embraces precision therapy

Does Genomics Bode Well for a Health Care Revolution? Some Key Questions

- Which genetic services should be developed/
delivered in China?
- To whom should they be offered?
- Who should provide them?
- At what price?
- Who should pay?
- Should patients contribute?

China embraces precision therapy

Does Genomics Bode Well for a Health Care Revolution? Some Key Questions

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It depends.....



Overview - Embracing 'Precision' Medicine: How to Improve Health and Be Able to Afford It

- **Change Spending Focus from 'How Much' to 'How Well'**
- **Important Role of Supply and Demand Factors**
- **New Approach: "Clinical Nuance"**
 - **Alternative Payment Models**
 - **Patient-Centeredness**
- **Economic Considerations**
- **Alignment of Provider and Consumer Incentives**

Embracing 'Precision' Medicine: How to Improve Health and Be Able to Afford It

- **Innovations to prevent and treat disease have led to impressive reductions in morbidity and mortality**
- **Despite evidence of clinical benefit, high-value services are underused across the spectrum of care**
 - **Screening Tests**
 - **Clinician Visits**
 - **Prescription Drugs**
 - **Surgical Treatments**
- **“Precision medicine” has created a rapid movement to targeted screenings, diagnostics, and therapies**

Embracing 'Precision' Medicine: How to Improve Health and Be Able to Afford It

- **Increases in medical expenditures are the principle health policy focus in US and abroad:**
 - **Government**
 - **Private Industry**
 - **Individual Consumers**
- **Little attention is spent on the amount of health we receive for the money spent (value)**
- **“Precision medicine” is a main contributor to medical cost growth**
- **We must turn our attention from *how much* we spend to *how well* we spend on health care**

Embracing Precision Medicine

Important Role of Supply and Demand Factors

“Supply side” initiatives that attempt to change practice behavior are the principle US health policy strategy aimed at:

- **Clinicians**
- **Clinics**
- **Hospitals**



Embracing Precision Medicine

Important Role of Supply and Demand Factors

Fee for Service (FFS) is the dominant US payment method

- **Each service paid separately**
- **Payment depends provider type**
- **Payment not usually based on clinical outcome**
- **Encourages quantity not quality of care**



FFS payment is not aligned with the goals of precision medicine

Embracing Precision Medicine

Important Role of Supply and Demand Factors

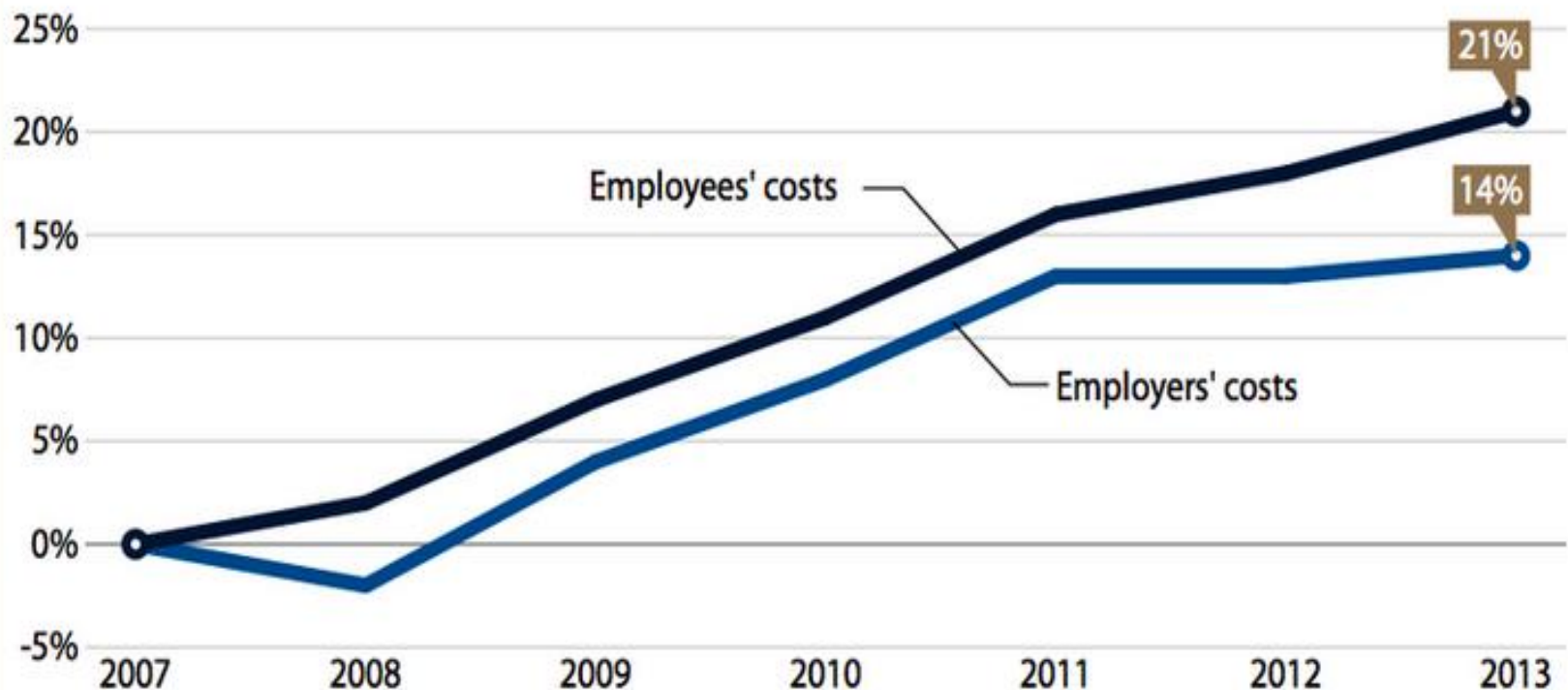
“Demand side” initiatives aimed to change patient behavior also play an important role in US health policy strategies

- **“Patient-Centeredness” - the consideration of personal preferences in treatment decisions**
- **Patients are being asked to pay a greater percentage of their health care costs**



In Setting of “Patient- Centeredness”, US Consumers are Paying a Greater Percentage of their Health Care

Change since 2007 in employees' and employers' health care costs per enrolled employee, in 2013 dollars



Source: Authors' calculations based on Health Care Cost Institute, "Out-of-Pocket Spending Trends (2013)" (2014), available at <http://www.healthcostinstitute.org/files/IB%209%2010-28-14.pdf>; personal communication from Amanda Frost, senior researcher, Health Care Cost Institute, Washington, D.C., October 28, 2014; Agency for Healthcare Research and Quality, "Medical Expenditures Panel Survey: Insurance Component," available at http://meps.ahrq.gov/mepsweb/survey_comp/Insurance.jsp (last accessed January 2015). See Appendix A for details.

Pathway to Better Health and Lower Costs Inspiration

“I can’t believe you had to spend a million dollars to show that if you make people pay more for something, they will buy less of it.”

Barbara Fendrick (my mother)

Impact of Increases in Consumer Costs on Health Care Utilization

A growing body of evidence concludes that increases in consumer costs leads to a reduction in the use of essential services, worsens health disparities, and in some cases leads to greater overall costs.

Goldman D. *JAMA*. 2007;298(1):61–9. Trivedi A. *NEJM*. 2008;358:375-383. Trivedi A. *NEJM*. 2010;362(4):320-8.. Chernerw M. *J Gen Intern Med* 23(8):1131–6.

The New York Times

Business Day

WORLD U.S. N.Y. / REGION BUSINESS TECHNOLOGY SCIENCE HEALTH SPORTS OPINION

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ECONOMIC VIEW

When a Co-Pay Gets in the Way of Health

By SENDHIL MULLAINATHAN
Published: August 10, 2013

ECONOMISTS specialize in pointing out unpleasant trade-offs — a skill that is on full display in the health care debate.

[Enlarge This Image](#)



We want patients to receive the best care available. We also want consumers to pay less. And we don't want to bankrupt the government or private insurers. Something must give.

The debate centers on how to make these trade-offs, and who gets to make them. The stakes are high, and the choices are at times unseemly. No matter how necessary, putting human suffering into dollars and cents is not attractive work. It's no surprise, then, that the conversation is so heated.

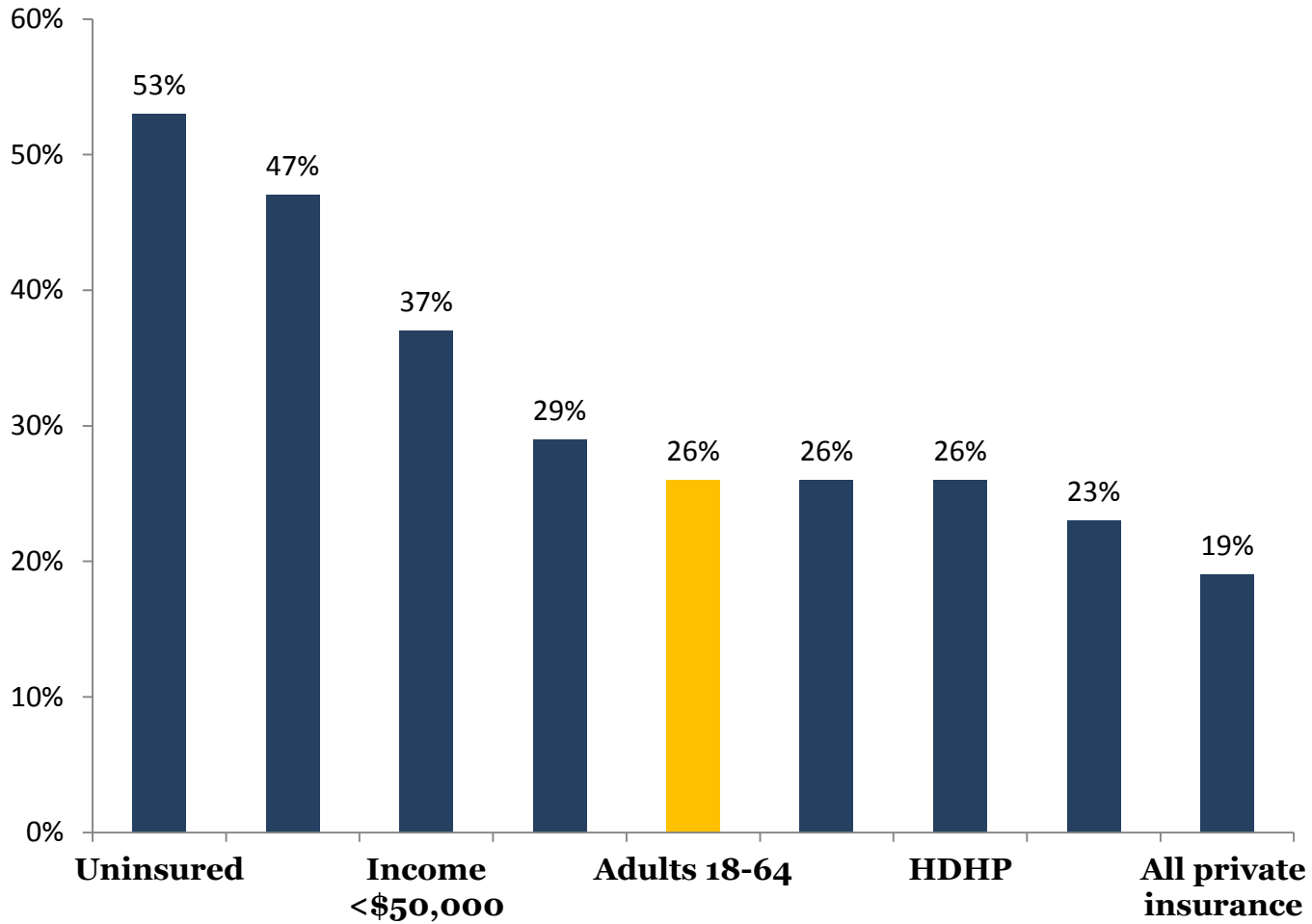
What is a surprise is that amid these complex issues, one policy sidesteps these trade-offs.

Minh Uong/The New York Times

FACEBOOK
TWITTER
GOOGLE+
SAVE
EMAIL
SHARE
PRINT
REPRINTS

THE GRAND BUDAPEST HOTEL

1 in 4 Americans Report Problems Paying Medical Bills



Source: Kaiser Family Foundation/New York Times Medical Bills Survey



Genomic Medicine Requires 'Precise' Delivery and Payment Strategies

- **For the tremendous promise of genomics to be achieved, the delivery of precision medicine should be as targeted as the science that created it**
- **Solutions are necessary to allocate health services – especially precision medicine - based on the clinical benefit achieved**

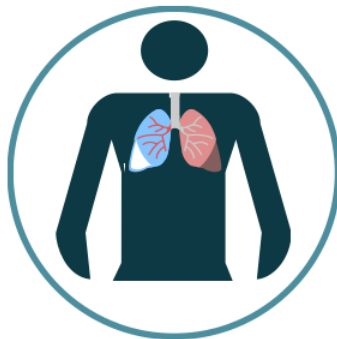
Understanding CLINICAL NUANCE

#1

Clinical Services Differ
in the Benefit Produced



Office
Visits



Diagnostic
Tests



Prescription
Drugs

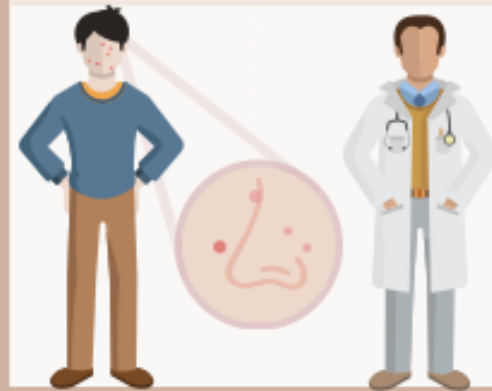
Consumer out-of-pocket costs are the same
for every clinician visit within a network



Cardiologist
Post Heart-Attack



Dermatologist
Mild Acne



Consumer out-of-pocket costs are the same for all diagnostic tests



Blood Sugar Monitoring



CT Imaging for Back Pain



Consumer out-of-pocket costs are the same for drugs within a formulary tier



Statins



Anti-Depressants



Toenail Fungus Rx



Heartburn Treatment



#2

The Clinical Benefit Derived From a Service Depends On...



Who
receives it



Who
provides it



Where
it's provided

Clinical benefit depends on **who** receives it

Example: Screening for Colorectal Cancer



Screening
Recipients

First-degree
relative of colon
cancer sufferer



**Exceptional
Value**

Average risk
50 year old



**High
Value**

30 year old with
no family history
of colon cancer



**Low
Value**

Clinical benefit depends on **where** it is provided



Ambulatory Care Center



\$

Hospital



\$\$\$

Implementing Clinical Nuance

Value-Based Insurance Design

Sets cost-sharing to encourage greater utilization of high-value services and providers and discourage use of low-value care

- **Successfully implemented by hundreds of public and private payers**



THE WALL STREET JOURNAL
ONLINE

June 16, 2004

FOLLOW THE MONEY

**From 'One Size Fits All'
To Tailored Co-Payments**

June 16, 2004

University of Michigan researchers say a patient drug should depend on how much he or she will pay. The move that would likely lower costs

Embracing Precision Medicine

How to Improve Health and Be Able to Afford It

- **The transformation to precision medicine has important implications for how clinical services will be delivered and paid for**
- **An increasing number of evidence-based protocols recommend genetic markers, companion diagnostics, and/or patient-specific factors**
- **Precision medicine innovations are an important contributor to increases in US health care spending**

Precise Delivery of Precision Medicine: Positive Outcomes for Key Stakeholders



Patient Protection and Affordable Care Act: Selected Preventive Services Provided at NO Consumer Cost

Over **137 million Americans** have received expanded coverage of preventive services

- Screenings and counseling receiving an A or B rating from the United States Preventive Services Taskforce (USPSTF)
- Immunizations recommended by the Advisory Committee on Immunization Practices (ACIP)

Paying for 'Precision' Medicine: Economics Considerations

Clinician and patient incentives for precision medicine should aim to get **the right service, to the right patient, at the right time, by the right clinician, at the right price**

Added costs of precision medicine can be reduced by:

1. Lower prices
2. Offsets in other medical spending (hospital care)
3. Enhanced productivity (non-medical costs)
4. Identification and removal of wasteful spending (care that does not produce improved health)

Unnecessary services account for almost 10% of US health care spending

Embracing 'Precision' Medicine: How to Improve Health and Be Able to Afford It

“Supply side” initiatives must change incentives to use precision medicine from volume to value:

- **Comparative Effectiveness**
- **Health Information Technology**
- **High Performing Delivery Systems**
- **Alternative Payment Models**

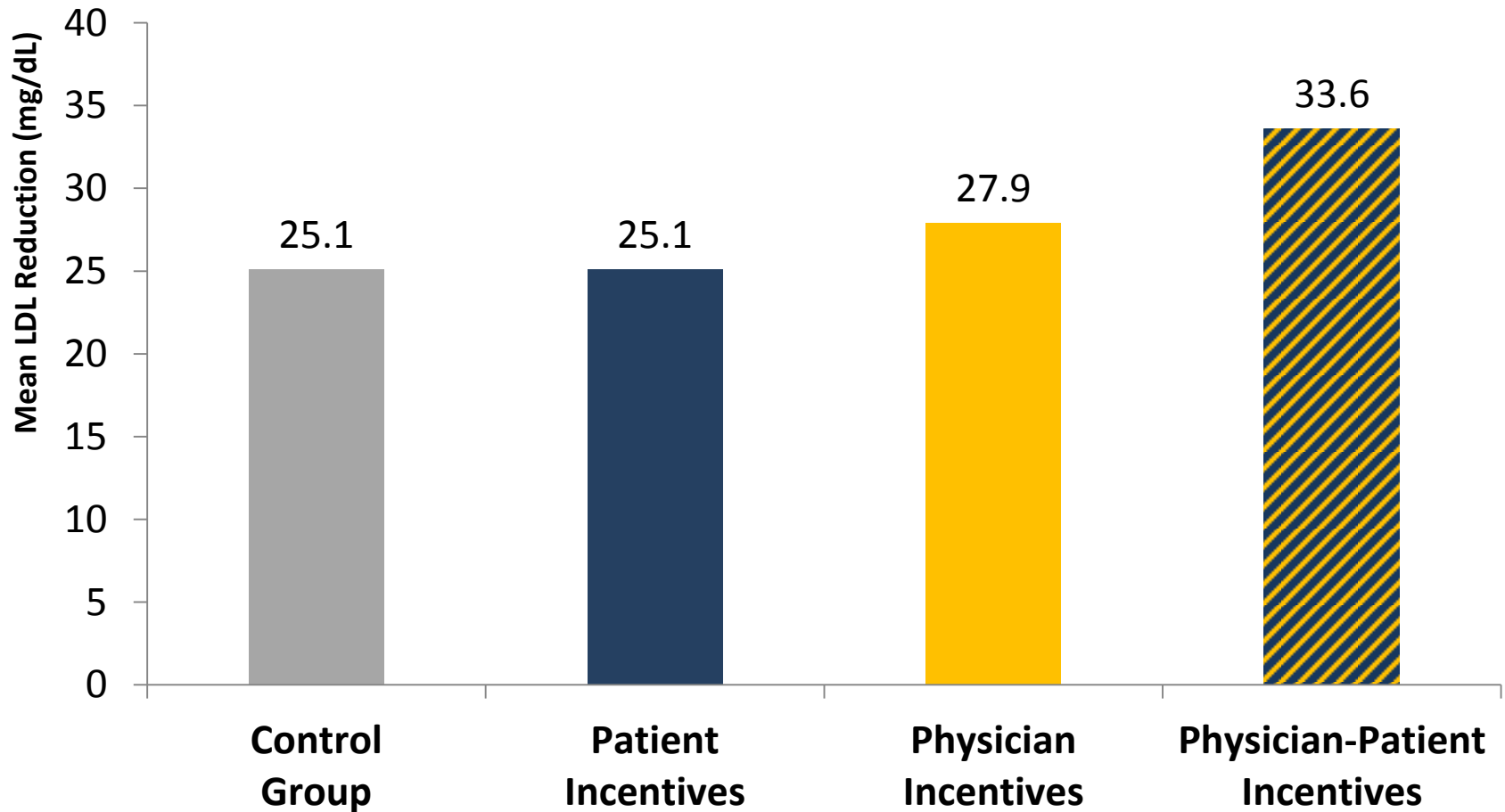


Embracing 'Precision' Medicine: How to Improve Health and Be Able to Afford It

“Demand side” consumer incentives should be aligned with those of their clinicians to ensure that care provided is patient- centered, high quality and cost-effective



Impact of Aligning Physicians and Patients: Financial Incentives to Lower Cholesterol



Source: *JAMA*. 2015;314(18):1926-1935



The Delivery of Precision Medicine Should be as Targeted as the Revolutionary Science that Developed It

The alignment of clinically nuanced, provider-facing and consumer engagement initiatives is a necessary step for precision medicine to meet the “Triple Aim” of improving quality of care, enhancing the patient experience, and containing cost growth



Thank you!

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