# Communicating with Consumers About Health Care Value : A Controlled Experiment

Judith Hibbard and Jessica Greene, University of Oregon
Shoshanna Sofaer and Kirsten Firminger, Baruch College
Judy Hirsh, Health Improvement Collaborative of Greater Cincinnati

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# Communicating about Cost and Resource

- Consumers tend to think that when it comes to medical care, that more is better
- Some consumers may equate higher cost with higher quality care
- We explore communication strategies that overcome these beliefs

# Research Questions

- Are there more and less effective ways to present data about cost so that consumers choose high value providers?
  - Does the labeling of cost impact consumer likelihood of valuing it?
  - Is cost data more likely to be correctly interpreted when there is a strong quality signal?
- Are there more and less effective ways to present resource use measures – such as "imaging" for improving choices and comprehension of concept?

# Study Population

- Employees from 2 large employers (n=1421)
- Data collected by 2 employers and sponsored by MHQP
  - Respondents randomly assigned into 3 groups
  - On-line survey, data collected April – June 2011

# Study Population

- No Differences in demographic characteristics across the three study groups
  - Average age 45
  - 62% male, 81% white
  - 70% have college education
  - 38% had at least one chronic illness
  - 22% in high deductible health plans

# Design, Part 1

- Experimental design with respondents randomized to view one of three cost labels
  - Careful with your health care dollars
  - Average cost of office visit (dollar amount)
  - Average cost of office visit ($,$$,$$$)
- Each respondent viewed 3 comparative PCP tables
  - No quality signal (only convenience measures)
  - Weak quality signal (detailed measures with percentages)
  - Strong quality signal (summary measures with word icons)
- Six PCPs were included in each comparative table
  - High value PCP (most convenient or highest quality & lowest cost)
  - High cost PCP (most convenient or highest quality & high cost)
  - Medium cost PCP (almost as convenient/high quality & medium cost)
  - 3 other PCPs of lower convenience/quality

# Group 1
# Careful with your health care dollars
# No Quality Signal

| Doctor | Weekend Hours | Driving Distance | Same Day Office Visits | Careful with Your Health Care Dollars |
|---|---|---|---|---|
| Dr. White | Saturday (9am-noon) | 6 miles | No | ✡✡ |
| Dr. Ramsey | Saturday (9am-3pm) | 5 miles | Yes | ✡✡✡ |
| Dr. Abbot | None | 10 miles | Yes | ✡ |
| Dr. James | Saturday (9am-3pm) | 5 miles | Yes | ✡ |
| Dr. Albright | None | 8 miles | No | ✡✡✡ |
| Dr. Casey | Saturday (9am-noon) | 7 miles | Yes | ✡✡ |

✡✡✡ Very careful (lower costs) ✡✡ Somewhat careful (average costs) ✡ Less careful (higher costs)

# Group 2
# Dollar Amount
# No Quality Signal

| Doctor | Weekend Hours | Driving Distance | Same Day Office Visits | Average Cost for Office Visit |
|---|---|---|---|---|
| Dr. White | Saturday (9am-noon) | 6 miles | No | $150 |
| Dr. Ramsey | Saturday (9am-3pm) | 5 miles | Yes | $95 |
| Dr. Abbot | None | 10 miles | Yes | $180 |
| Dr. James | Saturday (9am-3pm) | 5 miles | Yes | $195 |
| Dr. Albright | None | 8 miles | No | $110 |
| Dr. Casey | Saturday (9am-noon) | 7 miles | Yes | $140 |

Average cost includes what is paid by your health plan and by you.

# Group 3
# Dollar Signs
# No Quality Signal

| Doctor | Weekend Hours | Driving Distance | Same Day Office Visits | Average Cost for Office Visit |
|---|---|---|---|---|
| Dr. White | Saturday (9am-noon) | 6 miles | No | $$ |
| Dr. Ramsey | Saturday (9am-3pm) | 5 miles | Yes | $ |
| Dr. Abbot | None | 10 miles | Yes | $$$ |
| Dr. James | Saturday (9am-3pm) | 5 miles | Yes | $$$ |
| Dr. Albright | None | 8 miles | No | $ |
| Dr. Casey | Saturday (9am-noon) | 7 miles | Yes | $$ |

$ costs were less than average, $$ costs were average, $$$ costs were above average.
Costs include what is paid by your health plan and by you.

# Group 3
# Dollar Signs
# Quality Signal: Weak

| Doctor | Percent of Diabetes Patients Tested for HbA1c | Uses Electronic Medical Record | Percent of Patients Saying Office Staff is Helpful | Average Cost for Office Visit |
|---|---|---|---|---|
| Dr. Hall | 65% | Yes | 60% | $$ |
| Dr. Winston | 55% | No | 80% | $ |
| Dr. Peters | 75% | Yes | 80% | $$$ |
| Dr. Fargo | 70% | Yes | 80% | $$ |
| Dr. Tremayne | 65% | Yes | 75% | $$$ |
| Dr. Rabin | 75% | Yes | 80% | $ |

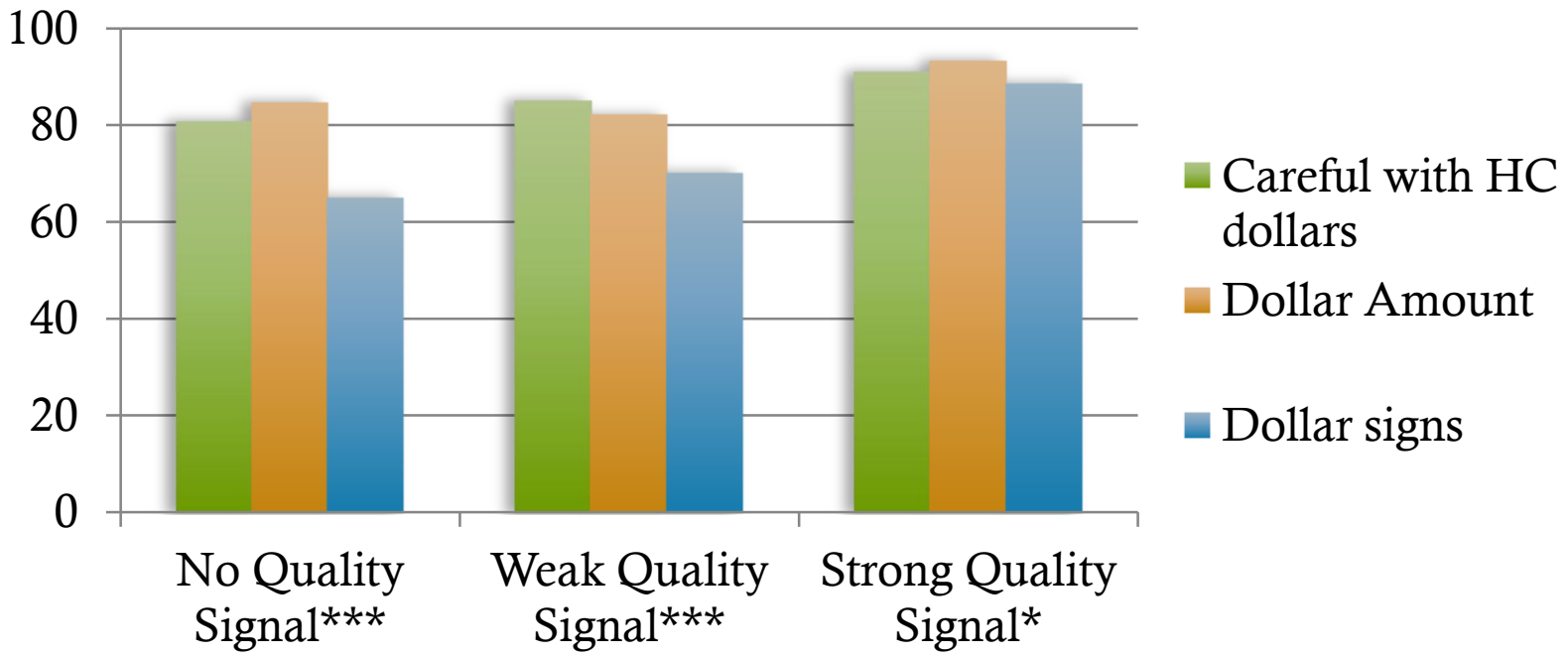
$ costs were less than average, $$ costs were average, $$$ costs were above average
Costs include what is paid by your health plan and by you.

# Group 3
# Dollar Signs
# Quality Signal: Strong

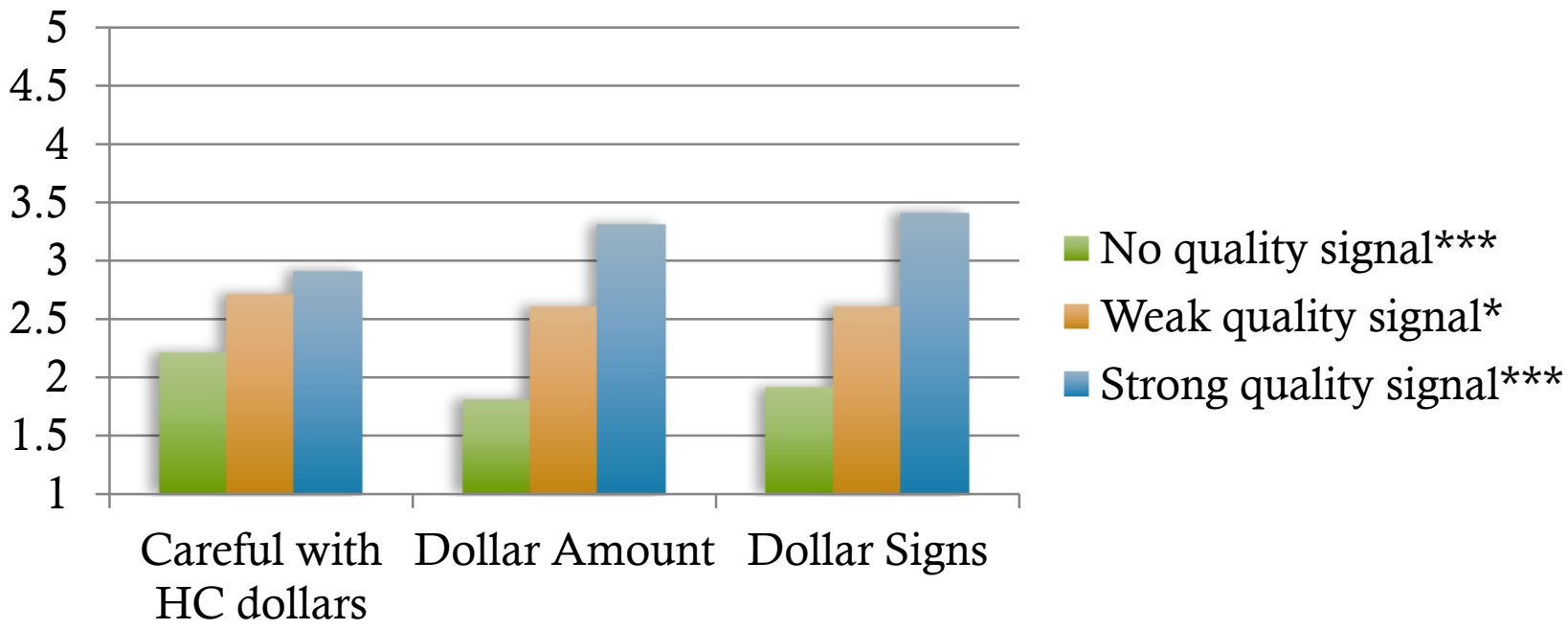
| Doctor | Uses Treatments Proven to Get Results | Has Safeguards to Protect Patients from Medical Errors | Responsive to Patients' Needs and Preferences | Average Cost for Office Visit |
|---|---|---|---|---|
| Dr. Hunter | better | better | better | $ |
| Dr. Marcus | below | below | better | $ |
| Dr. Garrett | average | better | better | $$$ |
| Dr. Seidman | average | better | below | $$ |
| Dr. Friedman | better | better | better | $$$ |
| Dr. Houten | better | average | better | $$ |

$ costs were less than average, $$ costs were average, $$$ costs were above average
Costs include what is paid by your health plan and by you.

# Percent Choosing High Value (lower cost) Provider

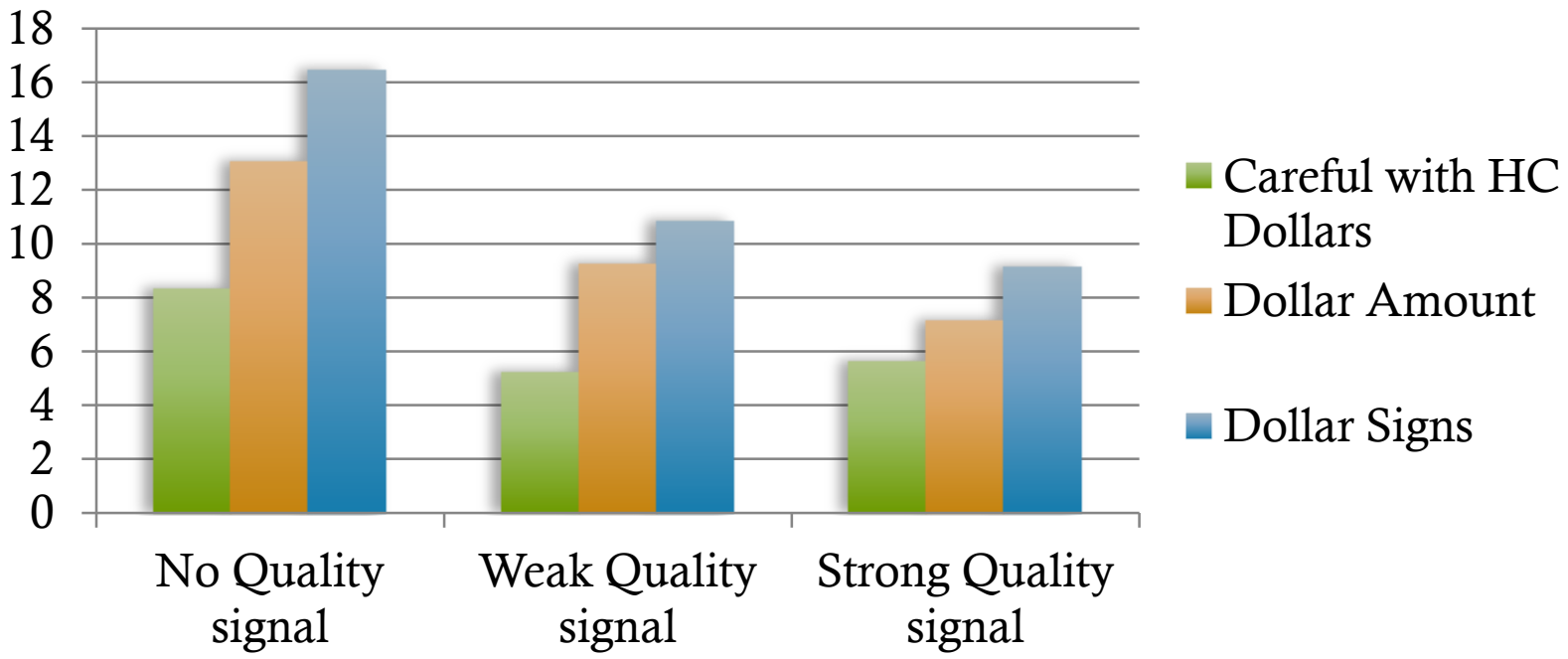


# Average Score on Confidence in Choice




1= low confidence; 4=high confidence

# Percent That Believe High Cost Option is Best Quality



# Design, Part 2
# Reporting on Resource Use

- Experimental design with respondents randomized to view one of groups:
  - Physicians who use a low, medium, or high number of MRI's and CAT scans
  - Physicians who use a low, medium, or high number of MRI's and CAT scans (data shown with a framing statement, suggesting more is not always better)
  - Physicians who use the appropriate number of MRI's and CAT scans
- Experimental design with respondents randomized to view one of three groups:
  - Hospitals with cost and quality information
  - Hospitals with cost, quality, and best value
  - Hospitals with cost

# Group 1
# Resource Use

| Doctor | Weekend Hours | Driving Distance | Same Day Office Visits | Use of MRI's and CAT scans |
|---|---|---|---|---|
| Dr. Gray | None | 10 miles | No | Medium |
| Dr. Ballard | Saturday (9am-noon) | 5 miles | Yes | Low |
| Dr. Gains | Saturday (9am-noon) | 5 miles | Yes | Medium |
| Dr. Miles | Saturday (9am-3pm) | 6 miles | Yes | Low |
| Dr. Dorsey | None | 8 miles | No | High |
| Dr. Wolsey | Saturday (9am-noon) | 5 miles | Yes | High |

# Group 2
# Resource Use With Framing

## More isn't always better:
## Too many imaging tests can be harmful

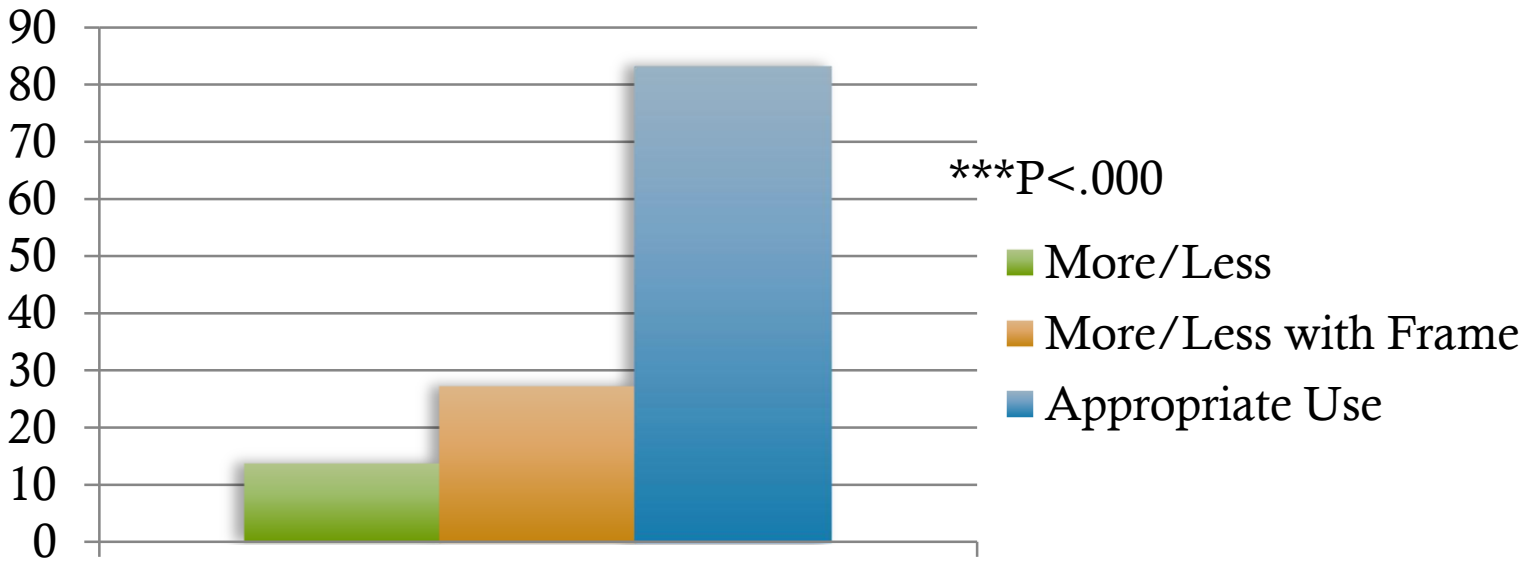
| Doctor | Weekend Hours | Driving Distance | Same Day Office Visits | Use of MRI's and CAT scans |
|---|---|---|---|---|
| Dr. Gray | None | 10 miles | No | Medium |
| Dr. Ballard | Saturday (9am-noon) | 5 miles | Yes | Low |
| Dr. Gains | Saturday (9am-noon) | 5 miles | Yes | Medium |
| Dr. Miles | Saturday (9am-3pm) | 6 miles | Yes | Low |
| Dr. Dorsey | None | 8 miles | No | High |
| Dr. Wolsey | Saturday (9am-noon) | 5 miles | Yes | High |

# Group 2
# Resource Use Affective Labeling

| Doctor | Weekend Hours | Driving Distance | Same Day Office Visits | Uses MRIs and CAT Scans Only When Appropriate |
|---|---|---|---|---|
| Dr. Gray | None | 10 miles | Yes | ✡✡ |
| Dr. Ballard | Saturday (9am-noon) | 7 miles | Yes | ✡✡ |
| Dr. Gains | Saturday (9am-3pm) | 5 miles | Yes | ✡✡✡ |
| Dr. Miles | None | 8 miles | No | ✡ |
| Dr. Dorsey | Saturday (9am-3pm) | 5 miles | Yes | ✡ |
| Dr. Wolsey | Saturday (9am-noon) | 6 miles | No | ✡✡✡ |

✡✡✡ Very appropriate use of tests ✡✡ Often appropriate use of tests ✡ Less appropriate use of tests

# Percent Selecting High Value Provider



# Group 1
# Selecting Hospitals– Cost only

| Hospital | Driving Distance | Electronic Records and Prescribing | Average Costs |
|---|---|---|---|
| Evergreen Hospital | 5 miles | Yes | $$$ |
| Lakeview Hospital | 15 miles | Yes | $ |
| Woodland Hospital | 7 miles | No | $$$ |
| Sierra Vista Hospital | 5 miles | Yes | $ |
| Parkdale Hospital | 6 miles | Yes | $$ |

# Group 2
# Selecting Hospitals– Cost and Quality

| Hospital | Driving Distance | Electronic Records and Prescribing | Quality Of Care | Average Costs |
|---|---|---|---|---|
| Evergreen Hospital | 5 miles | Yes | better | $$$ |
| Lakeview Hospital | 15 miles | Yes | better | $ |
| Woodland Hospital | 7 miles | No | average | $$$ |
| Sierra Vista Hospital | 5 miles | Yes | better | $ |
| Parkdale Hospital | 6 miles | Yes | better | $$ |

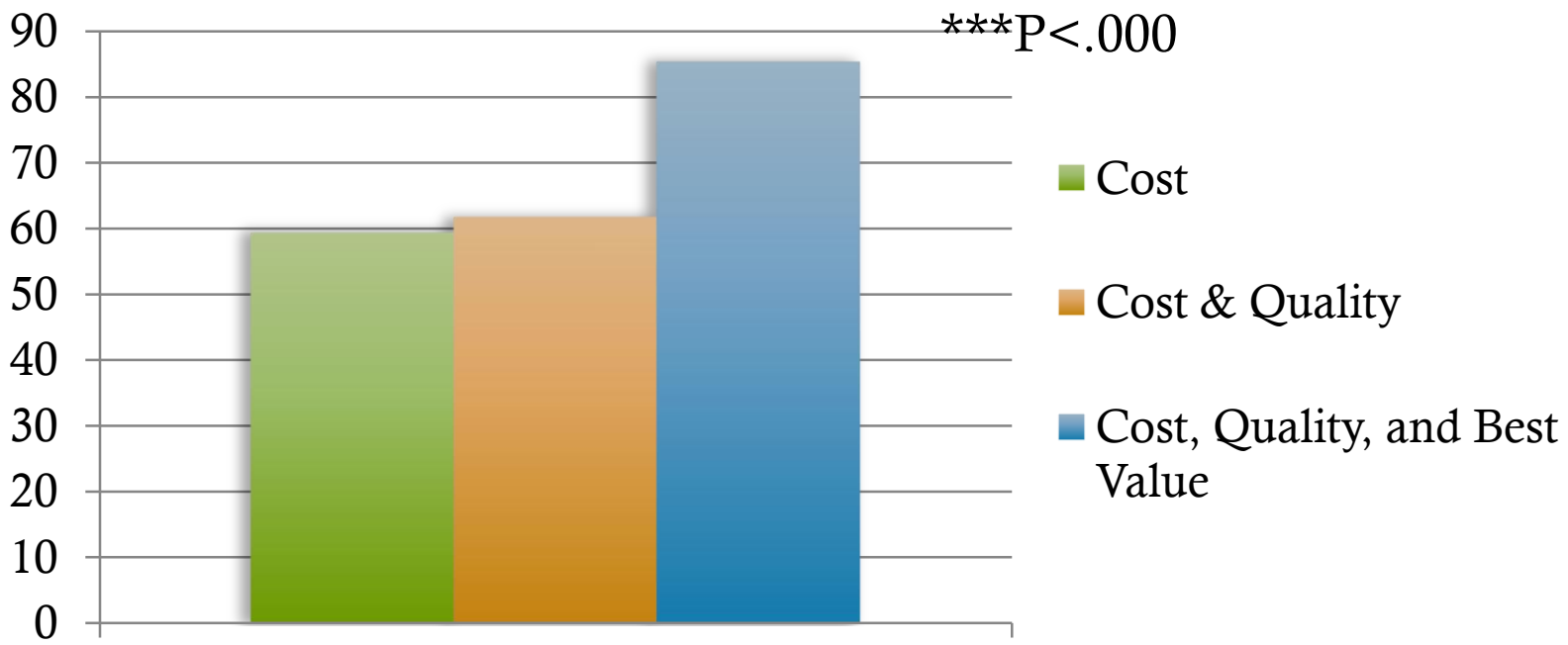
$ costs were less than average, $$ costs were average, $$$ costs were above average
Costs include what is paid by your health plan and by you.

# Group 3
# Selecting Hospitals– Cost, Quality & Best Value

| Hospital | Driving Distance | Electronic Records and Prescribing | Quality Of Care | Average Costs | High Value (High Quality and Low Cost) |
|---|---|---|---|---|---|
| Evergreen Hospital | 5 miles | Yes | better | $$$ | |
| Lakeview Hospital | 15 miles | Yes | better | $ | ✔ |
| Woodland Hospital | 7 miles | No | average | $$$ | |
| Sierra Vista Hospital | 5 miles | Yes | better | $ | ✔ |
| Parkdale Hospital | 6 miles | Yes | better | $$ | |

$ costs were less than average, $$ costs were average, $$$ costs were above average
Costs include what is paid by your health plan and by you.

# Percent Selecting High Value Hospital



# Summary

- Most consumers selected low cost doctors and hospitals when quality or convenience was high
- A significant minority of consumers view cost as a proxy for quality and/or avoid low cost providers
- How cost is portrayed does make a difference in how it is interpreted and used. Use of dollar signs ($$) least effective approach
- When a strong quality signal is paired with cost information, consumers are more likely to choose the high value option. They also report higher confidence in their choice.
- Consumers need help interpreting data– particularly when it comes to resource use. When "affective labels" are used (interpreting data), consumers more likely to choose high value provider. (e.g. Careful with your health care dollars; Appropriate MRI use; High value hospital). It helps consumers to "call out" high value providers in the data display

# Conclusions

- Both considering cost and actually using comparative cost information is new for consumers.
- Help in interpreting the information and sending a strong quality signal will likely determine whether or not reports stimulate high value choices among consumers.