Where Are We In Health Care: Prevention, Cost, Quality and Efficiency

National Conference of State Legislators
June 20, 2008

Reed V. Tuckson, MD, FACP
Executive Vice President and Chief of Medical Affairs
Context:

1. Escalating costs
2. Increasing preventable chronic disease in an increasingly older population
3. Proliferation in medical technology and pharmaceutical innovations
4. Concerns and expectations for quality, appropriateness and performance assessment
5. Advancement of health data, technology infrastructures and analytics
6. Emergence of “patient-centered care” and maturation of a true “consumer” driven market
7. Administrative complexity and the marriage of health services and financial services
UnitedHealth Group: A National Diversified Health and Wellbeing Company

- Operating in all 50 states
- $100 billion in health care spending annually
- Serving 73 million Americans
  - 2 million Medicaid customers
  - Largest administrator of state benefits: 20 states in 50 different programs
- Relationships with 630,000 health professionals and 5,065 hospitals and facilities: 85% of the national delivery assets
- 50 million consumer phone interactions per year
- 27 terabytes of integrated consumer medical data and comprehensive clinical data on 85 million normative lives
- Touching 176,000 people per day through 30+ disease and condition management programs

Our Mission: Help People Live Healthier Lives
1. Escalation in Healthcare Costs

UnitedHealth Group
Publicly Funded Insurance Expected to Outstrip Private Insurance By 2010

Health Care Spending by Source of Funding ($B)

<table>
<thead>
<tr>
<th>Source of Funding</th>
<th>2005</th>
<th>2010</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Insurance</td>
<td>$700</td>
<td>$550</td>
<td>$800</td>
</tr>
<tr>
<td>Medicare</td>
<td>340</td>
<td>420</td>
<td>625</td>
</tr>
<tr>
<td>Medicaid</td>
<td>315</td>
<td>860</td>
<td>1,150</td>
</tr>
<tr>
<td>Consumer-Other*</td>
<td>635</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total (B)</strong></td>
<td><strong>$1,990</strong></td>
<td><strong>$2,780</strong></td>
<td><strong>$3,870</strong></td>
</tr>
</tbody>
</table>
Escalating Costs Means Increasing Number of Uninsured With Widespread Community Effects

47 Million Uninsured
FOR IMMEDIATE RELEASE
January 18, 2007

Contact: Becky Watt Knight (202) 745-5050

UNPRECEDENTED ALLIANCE OF HEALTH CARE LEADERS ANNOUNCES
HISTORIC AGREEMENT TO HELP REDUCE THE NUMBERS
OF AMERICA’S UNINSURED
Inevitably, the Action Will Be at the State Level

California Plan for Health Care Would Cover All

Gov. Arnold Schwarzenegger unveiled his health care plan via satellite Monday to business and health care professionals in Sacramento.

By JENNIFER STEINHAUER
Published: January 9, 2007

LOS ANGELES, Jan. 8 — Gov. Arnold Schwarzenegger on Monday proposed extending health care coverage to all of California’s 36 million residents as part of a sweeping package of changes to the

Mass. health plan seems unlikely to be US model

Demographics in state's favor

By Christopher Rowland, Globe Staff | April 14, 2006

Governor Mitt Romney is basking in the glow of a national spotlight. Lawmakers and advocates are buzzing in state capitals from New York to California about Massachusetts' new compulsory health insurance plan.

But even as the law to expand health insurance coverage to virtually every resident makes headlines nationwide, some executives and advocates say it is unlikely to serve as a national model.
In the Interim: We Are Supporting Community-based Health Centers

Studies have associated 8.5% to as much as 12% of premium increases to the cost shifts from the uninsured.

Congress Heights
District of Columbia

The Bronx
New York City, NY

Overtown
Community
Miami, Florida

9th Ward
Bywater Community
New Orleans, LA

We are enrolling them in our networks...
2. We Are Concerned About the Health Status of the Nation: The Increase in Preventable Disease and Its Associated Costs

United Health Foundation has been tracking health status for over 20 years
Per Capita Public Health Spending

AHR 2007 Components

Mortality Data

- Preventable Hospitalizations
- Poor Mental Health Days
- Poor Physical Health Days

- Infant Mortality
- Cardiovascular Deaths
- Cancer Deaths
- Premature Death

- Smoking
- Binge Drinking
- Obesity
- HS Graduation
- Violent Crime
- Occupational Fatalities
- Children in Poverty
- Infectious Disease

- Uninsured
- Immunization Coverage

- Prenatal Care
- Primary Care Physicians
Since 2000: Health Gains for the Nation Have Stagnated
Put In More Relevant Terms: This is What It All Means For a Baby Girl Born Today In Your State

71 healthy life years

78 healthy life years
Chronic Disease is Expensive and We All Pay for It!

- Diseases of the Heart: $448B
- Cancers: $219B
- Stroke: $174B
- COPD
- Unintentional Injuries
- Diabetes Mellitus
- Influenza & Pneumonia
- Alzheimer's Disease
- Nephritis & Nephrosis
- Septicemia
The Important Fact Is:
Most of the Chronic Disease Burden is Preventable!

10% Access
20% Genetic
20% Environmental
Behavior 50%

- Smoking
- Poor Diet
- Lack of Exercise

35% of All Deaths

Causes of Death in US, 2000

- Tobacco 18.1%
- Poor diet & physical inactivity 16.6%
- Alcohol consumption 3.5%
- Microbial agents 3.1%
- Toxic agents 2.3%
- Motor vehicle 1.8%
- Firearms 1.2%
- Sexual behavior 0.8%
- Illicit drug use 0.7%

Percent of all deaths
Worsening or No Improvement in Key Risk Factors
Worsening or No Improvement in Key Risk Factors

**Diabetes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>0</td>
</tr>
<tr>
<td>1992</td>
<td>1</td>
</tr>
<tr>
<td>1994</td>
<td>2</td>
</tr>
<tr>
<td>1996</td>
<td>3</td>
</tr>
<tr>
<td>1998</td>
<td>4</td>
</tr>
<tr>
<td>2000</td>
<td>5</td>
</tr>
<tr>
<td>2002</td>
<td>6</td>
</tr>
<tr>
<td>2004</td>
<td>7</td>
</tr>
<tr>
<td>2006</td>
<td>8</td>
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</tbody>
</table>

**Obesity**

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>10</td>
</tr>
<tr>
<td>1991</td>
<td>15</td>
</tr>
<tr>
<td>1992</td>
<td>20</td>
</tr>
<tr>
<td>1993</td>
<td>25</td>
</tr>
<tr>
<td>1994</td>
<td>30</td>
</tr>
</tbody>
</table>
The Consequences of All This:

- Incidence
- +
- Acute case survival
- =
- Prevalence: # of people living with CVD

- Medications
- Clinical Specialists
- Testing and Imaging
- Invasive Procedures
- Hospitalizations

= $448B

- 31% increase in hospitalization 1979 to 2003
- Total operations and procedures increased 470%
As Published on April 22, 2008:
We Have Not Maxed Out in Our Potential

The Reversal of Fortunes: Trends in County Mortality and Cross-County Mortality Disparities in the United States

Majid Ezzati1,2*, Ari B. Friedman2, Sandeep C. Kulkarni2, Christopher J. L. Murray1,3,4
1 Harvard School of Public Health, Boston, Massachusetts, United States of America, 2 Initiative for Global Health, Harvard University, Cambridge, Massachusetts, United States of America, 3 University of California, San Francisco, California, United States of America, 4 Institute for Health Metrics and Evaluation, University of Washington, Seattle, Washington, United States of America

"For the first time since the Spanish Influenza Epidemic of 1918: Life expectancy is falling for a significant number of women."

Life Expectancy Drops for Some U.S. Women
Historic Reversal, Found in 1,000 Counties, May Be Result of Smoking and Obesity

By David Brown
Washington Post Staff Writer
Tuesday, April 22, 2008; Page A01
Preventable Chronic Disease Presents Comprehensive and Integrated Challenges and Strategies
Preventable Chronic Disease Presents Comprehensive and Integrated Challenges and Strategies
Help Make Research to Improve Health a Higher National Priority; Expect More From Your Academic Centers

Join Research!America at www.researchamerica.org

Making research to improve health a higher national priority

Advocacy & Action

Finding better ways to protect and promote your health

Prevention & Public Health

Prevention and public health research helps Americans live longer, healthier, more productive lives.

The Centers for Disease Control and Prevention is the primary federal agency for conducting and supporting public health activities in the United States. Despite increasing threats to public health such as rising obesity and diabetes rates, avian flu and bioterrorism, funding for core prevention and health protection programs at CDC has been flat. Research!America polls show that Americans think investment in the CDC and prevention and public health research should be increased.
States act swiftly on bridge repairs

By Judy Keen, USA TODAY

The bridge collapse in Minneapolis a month ago has prompted states and cities to speed funding for bridge repair and replacement, expand inspections and close dangerous spans. Congress will take up the issue this week.

The Missouri Legislature approved plans last Wednesday to repair 802 of the state's worst bridges within five years — four times the usual pace of repairs. Kentucky will consider a bill allowing local governments to create agencies to issue bonds and authorize tolls to pay for bridge work.
We Need Your Support For Multidimensional Strategies to Reduce Smoking

- Pricing: Tobacco Taxes
- Advertising Controls
- Regulation and Enforcement
- Special attention to enacting legislation providing authority for FDA regulation of content, labeling and marketing of tobacco products: S625 and HR1108

Louisiana Governor Increases Sin-Tax Proposal

Publication: convenience store news

ACADIANA, La. -- Louisiana Gov. Kathleen Blanco convinced a House committee to send a sin-tax bill to a vote this past Monday, with a last-minute amendment to the bill, driving the proposed cigarette tax even higher, according to Louisiana's channel KLFY news.

The governor asked the House Ways and Means Committee to bump up her original cigarette tax proposal from an additional 50 cents a pack to an extra $1 per pack.
Health and Behavior

NYC bans trans fats in restaurants

Updated 12/6/2006 7:50 AM ET

By Charisse Jones and Nanci Hellmich, USA TODAY

NEW YORK — The city’s decision to ban trans fats from restaurant fare may change how food is prepared at eateries — from fast to fine dining — around the nation.

New York became the first U.S. city to remove from menus the artificial, artery-clogging fats used in many fried and processed foods.

Universal Studios Parks Ban Trans Fats

By ALICIA CHANG
The Associated Press
Thursday, December 28, 2006; 4:57 AM

UNIVERSAL CITY, Calif. -- The early reviews are mostly positive at the Universal Studios theme park in Hollywood where the menu changed on Christmas Eve to cut unhealthy trans fats from many junk food favorites.
Preventable Chronic Disease Presents Comprehensive and Integrated Challenges and Strategies

[Diagram showing the relationship between Community Environment, Personal Behaviors, Clinical Care, and Health Outcomes, with a focus on Public & Health Policy]
Community Interventions Need To Be Grounded In Science

CDC budget funding for local communities’ chronic disease initiatives is slated for a 40% decrease: a 60% decrease over the past two years!
Targeted and Sustained Community-Based Interventions and Resources are Essential
Advancing Population Prevention

Percentage of 40 yr olds and greater with at least 1 Cholesterol Screening Test in 2006
We Are Launching a Model Community Cholesterol Screening Program

We are launching a model community cholesterol screening program. The program will screen 40-year-olds and greater with at least one cholesterol screening test in 2006 by largest enrollment markets (All Commercial).

**Screening Locations**
- Chicago
- Atlanta
- New Orleans
- Washington, DC
- New York
- Miami

**Percentage of 40 yr olds and greater with at least 1 Cholesterol Screening Test in 2006 by Largest Enrollment Markets (All Commercial)**

<table>
<thead>
<tr>
<th>Location</th>
<th>% of 40 yr olds with lipid screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicago</td>
<td>UHC National</td>
</tr>
<tr>
<td>Atlanta</td>
<td>Average=11%</td>
</tr>
<tr>
<td>New Orleans</td>
<td></td>
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<tr>
<td>Washington, DC</td>
<td></td>
</tr>
<tr>
<td>New York</td>
<td></td>
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<tr>
<td>Miami</td>
<td></td>
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</table>
We Need New Thinking and Interdisciplinary Initiatives

- Systems approach for new insights and knowledge, alternative design methods, collaborations, and systemic solutions.
- Integrates social processes, education initiatives, technology solutions and political empowerment.
- Focused on sustainable community-based organization initiatives operated at scale based on comprehensive needs assessment.
- Involves experts from:
  - Medicine and public health
  - Business and economics
  - Organizational dynamics
  - Physical/spatial interactions
  - Complex information management
  - Graphic design
  - Marketing and media
  - Food industry
  - Urban development
  - Energy and transportation
  - Behavioral psychology

“It’s hard to walk anywhere…fast cars, no sidewalks…”
3. Proliferation in Medical Technology and Pharmaceutical Innovations
Issues:

1. How do we use available resources?
2. How will people work through complex choices?
3. Translating innovation into clinical practice.

Like her mother and grandmother, my mother had Type 2 diabetes. Lately, I’ve been intrigued by the discovery of a gene variant that can predispose people to this type of diabetes, which usually develops in adults. Having the variant doesn’t guarantee that you will get the disease, and lacking it doesn’t guarantee that you won’t. But it tells something about risk.
More Complex Choices and Decisions Will Confront Society and Professionals

- 11% of physicians prescribing Herceptin did so for breast cancer patients who do not have the targeted HER/NEU gene

- Cost is between $1,000 and $2,000 weekly

A Cancer Drug Shows Promise, at a Price That Many Can't Pay

Doctors are excited about the prospect of Avastin, a drug already widely used for colon cancer, as a crucial new treatment for breast and lung cancer, too. But doctors are cringing at the price the maker, Genentech, plans to charge for it: about $100,000 a year.

That price, about double the current level as a colon cancer treatment, would raise Avastin to an annual cost typically found only for medicines used to treat rare diseases.

If society wants the benefits, they say, it must be ready to spend more for treatments like Avastin and another of the company's cancer drugs, Herceptin, which sells for $40,000 a year.
## Increase in Premium Costs by Component, 2005

<table>
<thead>
<tr>
<th>Components</th>
<th>Share</th>
<th>Total Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Premium</td>
<td>8.8%</td>
<td>8.8%</td>
</tr>
<tr>
<td>General Inflation</td>
<td>2.4%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Healthcare Price Increases in Excess of Inflation (Above CPI)</td>
<td>2.6%</td>
<td></td>
</tr>
<tr>
<td>Cost Shifting</td>
<td>0.5%</td>
<td></td>
</tr>
<tr>
<td>Higher Priced Technologies</td>
<td>1.0%</td>
<td></td>
</tr>
<tr>
<td>Broader-Access Plans/Provider Consolidation</td>
<td>1.1%</td>
<td></td>
</tr>
<tr>
<td>Increased Utilization</td>
<td></td>
<td>3.8%</td>
</tr>
<tr>
<td>Aging</td>
<td>0.5%</td>
<td></td>
</tr>
<tr>
<td>Lifestyle</td>
<td>0.3%</td>
<td></td>
</tr>
<tr>
<td>New Treatments</td>
<td>1.0%</td>
<td></td>
</tr>
<tr>
<td>More Intensive Diagnostic Testing/Defensive Medicine</td>
<td>0.8%</td>
<td></td>
</tr>
<tr>
<td>Increased Consumer Demand</td>
<td>1.2%</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Centers for Medicare & Medicaid Services, National Health Accounts, 2005.
A Stronger Research Base To Translate Innovations into Clinical Practice: Comparative Effectiveness Research

Advocacy For Science

Study: Most angioplasties not needed
POSTED: 3:39 p.m. EDT, March 26, 2007

- Catherization $4-6K per patient

64 slice ‘Angio CT’ may reduce inappropriate surgery by 10%

$1.2 K per patient
“The system falls short in translating knowledge into practice and applying technology safely in a manner that decreases waste.”

Institute of Medicine

- 45% didn’t receive recommended treatment
- 11% received care that wasn’t recommended or was harmful
- 35% of hypertensives not diagnosed or correctly treated
Adults receive about half of recommended care

- 54.9% = Overall care
- 54.9% = Preventive care
- 53.5% = Acute care
- 56.1% = Chronic care
Clinical Judgment is Highly Disparate from Community to Community Across America

Surgical Variation

The Dartmouth Atlas of Health Care

Figure 5.1. Profiles of Surgical Variation for Ten Common Surgical Procedures (1995-96)
“The American health care delivery system is in need of fundamental change. The current care systems cannot do the job. Trying harder will not work. Changing systems of care will.”

Committee on Quality Health Care in America
Crossing the Quality Chasm Recommendations
For Redesign of the Healthcare System:
Technology is Foundational

Aims for the 21st Century Healthcare System
• Safe
• Effective
• Timely
• Efficient
• Equitable
• Patient-Centered

Rules for Healthcare Redesign:
• Evidence-based decision making
• Safety as a system property
• Care based on continuous healing relationships
• Cooperation among clinicians
• Customization based on patient needs and values
• Anticipation of patient needs
• Patient as the source of control
• Shared knowledge and free flow of information
• Information transparency regarding performance and patient satisfaction
• Continuous decrease of waste
5. Advancements in Health Data, Technology and Analytics
• Assessing and predicting individual needs and risks
  Were the right things done: what’s missing?

• Were the wrong things done: were the interventions appropriate?

• Were there problems with the care delivered: complications?

• Was care delivered efficiently?

MATHEMATICAL MODELING

Turning Information Into Informed Action

Data Warehoused and Aggregated into Clinically Relevant Groups
Aging and Chronic Illness Present Clinical and Care Coordination Challenges for a Fragmented Delivery System
Integrated Health Information Technology is a Key Requirement for Prevention: America’s Health Information Community

AHIC Workgroups

Welcome to the American Health Information Community (the Community) Workgroups Web site.

On September 13, 2005, Health and Human Services (HHS) Secretary Michael O. Leavitt announced the membership for the American Health Information Community (the Community). The Community was formed to help advance efforts to reach President Bush’s call for most Americans to have electronic health records within ten years. The Community is a federally-chartered advisory committee and provides input and recommendations to HHS on how to make health records digital and interoperable, and assure that the privacy and security of those records are protected, in a smooth, market-led way.
Leadership by States in Advancing Standardization and Interoperability in Health Information Technology

News Release

01/26/2007

State Alliance for e-Health Holds Inaugural Meeting
Membership, Strategies to Improve U.S. Health Care Unveiled

Contact: Angelyn Shapiro
Office of Communications

WASHINGTON—The newly appointed members of the State Alliance for e-Health today formally launched a state-led, collaborative effort to improve health care through electronic health record sharing. Co-chaired by Tennessee Gov. Phil Bredesen and Vermont Gov. Jim Douglas, the State Alliance brings together governors, attorneys general, state legislators, insurance commissioners and other experts to address state-level health information technology (HIT) issues and challenges to enabling appropriate, interoperable, electronic health information exchange (HIE).
## Troublesome Escalation in State-based Performance and Data Aggregation Initiatives

<table>
<thead>
<tr>
<th>No.</th>
<th>State</th>
<th>Organization Name</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Arizona</td>
<td>Arizona Health Futures</td>
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<tr>
<td>2</td>
<td>California</td>
<td>Integrated HealthCare Association</td>
</tr>
<tr>
<td>3</td>
<td>California</td>
<td>Pacific Business Group on Health</td>
</tr>
<tr>
<td>4</td>
<td>California</td>
<td>Pacific Business Group on Health</td>
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<tr>
<td>5</td>
<td>California</td>
<td>Pacific Business Group on Health</td>
</tr>
<tr>
<td>6</td>
<td>Colorado</td>
<td>Colorado Clinical Guidelines Collaborative (CCGC)</td>
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<td>7</td>
<td>Colorado</td>
<td>Colorado Regional Health Information Organization (CORHIO)</td>
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<td>8</td>
<td>Florida</td>
<td>Central Florida Health</td>
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<td>9</td>
<td>Florida</td>
<td>Florida Health Information Network</td>
</tr>
<tr>
<td>10</td>
<td>Indiana</td>
<td>Employers Forum of Indiana, Employers Forum of Lafayette, &amp; Indiana Health Information Exchange (lead)</td>
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<tr>
<td>11</td>
<td>Iowa</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Kansas</td>
<td>Kansas City Quality Improvement Consortium</td>
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<td>Maine</td>
<td>Maine Health Management Coalition</td>
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<td>14</td>
<td>Massachusetts</td>
<td>MA Division of Health Care Finance &amp; Policy Massachusetts Health Quality Partners (MHQP)</td>
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<td>15</td>
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<td>16</td>
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<td>17</td>
<td>Minnesota</td>
<td>Minnesota Community Measurement</td>
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<td>18</td>
<td>Missouri</td>
<td>Business Health Coalition</td>
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<td>Nebraska</td>
<td></td>
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<tr>
<td>20</td>
<td>New Mexico</td>
<td>New Mexico Health Information Collaborative/ New Mexico Regional Health Information Organization</td>
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<td>21</td>
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<tr>
<td>22</td>
<td>New York</td>
<td>New York Diabetes Coalition</td>
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<td>23</td>
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<td>24</td>
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<td>25</td>
<td>New York</td>
<td>Niagara Health Quality Coalition</td>
</tr>
<tr>
<td>26</td>
<td>Pennsylvania</td>
<td>Pennsylvania Health Care Cost Containment Corporation</td>
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<tr>
<td>27</td>
<td>Rhode Island</td>
<td>Rhode Island Quality Institute (RIQI)</td>
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<tr>
<td>28</td>
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<td>Rhode Island Quality Institute (RIQI)</td>
</tr>
<tr>
<td>29</td>
<td>Utah</td>
<td>Utah Regional Health Information Organization</td>
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<td>30</td>
<td>Washington</td>
<td>Puget Sound Health Alliance</td>
</tr>
<tr>
<td>31</td>
<td>Wisconsin</td>
<td>Wisconsin Collaborative for Healthcare Quality (WCHQ)</td>
</tr>
</tbody>
</table>
Security Concerns
• 34% of consumers state security/privacy concerns of having PHI online
• 80% are concerned about identity theft or fraud

Privacy Concerns
• 47% do not want third party access to information
• 73% of minority respondents said they were “very/somewhat concerned”
Value-Driven Health Care

"Every American should have access to a full range of information about the quality and cost of their health care options."
- HHS Secretary Mike Leavitt

Transparency: Better Care Lower Cost

Health care transparency is built on four cornerstones:

Building a value-driven health care system requires four interconnected cornerstones. With the growing use of electronic health records, all four are within our grasp.

- **Connecting the System:** Every medical provider has some system for health records. Increasingly, those systems are electronic. Standards need to be identified so all health information systems can quickly and securely communicate and exchange data.

- **Measure and Publish Quality:** Every case, every procedure, has an outcome. Some are better than others. To measure quality, we must work with doctors and hospitals to define benchmarks for what constitutes quality care.

- **Measure and Publish Price:** Price information is useless unless cost is calculated for identical services. Agreement is needed on what procedures and services are covered in each “episode of care.”

- **Create Positive Incentives:** All parties - providers, patients, insurance plans, and payers - should participate in arrangements that reward both those who offer and those who purchase high-quality, competitively-priced health care.
Helping People Get the Right Care From the Right Providers to Meet Their Unique Needs

AMERICA'S BEST HOSPITALS

EXCLUSIVE RANKINGS IN 17 KEY SPECIALTIES

Quality

Efficiency
Realizing an ‘Industry Standard’ For Physician and Hospital Performance Assessment

Measure
Approver

NQF
National Quality Forum

Measure
Prioritizers

AQA

Hospital Quality
Alliance
Improving Care Through Information

Measure
Developers

Council of Medical Specialty Societies
NCQA
Measuring, Improving Health Care

Physician Consortium for Performance Improvement
Putting It In Action: UnitedHealthcare’s “Premium” Program

Data Warehoused and Aggregated into Clinically Relevant Groups

Quality Review

Efficiency Review

Premium Designation

Primary Care & 21 Specialties Across the Network

Significant Input From Physician Specialty Societies

47% Not designated
12% Quality designated
41% Quality, efficiency designated

Physician Consortium for Performance Improvement
- Available in 39 states by Q1 2008
- Available to ~18 million UHC consumers

<table>
<thead>
<tr>
<th>Proceduralists</th>
<th>Meet Quality &amp; Efficiency Metrics</th>
<th>% of Cardiac Physicians</th>
<th>% of Attributable Episodes</th>
<th>Episode Cost Savings Compared to Market Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Designated</td>
<td></td>
<td>58%</td>
<td>46%</td>
<td></td>
</tr>
<tr>
<td>UnitedHealth</td>
<td></td>
<td>42%</td>
<td>54%</td>
<td>20%</td>
</tr>
<tr>
<td>Premium&lt;sup&gt;SM&lt;/sup&gt;</td>
<td></td>
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</table>

As of Q1 2008

We are focused on increasing the percentage of attributable episodes...
Patient Centered Care and “Consumer-Driven” Market
Explosion in Consumer Demand for Clinical Interventions Complicates the Challenge

Patient’s requests for clinical services are persuasive and influential: successful 45% of the time

Holding a racket in my arm scared me at first and I certainly felt like I was never going to get back to having a smooth swing.

Tough choice: Pain or risk?

By Liz Gzado, USA TODAY

On a good day, the pain in Machelle Greath’s joints is only a dull ache. On bad days, pain stabs through her shoulders, hips and knees, making it hard to walk or get out of a chair.

Top-selling arthritis drug Celebrex will remain on the market despite a recent study linking it to heart attacks.

AFP
Activating People to Make Informed Personal Choices: A Comprehensive Approach

Consumer-centric Clinical Data Warehouse

Wellness Tools and Trackers

Care Management and Treatment Decision Support

Longitudinal Disease Management

Staying Healthy → Getting Healthy → Living with Illness

Personal Health Goal

Health Assessments
Nurse Line
Activation Messaging
Notification
Predictive Modeling
High Cost Claimants

Employers
Integrated reporting from one source
Health Support Professionals
Coordinated clinical support capabilities
Consumers
Enhanced health support experience
Advancing Consumers' Competencies to Support Personally Appropriate Health Decisions

- Our "Consumerism" expertise drives campaigns that **activate** the individual:
  
  - Anticipate and predict individual consumer needs
  
  - Assess how consumers think about their care and their level of engagement in decision-making
  
  - Empower and facilitate enhanced involvement via a hi-fi approach
Integrated Personalized Prevention Support

- Health Messaging
- Health Assessment
- Health Tools
- Symptom Advisor
- Rewards
- Online Health Coaching
- Telephonic Consultation
- Personal Health Record

Welcome to your Dashboard

Welcome Joe Anderson
Log out Edit Account

Quick Search
Search
GO

Message Center
You have 3 new messages

Find a Symptom?
Try our Symptom Checker

my Health Points
You have 450 Health Points!
Redemption Center

Recommended Checkups
Click HERE for your Recommended Checkups and Screenings

ProviderLookup
Find Healthcare Providers near you!

my Feature Article
Relax... And Lose Weight

Read more...

my Health Risks
Based upon your health profile, these are your top health risks - and some steps you can take to address them.

Diabetes
Learn more about Diabetes in our Diabetes Center
Manage Your Condition: Join the Online Health Coach Diabetes Program

Cholesterol
Learn more about Cholesterol in Healthy Lifestyles
Manage Your Condition: Join the Online Health Coach Heart Program

Obesity
Learn more about Weight Loss in Healthy Lifestyles

Online Health Coach next step: Level 2, Step 1 - Planning Your Diet

my Stats
open close update

Financial Center
HSA Balance $1,350.75
Details
FSA Balance $1,614.32
Details
View Claims Information

Other Articles of Interest
- Making a Commitment
- Short Workouts Good for Heart
- What's Your Fitness Question?
- Management of Type 2 Diabetes

More...
On-Line Health Coaches and Care Advocates Available 24-7

Hello Chris
What would you like to do today?

My Coverage

Physician Office Services (in-network)
$25 per visit, then plan pays 100% of eligible expenses

Deductible
$300 individual
$600 family

Out-of-Pocket Max
$500 individual
$1,000 family
Health Risk Appraisals

The University of Michigan Health Management Resource Center
Health Risk Appraisal Profile
HMRC Version

Top 3 areas to improve or maintain your health right now!

- Diabetes
- High Cholesterol
- Physical Activity

Wellness Score

<table>
<thead>
<tr>
<th>Score</th>
<th>0</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your score is 79</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Your Wellness Score comes from the information you gave on your HRA. Improving your health and updating your routine preventive services will improve your score in the future.

Heart Health

**HEALTH MEASURES**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarette Smoking</td>
<td>Non-smoker</td>
</tr>
<tr>
<td>Blood Pressure</td>
<td>Less than 120/80</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>Less than 200</td>
</tr>
<tr>
<td>Weight</td>
<td>Ideal: 160-195, Goal: 185-205†</td>
</tr>
<tr>
<td>Exercise</td>
<td>At least 3x/week</td>
</tr>
</tbody>
</table>

Age: 50  
Sex: Male

Smoking

**Where you are**  
Non-Smoker

**Your target**  
Non-user of tobacco

Congratulations! You are one of the over 200 million Americans who choose the healthy, tobacco-free lifestyle!

- As a non-tobacco user, you have lowered your chances of lung cancer, heart disease, and stroke.
- Avoid secondhand smoke which is known to cause cancer. Choose non-smoking public areas.
- Support loved ones or friends if they try to quit smoking.
We Are Focused on Increasing the Number of Treatment Episodes Delivered by Premium Performers
Using Every Opportunity for Individualized Messaging and Coaching: Monthly Statements

Health Coaching for Back Pain

Personalized messages augment what has traditionally been only financial information.

Examples:
- Common chronic condition programs, such as back, diabetes, and heart
- Prescription drug savings
- Preventive care reminders

### Monthly Statements

**Member Number**: 800 000 011  
**Statement Period**: 04/01/05 - 04/30/05

#### Account Balances

<table>
<thead>
<tr>
<th>Account Details</th>
<th>Annual</th>
<th>Applied</th>
<th>Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definity Health Reimbursement Account (HRA)</td>
<td>$1,500.00</td>
<td>($1,500.00)</td>
<td>$0.00</td>
</tr>
<tr>
<td>Deductible</td>
<td>$3,500.00</td>
<td>($3,500.00)</td>
<td>$0.00</td>
</tr>
<tr>
<td>Health Coverage</td>
<td></td>
<td></td>
<td>$143.77</td>
</tr>
</tbody>
</table>

Balances may not match what’s on your member website. This health statement reflects balances as of the end of a statement period, while balances on your member website are updated daily.

#### Claim Details

<table>
<thead>
<tr>
<th>Claim Details</th>
<th>Amount Billed</th>
<th>Cost of Care</th>
<th>Paid by HRA</th>
<th>Applied to Deductible</th>
<th>Health Coverage</th>
<th>You Owe Provider*</th>
</tr>
</thead>
</table>
| Phil on 4/08/05 (processed 4/14/05)  
ACME PHARMACY  
LIPTOR, 20MG TAB | $125.00 | $103.57 | $0.00 | $0.00 | $93.21 | $10.36 |
| Nancy on 4/12/05 (processed 4/24/05)  
#5678901234  
MACE LEWIS MEMORIAL MEDICAL  
ACME PHARMACY  
WELLBUTRIN SR, 150MG TAB 5A | $116.00 | $116.00 | $0.00 | $0.00 | $0.00 | $116.00 |
| Nancy on 4/22/05 (processed 4/28/05)  
#5648001234  
ACME PHARMACY | $66.49 | $56.18 | $0.00 | $0.00 | $50.56 | $5.62 |
| TOTALS | $307.49 | $275.75 | $0.00 | $0.00 | $143.77 | $131.96 |

See the back of this page for information on how to read your health statement.
Challenge:
Students Are Facile With Music and Video Entertainment Technology

Put some color on. iPod shuffle

They are not prepared to manage health information or make decisions
We Are Advancing a “National Conversation on School Health Literacy and Decision Preparedness”

Education Members of the Alliance

- American Association of Colleges for Teacher Education
- American Association of School Administrators
- American Federation of Teachers
- National Education Association
- Association for Supervision and Curriculum Development
- National Association of Elementary School Principals
- National Association of Secondary School Principals
- National PTA
- National School Boards Association
- Others

External Stakeholders

- Employers
- Community Leaders
- Health Plans
- Physicians
- Hospitals
- Health Educators
- Others
Security and Privacy: Biggest Barriers to Consumer Adoption

Security Concerns
- 34% of consumers state security/privacy concerns of having PHI online
- 80% are concerned about identity theft or fraud

Privacy Concerns
- 47% do not want third party access to information
- 73% of minority respondents said they were “very/somewhat concerned”
Advancing Personal Health Treatment Decision Support

Treatment Decision Support: Now available to more than 9 million consumers

- 7% choose less complex treatments
- Savings average $15K for each care plan change
Employees can earn credits toward their base deductible (max = 20% of annual premium)

- **Core Medical Plan**
- **Activity Based Credits** for completing specific health and wellness activities
  - Participate in Wellness Screening
  - Complete UnitedHealthcare Health Assessment
Financial Incentives For Engaging in Wellness Activities

Gift Card incentives funded by United Healthcare

• $75 for completing the Health Assessment on myuhc.com®
• $25 for completing one on-line health coaching program
• $75 for completing telephone-based coaching program
• Rewards tracked on myuhc.com®
Employees can earn credits toward their base deductible (max = 20% of annual premium)

- **Activity Based Credits** for completing specific health and wellness activities

- **Health Factor Based Credits:** Employees can earn additional deductible credits based on health factor measurements

  - Body Mass Index *
  - Blood Pressure
  - Tobacco Non-Use *
  - LDL Cholesterol

Can lower family deductible from $5,000 to $1,000
Progress in Benefit Designs for Tobacco Cessation Treatment Coverage

Recently announced evidence-based cessation guidance!

The National Working Group to Improve Access to and Coverage for Smoking Cessation Benefits

The National Working Group to Improve Access to and Coverage for Smoking Cessation Benefits is pleased to offer its endorsement of the PHS Clinical Treatment Guidelines, Treating Tobacco Use and Dependence: 2008 Update. The National Working Group is a newly formed, action-oriented group of vested stakeholders (including business, health plans, government agencies, public health and tobacco control), brought together to identify gaps and opportunities for enhancing access to and coverage of evidence-based smoking cessation treatments.

While the National Working Group supports the entire guideline update, we are particularly excited about the following major findings and recommendations that are directly related to the mission of the National Working Group:

- Tobacco dependence treatments are both clinically effective and cost-effective.
- Increased access to and coverage of these evidence-based treatments increase quit rates.
- Insurers and purchasers should provide coverage for all counseling services and medications found to be effective.

The National Working Group is focused on drawing more attention to and driving solutions around the need for expanded consumer access to evidence-based treatments and services that can help more smokers quit. A core element of the National Working Group’s mission is to catalyze political, civic, business and health policy leaders to advocate for system changes to make access to evidence-based tobacco cessation treatments a standard feature of the U.S. health system.

Once again, the National Working Group is pleased to endorse the PHS Clinical Guidelines, Treating Tobacco Use and Dependence: 2008 Update. We thank you and all of your colleagues for their hard work in creating this important document that provides us clear direction for the types of services and policies we need as a nation in order to increase the number of tobacco users who make evidence-based quit attempts and successfully quit.

Cheryl Heaton, Dr. PH, American Legacy Foundation
Joe Fortuna, MD, Automotive Industry Action Group
Matt McKenna, MD, Centers for Disease Control and Prevention

Ron Finch, Ed.D., National Business Group on Health
Bill Bunn, MD JD MPH, Navistar
John M. Clymer, Partnership for Prevention

Corinne G. Husten, MD, MPH, Partnership for Prevention
Steve Schroeder, MD, Smoking Cessation Leadership Center
Reed Tuckson, MD, United Health Group
Financial Value of Our Broad Set of Consumer Health Services Programs

<table>
<thead>
<tr>
<th>Stay Healthy</th>
<th>Get Healthy</th>
<th>Live With Health Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Telephonic, mail, online and onsite behavioral modification programs for weight control, nutrition, exercise, tobacco cessation, cholesterol, stress, blood pressure</td>
<td>• 24/7 urgent needs support</td>
<td>• Asthma</td>
</tr>
<tr>
<td>• Worksite wellness, screenings, kiosks, clinics/pharmacies</td>
<td>• Targeted condition education</td>
<td>• Coronary Artery Disease (CAD)</td>
</tr>
<tr>
<td>• Healthy Pregnancy Program</td>
<td>• Treatment Decision Support</td>
<td>• Diabetes</td>
</tr>
<tr>
<td></td>
<td>• Health-care system navigation</td>
<td>• Heart Failure</td>
</tr>
<tr>
<td></td>
<td>• Physician quality and efficiency information</td>
<td>• Chronic Obstructive Pulmonary Disease (COPD)</td>
</tr>
<tr>
<td></td>
<td>• Admission/appointment counseling and scheduling</td>
<td>• Low-back health</td>
</tr>
<tr>
<td></td>
<td>• Claims advocacy and resolution</td>
<td>• End-stage renal disease</td>
</tr>
<tr>
<td></td>
<td>• Employee Assistance Program and Work/Life</td>
<td>• Cancer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Depression</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Transplantation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Congenital Heart Disease (CHD)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Complex neonatal care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Infertility</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bariatric surgery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• High-risk case management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Behavioral health management</td>
</tr>
</tbody>
</table>

.8:1 – 2:1 ROI  
1.5:1 – 2:1 ROI  
1.8:1 – 3:1 ROI
Significant Savings Result From Increasing the Scale of Consumer Care Delivered By Premium Providers

The Effect of Benefit Design and Consumer Decision Support: Increasing Use of Premium Hospitals and Physicians Over Baseline Utilization

Premium Program Utilization By Claims Dollars

Cost Savings Associated With Expanded Use of Premium Providers

Average Savings Per Each Redirected Care Episode

Percent of Total Employer Health Care Spend Saved

Cardiac Hospital Incentive

Other Specialist Physician Incentive

Employer A

Employer B

Employer C

Baseline

With Incentives

20%

29%

13%

32%

70%

74%

$5,671

$6,669

$1,131

2.9%

3.7%

2.3%
## Integrated Solutions Deliver Improved Healthcare Performance

Making better decisions —
Better decisions create value — at scale

**Physicians who make better decisions** deliver superior quality and cost less.

**Consumers who make better decisions** receive better care and cost less.

**Employers who make better decisions** realize better value.

### Per Episode Cost

<table>
<thead>
<tr>
<th>Remaining</th>
<th>Best</th>
</tr>
</thead>
<tbody>
<tr>
<td>$600</td>
<td>$120 Lower</td>
</tr>
<tr>
<td>$480</td>
<td>$120 Lower</td>
</tr>
</tbody>
</table>

### High-Risk Chronic Illness Cost

<table>
<thead>
<tr>
<th>Remaining</th>
<th>Best</th>
</tr>
</thead>
<tbody>
<tr>
<td>$23,619</td>
<td>$2,409 Less</td>
</tr>
<tr>
<td>$21,210</td>
<td>$2,409 Less</td>
</tr>
</tbody>
</table>

### Employer PMPM Cost

<table>
<thead>
<tr>
<th>Worst</th>
<th>Best</th>
</tr>
</thead>
<tbody>
<tr>
<td>$286</td>
<td>$257</td>
</tr>
</tbody>
</table>

### Savings

- **Physicians**: 20% Less
- **Consumers**: 10% - 15% Less
- **Employers**: 10% Less

---

Estimated savings based on using UnitedHealth Premium experience. $12 billion in episode spend 2005-2006. Savings based on 20% average. Actual savings estimates would vary from 9% to 24% based on physician specialty.

Uniprise study of 88,000 chronic members with chronic illnesses. Chronic illnesses included asthma, diabetes, CAD/CHF.

Uniprise 2007 experience with 383 employer groups based on adoption of clinical and consumer solutions. Adjusted PMPM comparison for low (10th percentile) vs. high (90th percentile). PMPM adjusted for demographic, geographic, and catastrophic claimants.
7. Reducing Administrative Complexity: Integrating Health Care Services with Consumer Oriented Financial Services

1. Patient makes an appointment

2. Eligibility verified at point-of-care with swipe card

3. Access to Personal Health Record via card swipe

4. Real-time Claim Result

5. Claim completed/ submitted electronically

6. Real time claim adjudication and update of Personal Health Record

7. Payer/patient financial responsibility determined in ten seconds; reimbursement Processing commences

8. Consumer arranges payment via swipe card for debit against their HSA, FSA, HRA and/or credit accounts
Context:

1. Escalating costs

2. Increasing preventable chronic disease in an increasingly older population

3. Proliferation in medical technology and pharmaceutical innovations

4. Concerns and expectations for quality, appropriateness and performance assessment

5. Advancement of health data, technology infrastructures and analytics

6. Emergence of “patient-centered care” and maturation of a true “consumer” driven market

7. Administrative complexity and the marriage of health services and financial services