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### Patients' Willingness to Discuss Trade-offs to Lower Their Outof-Pocket Drug Costs

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Efforts to reform the U.S. health care system have placed considerable attention on patients' financial burden from out-of-pocket drug costs. Patients frequently have difficulty paying for medications and although they are encouraged to discuss ways to lower drug costs with physicians, such communication frequently fails to occur.<sup>1-4</sup> Physicians may be reluctant to initiate these cost discussions because some cost-cutting strategies involve potential trade-offs such as increased dosing frequency, or risk of side effects, or lower treatment effectiveness.<sup>1</sup> Knowing patients' willingness to consider such less than optimal cost-lowering strategies could encourage physicians to discuss drug costs with their patients.

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#### Methods

We conducted a 2004 patient survey as part of the longitudinal Translating Research Into Action for Diabetes study to examine diabetes quality of care in 10 health plans and six states.<sup>5</sup> Participants reported whether they wanted physicians to talk about medications that cost less but a) had to be taken more often, b) may have a slightly higher chance of side effects, or c) may not work as well.

#### Results

Of the 5,085 patients (CASRO response rate 75%), two-thirds were willing to discuss at least one of the three trade-off strategies. Patients said they wanted to be told about lower cost drugs with higher chance of side-effects (38%), or lower effectiveness (32%), or higher dosing frequency (59%). Among the 712 participants (14%) who said they had reduced medication use because of cost, rates were 47%, 42%, and 82% respectively. Even among the 4,373 participants who had not reduced medication use because of cost, rates were 47%, 42%, and 56% respectively. Among those open to discussing trade-offs, only 19% said their physician usually or always discussed drug costs when prescribing. In multivariate analyses, participants with lower income, higher out-of-pocket drug costs, and poorer health were significantly more willing to discuss trade-offs (Table 1).

#### Discussion

This is the first large-scale study to examine the willingness of patients with diabetes to discuss specific types of trade-offs to lower drug costs with their physicians. The majority wanted physicians to discuss ways to lower drug costs even if it required higher dosing frequency, and 1 in 3 wanted to know about lower cost drugs with potentially greater sideeffects or lower effectiveness. Importantly, even among participants who did not decrease medication use because of cost, 1 in 4 wanted to know about cost-lowering strategies that could negatively affect health. Our findings are novel in that prior studies have only documented patients' willingness to discuss out-of-pocket drug costs in general and not specific strategies that would require trade-offs.<sup>3,4</sup> Physicians may be appropriately reluctant to discuss drug costs when they perceive cost-lowering strategies to be less optimal than patients' current medications.<sup>1</sup> However, physicians then risk patients reducing medication use to lower costs without telling their physicians' or getting their advice.<sup>2</sup> The fact that participants with poor (vs. good) health were significantly more willing to consider such trade-offs highlights further that physicians need to be actively involved in advising patients on the appropriateness of such trade-offs. A limitation of our study is that we did not present specific prescribing scenarios or measure patients' actual treatment choice. When faced with real rather than theoretical choices, patients may opt to pay more rather than making any trade-offs. Patients' willingness to make tradeoffs may also vary substantially across disease targets.<sup>6</sup> However, our results support that patients are at least open to such discussions with physicians.

#### Conclusion

Given patients' financial burden from drug costs and willingness to discuss drug costs, physicians should not avoid initiating such cost discussions, even if the available strategies to lower drug costs could require patients to accept potential trade-offs.

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# Table 1

Patients' willingness to discuss trade-offs to lower out-of-pocket drug costs (Adjusted Predicted Percents)\* 1 of 2

| Age         O         S         S         S         S           18-44 (reference)         63%         0.73         39%         0.99           18-44 (reference)         61%         >         39%         0.99           45-64         0.5         61%         >         39%         0.99           65+         0.5         0.5         0.0         36%         <         0.0           65+         0.5         0.5         0.05         36%         <         0.0           65+         0.5         0.5         0.05         36%         <         0.0           65%         0.05         0.05         0.05         36%         0.02            Male         0.05         0.05         0.05         36%         0.02            Male         0.05         0.05         0.05         36%         0.02            Male         0.05         0.05         0.05         36%         0.02           Male         0.05         0.05         0.05         36%         0.02           Male         0.05         0.05         0.05         36%         0.02           Matite (reference)                           |                                       | Higher<br>frequ | Higher dosing<br>frequency | Higher<br>side e | Higher risk of<br>side effects | Lo<br>effect | Lower<br>effectiveness |
|--|---------------------------------------|-----------------|----------------------------|------------------|--------------------------------|--------------|------------------------|
| (reference)63%0.7339%(reference)61%739%(reference)62%739%(reference)63%0.0636%(reference)63%0.0636%(reference)60%0.3338%(reference)60%0.3338%(reference)60%0.3338%(reference)60%0.3338%(reference)60%0.3338%(reference)60%0.3338%(reference)60%0.3338%(reference)60%0.3338%(reference)60%0.3338%(reference)60%0.1940%(reference)60%0.1940%(reference)60%0.1940%(reference)63%0.1940%(reference)63%0.1940%(reference)63%0.1940%(reference)63%0.1940%(reference)63%0.1940%(reference)63%0.1940%(reference)63%0.1940%(reference)63%0.1930%(reference)63%0.1930%(reference)63%0.1930%(reference)63%0.1930%(reference)63%0.1930%(reference)63%0.1930%(reference)63%0.1930% <th>Age</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>   | Age                                   |                 |                            |                  |                                |              |                        |
| 61%         61%         39%           er         62%         39%           er         62%         39%           er         63%         0.06         36%           er         63%         0.06         36%         23%           er         63%         0.06         36%         24%           er         60%         0.03         38%         23%           er         60%         0.03         38%         24%           er         60%         0.03         38%         24%           or         60%         0.01         40%         24%           or         0000         63%         0.01         40%         24%           or         000         0  | 18-44 (reference)                     | 63%             | 0.73                       | 39%              | 0.99                           | 31%          | 0.83                   |
| 62%         62%         39%           etr         52         39%         39%           etr         63%         0.06         36%         36%           te (reference)         63%         0.06         36%         36%           te (reference)         60%         0.03         38%         38%           city         60%         0.33         38%         38%           city         60%         0.33         38%         38%           citreence)         60%         0.33         38%         38%           tereference)         60%         0.33         38%         38%           n American         60%         0.33         38%         33%           pactific Islander         60%         0.33         38%         33%           pactific Islander         64%         0.19         40%         33%           dation         63%         0.19         40%         33%           n American         63%         0.10         41%         33%           n out         53%         0.10         33%         33%           n out         53%         0.10         33%         13%                    | 45-64                                 | 61%             |                            | 39%              |                                | 31%          |                        |
| er         63%         0.06         36%         1           le (reference)         63%         0.06         36%         1           city         60%         60%         36%         1           city         60%         0.05         36%         1           city         60%         0.05         36%         1           city         60%         0.05         38%         1           n American         60%         0.05         0.05         38%         1           n American         60%         0.05         0.06         38%         1           n American         64%         0.05         0.06         38%         1         1           n school         60%         0.06         0.06         0.06         38%         1         1           n school         60%         0.06         0.06         0.06         1         1         1           n school         0           | 65+                                   | 62%             |                            | 39%              |                                | 33%          |                        |
| le (reference)         63%         0.06         36%         36%           reference)         60%         12%         12%         12%           city         60%         0.33         38%         13%         1           city         60%         62%         0.33         38%         1           city         60%         62%         0.33         38%         1           n American         60%         60%         14%         1         1           n American         63%         63%         1 | Gender                                |                 |                            |                  |                                |              |                        |
| 60%         60%         42%           city         2         42%           city         2         42%           (reference)         62%         0.33         38%           n American         60%         0.4%         44%           n American         64%         0.0         38%           n school         60%         0.19         40%           n school         60%         0.19         40%           n buosehold income         63%         0.0         34%           n outoe         63%         0.0         34%           n outoe         55%         <01  | Female (reference)                    | 63%             | 0.06                       | 36%              | <.01                           | 30%          | 0.02                   |
| nce) $62\%$ $0.33$ $38\%$ ncent $62\%$ $0.33$ $38\%$ rican $60\%$ $0.33$ $38\%$ rican $60\%$ $0.33$ $38\%$ rican $60\%$ $0.33$ $38\%$ rican $60\%$ $0.3$ $38\%$ $58\%$ $63\%$ $0.19$ $40\%$ $63\%$ $0.19$ $40\%$ $10\%$ $60\%$ $60\%$ $0.19$ $40\%$ $10\%$ $61\%$ $60\%$ $0.19$ $40\%$ $10\%$ $10\%$ $61\%$ $60\%$ $0.19$ $40\%$ $10\%$ <td>Male</td> <td>%09</td> <td></td> <td>42%</td> <td></td> <td>34%</td> <td></td>  | Male                                  | %09             |                            | 42%              |                                | 34%          |                        |
| nnce)         62%         0.33         38%           rican         60%         0.3         38%           rican         60%         0.3         38%           sinder         58%         0.3         38%           sinder         64%         9.9         34%           sinder         64%         9.9         44%           63%         64%         9.0         46%           61         64%         9.0         46%           61         60%         0.19         40%           91         60%         0.19         40%           92         60%         0.19         40%           93%         53%         53%         53%           93%         60%         0.19         40%           93%         55%         50%         24%           93%         55%         50%         25%         24%           93%         55%         55%         54%         55%         54%  | Ethnicity                             |                 |                            |                  |                                |              |                        |
| nican         60%         38%           islander         58%         34%           58%         58%         34%           58%         64%         34%           63%         64%         44%           63%         63%         46%           63%         0.19         46%           63%         60%         0.19         40%           staduate         60%         0.19         40%           of the treference         63%         91         41%           conditione         63%         91         41%           conditione         63%         91         41%           staduate         57%         91         34%           staduate         55%         91         34%           staduate         63%         91         35%           staduate         55%         91         35%           staduate         63%         93%         93%           staduate         63%         91%         93%  | White (reference)                     | 62%             | 0.33                       | 38%              | 0.02                           | 27%          | <.01                   |
| 58%       58%       34%         Islander       64%       44%         63%       64%       44%         63%       63%       46%         63%       0.19       46%         1       60%       0.19       40%         1       60%       0.19       40%         1       60%       0.19       40%         1       60%       0.19       40%         1       60%       0.19       40%         1       60%       0.19       40%         1       60%       0.19       40%         1       60%       0.19       40%         1       60%       0.19       40%         1       0.000       63%       40%         1       0.00       55%       40         1       55%       40       35%         1       63%       0.0       39%         1       63%       0.0       14%         1       63%       0.0       14%         1       63%       0.0       14%         1       63%       0.0       14%         1       63%       0.   | African American                      | 60%             |                            | 38%              |                                | 38%          |                        |
| Islander $64\%$ $64\%$ $44\%$ $63\%$ $63\%$ $46\%$ $46\%$ $61\%$ $60\%$ $0.19$ $40\%$ $1000000000000000000000000000000000000$  | Latino                                | 58%             |                            | 34%              |                                | 30%          |                        |
| 63%       63%       46%         1       1       46%         1       1       1         1       60%       0.19       40%         1       60%       0.19       40%         1       60%       0.19       40%         1       60%       0.19       40%         1       60%       0.19       40%         1       60%       60%       33%         1       1       1       1         1       1       1       1       1         1       1       1       1       1       1         1       1       1       1       1       1       1         1<  | Asian/Pacific Islander                | 64%             |                            | 44%              |                                | 38%          |                        |
| I     60%     0.19     40%       graduate     60%     0.19     40%       graduate     60%     0.19     40%       staduate     60%     0.19     40%       contigher (reference)     63%     70     39%       colod     64%     <.01   | Other                                 | 63%             |                            | 46%              |                                | 37%          |                        |
| I       60%       0.19       40%         graduate       60%       0.19       40%         graduate       60%       53%       33%         e or higher (reference)       63%       70       39%         ehold income       63%       70       41%         6000       64%       <01  | Education                             |                 |                            |                  |                                |              |                        |
| graduate       60%       38%         e or higher (reference)       63%       39%         ehold income       63%       41%         ehold income       64%       <01   | < High school                         | 60%             | 0.19                       | 40%              | 0.82                           | 33%          | 0.49                   |
| c or higher (reference)       63%       39%         eehold income       63%       79%         60,000       64%       <01   | High school graduate                  | 60%             |                            | 38%              |                                | 38%          |                        |
| echold income       64%       <.01       41%          00,000       63%       <.01  | Some college or higher (reference)    | 63%             |                            | 39%              |                                | 31%          |                        |
| 64% <b>&lt;.01</b> 41%       60,000     63% <b>&lt;.01</b> 42%       ference)     57%     34%     34%       s     57% <b>&lt;.01</b> 35%       y good (reference)     55% <b>&lt;.01</b> 35%       63%     63%     14%     1       interscription     63%     1     3  | Annual household income               |                 |                            |                  |                                |              |                        |
| 0,000         63%         42%           ference)         57%         42%           s         77%         34%           s         57%         57%         34%           s         55%         50         35%         1           y good (reference)         55%         50         35%         1           63%         63%         1         35%         1         1           rescription         63%         1         31%         1  | < \$25,000                            | 64%             | <.01                       | 41%              | <.01                           | 34%          | 0.02                   |
| ference)       57%       54%         s       34%       34%         s       57%       54%       34%         y good (reference)       55%       <01       35%       1         odd (reference)       55%       <01       35%       1         odd (reference)       55%       <01       35%       1         odd (reference)       63%       <01       39%       1         odd (reference)       63%       <01       1%       1         orescription       <03%       <01       1%       1  | \$25,000 to \$50,000                  | 63%             |                            | 42%              |                                | 35%          |                        |
| s         s      | >\$50,000 (reference)                 | 57%             |                            | 34%              |                                | 28%          |                        |
| y good (reference)     55%     <.01  | Health status                         |                 |                            |                  |                                |              |                        |
| 63% 63% 63% estimation   |                                       | 55%             | <.01                       | 35%              | 0.04                           | 29%          | 0.049                  |
| 63% or escription  | Good                                  | 63%             |                            | 39%              |                                | 32%          |                        |
| Number of prescription   | Fair/poor                             | 63%             |                            | 41%              |                                | 34%          |                        |
| medications  | Number of prescription<br>medications |                 |                            |                  |                                |              |                        |

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|   | Higher<br>frequ | Higher dosing<br>frequency | Higher<br>side e | Higher risk of<br>side effects | Lo<br>effecti | Lower<br>effectiveness |
|---|-----------------|----------------------------|------------------|--------------------------------|---------------|------------------------|
| 1-5 medications (reference)             | 61%             | 0.42                       | 40%              | 0.31                           | 32%           | 0.63                   |
| 6 or more medications                   | 63%             |                            | 38%              |                                | 32%           |                        |
| Has prescription drug insurance         |                 |                            |                  |                                |               |                        |
| Yes                                     | 61%             | 0.18                       | 38%              | 0.23                           | 31%           | <.01                   |
| No (reference)                          | 63%             |                            | 41%              |                                | 36%           |                        |
| Out-of-pocket drug costs (per<br>month) |                 |                            |                  |                                |               |                        |
| \$50 (reference)                        | 55%             | <.01                       | 38%              | <.01                           | 32%           | 0.08                   |
| \$51 to \$100                           | 61%             |                            | 36%              |                                | 29%           |                        |
| \$101 to \$150                          | 68%             |                            | 42%              |                                | 33%           |                        |
| > \$150                                 | 77%             |                            | 46%              |                                | 37%           |                        |
|   |                 |                            |                  |                                |               |                        |

\* Adjusted for age, gender, race/ethnicity, education, income, health status, number of medications, have drug insurance, and monthly out-of-pocket drug costs