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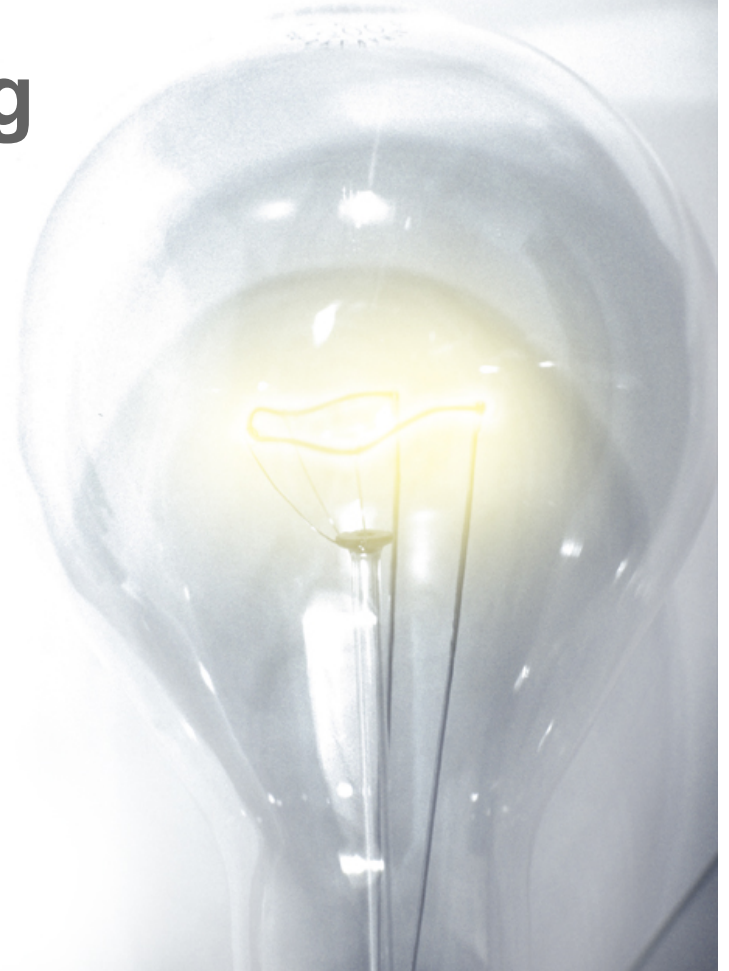
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CDHP Utilization, Pricing and Experience as Compared with HMOs and PPOs

Presented by:

Kismet Toksu, Senior Consultant

September 27, 2007



Agenda

- ▶ Market Factors Driving Change
- ▶ Which High-impact Levers May be Pulled?
- ▶ Utilization Studies
- ▶ Concluding Thoughts
- ▶ Q&A

About Reden & Anders

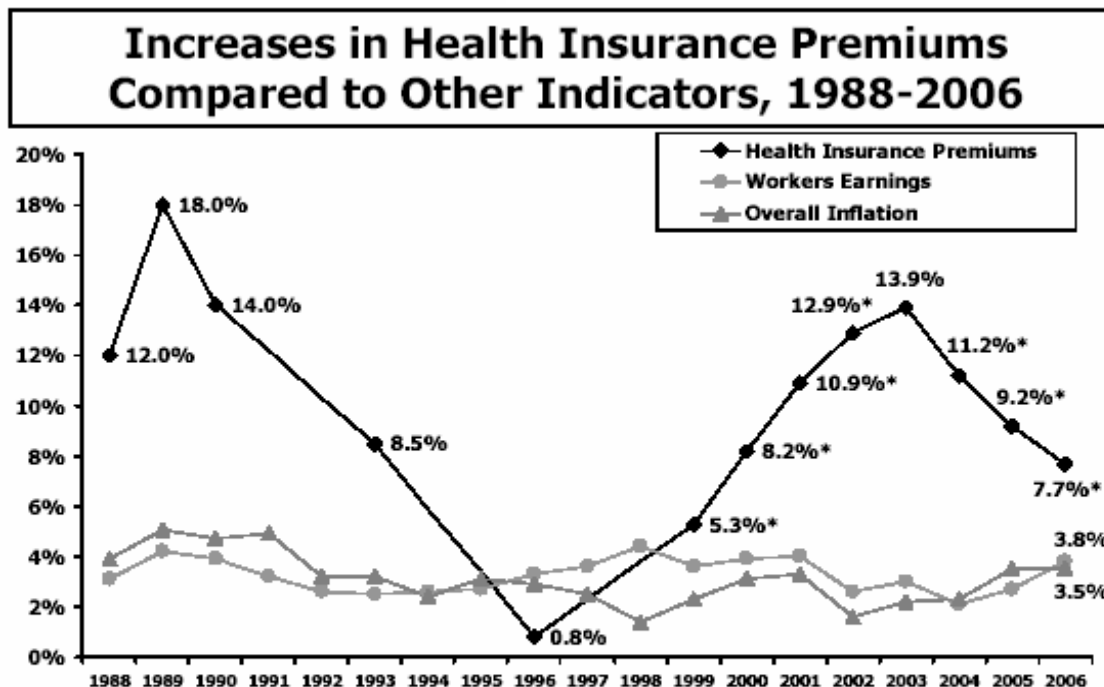
R&A is an interdisciplinary team of more than 200 health care experts who combine industry knowledge with deep technical expertise in key areas. The team is comprised of:

- Strategists, policy and operations experts
 - Credentialed health actuaries
 - Clinicians
 - Underwriters
 - Statisticians
 - Health researchers
- Our team members have health care experience with insurance companies, provider organizations, hospital systems, HMOs, medical clinics, care management companies, employers, infrastructure vendors and new entrants to the healthcare market
 - We are owned by Ingenix, the premier healthcare data analytics company
 - R&A focuses exclusively on health care and helps clients improve business performance by quantitative analysis, insight informed by experience and the proven ability to implement change

Key Market Factors Driving Change



Health Care Costs Continue to Outpace Inflation



Healthcare premiums escalate creating double digit increases from 1998 to 2004 and single digit increases in 2005 and 2006.

Still, healthcare outpaces Worker Earnings and Overall Inflation.

*Estimate is statistically different from the previous year shown at $p < 0.05$.

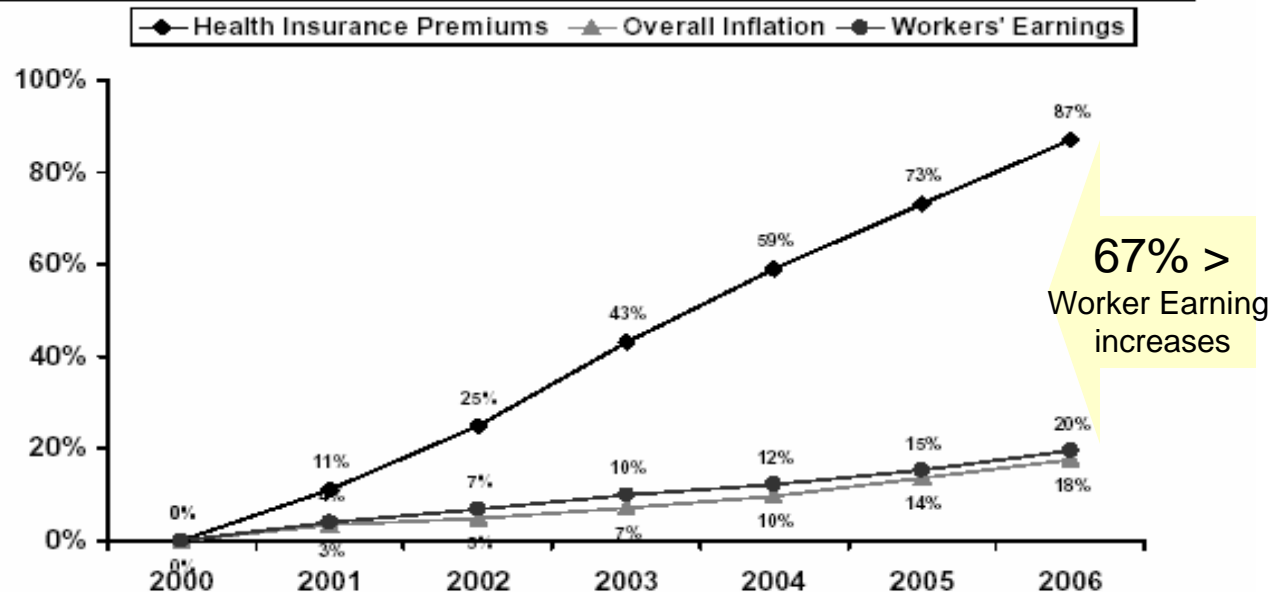
Note: Data on premium increases reflect the cost of health insurance premiums for a family of four.

Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 1999-2006; KPMG Survey of Employer-Sponsored Health Benefits, 1993, 1996; The Health Insurance Association of America (HIAA), 1988, 1989, 1990; Bureau of Labor Statistics, Consumer Price Index (U.S. City Average of Annual Inflation (April to April), 1988-2006; Bureau of Labor Statistics, Seasonally Adjusted Data from the Current Employment Statistics Survey, 1988-2006 (April to April).

Premium Cost Trends Unsustainable

Employer Health Benefits 2006 Annual Survey

Cumulative Changes in Health Insurance Premiums, Overall Inflation, and Workers' Earnings 2000 - 2006



67% >
Worker Earning
increases

Between 2000 and 2006, inflation and earnings increased by 18% and 20%, respectively.

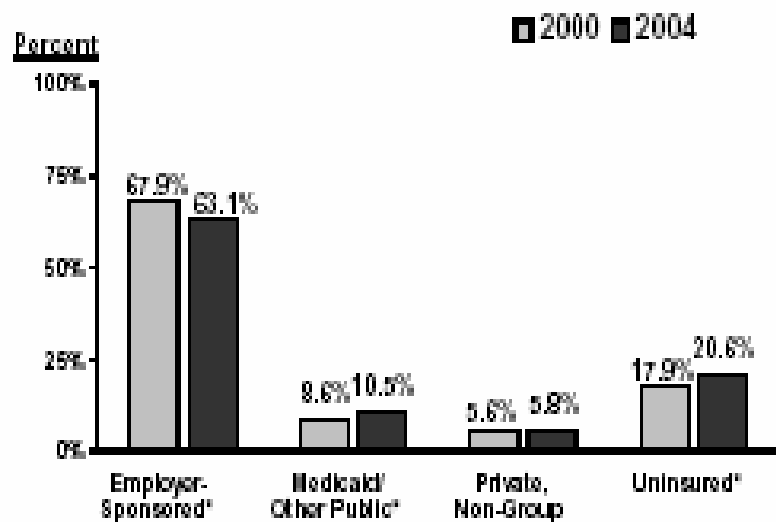
During that time, health insurance costs increased by 87%.

Note: Data on premium increases reflect the cost of health insurance premiums for a family of four.

Source: KFF/HRET Survey of Employer-Sponsored Health Benefits, 2001-2006; Bureau of Labor Statistics, Consumer Price Index, U.S. City Average of Annual Inflation (April to April), 2001-2006; Bureau of Labor Statistics, Seasonally Adjusted Data from the Current Employment Statistics Survey (April to April), 2001-2006.

Health Coverage Trends Show Continuing Shifts

Health Insurance Coverage Changes
Among Working-Age Adults (age 19-64), 2000-2004



* Changes are significantly different ($p < .05$).

SOURCE: Kaiser Commission on Medicaid and the Uninsured/Urban Institute, Health Insurance Coverage in America, 2004 Data Update, Nov. 2005.

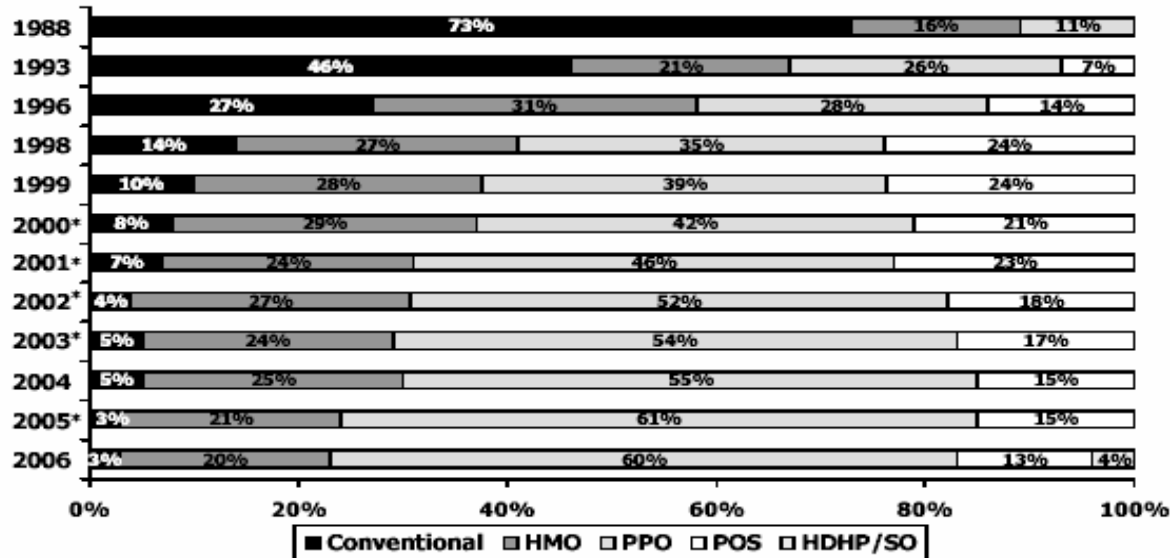
- Between 2000-2004, the number of insured Americans grew by 6.2 million, 60% of which were employed
- Government-sponsored insurance is increasing, as is the number of insured Americans
- The market is moving toward individual coverage from group coverage
- Separate research indicates that in 2007, the greatest number of Americans are still covered by employer-sponsored insurance

Sources: ahrq.gov, Kaiser Family Foundation

Distribution of Enrollment Continues Shifting

Employer Health Benefits 2006 Annual Survey

Health Plan Enrollment for Covered Workers, by Plan Type, 1988-2006



Between 1988 – 2006, Health Plan Enrollment has shifted dramatically.

In 2006, PPO enrollment had three times the membership of HMOs.

Just four years before (2002), PPOs had two times HMO enrollment.

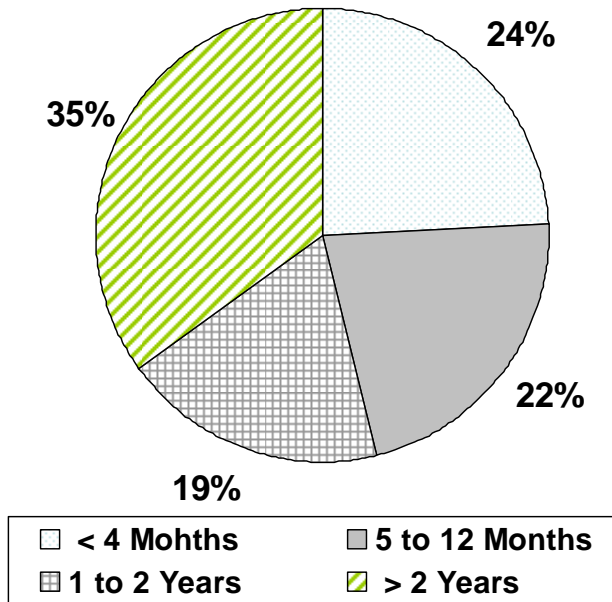
And 10 years before (1996) HMOs out enrolled PPOs.

*Distribution is statistically different from distribution for the previous year shown at $p < .05$. No statistical tests are conducted for years prior to 1999. No statistical tests are conducted between 2005 and 2006 due to the addition of HDHP/SO as a new plan type.

Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 1999-2006; KPMG Survey of Employer-Sponsored Health Benefits, 1993, 1996, 1998; The Health Insurance Association of America (HIAA), 1988.

Workers Are Moving from Job to Job

Length of Uninsurance Spells,
1996-99



Average # of jobs
held by US Workers
aged 18-40:
10.5

Sources: "Battery-Powered Health Insurance Stability in Coverage of the Uninsured," Pamela Farley Short and Deborah R. Graefe, *Health Affairs*, November/December 2003

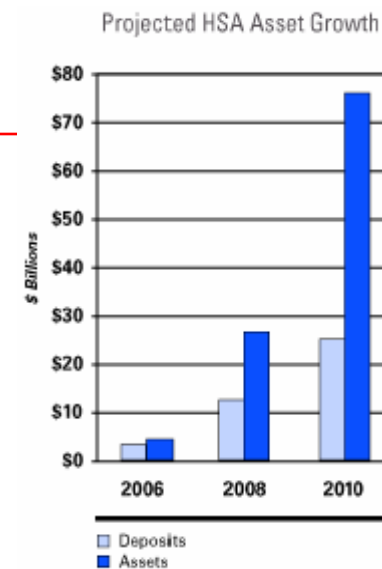
CDHP Enrollment is Growing

	Dec 2004	Dec 2005	Dec 2006	Jan 2008 Projection
HRA Lives	2,800,000	4,200,000	6,000,000	5,540,000
HSA Lives	288,000	2,200,000	6,200,000	9,500,000
TOTAL	3,088,000 ³	6,400,000	12,200,000	15,400,000
# of HSAs	144,000	1,100,000	3,100,000	4,750,000

Source: Consumer Driven Market Report 2005 Issue #10, 1/08 Projection from 2007 Issue #2

- Aetna reports ending 2006 with 676,000 HSA and HRA Lives; a 49% increase.
- Humana closed 2006 with 437,900 Smart Suite lives; a 13% increase.
- Blues plans report a 67% increase in 2006 CDH lives over 2005 to more than 2.5 million.
- Jumbo employers still favor HRAs while smaller employers favor HSAs by more than a 2:1 ratio.
- Leading banks had \$1.479 billion in HSA deposits and \$1.152 billion in HSAs as of 12/31/06. By 2010, 15-25 million accounts holding \$75 billion in assets is projected.
- Retail is now used as a consumer outlet for selling HSA-HDHPs, as well as delivering health care.

Sources: Consumer Driven Market Report,, Inside Consumer-Directed Care, HSA Market News, Diamond Clustelnsights



Source: DiamondCluster research

Which high-impact levers may be pulled?



Premium Cost Increase Components Provide Considerations on Levers to Pull for All Plan Design Types

INCREASE IN PREMIUM COSTS BY COMPONENT (2005)		
Components	Share	Total Share
Total Premium	8.8%	8.8%
General Inflation	2.4%	2.4%
Healthcare Price Increases in Excess of Inflation (Above CPI)		2.6%
Cost Shifting	0.5%	
Higher Priced Technologies	1.0%	
Broader-Access Plans/ Provider Consolidation	1.1%	
Increased Utilization		3.8%
Aging	.5%	
Lifestyle	.3%	
New Treatments	1.0%	
More Intensive Diagnostic Testing/ Defensive Medicine	.8%	
Increased Consumer Demand	1.2%	
SOURCE: "The Factors Fueling Healthcare Costs 2006" by PwC		

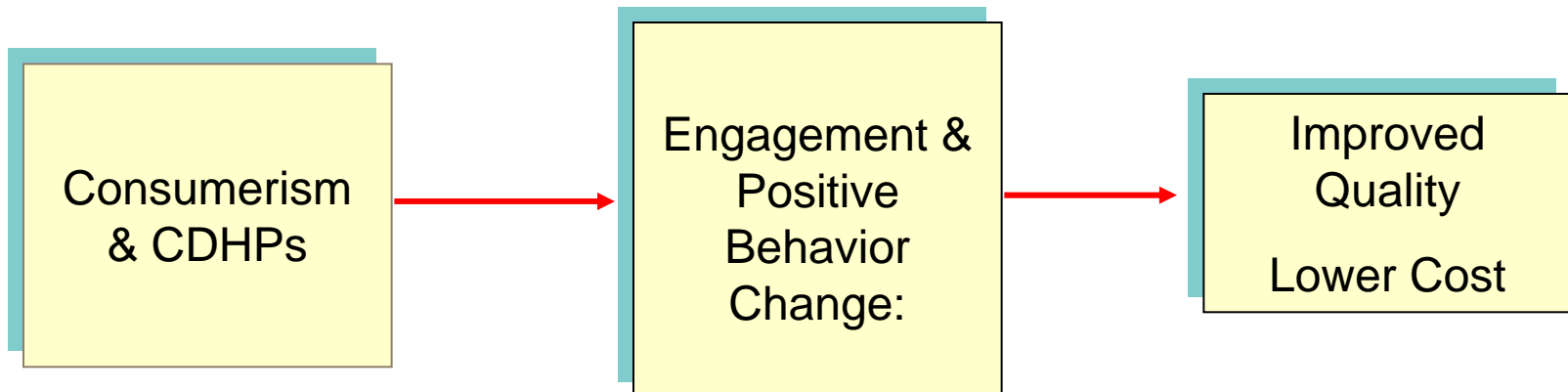
- Outside of general inflation, price increases and increased utilization account for premium cost increases in 2005.
- Items highlighted in yellow represent categories that may be directly impacted by plan design.

Consumerism & CDHPs

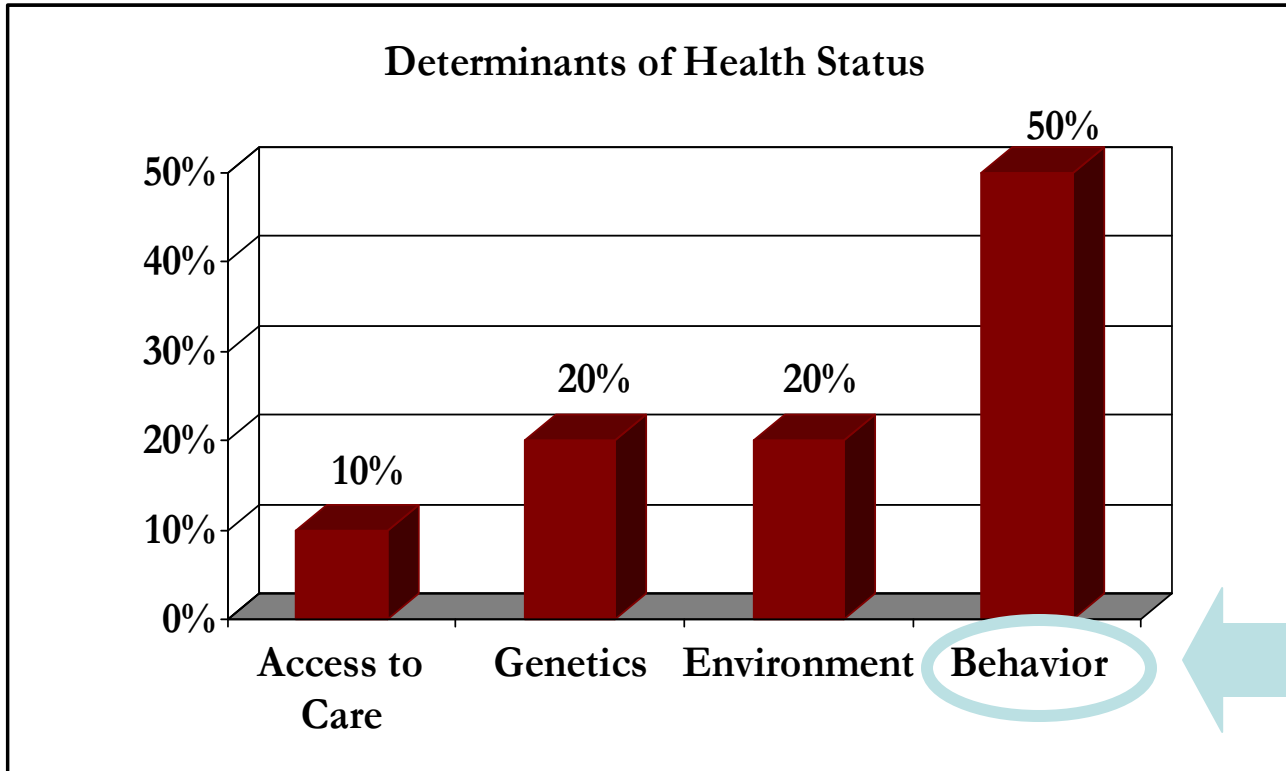
Potential Considerations Impacting Experience, Utilization and Costs

- Utilization and experience may draw upon the processes of consumerism to various degrees depending upon plan type
- CDHPs and consumerism features can be mechanisms that can potentially influence both cost and quality
- Identifying opportunity to improve and positively change purchasing and lifestyle behaviors hold significant promise:

Premise...



Why Focus on Positive Behavior Change?



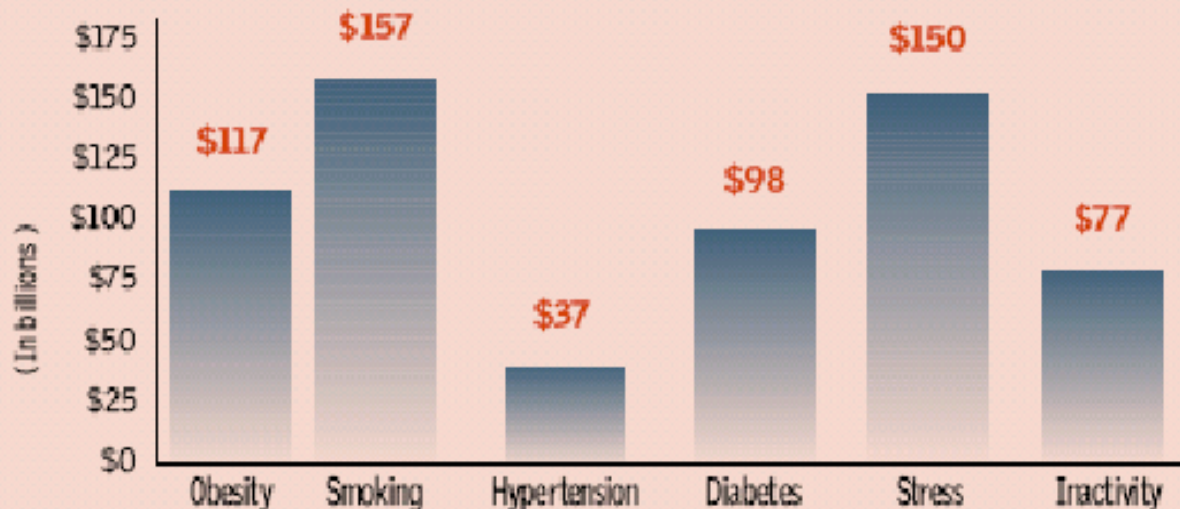
1. Behavior accounts for 50% of Health Status
2. Poor Health Status increases Demand and Costs

Source: Kaiser Family Foundation

Lifestyle Choices Translate into Healthcare Dollars Spent

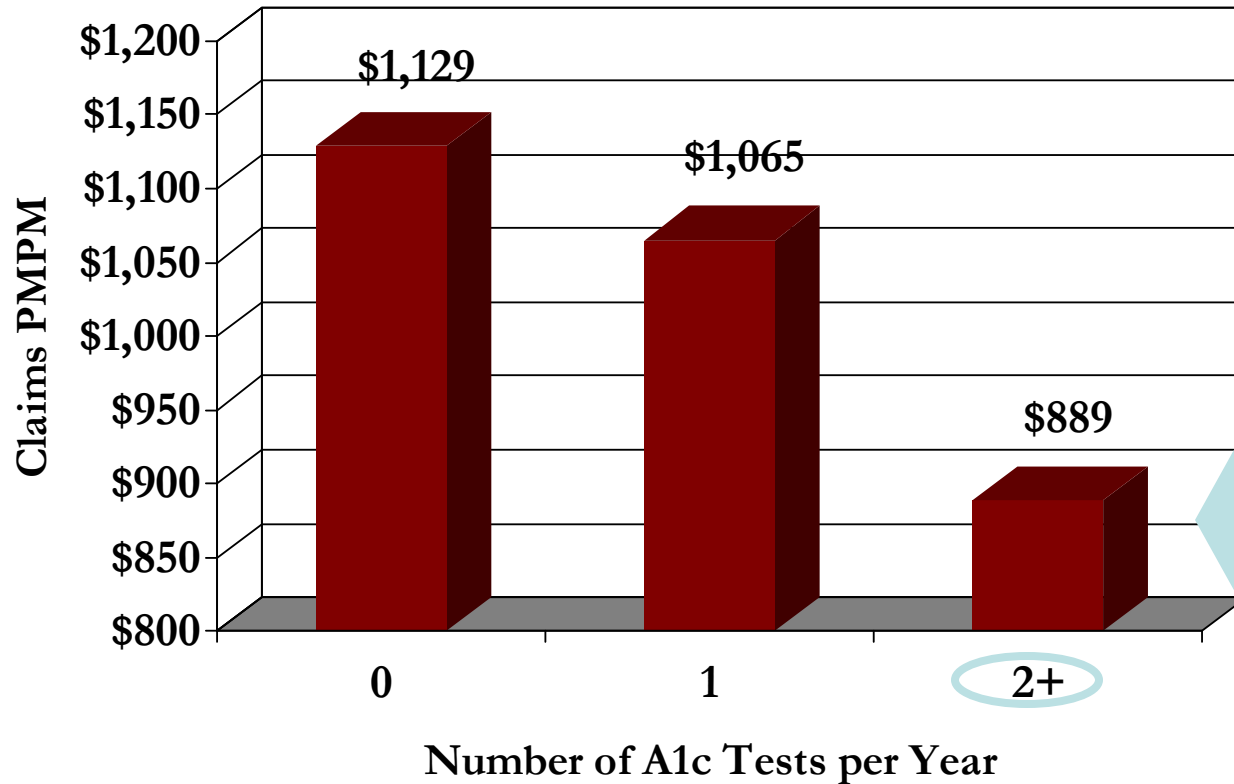
THE COST OF "UN-WELLNESS"

Estimates show that unhealthy lifestyles lead to hundreds of billions of dollars in expenses annually in the United States.



SOURCE: Health Promotion Advocates, from statistics kept by the Centers for Disease Control and Prevention, the National Institutes of Health, the National Institute of Diabetes and Digestive and Kidney Diseases and the *Journal of Occupational Medicine*.

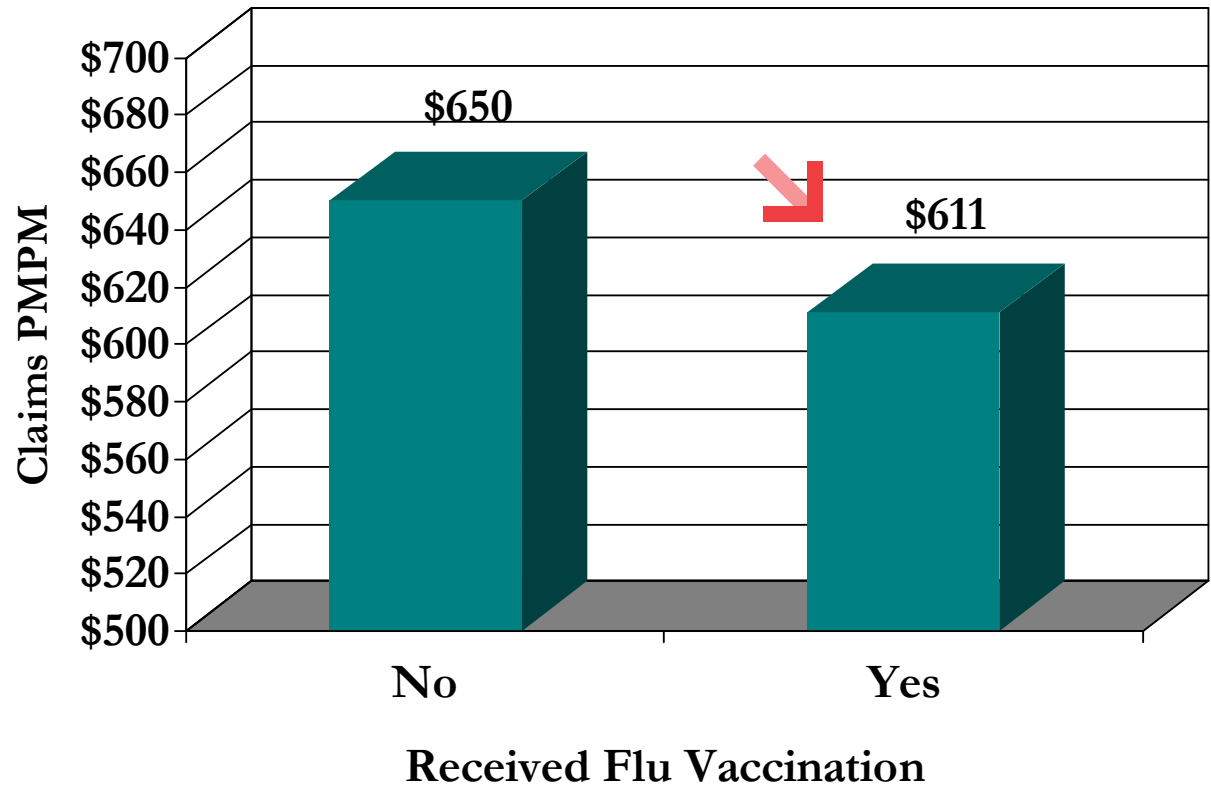
People Compliant with Care Regimens Have Lower Costs



Medicare diabetics receiving 2 or more A1c tests per year have 20+% lower costs than those receiving none.

Preventive Care Saves Money

Medicare beneficiaries who receive a flu vaccination have 6% lower costs than those that don't.



What are the Top Reasons Employers Offer CDHPs?

Reasons Employers Offer CDHPs					
What Do Employers Most Hope to Achieve Through a CDH Plan?*	Not Important at All	Somewhat Important	Moderately Important	Very Important	Extremely Important
Control Health Coverage Costs	2%	4%	9%	24%	62%
Improve Employee Satisfaction	9%	20%	36%	22%	13%
Address Quality-of-Care Concerns	20%	27%	27%	20%	5%
Reduce Administrative Burdens	33%	33%	22%	7%	4%

Respondents were asked to rate the importance of each item on a scale of 1 to 5. Compiled by ICDC and ISCEBS, October 2006

Source: Inside Consumer-Directed Care, October 27, 2006

Which CDH Model? Full Replacement or Choice?

It is a Reflection of Employer Size and Full Replacements

HRA vs. HSA/Full Replacement or Choice?					
Number of Employees	Offered HRA-Based Plan for 2005*	Offered HRA-Based Plan for 2006	Will Offer HRA-Based Plan for 2007	% of Those That Will Be Full Replacements	Will Offer HRA- and HSA-Based Plans for 2007
Fewer Than 500	2%	4%	9%	24%	62%
500 to 2,500	9%	20%	36%	22%	13%
2,501 to 10,000	20%	27%	27%	20%	5%
More Than 10,000	33%	33%	22%	7%	4%

* Respondents were asked to rate the importance of each item on a scale of 1 to 5. SOURCE: Compiled by ICDC and ISCEBS, October 2006

Source: Inside Consumer-Directed Care, October 27, 2006

- HRAs are favored by jumbo employers
- HSAs are by employers with <500 employees
 - Full replacements are still rare

When Plan Choice is Offered, Higher Levels of Enrollment are Key

- Education, Education, Education -- Amount and types of education and communication about the choices offered, opportunities to save, selecting the best plan and how the plans work
 - Length of time communicating prior to enrollment
 - CEO/CFO and local HR manager support
- Relative Pricing - How plan is priced relative to other options for existing employees and new hires
- Employee Satisfaction/Dissatisfaction with current coverage/carriers drove higher levels of CDHP enrollment but employee satisfaction with these things did not drive lower levels of enrollment

Source: Institute on Health Care Cost and Solutions sponsored CDHP Study, NBGH, 2004/2005

What Consumers seek help with... And, features that provide relevant support

Consumers Seek Help with...

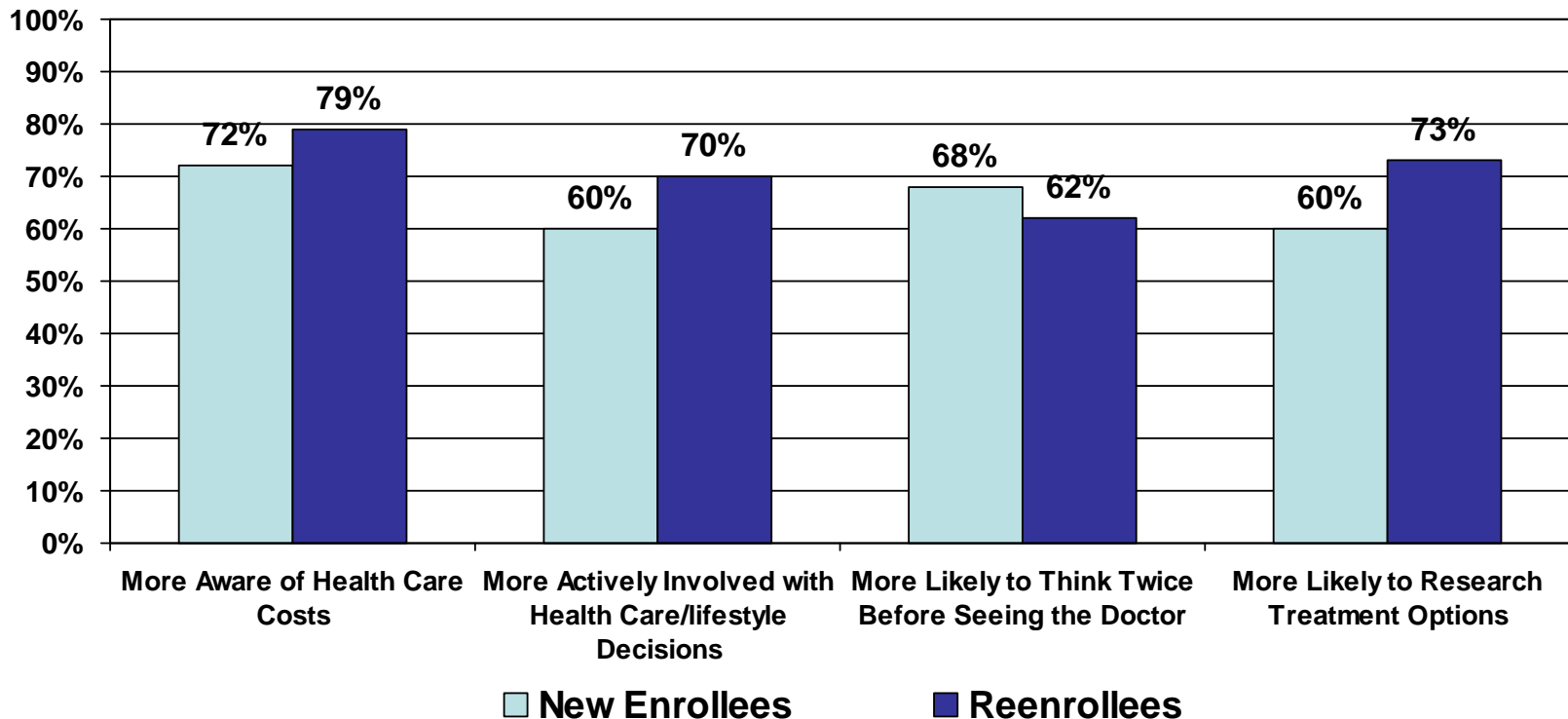
- Provider Selection
- Healthy Behavior
- Administration, Account Management & Investment
- Simplification

Consumers Can Get Help Through ...

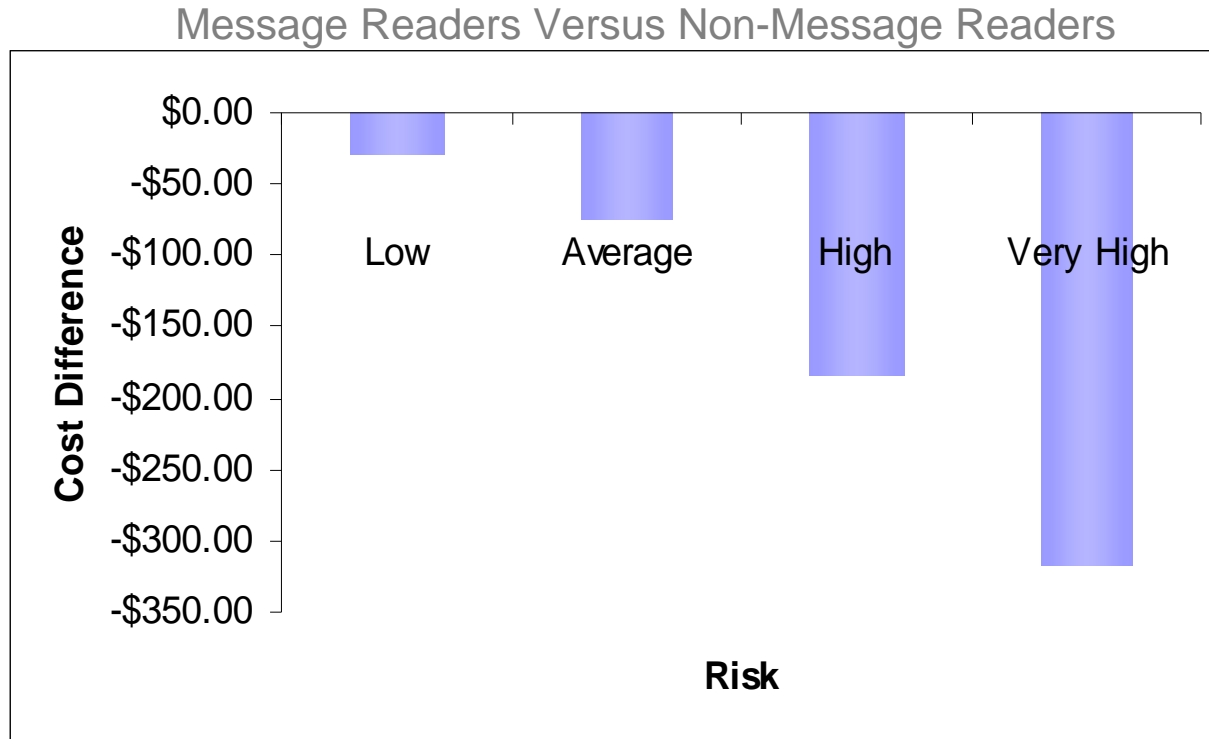
- Buyer's Guides
- Information Searches
- On & Offline Statements
- Consumer Web Tools
- Consumer Incentives & Behavior Change Support
- Value Coaching – Health and Financial
- Customer Service

Consumer Attitudes Reflect Deepening Engagement

- Those with more exposure to the plan and support services are more likely to report involvement in key health decisions
- *60% of CDH enrollees access web tools, versus 45% in traditional plans*



The Relationship between Personalized Consumer Messaging and Claim Costs



A difference in annual claim costs is observed between those who read health messages and those who do not.

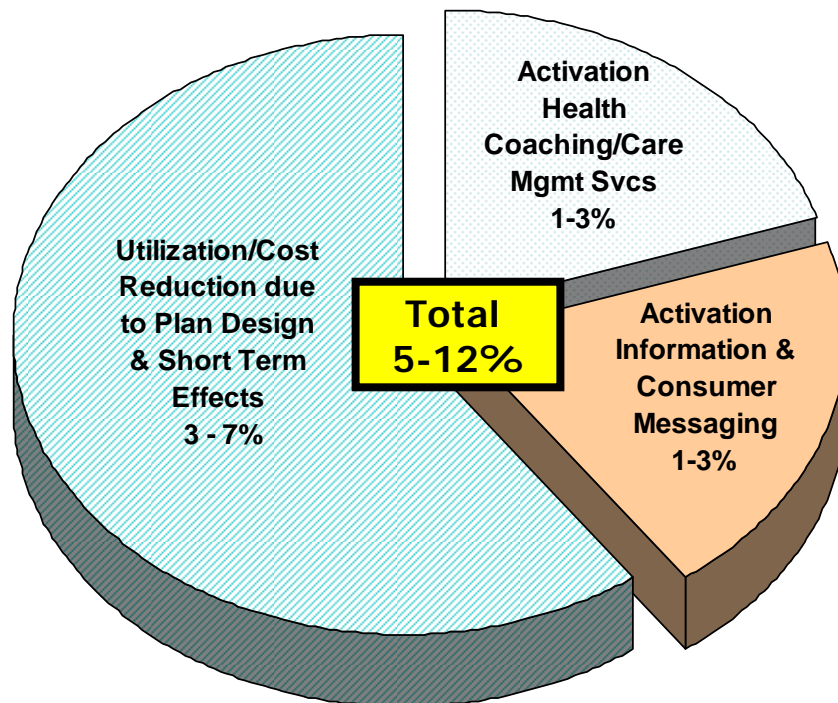
Utilization Studies



Utilization Illustration #1

Year 1 “Book of Business” Results of CDH Offerings including Net Medical Cost Impact




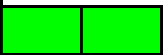

**NET 1st YR COST IMPACT
by Source of Trend Contribution**



This chart shows the estimated impact and observed net trend results across Uniprise/ Definity’s CDH book of business during 1st year of implementation (over 600,000 members from large employer groups)

Utilization Illustration #1

Year 1 Benefit Design “Book of Business” Rating Factor Review

Benefit Design Feature	Intensity of Factor (% increments)
Full replacement vs slice offering (payroll contribution strategy)	
Cost sharing (baseline year and 1st year implications)	
HRA vs HSA and level of employer subsidy (% of deduct.)	
Introduction of other programs (Care, DM)	
Communication/Incentives/Tools	

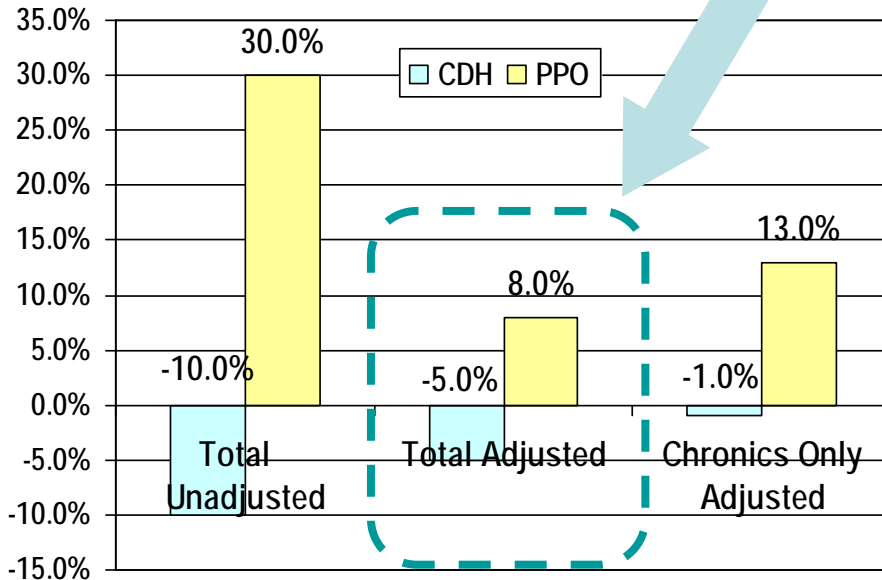
■ Favorable
 ■ Unfavorable

- Experience by client was highly variable in the first year of implementation
- Rating factors that influence outcome in Year one include plan offering, cost sharing, account funding, consumer health programs and communication, incentives and tools.
- The favorable benefit of “rush effect” is excluded from this illustration.

Utilization Illustration #2

Year 2, 3 and 4 PPO vs. CDH (60,000 Member Dual Offering Study)

Average Adjusted Billed PMPM Trend over 2003 to 2005
CDH -5% vs 8% for PPO



Adjusted: Normalization of average billed pmpm for demos, geo mix, illness burden and outliers.

Average of 60,000 members/year for sum of CDH and PPO.

Other Key Observations:

- Hospital Admissions
 - Admits/k CDH/PPO = 40% lower
 - CDH 2-year trend lower than PPO by 12 % pts
- Emergency Visits
 - Visits/k CDH/PPO = 10% lower
 - CDH 2-year trend lower than PPO by 10 % pts
- Office Visits
 - Visits/k CDH/PPO = 2% lower
- Preventative Care
 - Visits/k CDH/PPO = 4% higher
- Chronically ill: IP admits and ER visits lower than PPO; sought preventative care at a 4% higher rate

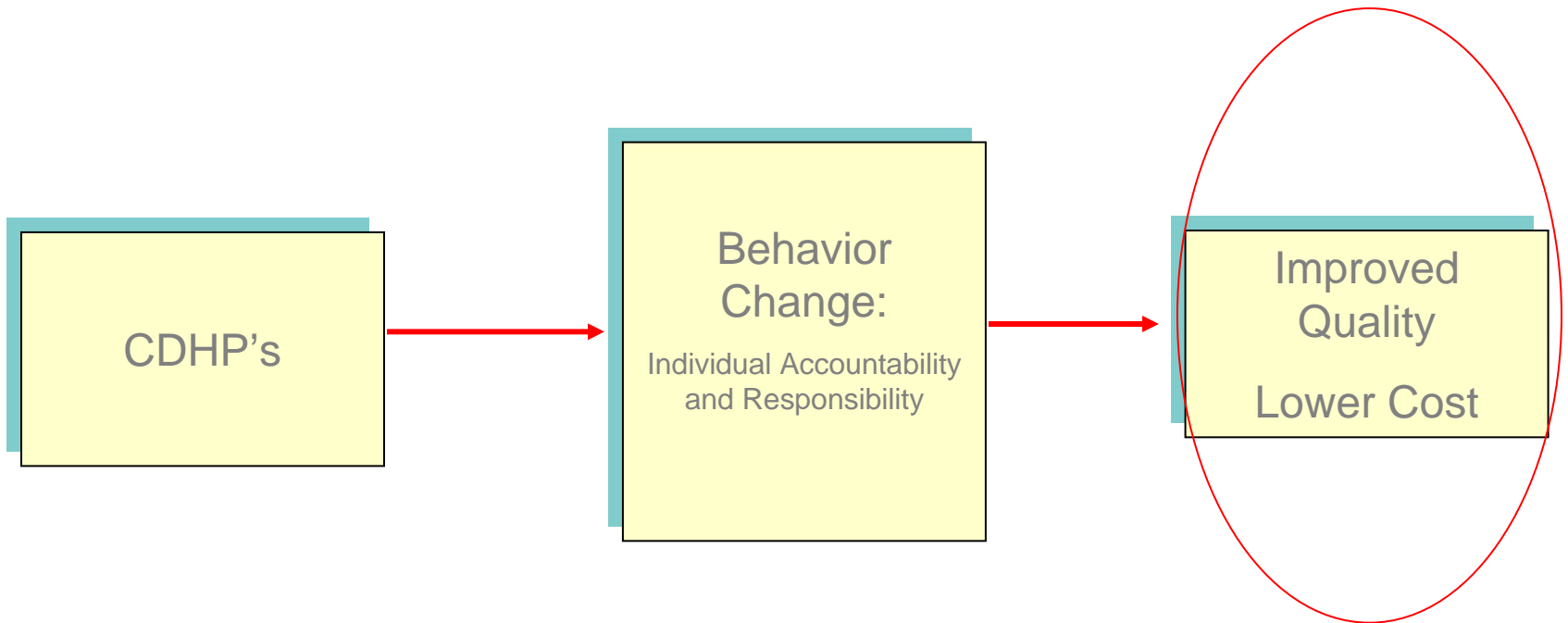
Utilization Illustration #3

2006 CDH vs. Non-CDH Large Employer “Book of Business” Results

Large Employer Book of Business Review	
Category of Results	RESULTS: Ratio of Performance Level CDH over Non-CDH
Allowed PMPM Net PMPM Net/Allowed Demos	8-20% lower 30% lower Lower by 14 % pts 3% lower
Professional, including Preventive Care	CDH 15-20% lower <i>(range of 7 to 35% lower)</i>
Outpatient Services	ER visits/1000: 5-10% lower OP Surg/1000: 10-20% lower Lab/Rad/1000: 8-15% lower
Inpatient Services	Admits/k: 15% lower ALOS: Same <i>(Maternity-type admits much lower in CDH exposes potential selection bias)</i>
Prescription Drugs	Generic% Usage vs Brand: CDH higher by 3-5 % pts Cost/Day Supply: CDH, on average, 5% lower

Notes: Analysis is based on a full year; Average Uniprise Membership: Non-CDH = 6,600,000; Definity CDH = 600,000 (HRA and HSA combined)

A Summary of Financial Results



Quality of Care: Evidence-Based Medicine & Preventive Care Service Utilization

250,000 Member Study/Large Employer Segment – 2004/2005

For both measures of quality, prevention and evidence-based care, CDHP experience measured at or better than traditional PPO Control Group

Evidence-Based Care	
Measure Screening or Visits	CDH Compared to PPO‡
Diabetes Hba1c tests Antihyperlipidemic drugs Eye exams Physician office visit	<i>n=10,000</i> + 12-15% = = + 19%
Asthma Flu vaccine, Hospital Admission ER Visit	<i>n=7,000</i> All relatively Equal
Coronary Artery Disease Lipid test Physician office visit	<i>n=1,900</i> + 20% =
Cong. Heart Failure ACE inhibitor Creatinine test Potassium test	<i>n=400</i> = + 41% + 25%

Preventive Care	
Measure Screening or Visits	CDH Compared to PPO‡
Cervical Cancer	+ 16%
Cholesterol	+ 10%
Colon Cancer	=
Breast Cancer	=
Prostate Cancer	+ 16%
Well Baby Visits	- 13%
Well Child Visits	+ 8%

‡ CDH Compared to PPO % = Rate of CDH less PPO (e.g.. 20% - 15% = + 5%)

Study Populations and Selection Criteria: 1. Continuous enrollment of active (<65) members in a health plan in at least one of the study years (2004 and/or 2005); 2. Medical and prescription drug coverage; 3. Where necessary, measure-specific age and gender criteria were applied to individual measures.

CDH vs. Traditional Plan Medical Cost Trend

	Annual Allowed Cost Trend 2003 to 2004	2003 Risk Factor
Traditional Product Pool	16.3%	1.020
CDH – Total	7.4%	0.628

Closing Thoughts...

- ▶ **Research shows that CDHPs can show positive results against traditional PPOs on a multi-year basis**, even after the results are normalized for differences in health status. Still, results should still be viewed as early given that population is still impacted by accelerated growth (e.g.. 50% to 100+%).
- ▶ **CDH cost trends are likely to remain lower than traditional plans, but the gap may narrow over time** as: (1) current year over year decreases are not necessarily sustainable; (2) account balances increase some benefits of consumerism (3) increases over a lower base result in higher trend and (4) relative health risk will gravitate to the group's norm as more individuals move to CDHPs in a choice environment
- ▶ **Benefit and incentive design are critical aspects** and are a favorable context for consumer engagement. Changes in experience have been observed when consumer features focused on engagement, cost, quality and behavior change are core plan features.
- ▶ **Modeling and evaluation of CDH is more complex and rigorous than traditional products and involves both quantitative and qualitative analysis.** Isolated measurement of factors such as: the impact of consumer engagement, usage of quality/efficient providers, web and self-service tools usage, EBM/wellness compliance, drug compliance will become increasingly important
- ▶ **Consumerism extends beyond CDHPs** and may become a guiding principle of traditional plan types as engaged and activated consumers can change behavior and favorably impact costs
- ▶ **Consumerism is not a one-time event ...**

Kismet Toksu, Sr. Consultant

Reden & Anders - Atlanta



Kismet Toksu joined Reden & Anders as Sr. Consultant in July 2004.

Since the introduction of consumer directed health care in 2000, Kismet has been a pioneer in successfully creating, implementing, selling and communicating these and other consumer-centric products and lines of business supporting all market segments through the U.S. Kismet is considered a strategy, product portfolio optimization, marketing, CDHP, consumerism and HSA subject matter expert.

Prior to joining Reden & Anders, Kismet was President of Candor Consulting, Inc., a consumer directed and e-healthcare health care strategies and solutions practice.

As leader of Candor Consulting, Kismet built consumer directed and defined contribution businesses and offerings with carriers, health plans, TPAs, PBMs and e-health care companies.

Ms. Toksu served as Vice President for Lumenos from 2000-2002, a consumer directed health care company, where she led the company's business development and strategic alliance successes.

In addition, Ms. Toksu rallied cross-functional teams to operationalize and fully integrate partner services that have become the core of the company's product offering, consumer experience and business model. While at Lumenos, Kismet directly tested the consumer directed concept with mid-market employers, sold employees during open enrollment and drove the launch of the private-label product targeting health plans and TPAs. She was an active member of the management team credited for developing the overall strategy and launching the health care plan.

From 1988-2000, Kismet Toksu was a key business builder and senior executive at Phillips International, an international media company.

She led the launch of Phillips Health Interactive and its profitable e-business unit as Executive Director, served as Senior Vice President of Strategic Marketing for Phillips Business Information (PBI), led the growth of the Phillips Media Group as Vice President/Group Publisher and served in a variety of marketing, sales and content leadership roles. She participated as an active member of the PBI Executive Committee and Phillips International Management Team.

Kismet Toksu graduated from University of Texas, is a frequent writer and contributor, and has participated on numerous industry boards, forums and events. She is a 2005 winner of the prestigious Dalton Pen Award.

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