Despite the wealth of evidence that oral health is related to physical health, Medicare explicitly excludes dental care from coverage, leaving beneficiaries at risk for tooth decay and periodontal disease and exposed to high out-of-pocket spending. To profile these risks, we examined access to dental care across income groups and types of insurance coverage in 2012. High-income beneficiaries were almost three times as likely to have received dental care in the previous twelve months, compared to low-income beneficiaries—74 percent of whom received no dental care. We also describe two illustrative policies that would expand access, in part by providing income-related subsidies. One would offer a voluntary, premium-financed benefit similar to those offered by Part D prescription drug plans, with an estimated premium of $29 per month. The other would cover basic dental care in core Medicare Part B benefits, financed in part by premiums ($7 or $15 per month, depending on whether premiums covered 25 percent or 50 percent of the cost) and in part by general revenues. The fact that beneficiaries are forgoing dental care and are exposed to significant costs if they seek care underscores the need for action. The policies offer pathways for improving health and financial independence for older adults.
prevented or treated with timely dental care, including tooth decay, periodontal disease, and edentulism (having no natural teeth left). Providing striking evidence of the consequences of barriers to access to dental care, physical exams conducted as part of the National Health and Examination Survey in 2011 and 2012 showed that 19 percent of adults ages sixty-five and older had untreated dental caries and nearly 19 percent had lost all their teeth—and the rates of untreated dental caries and edentulism were 2.6 times and 1.7 times higher, respectively, among non-Hispanic blacks in that age group than among non-Hispanic whites.

This is not a groundbreaking discovery. In 2000 the surgeon general released a report that described the “silent epidemic” of dental and oral diseases in the United States, particularly among vulnerable populations. The report explained the role of oral health in overall health and well-being and made the case for better prevention and improved access to dental services. And in 2003 a public-private partnership led by the surgeon general released “A National Call to Action to Promote Oral Health,” with the primary aim of changing perceptions of oral health so that it was no longer overlooked or considered separately from and seen as less important than general health. However, this push to improve access to dental health services through better coverage for vulnerable populations, including children and older adults, was overshadowed at the time by efforts to introduce prescription drug coverage under Medicare, and the conversation remained on the fringes of the general health policy discourse.

In the past ten years alone, numerous bills have been introduced in the House of Representatives and the Senate to expand the coverage of dental services within the Medicare program. Pending bills include the Medicare Dental, Vision, and Hearing Benefit Act of 2016 and the Comprehensive Dental Reform Act of 2015. None of these bills has become law.

This study contributes to the literature in two important ways. First, it used recent data specific to Medicare beneficiaries to examine the degree to which older adults lack access to dental care or face high out-of-pocket expenses if they do obtain dental services. We measured vulnerability to these predicaments across household incomes, types of health insurance, and groups with and without supplemental dental insurance. This information, derived from our analysis of data in the 2012 Cost and Use Files of the Medicare Current Beneficiary Survey (MCBS), provides updated documentation of unmet need and guides the estimates of potential policy actions in the second half of the study.

The study’s second contribution is to outline two illustrative policies, both of which use a dental benefit design similar to what is currently offered in the private insurance market, and to provide cost estimates of expanding Medicare to provide such dental benefits. While various proposals, including the bills introduced in Congress, have been put forward for consideration, they lack sufficient specificity to inform policy makers about the costs of such changes. This study contributes to the policy discussion by providing cost information on policy alternatives, including those being considered by Congress.

We examined two potential policies, both of which offered the same dental benefits. Policy 1, similar to the Medicare prescription drug benefit (Part D), would offer a premium-financed, voluntary supplemental Medicare dental benefit with income-related subsidies for premiums and cost sharing. Policy 2 would expand dental benefits as a core benefit within the Medicare program. We chose to model policy 1 on Part D because Part D demonstrates how a service that had not been covered under Medicare could become a covered service. We designed policy 2 to reflect the bills currently under consideration in Congress, both of which would cover dental services under Medicare Part B.

In this article we provide estimates of the likely premiums and federal costs for the two policies, including the subsidies targeted to people with low incomes. The study’s goal was to document the need for action and develop cost estimates to inform the ongoing discussion about expanding dental coverage for older adults—but not to advocate for a particular policy.

Study Data And Methods

DATA To profile current Medicare beneficiaries’ access to dental care, and total and out-of-pocket spending on that care, we analyzed data from the 2012 MCBS Cost and Use Files. The MCBS asks beneficiaries about dental care they received during the past year, about what health insurance and supplemental dental insurance they had, and about what dental expenses they incurred during the same period.

There were 11,299 respondents to the 2012 survey, which provided a large enough sample for us to examine differences across categories of income and by whether or not respondents had insurance beyond Medicare—that is, Medicaid, employee retiree supplements (which we treated as employer-sponsored insurance), Medigap, or Medicare Advantage. The MCBS provides population weights, which we used to estimate the experiences of all Medicare beneficiaries.

ANALYSIS We used the 2012 MCBS Cost and
Use Files, with population numbers inflated to the 2016 Medicare population based on the historical and projected national health expenditures.\textsuperscript{17} We assumed that the same patterns of use that we observed in the 2012 data persisted in 2016. The analysis included population weights so that our results were representative of the 56.1 million Medicare beneficiaries in 2016. Throughout this article we display the weighted population numbers with access to dental care and weighted costs (which were also inflated to 2016 amounts).

\textbf{Assessment of coverage and use:} We grouped beneficiaries into five categories based on their annual income in relation to the federal poverty level. In 2016 an income of 100 percent of poverty for an individual was $11,407. We included several categories with incomes above but near poverty to examine the differences in access to and cost of dental care among people with relatively low incomes—particularly those who are not eligible for Medicaid. The categories correspond to the low-income thresholds applied in public programs, such as eligibility for low-income subsidies for Part D prescription drugs (where the threshold is an income below 150 percent of poverty), and Medicaid eligibility (an income below 100 percent of poverty).

Medicare beneficiaries who also qualify for Medicaid are referred to as dual eligibles. We distinguished between dual eligibles and people with incomes above but near poverty (less than 200 percent of poverty) who were not dual eligibles.

To assess access to and cost of dental care for people with supplemental dental insurance and those without it, we used MCBS respondents’ reports of having commercial dental insurance to indicate having supplemental dental benefits. Based on our analysis of the MCBS data, almost 12 percent of Medicare beneficiaries reported having some dental insurance—a share that is lower than that reported by other studies of dental insurance.\textsuperscript{5,6} This may reflect the fact that many people are not aware that their insurance covers some dental services.\textsuperscript{8,18}

\textbf{Examination of policy alternatives:} For the purposes of modeling use of and spending on dental care for the total Medicare population, we assumed that average spending was likely to be higher among people with dental insurance, incomes high enough to rule out cost as a barrier, or both.\textsuperscript{7} To estimate likely monthly premium costs of providing dental benefits, we therefore used the average total spending and use of higher-income beneficiaries (those with incomes of at least 200 percent of poverty) who had dental insurance.

By design, we capped total coverage in the policy options at $1,500 a year. We assumed that one preventive care visit, including an examination and cleaning, would be covered in full per year. Estimates for the resulting benefit costs of preventive care were taken from the American Dental Association.\textsuperscript{19} The MCBS provides information on respondents’ receipt of the low-income subsidy for Medicare, which we applied to our calculations of receipt of the low-income subsidy.

\textbf{Limitations} Our study had several limitations. First, the MCBS asks beneficiaries to report on their use of dental care and spending on it, including out-of-pocket spending. In contrast to the case for services covered by Medicare, the program has no administrative data to supplement beneficiaries’ reported dental experiences. As a result, we had no independent source to verify respondents’ reported use or expenses.

Second, for couples, the MCBS asks respondents to report on dental care experiences only for themselves but to report total income for the couple. As a result, our estimate of the percentages of incomes that went to out-of-pocket spending on dental care likely understates the share of income spent on dental care for couples.

Third, to model the cost of the dental benefit in the two policy options, we obtained estimates of the costs of preventive services from surveys conducted by the American Dental Association.\textsuperscript{19} The MCBS data for 2012 do not include detailed information on the type of dental care received—for example, whether it was an exam, x-rays, dentures, or crowns. Thus, we were not able to validate the costs of preventive services reported by the American Dental Association.

Fourth, we used data from only one year of the MCBS to generate estimates of use of and spending on dental care for the two policies, which may raise concerns about the stability of these estimates. However, a recent analysis of data from the MCBS by the Centers for Medicare and Medicaid Services showed that between 2002 and 2012, total spending on dental services increased in line with inflation, and out-of-pocket spending on dental services as a percentage of total spending on the services remained the same.\textsuperscript{20} This provides increased confidence in the stability of our estimates.

\textbf{Study Results}

\textbf{Access to dental care} We found that in 2012, fewer than half of all Medicare beneficiaries had any dental visits in the past twelve months (Exhibit 1). Use of dental services was steeply related to income: Only 26 percent of beneficiaries with incomes below 100 percent of poverty had a dental visit, compared to 73 percent of beneficiaries with incomes above but near poverty (less than 200 percent of poverty).
with incomes of at least 400 percent of poverty. Only 12 percent of beneficiaries (6,608,580 out of 56,100,001) reported having at least some dental insurance to help pay bills. By contrast, eight in ten Americans younger than age sixty-five who were covered by employer-sponsored health insurance had dental benefits.5

Medicare beneficiaries with employer-sponsored insurance were more likely than those with other types of insurance to have had a dental visit and have dental coverage (Exhibit 1). However, over the past three decades, retiree coverage has become less generous—in some cases, eliminating “extras” that were covered, such as dental services.6 Among beneficiaries who had any insurance other than Medicare, those who also had Medicaid were the least likely to have dental coverage and to have had a dental visit.

Having dental insurance made a positive difference in use of dental care. On average, Medicare beneficiaries with dental insurance reported having had any dental care at about double the rate of those without insurance (Exhibit 1). For beneficiaries with incomes of 100–149 percent of poverty, 27 percent without dental insurance had had a dental visit, compared to 65 percent of those with dental insurance (Exhibit 2).

This gap narrowed as income increased, but it did not disappear. Among beneficiaries with incomes of 400 percent or more of poverty, there was still a 22-percentage-point difference.

**COSTS OF DENTAL CARE** On average, Medicare beneficiaries reported total spending of $427 on dental care in the past twelve months, $329 (77 percent) of which was out-of-pocket spending (Exhibit 3). An estimated 7 percent of beneficiaries reported total spending of more than $1,500 in the past twelve months.

Not surprisingly, given the distribution of dental insurance and ability to pay, both total spending and out-of-pocket spending rose sharply with income. Both total and out-of-pocket spending were more than four times as much for the highest-income group as for the lowest (Exhibit 3). Such sharp differences are unlikely to reflect greater need for care among the wealthier group.

Lack of coverage also contributed to financial burdens, when care could not be postponed. Despite low rates of use, 6 percent of poor beneficiaries (those with incomes below 100 percent of poverty) and 5 percent of the near-poor (those with incomes of 100–149 percent of poverty) spent at least 5 percent of their incomes on dental care (Exhibit 3).

With dental services excluded from Medicare coverage, out-of-pocket spending on dental care amounted to 14 percent of beneficiaries’ total out-of-pocket spending (Exhibit 3). Having insurance increased total spending on dental care but also out-of-pocket spending, which likely reflected the fact that private and Medicaid dental insurance often cap total coverage of allowable costs and require cost sharing.8,16 Nor did having insurance do much to lower the share of beneficiaries who spent 5 percent or more of their incomes on out-of-pocket spending on dental care. On average, those with dental insurance spent $795 on dental care, whereas those without dental insurance spent $378 on dental care—slightly less than what those with insurance spent out of pocket ($409).

**Illustrative Policies For Expanding Dental Coverage**

To provide a range of possible approaches to expanding dental benefits for Medicare beneficiaries, we assessed two ways of offering a standard dental benefit package. The package would cover the full cost of one preventive care visit a year and 50 percent of allowable costs for necessary care up to a $1,500 limit per year, to cover additional preventive care and treatment of acute gum disease or tooth decay. This package could be easily administered and is similar to the basic dental benefit package in the private dental in-

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**Exhibit 1**

<table>
<thead>
<tr>
<th>Type of health insurance</th>
<th>Number</th>
<th>Had a dental visit in past 12 months</th>
<th>With dental insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>All beneficiaries</td>
<td>56,100,001</td>
<td>46.1%</td>
<td>11.8%</td>
</tr>
<tr>
<td><strong>ANNUAL INCOME (PERCENT OF 2016 FEDERAL POVERTY LEVEL)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 100%</td>
<td>8,976,000</td>
<td>26.3</td>
<td>2.3</td>
</tr>
<tr>
<td>100–149%</td>
<td>9,177,960</td>
<td>28.3</td>
<td>3.7</td>
</tr>
<tr>
<td>150–199%</td>
<td>6,933,960</td>
<td>36.2</td>
<td>5.4</td>
</tr>
<tr>
<td>200–399%</td>
<td>18,406,410</td>
<td>51.3</td>
<td>14.3</td>
</tr>
<tr>
<td>400% or more</td>
<td>12,459,810</td>
<td>72.8</td>
<td>25.1</td>
</tr>
<tr>
<td><strong>LOW INCOME OR DUAL ELIGIBLE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dual eligible</td>
<td>11,006,820</td>
<td>22.5</td>
<td>1.2</td>
</tr>
<tr>
<td>Low income, not dual eligible</td>
<td>14,973,090</td>
<td>34.6</td>
<td>5.5</td>
</tr>
<tr>
<td><strong>TYPE OF HEALTH INSURANCE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicare only</td>
<td>5,402,430</td>
<td>23.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Medicare and Medicaid (dual eligible)</td>
<td>11,006,820</td>
<td>22.5</td>
<td>1.2</td>
</tr>
<tr>
<td>Employer sponsored</td>
<td>18,686,910</td>
<td>63.9</td>
<td>30.1</td>
</tr>
<tr>
<td>Medicare Advantage</td>
<td>13,794,990</td>
<td>44.8</td>
<td>4.2</td>
</tr>
<tr>
<td>Medigap</td>
<td>7,208,850</td>
<td>55.2</td>
<td>3.8</td>
</tr>
<tr>
<td><strong>HAD DENTAL INSURANCE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>49,491,421</td>
<td>41.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Yes</td>
<td>6,608,580</td>
<td>80.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>
As explained above, the first policy would provide this package as a premium-financed, voluntary benefit similar to Part D coverage for prescription medications, while the second policy would expand Medicare Part B core benefits to include this package for all beneficiaries. In the second policy, the costs of the additional coverage would be financed by a combination of premiums and general revenues, as is the case with other Part B benefits. This is consistent with two bills being considered by Congress, although the bills have less specificity about benefit design than policy 2 does.

We estimated the costs for policy 2 under two financing options. In option A, 25 percent of the costs would be financed by premiums and 75 percent by general revenues. In option B, premiums and general revenues would each pay 50 percent of the costs.

**Low-Income Subsidy** Under both policies, the premium would be waived for beneficiaries with incomes below 135 percent of poverty and would be on a sliding scale for those with incomes of up to 149 percent of poverty—mirroring the Part D low-income subsidy. To coordinate administration of the subsidies, Medicare could restrict eligibility for the dental low-income subsidy to those who met Part D resource tests (resources of less than $13,640 for a single person and less than $27,250 for a couple in 2016).

For policy 1, we modeled beneficiaries’ receipt of the subsidy on receipt of the Part D low-income subsidy. For policy 2, we assumed that all Medicare beneficiaries with incomes below 150 percent of poverty would take advantage of the subsidy, since it would be a core benefit within the Medicare program.

**Cost Estimates**

**Policy 1:** Using MCBS data, we estimated that under policy 1—which fully covered one preventive care visit per year and 50 percent of allowable costs up to $1,500 a year—Medicare’s average dental spending for beneficiaries with incomes of at least 200 percent of poverty would be $540 a year. Fifty percent of the costs above the cost of the preventive care visit ($125) was removed from the calculation of the premium. We assumed that there would be a 5 percent administrative fee. Since policy 1 would be financed by premiums, we estimated that the average premium for policy 1 would be $29 per beneficiary per month (Exhibit 4). If the premiums for beneficiaries with incomes below 135 percent of poverty were waived, and all beneficiaries who received the Part D low-income subsidy received the dental care subsidy, the federal government’s subsidy costs for dental care would amount to an estimated $4.38 billion a year.

**Policy 2:** This policy would be embedded in Medicare as a core benefit, with all beneficiaries benefiting from it. Under option A, with general revenues paying 75 percent of the added costs and premiums the remaining 25 percent, the federal government would have to provide $14.7 billion in general revenues plus $1.5 billion for the premium subsidies for low-income beneficiaries. The premium would be $7 per beneficiary per month.

Under option B, the subsidy cost would increase to $3 billion because the subsidies cover a portion of the premiums, which are higher in option B. However, general revenues would cover only 50 percent of the cost and thus would amount to $9.8 billion instead of $14.7 billion. The premium would increase to $15 per beneficiary per month, as premiums would cover 50 percent of the cost in this option.

**Discussion**

Our findings of Medicare beneficiaries’ lack of dental care, out-of-pocket spending for the care they do receive, and sharp differences in the use of that care across income groups underscore the
extent of beneficiaries’ unmet need as well as exposure to potentially high financial burdens. On average, dental out-of-pocket spending accounted for 14 percent of all out-of-pocket spending by beneficiaries. Approximately 7 percent of beneficiaries had total spending of more than $1,500 on dental care over the past twelve months.

The findings about coverage and use from the MCBS analysis highlight the positive impact of having at least some dental coverage. This suggests that implementing the cost sharing and full coverage of preventive care services described in this article would improve access for a substantial share of beneficiaries, particularly those with low incomes.

Dental coverage could be expanded as a stand-alone benefit (as would be the case with the two policies discussed in this study) or in conjunction with enhancing benefits for other services not currently covered by Medicare, such as vision and hearing services or long-term services and supports.23,24 However the benefit package is constructed, including covered preventive dental care is paramount. John Moeller and colleagues showed that people who had a preventive dental visit had fewer nonpreventive procedures and had lower out-of-pocket and total spending on dental services, compared to those who had no preventive care visits.25 The added costs of expanding dental coverage could be at least partially offset by lower hospital and emergency department costs of caring for patients whose untreated dental disease had progressed26 or patients whose cancer or other diseases were detected early in oral exams by well-trained hygienists or dental providers.2,3,9

Both policy options examined in this article would provide subsidies for low-income beneficiaries that would specifically address such beneficiaries’ access and cost concerns, whether or not they were also dual eligibles. Dual eligibles would have access to more affordable dental coverage through Medicare, regardless of which state they resided in. Medicaid coverage of dental care is now mandatory only for children.21
states that do not provide dental coverage for adults with Medicaid, dual eligibles would have basic coverage for the first time. For low-income Medicare beneficiaries not eligible for Medicaid, the policies would make dental care more affordable than it is now for low-income, older adults without dental insurance, and reduce out-of-pocket spending.

**Conclusion**

Expanding Medicare to cover dental care would make Medicare coverage more on a par with what is now typical in employer-sponsored insurance for active workers. Eighty percent of Americans younger than age sixty-five who are covered by such insurance have dental benefits. Given that Medicare beneficiaries are particularly at risk for increased need for dental care as they age, addressing this deficiency in coverage would improve equity in access to dental care across the life span.

This study profiled alternative approaches to providing Medicare dental benefits that would improve access to care, including preventive care, and reduce out-of-pocket spending—especially for low-income beneficiaries. Given the negative implications of poor dental health for the quality of life during retirement, a discussion of ways to cover dental benefits for Medicare beneficiaries needs to be prioritized.

The study highlighted unmet need and provided cost estimates of policies to inform and stimulate discussions on ways to move forward. Until dental care is appropriately considered to be part of one’s medical care, and financially covered as such, poor oral health will continue to be the “silent epidemic” that impedes improving the quality of life for older adults.

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NOTES


