Marketing Matters — Key Data and Assumptions for Modeling Impacts of Changes in Federal Investments on Enrollment, Risk Mix, and Returns on Investment

Introduction

In *Marketing Matters: Lessons from California to Promote Stability and Lower Costs in National and State Individual Insurance Markets*, Covered California provided analysis and potential outcomes for enrollment, the health status, and premiums for the following two scenarios related to marketing and outreach investments for the Federally-facilitate Marketplace (FFM): 1) enhanced marketing and outreach investments of $480 million for 2018-20, which represents an increase of $315 million over the 2017 FFM spend of $165 million; and 2) reduced marketing and outreach investments of $47 million for 2018, as announced by CMS in late August 2017, which represents a 71 percent decrease in spending from the 2017 FFM spend of $165 million. For the enhanced marketing scenario, the assumption was that increased investment would lead to a 20 percent increase in enrollment (phased in over three years) of consumers who are 25 percent less costly to insure. For the enhanced marketing scenario, Covered California also estimated the return on investment for 2018, as well as for the three years. For the reduced marketing scenario, the assumption was that reduced spending would lead to a 10 percent decline in enrollment for 2018 of consumers who are 25 percent less costly to insure. As we noted in the Marketing Matters report, the exact impacts are difficult to project, but our findings are based on reasonable assumptions about how much the market would grow or contract and about the health status of new enrollees. To provide further details and transparency on these assumptions and the results presented in Marketing Matters, what follows are the approach, key data and assumptions used in the model.

Modeling Framework

Modeling potential impacts of changes in marketing and outreach expenditures is based on two core hypotheses that are supported by California's experience and basic marketing science: increased spending on marketing and outreach in the non-group insurance market will: (a) induce more consumers to take up coverage; and (b) these consumers will have a lower risk profile than consumers who would enroll without the additional marketing and outreach activity.

There is little published research that quantifies the incremental impact on consumers, in terms of enrollment, health status and premium, based on different levels or types of marketing in the non-group insurance market. For Marketing Matters, the analysis of potential impacts of changes to marketing and outreach investments by the federal government used best available data to define plausible ranges of (a) enrollment growth; and (b) risk improvement that may have resulted from its own enhanced marketing activities. These assumptions then drive an enrollment and premium model for Federally facilitated Marketplace (FFM) states to model a range of possible impacts. This document summarizes the baseline data used to create the enrollment and premium results, as well as the range of input assumptions modeled as possible scenarios. The scenarios reported in *Marketing Matters* reflect the estimates of reasonable mid-points in the range of possible scenarios. While the report reflects mid-point best estimates, the likely future impacts on enrollment, health status and return on investment actually is a range of possibilities and actual results could differ from the hypothetical scenario results depending on how actual outcomes differ from the model assumptions.

To model the potential impact of changes in FFM marketing activities, Marketing Matters relied on the following key data sources: 1) actual enrollment data published by the Assistant

Secretary for Planning and Evaluation (ASPE)[1]; 2) actual individual market FFM premiums for 2015 and 2016, which were published by the Centers for Medicaid and Medicare Services (CMS) as part of the risk adjustment program[2]; and 3) the Centers for Medicaid and Medicare Services Fiscal Year 2018 budget, which documented Exchange User Fee or plan assessment revenues.[3]

Baseline Assumptions and Model Dynamics

Enrollment

For the 2018 baseline, the model assumes the FFM would have the same total exchange enrollment of 7.7 million as reported in ASPE effectuated enrollment data for 2017. For the baseline scenario, the following assumptions are maintained for the three-year period from 2018 to 2020:

- There is no growth for baseline enrollment. Effectuated enrollment reported by ASPE in 2017 is held constant for 2018, 2019 and 2020.
- Total exchange enrollment includes 86 percent subsidized and 14 percent unsubsidized.[4]
- Total off-exchange enrollment in ACA-compliant plans is derived as 35 percent of total exchange enrollment.[5]
- Total individual market enrollment is the ACA-compliant market only (excludes "grandfathered" non-group coverage) and is the sum of total exchange enrollment and off-exchange enrollment.

Under the enhanced marketing model, growth in enrollment was phased in over the 3 year period, such that 50 percent of the growth in enrollment due to enhanced marketing occurs in 2018; 75 percent of the growth has occurred by 2019, and in 2020, 100 percent of the growth of enrollment from the enhanced marketing is reached. Thus, for example, in a scenario with 20 percent enrollment growth, by 2018 the market is 10 percent larger than it would have been under the baseline scenario, but will be 15 percent larger in 2019, and 20 percent in 2020 (meaning that the year-over-year incremental growth in enrollment in 2019 and 2020 would be about 4 percent each year).

Under the reduced marketing scenario — the model assumes the full impact in the first year (2018), even though there would likely be additional negative impacts on future years due to the increased cost of insurance.

The enhanced model also does not seek to project enrollment and premium dynamics that might occur in subsequent years (e.g. after healthier consumers enroll from improved

[1] https://downloads.cms.gov/files/effectuated-enrollment-snapshot-report-06-12-17.pdf and https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2016-Fact-sheets-items/2016-06-30.html.

[2] https://www.cms.gov/CCIIO/Programs-and-Initiatives/Premium-Stabilization-Programs/Downloads/June-30-2016-RA-and-RI-Summary-Report-5CR-063016.pdf

[3] See page 10 of the Centers for Medicare and Medicaid Services' FY 2018 CMS budget justification document: https://www.cms.gov/About-CMS/Agency-Information/PerformanceBudget/Downloads/FY2018-CJ-Final.pdf.

[4] Based on analysis of "Total Average Monthly Effectuated Enrollment and Financial Assistance by State, 2016" for FFM states from June 12, 2017 CMS release: https://downloads.cms.gov/files/effectuated-enrollment-snapshot-report-06-12-17.pdf.

[5] Rough estimate based on analysis of CMS effectuated enrollment data and 2015 and 2016 risk adjustment data (cited above): https://www.cms.gov/CCIIO/Programs-and-Initiatives/Premium-Stabilization-Programs/Downloads/June-30-2016-RA-and-RI-Summary-Report-5CR-063016.pdf.

marketing, the subsequently lowered premiums in future years might induce additional price-sensitive consumers to enroll — compared to baseline — based on lowered price in addition to the marketing campaign impact).

Premiums

Based on 2016 risk adjustment data, the average FFM premium was $391 per member per month (PMPM). This premium was trended forward for out-years using a 7 percent medical trend, resulting in a baseline premium for 2018 of $448 PMPM. In light of reported premium increases for 2018, this approach to the baseline 2018 premiums almost certainly under-estimates aggregate premium impacts (in dollar terms), but provide a more consistent and conservative basis of modeling the financial impacts that are independent of the premium impacts of current individual market instability. These PMPM amounts were multiplied by enrollment to calculate aggregate gross premiums for various subsets of the individual market (e.g., subsidized, unsubsidized on- and off-exchange). For all modeling, the on- and off-exchange premiums (as PMPM) are assumed to remain identical.

FFM Marketing and Outreach Investment

The baseline investment is $165 million for the enhanced marketing and reduced marketing scenarios, which is the amount reported by CMS to be the marketing and outreach spending for the 2017 enrollment year. Marketing and outreach expenditures do not include any costs related to the design, updating and operation of *healthcare.gov* or call center costs, even though both the web-enrollment functionality and call center services both play important roles in enrollment and retention. Exclusion of these costs from consideration of changes in marketing and outreach expenditures is consistent with the *Marketing Matters* analysis of Covered California's spending.

MODELING FOR ENHANCED MARKETING

Under the enhanced projection, marketing spend would increase to $480 million, which represents 1.4 percent of the estimated FFM gross premiums for the 2018 federal fiscal year budget. For the enhanced model, the marketing expenditures are modeled to increase at 4 percent per year for 2019 and 2020, tracking roughly to the Consumer Price Increase (CPI) rather than increasing with FFM premium that would rise both because of increased enrollment and medical inflation.

Marketing Matters presents as the mid-point scenario of the results from a $480 million investment in marketing of the FFM having 20 percent higher enrollment by 2020, and in which the newly enrolled consumers cost roughly 25 percent less to insure than the existing FFM consumers. This scenario is a mid-point from a range of possible scenarios that were considered, which are presented below.

Enrollment Growth:

Based on 2016 comparison of ASPE effectuated enrollment data to Kaiser Family Foundation estimates of the subsidy eligible population by state, if California had enrolled subsidy eligible at the FFM rate of take-up, it would have take-up of 64 percent instead of 79 percent — a difference of 230,000 subsidy-eligible consumers.[6] The converse is that FFM states would require enrollment growth of 23 percent to reach the California rate of take-up. This should likely

[6] http://www.kff.org/health-reform/state-indicator/marketplace-enrollees-eligible-for-financial-assistance-as-a-share-of-subsidy-eligible-population/ and https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2016-Fact-sheets-items/2016-06-30.html.

be an upper bound, as other factors contributing to stronger initial take-up may include: state differences in consumer receptivity to “Obamacare”; conversion of roll-over consumers from non-compliant plans in 2014; underlying differences in the cost of health care that influence gross premiums, etc. In considering a range of reasonable estimate, we ran scenarios of 5 percent, 10 percent, 20 percent, and 25 percent enrollment growth.

Healthier Consumers:

To provide plausible high and low ends of the possible range of the relative risk status of changes in FFM consumer enrollment, we examined Covered California concurrent risk score data (based on chronic condition diagnoses on hospital and emergency room encounters from prior years) on key groups that *may* be related to enrollment attributable to marketing, as follows:

1. Analysis of available encounter data from the State Office of Statewide Health Planning and Development (OSHPD) indicates that the open enrollment population had a nearly 15 percent lower risk profile than the Covered California renewal population in 2016;
2. Consumers who enrolled in the critical final 3 days before the open enrollment sign-up deadlines exhibit a roughly 7 percent lower risk score than those who enrolled during the rest of open enrollment;
3. Consumers who chose Bronze at plan selections exhibit a roughly 20 percent lower risk profile than those who chose Silver;
4. Consumers who do not have a hospital admission with one or more chronic condition upon discharge (per Chronic Disability Payment System risk model) exhibit a risk score that is more than 50 percent lower than those who have a chronic condition upon discharge – and presence of a chronic condition very likely separates consumers who will seek out enrollment on their own, and those who need to be motivated by the additional “nudge” provided by marketing and outreach.

Clearly, none of these observed differences are solely attributable to marketing — but they provide the best available *range* of how much Covered California enrollee sign-up patterns *may* drive risk profiles. In addition, the analysis was informed by expert review of potential risk-mix variation of healthier enrollment in Medicare Advantage and other insurance programs. Based on these data, we chose to model a range in which consumers who enroll as a result of enhanced marketing are 10 percent, 25 percent, 40 percent and 50 percent *less* costly to insure than those who enroll absent enhanced marketing and outreach.

The results of these scenarios for hypothetical 2020 enrollment year — following a $480 million investment in enhanced marketing and outreach by the FFM — are presented below.

To illustrate a likely scenario, the *Marketing Matters* brief provides details on the scenario of 20 percent enrollment growth of consumers whose risk profile is 25 percent lower than the existing group (highlighted in grey in the chart below). While the exact impact is very difficult to forecast, the tables below reveal that under almost *any* reasonable assumption, enhanced marketing activities will yield a reduction in gross premiums as a PMPM, an increase in take-up, and a positive ROI.

Premium Changes as % PMPM:

		2018-2020 HYPOTHETICAL RESULTS, CUMULATIVE			
		Enrollment growth as %			
		5%	10%	20%	25%
		Enrollment Change for FFM States Compared to Baseline in 2020			
Enrollment Change ->	(total market)	519,760	1,039,521	2,079,042	2,598,802
	(subsidized)	331,107	662,213	1,324,427	1,655,533
		Premium Change as % PMPM in FFM States			
Cost to insure new sign-ups relative to original group	10% less costly	-0.4%	-0.7%	-1.3%	-1.6%
	25% less costly	-0.9%	-1.7%	-3.2%	-3.9%
	40% less costly	-1.4%	-2.8%	-5.2%	-6.3%
	50% less costly	-1.8%	-3.5%	-6.5%	-7.8%

Return on Investment (%):

		2018-2020 HYPOTHETICAL RESULTS, CUMULATIVE			
		Enrollment growth as %			
		5%	10%	20%	25%
		Enrollment Change for FFM States Compared to Baseline in 2020			
Enrollment Change ->	(total market)	519,760	1,039,521	2,079,042	2,598,802
	(subsidized)	331,107	662,213	1,324,427	1,655,533
		Implied Marketing ROI			
Cost to insure new sign-ups relative to original group	10% less costly	-32%	31%	143%	194%
	25% less costly	70%	227%	508%	634%
	40% less costly	171%	423%	873%	1075%
	50% less costly	239%	553%	1116%	1369%

Where the percentage of return on investment is calculated as:

$$Percentage\ ROI \quad = \quad \frac{[Savings\ in\ Premium\ to\ Existing\ Group\ of\ Enrollees - Incremental\ Outlay\ on\ Enhanced\ Marketing]}{Incremental\ Outlay\ on\ Enhanced\ Marketing} \quad * \quad 100$$

such that 0 percent is break-even (same amount returned as was initially invested), and 100 percent represents a 2-to-1 return (total return in the form of reduced premiums equals the initial marketing outlay plus that same amount again).

MODELING FOR REDUCED MARKETING

In addition to illustrating possible impacts from enhanced marketing, *Marketing Matters* also models the potential impacts from CMS's proposed 2018 budget outlay for the FFM — which represents a marked reduction in marketing and outreach, from $165 million to $47 million. The model largely runs in reverse from that enhanced marketing projections, where premium impacts are a function of a) how much the change in investments on marketing and outreach reduce enrollment, and b) the relative cost to insure the consumers who no longer take-up (compared to baseline).

Enrollment Reduction:
Under the assumption that the FFM has not yet reached the point of diminishing returns for marketing and outreach activities, the model considers a more modest range of impacts from the reduction in marketing. Thus, the range of impacts to enrollment growth considered were reductions of 5 percent, 10 percent, 15 percent, and 20 percent. *Marketing Matters* presents a reduction of enrollment of 10 percent, assumed to take place immediately in 2018.

Loss of Healthier Consumers:
For the reduced marketing scenarios, the model considered the same range of relative health status/cost to insure as the enrollment growth scenarios, namely that consumers who enroll as a result of enhanced marketing are 10 percent, 25 percent, 40 percent and 50 percent *less* costly to insure than those who enroll absent enhanced marketing and outreach.

To illustrate a likely scenario, the *Marketing Matters* brief provides details on the scenario of 10 percent enrollment decrease of consumers whose risk profile is 25 percent lower than the remaining group (highlighted in grey in the chart below). While the exact impact is very difficult to forecast, the tables below reveal that under almost *any* reasonable assumption, reducing marketing activities on the scale proposed by CMS for 2018 will yield an increase in gross premiums for those who remain insured in 2018 and beyond.

Premium Changes as Percentage (PMPM):

2018 HYPOTHETICAL RESULTS

		Enrollment growth as %			
		-5%	-10%	-15%	-20%
		Enrollment Change for FFM States Compared to Baseline			
Enrollment Change ->	(total market)	(519,760)	(1,039,521)	(1,559,281)	(2,079,042)
	(subsidized)	(331,107)	(662,213)	(993,320)	(1,324,427)
		Premium Change in FFM States for Group That Remains Insured			
Cost to insure "lost" consumers relative to group that remains insured	10% less costly	0.5%	1.0%	1.5%	2.0%
	25% less costly	1.3%	2.6%	3.9%	5.3%
	40% less costly	2.0%	4.2%	6.4%	8.7%
	50% less costly	2.6%	5.3%	8.1%	11.1%

Possible Gross Premium Impacts from
Reducing Marketing Spend by $118 Million in 2018
(Entire ACA compliant individual market — remaining insured after reduced marketing)

		2018 HYPOTHETICAL RESULTS			
		Enrollment growth as %			
		-5%	-10%	-15%	-20%
		Enrollment Change for FFM States Compared to Baseline			
Enrollment Change ->	(total market)	(519,760)	(1,039,521)	(1,559,281)	(2,079,042)
	(subsidized)	(331,107)	(662,213)	(993,320)	(1,324,427)
		Premium Change in FFM States for Group That Remains Insured			
Cost to insure "lost" consumers relative to group that remains insured	10% less costly	$ 266,681,248	$ 507,842,759	$ 723,095,908	$ 912,044,139
	25% less costly	$ 671,766,688	$ 1,289,139,312	$ 1,849,998,623	$ 2,352,113,832
	40% less costly	$ 1,083,052,415	$ 2,094,851,382	$ 3,030,848,808	$ 3,886,101,114
	50% less costly	$ 1,360,758,163	$ 2,646,128,061	$ 3,849,997,134	$ 4,965,573,646