APPENDIX TO EVALUATION DESIGN GUIDANCE FOR SECTION 1115
ELIGIBILITY & COVERAGE DEMONSTRATIONS: PREMIUMS OR ACCOUNT PAYMENTS

This appendix to the evaluation design guidance for section 1115 eligibility and coverage demonstrations provides specific guidance for evaluations of monthly payment policies, including premiums and beneficiary account payments. The appendix contains suggested policy goals, an example logic model for expected outcomes, hypotheses and research questions, and evaluation approaches for monthly payments (see table). States with other eligibility and coverage policies should consult each relevant appendix to build their demonstration evaluation design, in addition to the generalized evaluation design guidance for section 1115 eligibility and coverage policies.

States with more than one eligibility and coverage policy may not be able to address all recommended research questions in each appendix because it will not be possible to attribute observed effects to individual policies, as opposed to the demonstration as a whole. States should work with their evaluators to determine which research questions are most appropriate and feasible to address for individual demonstration policies.

1. Premiums and account payments in section 1115 demonstrations

States must have section 1115 authority to require or encourage monthly payments from Medicaid beneficiaries with incomes under 150 percent of the federal poverty level. Monthly payments in section 1115 demonstrations vary in the amount and timing of the payments, the income levels at which payments are required, and the consequences for nonpayment. In some states, monthly payments take the form of traditional premiums; in others, they are contributions to beneficiary accounts that resemble health savings accounts.

Beneficiary account policies may also involve specific incentives for certain health behaviors. This appendix does not provide evaluation guidance for assessing the effects of specific health behaviors because such incentives vary widely across states. States and their evaluators may wish to consult the evaluation plan for the 2014-2019 national evaluation of section 1115 demonstrations or other states’ publicly available evaluation reports.

2. The expected effects and policy goals of premiums or account payments

Example policy goals for premiums and account payments are articulated in demonstration approval letters from the Centers for Medicare & Medicaid Services, the special terms and conditions for several demonstrations, and economic theory about premiums. One goal related to premiums is to prepare beneficiaries to comply with a common feature of commercial health insurance plans, with the hope that beneficiaries who gain commercial coverage at some point are better prepared to maintain it. Several states with section 1115 authority for premiums also have articulated goals for increasing efficient use of health care services. However, whether premiums should be expected to affect health care service use depends on the policy design. States with beneficiary accounts that beneficiaries contribute to and draw down to pay for services might

1 The evaluation plan and design appendix for states with healthy behavior incentives are available at https://www.medicaid.gov/medicaid/section-1115-demo/evaluation-reports/index.html
expect to see changes to service use patterns such as lower overall use of care. States with traditional premiums, not structured as beneficiary accounts, should not expect to see changes to service use, except to the extent that there is an income effect of premiums on health care demand. Hypotheses and research questions about service use should be adopted only by states with beneficiary accounts.

Finally, states should also articulate an expectation about the effect of premiums on enrollment patterns, based on established economic theory and existing evidence on premiums. If beneficiaries perceive premiums to be unaffordable, premiums could affect initial or continued enrollment in Medicaid. In addition, some states with premiums impose disenrollment consequences for non-payment, which have direct effects on enrollment continuity and potential indirect effects on initial enrollment.

An example goal statement is as follows. The purpose of the monthly payment policy is to test whether the payments:

a. Increase beneficiary familiarity with premiums as a common feature of commercial health insurance,

b. Lead to more efficient use of health care services [relevant only to account payments], and

c. Reduce enrollment and enrollment continuity.

3. Example logic model for monthly payments

The figure below is an example logic model for monthly payments. Hypothesis and research question numbers in parentheses refer to hypotheses and research questions listed below the example logic model.

**Example logic model for section 1115 premiums or account payments**
4. Hypotheses and research questions for premiums or account payments

CMS encourages states to include the following hypotheses and research questions. States may also add hypotheses and research questions designed to evaluate unique or state-specific aspects of the monthly payment policy. Hypotheses 1 - 3 and corresponding research questions are listed in the design table below, along with recommended comparison groups (where applicable), outcome measures, data sources, and analytic approaches.

**Hypothesis 1:** Beneficiaries who are required to make premium payments, including beneficiary account contributions, will gain familiarity with a common feature of commercial health insurance.

Primary research question 1.1: Do beneficiaries with premium or beneficiary account payment requirements understand their payment obligations?

Primary research question 1.2: Do beneficiaries with premium or beneficiary account obligations who initiate payments continue to make regular payments throughout their 12-month enrollment periods?

**Hypothesis 2:** Medicaid beneficiaries who are required to make monthly beneficiary account payments and who have incentives to manage the account balance will exhibit more efficient use of health care services than other Medicaid beneficiaries not asked to make beneficiary account payments. (Applicable to states with beneficiary accounts only.)

Primary research question 2.1: Are beneficiaries with beneficiary accounts less likely to receive inefficient care, such as emergency department visits for non-emergent conditions, than similar beneficiaries without beneficiary accounts?

Primary research question 2.2: Are beneficiaries with beneficiary accounts likely to receive less care overall, compared to similar beneficiaries without beneficiary accounts?

Subsidiary research question 2.2a: Are beneficiaries with accounts equally likely to receive preventive care, which does not draw down beneficiary accounts, compared to beneficiaries who do not have accounts?

Subsidiary research question 2.2b: Do beneficiaries with monthly account payments understand what services result in debits from their accounts and how their service use impacts account balances?

**Hypothesis 3:** Premium requirements, including beneficiary account contributions, will reduce the likelihood of enrollment and enrollment continuity.

Primary research question 3.1: What effects do premiums (or account payments) have on total and new enrollment in Medicaid?

Primary research question 3.2: What effects do premiums (or account payments) have on continuity of coverage, as reflected by mid-year disenrollments and renewal decisions?

Primary research question 3.3: Is there a relationship between payment amounts and total and new enrollment in Medicaid? (Applicable to states with more than one payment amount.)
Primary research question 3.4: Is there a relationship between payment amounts and continued enrollment in Medicaid, as reflected by mid-year disenrollments and renewal decisions? (Applicable to states with more than one payment amount.)
**Suggested comparison strategies, measures, data sources, and analytic approaches for evaluations of premiums or account payments**

Note: CMS expects that states will work with their evaluators to choose among and adapt suggested evaluation approaches based on comparison group opportunities and data availability.

<table>
<thead>
<tr>
<th>Comparison strategy</th>
<th>Outcome measure(s)</th>
<th>Data sources</th>
<th>Analytic approach</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hypothesis 1</strong>:</td>
<td>Beneficiaries who are required to make premium payments, including beneficiary account contributions, will gain familiarity with a common feature of commercial health insurance.</td>
<td>n.a.</td>
<td>Reported knowledge of monthly payment requirements and consequences of nonpayment State beneficiary survey or group interviews Descriptive quantitative and/or qualitative analysis (depending on data source)</td>
</tr>
<tr>
<td><strong>Primary research question 1.1</strong>: Do beneficiaries with premium or beneficiary account payment requirements understand their payment obligations? n.a.</td>
<td>Proportion of months in enrollment span in which payments were made among those who began making payments</td>
<td>State administrative data</td>
<td>Descriptive quantitative analysis of payment rates over time among beneficiaries with payment obligations who make at least one payment</td>
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</table>

**Note**: Beneficiary accounts in section 1115 demonstrations have different designs and different purposes. States may wish to add hypotheses and research questions relevant to the design of their accounts, for example about the effects of specific health behavior incentives.

**Hypothesis 2**: Medicaid beneficiaries who are required to make monthly beneficiary account payments and who have an incentive to manage the account balance will exhibit more efficient use of health care services than other Medicaid beneficiaries not asked to make beneficiary account payments. (Applicable to states with beneficiary accounts only.)

<p>| <strong>Primary research question 2.1</strong>: Are beneficiaries with beneficiary accounts less likely to receive inefficient care, such as emergency department visits for non-emergent conditions, than similar beneficiaries without beneficiary accounts? Similar beneficiaries who do not have accounts based on implementation strategy (staged by geographic area, age group, or other beneficiary characteristic) and/or eligibility criteria | Flag for any non-emergent ER visit Number of non-emergent ER visits | State administrative claims data | Difference-in-differences or regression discontinuity model of non-emergent ED utilization among those with and without a beneficiary accounta |
| <strong>Primary research question 2.2</strong>: Are beneficiaries with beneficiary accounts likely to receive less care overall, compared to similar beneficiaries without beneficiary accounts? Similar beneficiaries who do not have accounts based on implementation strategy (staged by geographic area, age group, or other beneficiary characteristic) and/or eligibility criteria | Number of physician visits Number of prescriptions filled | State administrative claims data | Difference-in-differences or regression discontinuity model of volume of care received among those with and without a beneficiary accounta |</p>
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<tr>
<td><strong>Subsidiary research question 2.2a:</strong> Are beneficiaries with accounts equally likely to receive preventive care, which does not draw down beneficiary accounts, compared to beneficiaries who do not have accounts?</td>
<td>Receipt of wellness visit, specific preventive services, or other service, depending on state’s classification of services that would not draw down an account</td>
<td>State administrative claims data</td>
<td>Difference-in-differences or regression discontinuity model of preventive service use among those with and without beneficiary account*</td>
</tr>
<tr>
<td>Similar beneficiaries who do not have accounts, based on implementation strategy (staged by geographic area, age group, or other beneficiary characteristic) and/or eligibility criteria</td>
<td>Flu shot receipt</td>
<td>BRFSS, variables FLUSHOT6, CHKHEMO3, DOCTDIABb</td>
<td>Difference-in-differences regression model of preventive service use and chronic condition care among those in states with and without beneficiary accounts</td>
</tr>
<tr>
<td>Similar people in states without beneficiary accounts</td>
<td>A1C checked in past 12 months</td>
<td>State beneficiary survey or group interviews</td>
<td>Descriptive quantitative and/or qualitative analysis (depending on data source)</td>
</tr>
<tr>
<td><strong>Hypothesis 3:</strong> Premium requirements, including beneficiary account contributions, will reduce the likelihood of enrollment and enrollment continuity.</td>
<td>Diabetes-related physician visit in past 12 months</td>
<td>State administrative claims data</td>
<td></td>
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<tr>
<td><strong>Primary research question 3.1:</strong> What effects do premiums (or account payments) have on total and new enrollment in Medicaid?</td>
<td>Reported enrollment in Medicaid among the likely eligible population (take-up)</td>
<td>IPUMS ACS, variable HINSCAID</td>
<td>Difference-in-differences regression model of Medicaid enrollment among the likely eligible population</td>
</tr>
<tr>
<td>1. Similar people in states without premiums</td>
<td>Number of individuals enrolled in Medicaid by eligibility group, by month or quarter</td>
<td>State administrative enrollment data</td>
<td>Difference-in-differences regression model of counts of Medicaid enrollment by eligibility group (or descriptive analysis, depending on available pre- and post-implementation data points)</td>
</tr>
<tr>
<td>2. Likely eligible people in demonstration state not subject to premiums based on implementation strategy (staged by geographic area, age group, or other group if staged rollout takes at least one year) and/or eligibility criteria that can be proxied with survey data (i.e., different income, age, or caretaker status groups)</td>
<td>Number of new enrollees in Medicaid by eligibility group, by month or quarter</td>
<td>State administrative enrollment data</td>
<td>Difference-in-differences regression model of counts of new Medicaid enrollment (enrollment by those without a recent spell of Medicaid coverage) by eligibility group (or descriptive analysis, depending on available pre- and post-implementation data points)</td>
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*The analytic approach for beneficiaries with beneficiary accounts may vary depending on the specific research question and data availability.

**Data sources:**
- State administrative claims and enrollment data
- IPUMS ACS (Integrated Public Use Microdata Series, Census Bureau)
- BRFSS (Behavioral Risk Factor Surveillance System)
- FLUSHOT6, CHKHEMO3, DOCTDIABb variables from BRFSS

**Analytic approach:**
- Difference-in-differences or regression discontinuity models
- Descriptive quantitative and/or qualitative analysis
### Comparison strategy

**Primary research question 3.2:** What effects do premiums (or account payments) have on continuity of coverage, as reflected by mid-year disenrollments and renewal decisions?

<table>
<thead>
<tr>
<th>Similar beneficiaries not subject to premiums based on implementation strategy (staged by geographic area, age group, or other beneficiary characteristic) and/or eligibility criteria</th>
<th>Number of months with Medicaid coverage (1-12)</th>
<th>State administrative enrollment data</th>
<th>Difference-in-differences regression model (or regression discontinuity model or hazard model, if no pre-period data are available) of duration of Medicaid coverage among beneficiaries starting a new enrollment spell following demonstration implementationa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar beneficiaries not subject to premiums based on implementation strategy (staged by geographic area, age group, or other beneficiary characteristic) and/or eligibility criteria</td>
<td>Probability of remaining enrolled in Medicaid for 12, 18, 24 consecutive months</td>
<td>State administrative enrollment data</td>
<td>Difference-in-differences or regression discontinuity model of enrollment continuity among beneficiaries starting a new enrollment spell following demonstration implementationa</td>
</tr>
<tr>
<td>Similar beneficiaries not subject to premiums based on implementation strategy (staged by geographic area, age group, or other beneficiary characteristic) and/or eligibility criteria</td>
<td>Probability of completing the renewal process</td>
<td>State administrative enrollment data</td>
<td>Differences-in-differences or regression discontinuity model of completed renewals among beneficiaries who are due for renewala</td>
</tr>
</tbody>
</table>

**Primary research question 3.3:** Is there a relationship between payment amounts and total and new enrollment in Medicaid? (Applicable to states with more than one premium amount.)

Use approaches under primary research question 3.1, adding a variable for expected payment amounts, including estimated amounts the comparison group would pay according to their income (but are not required to pay because they are not subject to policy).

**Primary research question 3.4:** Is there a relationship between payment amounts and continued enrollment in Medicaid, as reflected by mid-year disenrollments and renewal decisions? (Applicable to states with more than one payment amount.)

Use approaches under primary research question 3.2, adding a variable for expected payment amounts, including estimated amounts the comparison group would pay according to their income (but are not required to pay because they are not subject to policy).

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Note: The target population is demonstration beneficiaries subject to premiums (or account payments) unless otherwise noted in the analytic approach.

a If no baseline (pre-demonstration) data are available, for example because demonstration implementation coincided with a coverage expansion to the population of interest, a difference-in-differences model is not possible. However, if the state stages (rolls out) implementation based a continuous beneficiary characteristic such as age or income, or varies policy according to a continuous beneficiary characteristic, a regression discontinuity design may be used.

b Diabetes-related questions are contained in an optional BRFSS module and may not be used in all years by all states of interest.

BRFSS = Behavioral Risk Factor Surveillance System; ER = emergency room; IPUMS ACS = Integrated Public Use Microdata Series, American Community Survey version; n.a. = not applicable.