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To: Third Way

From: Actuarial Research Corporation

Subject: Final Scoring Memo: Medical Discussion Guides

Date: February 26, 2015

Policy Background

Background information on the policy issue is described below and comes from Avalere's work.[1]

> Many health problems do not have one obvious course of treatment but instead there are several options with various possible outcomes. For example, patients facing chronic back pain and screening for early-stage breast or prostate cancer have options ranging from doing nothing to multiple treatments. When the evidence suggests that there is more than one reasonable option, patients often experience confusion about their choices and how to make a decision. Physicians also frequently fail to provide all of the information necessary for patients to make informed decisions regarding their care and, instead, may act paternalistically toward patients.
>
> Several studies documented extreme variation in medical spending across the nation for Medicare patients even after adjusting for differences in illness. Despite differences in treatment options, there appear to be little or no relationship between the level of spending and health outcomes. Fisher and Wennberg et al. found that although average baseline health status of cohort members was similar across regions with differing spending levels, neither quality of care nor access to care was better for Medicare patients in high-spending regions.
>
> A decision aid (DA) can help better inform patients by describing the options and the likely outcomes in a way that patient can understand. DAs are tools that patients can utilize to educate themselves about options for their care and likely outcomes. They can be navigated online, on paper, using a telephone, or watching a DVD presentation. Information from the Das is used to supplement information given by health care professionals and can give patients the chance to take an active role in preference-sensitive decisions about their care.
>
> DAs are part of larger process called shared decision-making between patients and health professionals. Shared decision-making is a structured way for both to discuss medical decisions based on evidence-based information about potential courses of treatment and outcomes. It was found that shared decision-making reduced the prevalence of invasive procedures, and patients who use DAs were much more likely to report greater satisfaction with their care and their decisions.

This analysis looks at extending the medical discussion guides policy to the under 65 population. Modeling specifications for extending Medicare policies to the under 65 population are from Third Way.[2]

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[1] Avalere Health. (October 1, 2014). *Estimated Federal Impact of Policy Proposals for Use of Decision Aids.*

For Medicaid, states would be required to adopt the same policy as Medicare to ensure coverage and use of medical discussion guides. Exchange-based plans would be required to report on their use of medical discussion guides. Given the financial return to plans from medical discussion guides, virtually all private plans should have sufficient reason to adopt and encourage their use. States would enact reforms to informed consent laws that effectively make medical discussion guides a requirement for standard medical practice. There are no other specific policies, but employment-based plans should have sufficient incentive to adopt medical discussion guides once federal standards are established for their use.

Table 1 shows the total projected savings estimates by payer, including Medicare, Medicaid, private health insurance (PHI) and out-of-pocket (OOP). In summary, projected savings to Medicare total $9.3 billion over the 10-year period (2015-2024),[3] projected savings to Medicaid total $3.3 billion, projected savings to PHI total $4.3 billion and projected savings to OOP total $1.4 billion. Projected Medicaid savings are split by the federal government and by states using the average Federal Medical Assistance Percentage (FMAP) for states in FY2015 (59%).[4] Total projected savings including Medicare, Medicaid, PHI and OOP total $18.3 billion.

Estimation Process and Results

The estimation process for projecting savings for Medicaid and PHI is primarily based off of the methodology used in Avalere's memo for estimating Medicare savings ("20141010 Third Way Decision Aids.pdf"). Projected OOP savings are calculated using an estimate of how much OOP is associated with each dollar of payment through Medicare, Medicaid and PHI. Details on the estimation process and any additional assumptions made are described below.

Breast Cancer
We replicated the Medicare FFS population receiving mastectomies and breast-conserving therapy (BCT) using the assumptions provided in the Avalere memo. We then estimated a savings per patient on BCT using the total Medicare savings calculated by Avalere. This was the basis for the per capita savings used for the Medicaid and PHI estimates.

Total Medicaid enrollment for the time period examined is derived from CMS projections. The portion of the Medicaid population receiving mastectomies is based on an illustrative adjustment factor applied to the percent of the Medicare population receiving mastectomies.[5] The effect of medical discussion guides found in Medicare (75% reduction in mastectomies) is also applied to the Medicaid population. Similarly, the effect is discounted by 75% to account for complexities associated with Medicaid patients, physician preferences and differences in implementation settings. The percent of the total population choosing BCT over mastectomy is about 19%. This effect is assumed to be constant over the ten-year period.

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[2] D. Kendall email communication "Re: Thoughts on specs for Bundling option," November 5, 2014. Attachment: "ARC-Extending Third Way's Medicare Policies to under-65.doc."
[3] Avalere Health. (October 1, 2014). *Estimated Federal Impact of Policy Proposals for Use of Decision Aids.*
[4] Average FMAP percentage for total US (51). Accessed: http://kff.org/medicaid/state-indicator/federal-matching-rate-and-multiplier/
[5] An illustrative adjustment factor of 0.2 is applied to % of Medicare population receiving mastectomies, in order to estimate the percent of the Medicaid population receiving mastectomies. These four conditions are especially prevalent in the Medicare population, but rates are expected to be much lower in the under 65 population.

The number of Medicaid enrollees who will be on BCT each year as a result of medical discussion guides incorporates drug adherence rates, which affects the number of BCT patients who will be taking drugs that follow surgery, for BCT and mortality rates. We assume drug adherence rates consistent with the assumptions in the Avalere memo[6] for Medicaid: 77% will adhere in year 1, with rates declining by about 10% each year until they reach 50% in year 5 and beyond. The mortality rate is assumed to be half of the rate assumed in Medicare.

We estimated the effect of medical discussion guides in breast cancer for the PHI population in a similar manner, with small differences in assumptions. Enrollment estimates include the employer-sponsored insurance population and the exchange. In order to estimate the percent of the PHI population receiving mastectomies, we used an illustrative adjustment factor of 0.1 applied to the percent of the Medicare population receiving mastectomies. All other assumptions are held constant.

To estimate the effect of medical discussion guides in breast cancer on OOP spending, we used an estimate of how much OOP is associated with each dollar of payment through Medicare, Medicaid and PHI. The assumed distribution of total OOP savings is as follows: 5% of total Medicare savings, 2% of total Medicaid savings and 20% of total PHI savings. OOP savings are distributed across conditions based on each condition's share of total savings.

Heart Disease

We replicated the Medicare FFS population having heart surgery and choosing medical therapy using the assumptions provided in the Avalere memo. We then estimated a savings per patient choosing medical therapy using the total Medicare savings calculated by Avalere. This was the basis for the per capita savings used for the Medicaid and PHI estimates.

Estimates of total Medicaid enrollment are derived from CMS projections. The portion of the Medicaid population having heart surgery is based on an illustrative adjustment factor applied to the percent of the Medicare population having heart surgery.[7] The effect of medical discussion guides found in Medicare (21% reduction in heart surgeries) is also applied to the Medicaid population. Similarly, the effect is discounted by 75% to account for complexities associated with Medicaid patients, physician preferences and differences in implementation settings. The percent of the total population choosing medical therapy over heart surgeries is about 5%. This effect is assumed to be constant over the ten-year period.

The number of Medicaid enrollees who will be using medical therapy each year as a result of medical discussion guides incorporates drug adherence rates for medical therapy and mortality rates. We assume drug adherence rates consistent with the assumptions in the Avalere memo for Medicaid: 32% will adhere in year 1, and 50% will adhere in years 2 and beyond. The mortality rate is assumed to be half of the rate assumed in Medicare.

We estimated the effect of medical discussion guides in heart surgery for the PHI population in a similar manner, with small differences in assumptions, akin to previous estimates. Enrollment estimates include the employer-sponsored insurance population and the exchange. In order to estimate the percent of the PHI population having heart surgery, we used an illustrative adjustment factor of 0.1 applied to the percent of the Medicare population having heart surgery. All other assumptions are held constant.

[6] We interpolated values for drug adherence rates in years 2-4.

[7] An illustrative adjustment factor of 0.2 is applied to % of Medicare population having heart surgery, in order to estimate the percent of the Medicaid population having heart surgery.

To estimate the effect of medical discussion guides in heart surgery on OOP spending, we used an estimate of how much OOP is associated with each dollar of payment through Medicare, Medicaid and PHI. The assumed distribution of OOP savings is as follows: 5% of total Medicare savings, 2% of total Medicaid savings and 20% of total PHI savings. OOP savings are distributed across conditions based on each condition's share of total savings.

Hip and Knee Osteoarthritis

We replicated the Medicare FFS population having total hip replacement (THR) or total knee replacement (TKR) and the population choosing cortisone using the assumptions provided in the Avalere memo. We then estimated a savings per patient using cortisone using the total Medicare savings calculated by Avalere. This was the basis for the per capita savings used for the Medicaid and PHI estimates.

Estimates of total Medicaid enrollment are derived from CMS projections. The portion of the Medicaid population having THR or TKR is based on an illustrative adjustment factor applied to the percent of the Medicare population having THR or TKR.[8] The effect of medical discussion guides found in Medicare (26% and 38% reduction in THR and TKR respectively) is also applied to the Medicaid population. Similarly, the effect is discounted by 75% to account for complexities associated with Medicaid patients, physician preferences and differences in implementation settings. The percent of the total population choosing cortisone over THR is about 7% and almost 10% for TKR. This effect is assumed to be constant over the ten-year period.

The number of Medicaid enrollees who will be using cortisone each year as a result of medical discussion guides incorporates drug adherence rates for cortisone and mortality rates. We assume drug adherence rates consistent with the assumptions in the Avalere memo for Medicaid: 100% will adhere in year 1,[9] and adherence rates will fall by 10% each year for the remaining time period. The mortality rate is assumed to be half of the rate assumed in Medicare.

We estimated the effect of medical discussion guides in THR or TKR for the PHI population in a similar manner, with small differences in assumptions, akin to previous estimates. Enrollment estimates include the employer-sponsored insurance population and the exchange. In order to estimate the percent of the PHI population having THR or TKR, we used an illustrative adjustment factor of 0.1 applied to the percent of the Medicare population having THR or TKR. All other assumptions are held constant.

To estimate the effect of medical discussion guides in THR or TKR on OOP spending, we used an estimate of how much OOP is associated with each dollar of payment through Medicare, Medicaid and PHI. The assumed distribution of OOP savings is as follows: 5% of total Medicare savings, 2% of total Medicaid savings and 20% of total PHI savings. OOP savings are distributed across conditions based on each condition's share of total savings.

Lower Back Pain

We replicated the Medicare FFS population having microdiskectomies and the population choosing epidural injections (cortisone) using the assumptions provided in the Avalere memo. We then estimated a savings per patient using cortisone using the total Medicare savings calculated by Avalere. This was the basis for the per capita savings used for the Medicaid and PHI estimates.

Estimates of total Medicaid enrollment are derived from CMS projections. The portion of the Medicaid population having microdiskectomies is based on an illustrative adjustment factor applied to the percent of the

[8] An illustrative adjustment factor of 0.2 is applied to % of Medicare population having THR or TKR, in order to estimate the percent of the Medicaid population having THR or TKR.

[9] Assuming every patient choosing cortisone receives initial injection in year 1.

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Medicare population having microdiskectomies.[10] The effect of medical discussion guides found in Medicare (32% reduction in microdiskectomies) is also applied to the Medicaid population. Similarly, the effect is discounted by 75% to account for complexities associated with Medicaid patients, physician preferences and differences in implementation settings. The percent of the total population choosing cortisone over microdiskectomies is about 8%. This effect is assumed to be constant over the ten-year period.

The number of Medicaid enrollees who will be using cortisone each year as a result of medical discussion guides incorporates drug adherence rates for cortisone and mortality rates. We assume drug adherence rates consistent with the assumptions in the Avalere memo for Medicaid: 100% will adhere in year 1,[11] and adherence rates will fall by 10% each year for the remaining time period. The mortality rate is assumed to be half of the rate assumed in Medicare.

We estimated the effect of medical discussion guides in lower back pain for the PHI population in a similar manner, with small differences in assumptions, akin to previous estimates. Enrollment estimates include the employer-sponsored insurance population and the exchange. In order to estimate the percent of the PHI population having microdiskectomies, we used an illustrative adjustment factor of 0.1 applied to the percent of the Medicare population having microdiskectomies. All other assumptions are held constant.

To estimate the effect of medical discussion guides in lower back pain on OOP spending, we used an estimate of how much OOP is associated with each dollar of payment through Medicare, Medicaid and PHI. The assumed distribution of OOP savings is as follows: 5% of total Medicare savings, 2% of total Medicaid savings and 20% of total PHI savings. OOP savings are distributed across conditions based on each condition's share of total savings.

[10] An illustrative adjustment factor of 0.2 is applied to % of Medicare population having microdiskectomies, in order to estimate the percent of the Medicaid population having microdiskectomies.
[11] Assuming every patient choosing cortisone receives initial injection in year 1.

Final Estimates for Third Way

Estimated change in spending due to Medical Discussion Guides

ARC

Table 1: Estimated change in spending due to Medical Discussion Guides by payer
($ in billions, by fiscal year)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2015-2024
Medicare	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-1.0	-1.0	-1.0	-9.3
Medicaid-federal	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-2.0
total federal	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.2	-1.2	-1.2	-11.3
Medicaid-state	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-1.4
Private health insurance	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-4.3
Out-of-pocket spending	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-1.4
total-Medicare, Medicaid, PHI + OOP	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.9	-1.9	-1.9	-18.3