Consumer Directed Health Care: A Look at Current Experience

November 16, 2006

Presented by:
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Principal
Discussion Topics

- A quick look at historical and current trends
- At the beginning – what we knew then
- What we know now – a review of two new analyses
A Few Things to Keep in Mind

- Consumerism and consumer activation are *processes*, not outcomes
- We have not described these processes or behaviors all that specifically yet
- Consumer directed health plans are one mechanism that we think will influence consumerism and therefore cost and quality
- Our best bet is that:

  ![Diagram showing relationships between CDHP's, Behavior Change: Individual Accountability and Responsibility, Improved Quality, and Lower Cost.]

But we don’t know for sure
But Which Model? – CDH in 2006

- HRA and HSA serve different needs and philosophies of employers and employees
- Among large employer implementations for 2006 (5,000+ employees):
  - HRA 39%
  - HSA 50%
  - Both 11%
- 2006 membership growth projections slightly favor HSAs (55%)
By Any Measure, Account-Based Plan Designs Are on the Rise

• 5 million Approximate CDH members at 1/1/06
  (Source: Inside Consumer Directed Care)

• 820,000 HSA accounts at 1/1/06
  (Source: Inside Consumer Directed Care)

• 54% Employers will implement CDH by 2007
  (Source: Forrester)

• 24% Enrollment (40m lives) by 2010
  (Source: Forrester)
What We Knew Then:
Enrollment Drivers and Selection
What Drives Higher Levels of Enrollment in a CHDP in a Choice Environment?

• Amount and types of education and communication done with respect to plan offerings
  – Length of time communicating prior to enrollment
  – CEO/CFO and local HR manager support
• How plan is priced relative to other options
• Existing employees still see value in higher priced plans
• Employee 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 Does Not Drive Higher Levels of Enrollment in a CHDP in a Choice Environment?

• Things that were *not* factors:
  – Premium differences for current employees
    • Likely to have not met the premium “floor” necessary to drive differences
  – Provider access
  – VP of HR, benefit manager or vendor communication
  – Active enrollment
  – Workforce characteristics (age, health)

*Source: Institute on Health Care Cost and Solutions sponsored CDHP Study, NBGH, 2004/2005*
Population Selection in CDHPs

• Across studies, the data consistently shows three, related selection biases for CDHPs in a choice environment
  – Higher incomes
  – Lower levels of illness burden (but starting to shift)
  – Larger contract size
  – In two cases where it was examined, more mental health conditions

• Be careful!
  – A look at high cost claimants and illness burden in at least two studies showed that they were out-of-sync
  – Suggests that some early CDHP designs attracted claimants who use services in “excess” of their illness burden
What We Know Now:
Process and Outcome Results
Two Primary Analyses

1. Reden and Anders Study
   - Recently released
   - A continuation and expansion of a study conducted last year summarizing CDH’s first year claim experience.
   - Five CDH groups totaling 30,000 CDH members and 73,200 non-CDH members in 2004
   - Includes three groups with a total of 24,500 CDH members who were enrolled for two years beginning 2003
   - Also reviewed detailed HRA information from eleven groups totaling 117,400 CDH members in 2004.

2. Definity Study
   - Just released
   - Includes 4 self-funded employer plans
   - Employers offered both CDH and PPO plans in all 3 years
   - CDH and PPO plan designs included deductible/coinsurance. The CDH plan was slightly more generous (3 -5%) and offered more outreach and health support services.
   - Excludes employees over 65
   - Data were adjusted for age, sex, illness burden, outlier events, and geography
To Control or Not to Control. . .

• Control for selection if you want to answer the question:
  – If my company implemented a CDHP on a total replacement basis, what impact would it have?
  – Relative to other types of plans, what impact does CDHP have on cost and quality?

• Do not control for selection if you want to answer the question:
  – What would the impact be of offering a CDHP along with other health plan options?
A Review of Behavior Change Results

CDHP’s

Behavior Change:
Individual Accountability and Responsibility

Improved Quality
Lower Cost
The Ability to Measure Effectiveness Varies

- Member information and access
- Actuarial
- Quality of Care
- Patient participation/compliance

Easiest

Hardest
Summary

• There is some evidence of a general attitudinal change among employees operating in a CDHP environment.
• There appears to be a relationship between claims costs and use of personal messaging.
• Employees that terminate don’t appear to exhibit “use it or lose it” mentality.
• Utilization of health care services is generally lower for CDHP enrollees, even after adjusting for risk differences.
• Preventive care and outpatient mental health services may be used at higher rates among CDHP enrollees.
• These utilization differences appear to change over time – there are larger differences in the first year of enrollment compared to the second.
• The relationship between CDHPs and hospitalization and length of stay need more exploration.
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:

- More Aware of Health Care Costs: 72%, 79%
- More Actively Involved with Health Care/lifestyle Decisions: 60%, 70%
- More Likely to Think Twice Before Seeing the Doctor: 68%, 62%
- More Likely to Research Treatment Options: 60%, 73%

60% of CDH enrollees access web tools, versus 45% in traditional plans.

Third-party survey of CDH and Definity Health members.
Personalized Consumer Messaging and Claim Costs

Difference in annual claim costs between those who read health messages and those who do not.

Source: Definity Study, 2006
“Ownership Potential” CDH HRA Balances

• The percent of contracts with an HRA balance at year-end depends on value contributed to HRA.

<table>
<thead>
<tr>
<th>Single HRA ER Contribution</th>
<th>Contracts with Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤$500</td>
<td>&lt;50%</td>
</tr>
<tr>
<td>$501 - $700</td>
<td>43% - 73%</td>
</tr>
<tr>
<td>$701 - $900</td>
<td>55% - 83%</td>
</tr>
<tr>
<td>&gt;$900</td>
<td>83% - 98%</td>
</tr>
</tbody>
</table>

• The most common employer contribution is between $500 and $700 for a single.
• This commonly represents less than 50% of the deductible.

Source: Reden & Anders, 2006
“Ownership Potential”
CDH HRA Balances

- Both percentage and HRA balance increase over time.
- Unclear whether this increase in the balance drives more “ownership”

Continually enrolled members with Rx
Balance amount is average for all contracts with a balance.

Source: Reden & Anders, 2006
CDH HRA Balances Terminated Enrollees

- Those that terminate do not exhibit a “use it or lose it” mentality.
- Terminated contracts have a higher percentage of accounts with balances, and a higher dollar balance.

### Accounts with Balances at Year-End and Termination

<table>
<thead>
<tr>
<th></th>
<th>Enrolled</th>
<th>Terminated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>62%</td>
<td>65%</td>
</tr>
<tr>
<td>Family</td>
<td>31%</td>
<td>46%</td>
</tr>
<tr>
<td></td>
<td>$474</td>
<td>$651</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$610</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1,068</td>
</tr>
</tbody>
</table>

**Source:** Reden & Anders, 2006
Utilization Changes: Annual Facility Trends

Notes:
1. Trends represent only the continuously enrolled population through 2004 and not UHG business in the aggregate
2. Represents raw data with no attempt to normalize for catastrophic claims. Since analyzing continuously enrolled membership, no need to normalize health status.
3. For CDH-2 yr members represents continuously enrolled between 2002 and 2004.
4. For CDH-1 yr members represents continuously enrolled between 2003 and 2004.

Source: Reden & Anders, 2006
Utilization Changes:
Annual Professional Service Trends

<table>
<thead>
<tr>
<th>Service</th>
<th>Traditional UHG Products</th>
<th>iPlan-2 yr Members</th>
<th>iPlan-1 yr Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery</td>
<td>12.5%</td>
<td>3.3%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Radiology</td>
<td>14.5%</td>
<td>7.4%</td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>8.6%</td>
<td></td>
<td>-1.5%</td>
</tr>
<tr>
<td>Office Visits</td>
<td>7.7%</td>
<td></td>
<td>-2.5%</td>
</tr>
<tr>
<td>Consultations</td>
<td>15.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-8.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-2.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-4.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
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Source: Reden & Anders, 2006
# Utilization Change Differences

All Members, Adjusted for demographics, outliers

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Admissions</td>
<td>-22%</td>
<td>-5%</td>
<td>-53%</td>
</tr>
<tr>
<td>Hospital Days</td>
<td>-29%</td>
<td>-2%</td>
<td>-55%</td>
</tr>
<tr>
<td>Emergency Room Visits</td>
<td>-14%</td>
<td>2%</td>
<td>-16%</td>
</tr>
<tr>
<td>Office Visits</td>
<td>-8%</td>
<td>6%</td>
<td>-8%</td>
</tr>
<tr>
<td>Preventive Visits (data not adjusted)</td>
<td>-1%</td>
<td>-2%</td>
<td>4%</td>
</tr>
</tbody>
</table>

*Source: Definity Study, 2006*
Utilization Change Differences:
Chronically Ill Members Only, Adjusted for demographics, outliers

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Admissions</td>
<td>-18%</td>
<td>-12%</td>
<td>-29%</td>
</tr>
<tr>
<td>Hospital Days</td>
<td>-32%</td>
<td>-11%</td>
<td>-39%</td>
</tr>
<tr>
<td>Emergency Room Visits</td>
<td>-14%</td>
<td>-2%</td>
<td>-11%</td>
</tr>
<tr>
<td>Office Visits</td>
<td>-2%</td>
<td>4%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Source: Definity Study, 2006
## CDH HRA Expenditures

<table>
<thead>
<tr>
<th>Distribution of HRA Payments</th>
<th>Hospital Inpatient</th>
<th>1.2%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hospital Outpatient</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Emergency Room</td>
<td></td>
<td>4.7%</td>
</tr>
<tr>
<td>• OP Surgery</td>
<td></td>
<td>1.9%</td>
</tr>
<tr>
<td>• Other</td>
<td></td>
<td>7.1%</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td>13.7%</td>
</tr>
<tr>
<td><strong>Physician</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Office Visits/Consults</td>
<td></td>
<td>17.6%</td>
</tr>
<tr>
<td>• Surgery</td>
<td></td>
<td>6.0%</td>
</tr>
<tr>
<td>• Radiology</td>
<td></td>
<td>5.9%</td>
</tr>
<tr>
<td>• Pathology</td>
<td></td>
<td>5.8%</td>
</tr>
<tr>
<td>• Physical Therapy</td>
<td></td>
<td>3.8%</td>
</tr>
<tr>
<td>• Other</td>
<td></td>
<td>9.4%</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td>48.5%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td>2.0%</td>
</tr>
<tr>
<td><strong>Rx</strong></td>
<td></td>
<td>34.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>100.0%</td>
</tr>
</tbody>
</table>

As one would expect, account dollars are most often spent at entry point of care:
- Physician
- Rx

*Source: Definity.*
A Review of Financial Results

CDHP’s → Behavior Change: Individual Accountability and Responsibility → Improved Quality, Lower Cost
Summary

• Consumers are “positively” changing behavior, most notably in the first year.
• Allowed medical cost trends for a CDH product appear to be significantly less than the traditional product, even after the results are normalized for differences in health status.
  – Magnitude of these differences varies widely across analyses
• CDH unit cost trends are generally higher than traditional products
  – Increased intensity
  – Historical network prices
# CDH Medical Cost Trend

<table>
<thead>
<tr>
<th></th>
<th>Annual Allowed Cost Trend 2003 to 2004</th>
<th>2003 Risk Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Product Pool</td>
<td>16.3%</td>
<td>1.020</td>
</tr>
<tr>
<td>CDH – Total</td>
<td>7.4%</td>
<td>0.628</td>
</tr>
</tbody>
</table>

*Source: Reden & Anders, 2006*
## Allowed Annual Trend by Risk Cohort
### Continuously Enrolled

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>3.3%</td>
<td>2.3%</td>
<td>22.0%</td>
</tr>
<tr>
<td>13</td>
<td>3.9%</td>
<td>-3.4%</td>
<td>14.1%</td>
</tr>
<tr>
<td>12</td>
<td>8.1%</td>
<td>12.5%</td>
<td>15.2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>6.3%</td>
<td>-4.0%</td>
<td>28.7%</td>
</tr>
<tr>
<td>2</td>
<td>8.3%</td>
<td>4.8%</td>
<td>17.6%</td>
</tr>
<tr>
<td>1</td>
<td>11.1%</td>
<td>9.5%</td>
<td>23.5%</td>
</tr>
<tr>
<td>0</td>
<td>15.7%</td>
<td>78.8%</td>
<td>70.9%</td>
</tr>
</tbody>
</table>

### Average Medical Cost Trend
- **Average**: 100.0% 10.9% 24.2%
- **Risk Score (2003)**: 0.681 0.691

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[1] Population analyzed is a subset of Total CDH and represents continuously enrolled from 2002 through 2004 and is not reflective of total pool experience.


*Source: Reden & Anders, 2006*
Final Comments

• Evaluation of CDHP is more complex than traditional products. Involves both quantitative and qualitative analysis.
• Can likely expect CDH cost trends to remain lower than traditional plans, but the gap may narrow over time because:
  – Cannot expect year over year decreases (not realistic).
  – As HRA balances increase, they may eventually be used and converted to “paid” claims.
  – Increases over a lower base just result in higher trend.
  – As more individuals switch to a CDH plan within an employer, the relative health risk will gravitate to the group’s norm.
• Still too early for “quantifiable” conclusions regarding savings, but studies do provide positive “directional” guidance towards savings.
• This is a long-term process that will likely have incremental improvements over time.