
Activating and Engaging Consumers: Do CDHPs Make a Difference?

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We are looking to consumers to be part of health care solutions:

Make informed choices:

- ❑ Choose high performing providers and hospitals
- ❑ Select evidence based, cost effective treatments
- ❑ Choose appropriate plans and coverage

Be more engaged in own care

- ❑ Self-management
 - ❑ Collaborate with providers
 - ❑ Preventive actions
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CDHPs are built on a set of assumptions:

- Financial incentives, more choices, and more information tools will stimulate consumers to be more “activated” and more in charge of their health and health care.
 - More activated consumers will make more informed “cost effective” choices.
 - What is the evidence regarding these assumptions?
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Specific Research Questions

- Are CDHP enrollees more likely to seek out and use information? Are they more likely to engage in risky cost-saving behaviors?
 - Are CDHP enrollees more activated? Do activated enrollees do better in a CDHP?
 - Do CDHP enrollees make more cost effective choices?
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Study Design

- Longitudinal study of employees from large employer that offered CDHP in 2004
 - 2004 Survey (N=2104), 2005 survey (N=1551) and Claims data from 2003 and 2004 (N= 14,491)
 - Survey over-sampled CDHP enrollees, older, and salaried employees
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Plan Descriptions

| | High Deductible CDHP | Low Deductible CDHP | PPO |
|---|-----------------------|--------------------------|--------------------------|
| Enrollment in 2004 | 13% | 23% | 64% |
| Enrollment in 2005 | 13% | 44% | 43% |
| 2004 Annual "Family" Premium Hourly Salary | \$420 \$420-\$1128 | \$1,260 \$1,260-2,600 | \$1,260 \$1,260-3,600 |
| "Gap" (deductible-PCA) for Family coverage | \$1,500 | \$500 | N/A |

An Earlier Analysis Showed Evidence of Favorable Selection into the High Deductible CDHP

- Low and high deductible CDHPs attract different enrollees
 - Enrollees in the high deductible CDHP are more educated and are less likely to have a chronic illness than PPO or low deductible CDHP (though no income differences)
 - Low deductible CDHP enrollees more closely resemble PPO enrollees, but are more likely to be female and have internet access
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Plan Enrollment and Seeking Health Information (Multivariate)

| | Adjusted Odds Ratio | | |
|---|----------------------|---------------------|--------|
| | CDHP High Deductible | CDHP Low Deductible | PPO |
| Used any website for health information | 1.3 | 1.7** | (1.00) |
| Used telephone nurse advice line or health coach | 1.0 | 1.5 | (1.00) |
| Used website or book that helps you figure out how to handle symptom or problem | 0.9 | 1.2 | (1.00) |

Control variables include: Use of resource in 2003, socio-economic characteristics, health characteristics and consumer characteristics.

*p<.10 **p<.05 ***p<.01

Plan Enrollment and Seeking Cost & Quality Information (Multivariate)

| Dependent Variables | Adjusted Odds Ratio | | |
|--|----------------------|---------------------|--------|
| | CDHP High Deductible | CDHP Low Deductible | PPO |
| Used website or booklet that compares the quality of hospitals | 0.7 | 1.8 | (1.00) |
| Used website or booklet that compares prescription drug costs | 1.4 | 1.8** | (1.00) |

Control variables include: Use of resource in 2003, socio-economic characteristics, health characteristics and consumer characteristics.

*p<.10 **p<.05 ***p<.01

Plan Enrollment and Risky Cost-Saving Behaviors

(Multivariate)

| Actions to Save Money: | Adjusted Odds Ratio | | |
|---|----------------------|---------------------|--------|
| | CDHP High Deductible | CDHP Low Deductible | PPO |
| Did not go to the doctor when thought you should have | 2.1*** | 1.0 | (1.00) |
| Deciding against having a lab test | 2.2*** | 1.0 | (1.00) |
| Taking a lower dose of a prescription drug than was recommended | 2.7** | 0.8 | (1.00) |
| Not filling a prescription | 1.9** | 1.0 | (1.00) |

Control variables include: Reporting risky cost saving behavior in 2003, socio-economic characteristics, health characteristics and consumer characteristics.

*p<.10 **p<.05 ***p<.01

Evidence suggests:

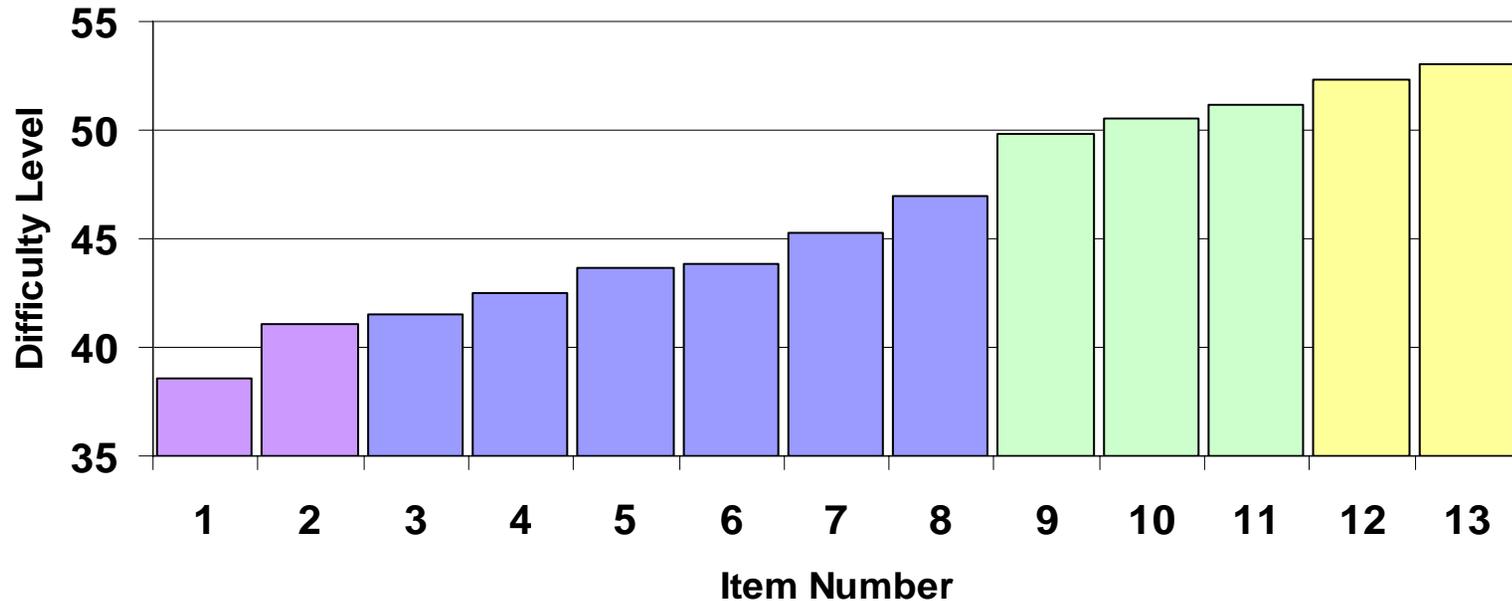
- The Low Deductible Enrollees are more likely to engage the behaviors that CDHPs are seeking to encourage
 - The High Deductible Enrollees are more likely to engage in more risky cost-saving behaviors
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It is hypothesized that enrollees will become more “activated” over time

- Using a validated measure of patient activation, we did not find that there were activation differences in enrollees at baseline, nor did we find that enrollees in any one plan design became more activated over time.
 - An additional question is: Do those who are more activated fare better in a CDHP?
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Patient Activation Measurement (PAM)

Difficulty Structure of 13 Items



4 Stages of Activation

Does Not Yet Believe they have Active/Important Role

Lack Confidence and Knowledge to Take Action

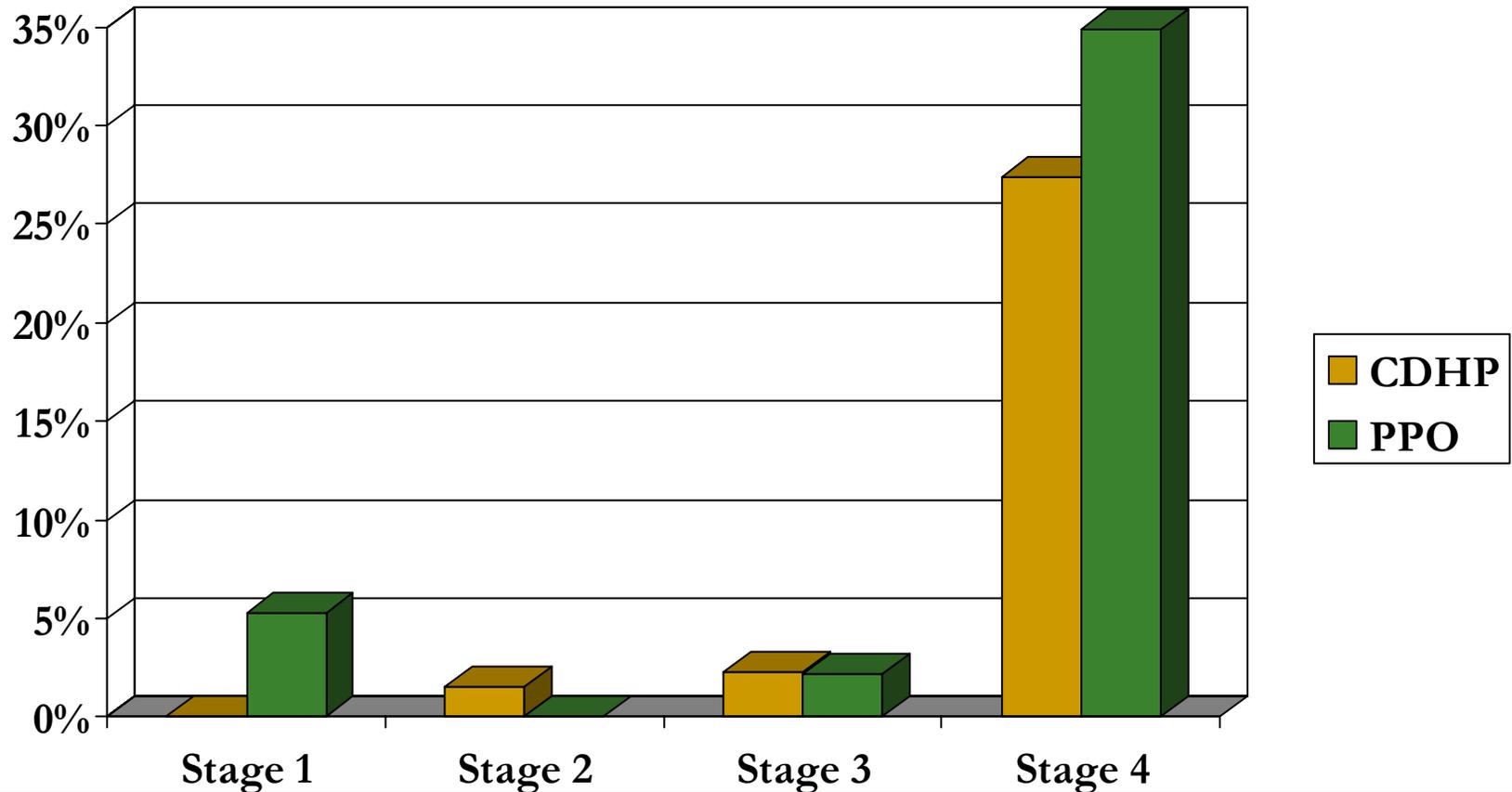
Beginning to Take Action

Maintaining Behaviors Over Time

Those who are more Activated are....

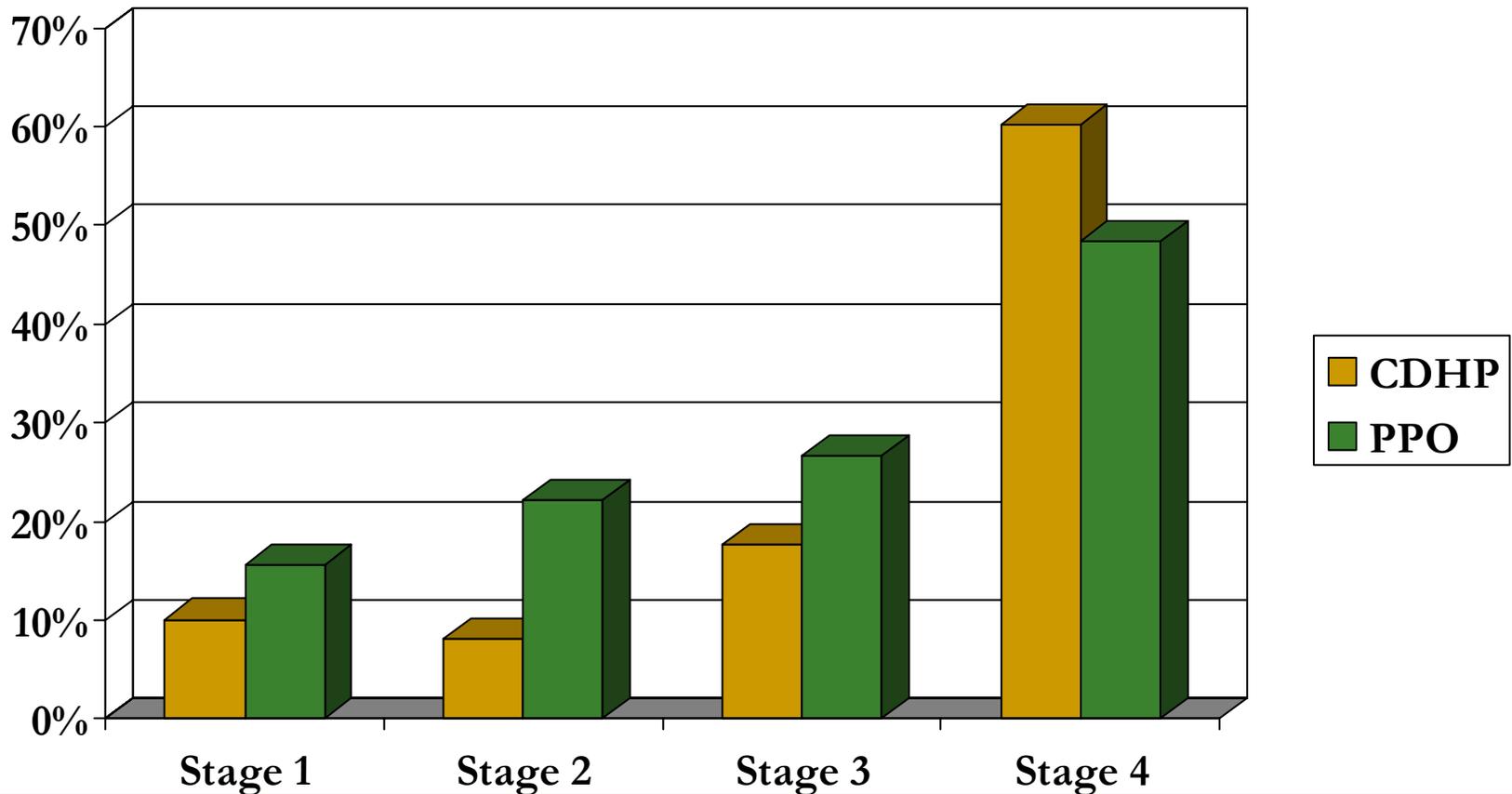
- More likely to Seek Quality Information ($r = .07^{**}$)
- More likely to Seek Health Information ($r = .15^{***}$)
- Less likely to Engage in Risky Cost Saving Behaviors ($r = -.10^{***}$)
- More likely to Engage in Healthy Behaviors ($r = .26^{***}$)
- More likely to Engage in disease-specific Self-management Behaviors ($r = .19^{***}$)

Confidence in making choices that will lower costs without lowering the quality of care--- by plan type and activation stage



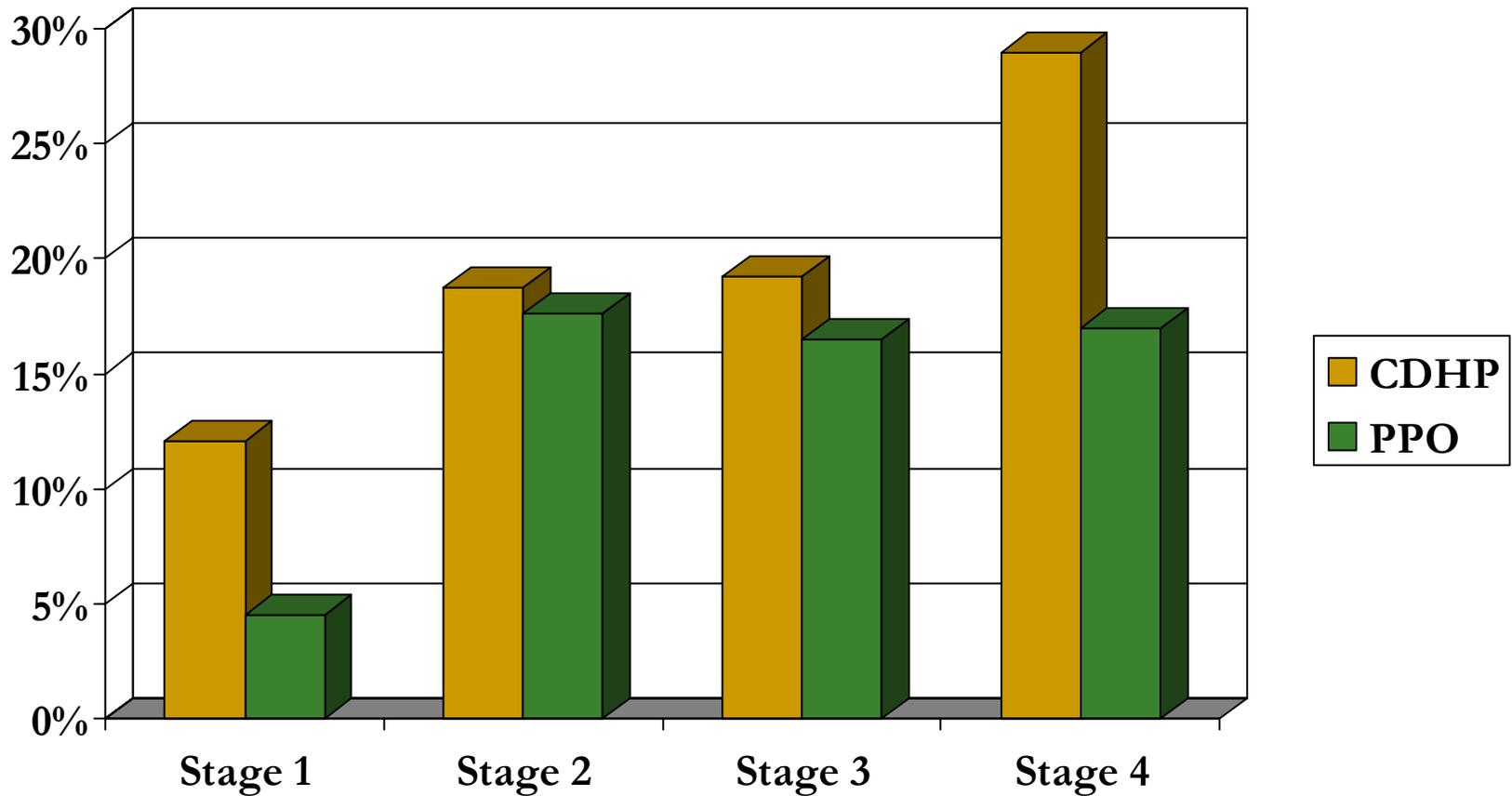
Percentage of responses of "Strongly Agree"

“When I do not understand, I am persistent in asking a doctor to explain something until I understand it ”
by plan type and activation stage (2005)



Percentage of responses of “Agree Strongly”

How “in charge” of your health care are you? by plan type and activation stage (2005)



Percentage of responses of “More than last year.”

Those who are more activated....

- Are better prepared to meet the challenges posed in a CDHP
 - However, we do not see evidence that enrollees become more activated as a result of being in a CDHP
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Operationalizing “Cost-Effective Choices”

Measuring “unproductive utilization”

- Using a schema based on the Oregon Health Plan priority list, ICD-9 codes are used to classify office visits into productive (evidence for efficacy) vs unproductive care (little or no evidence of efficacy).
 - Acute and chronic visits are examined. Ratios of acute “unproductive” visits are calculated by dividing the number of “unproductive” acute visits by the number of all acute visits (for those with at least 3 visits in 2003) The ratios indicate a “pattern of use.”
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Examples of the most common “unproductive” acute and chronic visits

■ Acute

- Acute non-specific upper respiratory infection
- Cough
- Acute pharyngitis
- Impacted cerumen (earwax)

■ Chronic

- Allergic Rhinitis
 - Rotator cuff syndrome non-specific
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Ratios of “unproductive” Acute Visits

For those with a minimum of three visits in 2003

| | CDHP High Deductible | CDHP Low Deductible | PPO |
|---------|----------------------|---------------------|-----|
| 2003 | .50 | .46 | .48 |
| 2004*** | .50 | .42 | .47 |

Ratios of “unproductive” Chronic Care

Visits for those with a minimum of 3 visits in 2003

| | CDHP High Deductible | CDHP Low Deductible | PPO |
|------|----------------------|---------------------|-----|
| 2003 | .41 | .41 | .42 |
| 2004 | .39 | .35 | .39 |

Use of “unproductive” acute care visits in 2004 (Beta weights from regression)

| PPO compared to Low deductible CDHP | High deductible CDHP compared to Low deductible |
|-------------------------------------|---|
| .108*** | .044* |

Controlling for unproductive acute care in 2003, age, gender, employment type, and Charlson Co-morbidity Index

Key: * $p < .05$, *** $p < .001$

Use of “unproductive” chronic care visits in 2004 (Beta weights from regression)

| | |
|-------------------------------------|---|
| PPO compared to Low deductible CDHP | High deductible CDHP compared to Low deductible |
| .034*** | .044* |

Controlling for unproductive chronic care in 2003, age, gender, employment type, and Charlson Co-morbidity Index

Key: * $p < .05$, *** $p < .001$

Evidence for Cost-Effective Choices in the Claims Data

- This is only true for the low deductible CDHP enrollees
 - Low Deductible enrollees are also more likely to engage in behaviors that support informed choices (information seeking)
 - High deductible enrollees have less effective utilization patterns that are largely unchanged from pre-enrollment period and similar to PPO enrollees.
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Conclusions

- Emerging evidence supports both the hopes and the fears around CDHPs
 - Enrollees in the low deductible appear to adopt the hoped for behaviors
 - However, more cost exposure in the high deductible is related to more risky cost-saving behaviors
 - The theory seems to be correct, but greater cost sharing appears to be counter productive
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