Considerations regarding the Next Generation ACO stop-loss methodology

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Background

A number of accountable care organizations (ACOs) have entered into Next Generation ACO Model (NGACO) participation agreements with the Centers for Medicare and Medicaid Services (CMS) since the program began on January 1, 2016. CMS has stated that "The Next Generation ACO Model is an initiative for ACOs that are experienced in coordinating care for populations of patients….The goal of the Model is to test whether strong financial incentives, coupled with tools to support better patient engagement and care management, can improve health outcomes and lower expenditures for Original Medicare fee-for-service (FFS) beneficiaries."

As part of the agreement, an NGACO accrues savings or losses, which are affected in part by the application of the NGACO-capped expenditure/individual stop-loss methodology. Milliman analyzed the existing methodology and has identified several important considerations regarding the impact of the stop-loss provision on participating NGACOs.

Recently, CMS has announced that NGACOs may opt out of the individual stop-loss provision for 2018. Because NGACOs will need to make this 2018 opt-out decision by December 27, 2017, they may benefit from determining how they are affected by the considerations discussed below.

Existing stop-loss methodology analysis

The existing methodology for sharing savings or losses is designed to protect NGACOs from large losses and catastrophic individual claims in two ways:

1. By capping aggregate savings/losses at 5% to 15% of the aggregate benchmark expenditure for a given performance year ("aggregate stop-loss").
2. By calculating the 99th percentile of per beneficiary per month (PBPM) expenditures (by entitlement category) for all alignment-eligible beneficiaries nationwide and using it as an attachment point to cap per beneficiary expenditures for an NGACO's baseline and performance years ("individual stop-loss").

The aggregate stop-loss component provides an important safety net for NGACOs, especially because they have a wide range of capping options to choose from (i.e., 5% to 15%). However, the use of individual stop-loss may have significantly different impacts on individual NGACOs.

Variation in Stop-Loss Premiums and Attachment Points

Our analysis indicates that the means of setting the stop-loss "premium" under the NGACO stop-loss methodology may not result in uniform outcomes for all NGACOs. As a national program, the NGACO model is essentially a "one-size-fits all" methodology, which means that the standardized program parameters can sometimes produce very different results for different NGACOs. This method of setting the stop-loss premium does not take into account the impact of regional variations and differences in payment levels by NGACO.

Additionally, the stop-loss "premium" is set based on a single year of an individual NGACO's claims experience, regardless of the size of the NGACO's specific population. Calendar year 2014 is the current baseline period for performance years 2016 through 2018, which means the experience period is multiple years removed from the performance period. By definition, stop-loss claims can fluctuate significantly from year to year. In practice, stop-loss carriers would typically review multiple years of data and blend experience with a manually derived premium. The CMS methodology gives claims from a single year 100% credibility, regardless of the size of the ACO's population. This method serves to "lock in" low stop-loss premiums for NGACOs with low stop-loss claims and high premiums for NGACOs with high stop-loss claims in that single year.

At the end of this report Appendices 1 through 4 illustrate the variations that can occur by year and by geographic area. We used the CMS Medicare fee-for-service (FFS) 5% sample claims data as the basis for this analysis. The analysis is for the Aged and Disabled population and includes or excludes beneficiaries consistent with NGACO program definitions. Appendix 1 describes our methodology for developing Appendices 2 through 4 in greater detail.

Variation between MSAs and across years

Appendix 2 illustrates the variation in stop-loss premiums that can occur across years both nationally and within metropolitan statistical areas (MSAs). As this appendix shows, the premiums across years are stable nationally; however, within a given MSA, the premiums can vary substantially. For example, the calculated premium for the Anaheim-Santa Ana-Irvine (Calif.) MSA using the Next Generation program stop-loss methodology, is $68, $79, and $59 PBPM in 2013, 2014, and 2015, respectively.[1]

Variation in attachment point by region

The methodology calculates an individual attachment point based on the expenditures of all NGACO alignment-eligible beneficiaries. This national attachment point is then used to cap the expenditures of each NGACO's beneficiaries and develop the corresponding stop-loss premium.

In order to illustrate the variation in attachment point by region, we used the program stop-loss methodology to develop both national attachment points and MSA-specific attachment points by year. Appendix 3 illustrates that a national attachment point based upon a single year's experience does not vary significantly from year to year (i.e., $132,963 for 2013, $131,773 for 2014, and $135,612 for 2015), but regional attachment points do (e.g., for Boston the attachment points are $148,932 for 2013, $162,310 for 2014, and $171,537 for 2015).

Variation in claims exceeding the attachment point

Appendix 4 summarizes the percentage of claims exceeding the attachment point, by region and year. Appendix 4 shows that, using the same attachment point from the NGACO program for 2015, for some MSAs essentially no claims would be ceded (e.g., Green Bay, Wis.), and for other MSAs the ceded claims would be as high as 9% of the total (e.g., Los Angeles-Long Beach-Glendale, Calif.).

Based on this analysis, for NGACOs in higher-cost regions, considerably more than 1% of beneficiaries could have claims exceeding the national attachment point. If an NGACO in this situation is able to effectively manage the care of its high-cost beneficiaries, claims exceeding the attachment point may be significantly lower in the performance year (as compared to the baseline year), but claims below the attachment point for which the NGACO is at risk may not be similarly reduced. This means that these NGACOs in this situation may have a lesser ability to succeed by managing their higher-cost patients.

For NGACOs in lower-cost regions, considerably less than 1% of beneficiaries could have claims exceeding the national attachment point. This may limit the risk reduction that is meant to be provided by having individual stop-loss.

Use of Monthly Attachment Points and Exposures

The stop-loss methodology develops an attachment point based upon average monthly claims for each beneficiary. Beneficiaries who die during the year contribute exposure equal to the number of months they were alive during the year. CMS sorts the beneficiaries by the magnitude of their average monthly claims and then sets the monthly attachment point equal to the average monthly claims of the beneficiary at the 99th percentile. CMS then uses the monthly attachment point to calculate a prorated attachment point for each beneficiary. The beneficiary-specific attachment point is calculated by taking the beneficiary's months of exposure and multiplying it by the monthly attachment point in dollars. The exposure for beneficiaries who die during the year is equal to the number of months the beneficiary was alive during the year.

Many people who die have considerably higher-than-average claims in the final year of their lives. Under the stop-loss methodology, the prorated attachment points may result in significantly greater claim amounts being excluded from the NGACO's benchmark and expenditures for patients who die earlier in the year.

This methodology results in a significantly greater annual attachment point than a methodology that sorts beneficiaries by the magnitude of their annual claims (rather than their average monthly claims). As a result, the number of deaths during a year and the distribution of those deaths through the year play a significant role in the setting of the attachment point. Figure 1 below shows the difference in the magnitude of attachment points when the attachment point is developed using average monthly claims versus annual claims. These attachment points are illustrative and were developed using the 2015 Medicare FFS 5% sample claims data, when applying the two different methodologies for calculating an attachment point.

FIGURE 1: MAGNITUDE OF ATTACHMENT POINTS

	MONTHLY ATTACHMENT POINT (CURRENT METHODOLOGY)	ANNUAL ATTACHMENT POINT
ATTACHMENT POINT (99TH PERCENTILE)	$11,301 MONTHLY X 12 = $135,612 ANNUALLY	$102,089 ANNUALLY

In addition, the methodology changes the nature of the population whose claims exceed the attachment point. The stop-loss methodology produces the result that a beneficiary who dies early in the year with relatively low claims may exceed the attachment point, while a beneficiary who persists the entire year and has much higher claims might not exceed the attachment

[1] Data source: Medicare FFS 5% sample.

point. For example, with a monthly attachment point of $10,000, a beneficiary who died in January with $20,000 in claims will exceed the attachment point while a beneficiary who persisted for the entire year and had $100,000 in claims would not exceed the attachment point.

Potential Unintended Consequences

Several aspects of the existing stop-loss methodology may have the unintended consequence of reducing NGACOs' incentives to manage high-cost beneficiaries:

- By using a single year's experience to set the stop-loss premium, the methodology may result in significant gains and losses based on whether the NGACO had good or bad large claim experience in a single year. In particular, if the NGACO had a high percentage of claims above the attachment point in the baseline year and is able to lower the percentage of high claims in the performance year (e.g., through care management initiatives), the program methodology may penalize the NGACO.
- The use of an attachment point based on national beneficiary experience creates variations in which the attachment point is set as a percentage of claims, depending on regional cost levels. This may result in far more than 1% of the highest-cost beneficiaries having their claims capped, and in reduced NGACO incentive to manage this population.
- Under the stop-loss methodology, any care management savings that NGACOs achieve in providing care to beneficiaries who die may be excluded from year-end savings, due to the stop-loss. This is especially pronounced for beneficiaries who are alive only for the initial months in a performance year (because the attachment point is low for these members).

These same aspects may also inadvertently deter ACOs that would otherwise be good candidates from joining or continuing in the NGACO program.

Limitations and caveats

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Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. Tim Wilder, FSA, MAAA, Annie Man, FSA, MAAA, Ph.D., and Coleen Young, FSA, MAAA, are members of the American Academy of Actuaries, and meet the qualification standards for performing the analysis in this report.

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APPENDIX 1: METHODOLOGY FOR APPENDICES

We used the CMS Medicare FFS 5% sample claims data to develop Appendices 2 through 4.

We used the following criteria to select beneficiaries for our analysis:

1. Include beneficiaries who had both Part A and Part B coverage in the Aged and Disabled eligibility categories (Aged Dual, Aged Non-Dual, and Disabled).
2. Exclude beneficiaries who were alive at the end of the year but did not have 12 months of coverage during the year.
3. Exclude beneficiaries who had annual claims of $0 or less.
4. Exclude beneficiaries who do not have both state and MSA information as well as those who reside in Puerto Rico or Guam.

Then we calculated each beneficiary's monthly expenditures by summing total annual Part A and Part B claims for each beneficiary and dividing by the number of months each beneficiary was alive during the year.[2]

In Appendix 2, we identified the ceded claims by MSA using the national 99th percentile attachment point. We calculated the premiums PBPM by dividing the ceded claims by the number of beneficiary months.

In Appendix 3, we calculated the attachment point for each year by finding the 99th percentile of the monthly claims per beneficiary both nationally and for each MSA.

In Appendix 4, we calculated the percentage of claims that exceeded the monthly expenditure cap of $11,420 for 2015, as taken from the NGACO PY1 preliminary settlement report in each MSA.

[2] Appendix B of Next Generation ACO Model Participation Agreement.

APPENDIX 2: VARIATION IN STOP-LOSS PREMIUMS BY YEAR ACROSS MSAs

Aged and Disabled population from 2013 to 2015 CMS Medicare FFS 5% sample claims data.

			UNIQUE MEMBER COUNTS			STOP-LOSS PREMIUMS		
STATE	**MSA**	**MSA NAME**	**2013**	**2014**	**2015**	**2013**	**2014**	**2015**
		NATIONWIDE	1,425,469	1,418,776	1,442,277	$36	$34	$36
CA	11244	ANAHEIM-SANTA ANA-IRVINE, CA	8,228	8,339	8,344	$68	$79	$59
MA	14454	BOSTON, MA	9,968	9,831	10,054	$47	$58	$57
IL	16974	CHICAGO-NAPERVILLE, IL	34,943	32,057	31,124	$47	$44	$53
IA	19780	DES MOINES-WEST DES MOINES, IA	2,866	2,927	3,019	$17	$7	$9
MI	19804	DETROIT-DEARBORN-LIVONIA, MI	8,967	8,566	7,737	$62	$67	$64
IN	21780	EVANSVILLE, IN-KY	1,539	1,585	1,626	$6	$16	$15
WI	24580	GREEN BAY, WI	1,138	1,130	1,117	$8	$20	$3
NC	24660	GREENSBORO-HIGH POINT, NC	3,118	2,715	2,710	$14	$15	$27
TX	26420	HOUSTON-THE WOODLANDS-SUGAR LAND, TX	16,160	16,240	15,930	$73	$70	$66
CA	31084	LOS ANGELES-LONG BEACH-GLENDALE, CA	24,123	21,923	22,189	$120	$110	$110
FL	33124	MIAMI-MIAMI BEACH-KENDALL, FL	6,536	5,972	5,655	$90	$65	$77
MN	33460	MINNEAPOLIS-ST. PAUL, MN-WI	7,515	7,460	7,349	$63	$49	$59
ME	23999	NON-MSA AREA, ME	4,515	4,456	4,405	$16	$27	$19
IL	37900	PEORIA, IL	2,438	2,156	2,175	$26	$8	$25
AZ	38060	PHOENIX-MESA-SCOTTSDALE, AZ	13,307	14,029	14,705	$29	$29	$26
MA	44140	SPRINGFIELD, MA	3,602	3,363	3,537	$29	$23	$23

This appendix was developed from CMS's Medicare FFS 5% sample claims data. It shows PBPM premiums using a national attachment point set at the 99th percentile for select MSAs in 2013, 2014, and 2015. The MSAs were selected as examples of NGACOs' service areas.

APPENDIX 3: VARIATION IN MSA-SPECIFIC ATTACHMENT POINTS ACROSS YEARS

Aged and Disabled population from 2013 to 2015 CMS Medicare FFS 5% sample claims data.

STATE	MSA	MSA NAME	2013	2014	2015
		NATIONWIDE	$132,963	$131,773	$135,612
CA	11244	ANAHEIM-SANTA ANA-IRVINE, CA	$162,893	$159,494	$155,124
MA	14454	BOSTON, MA	$148,932	$162,310	$171,537
IL	16974	CHICAGO-NAPERVILLE, IL	$149,090	$147,261	$158,989
IA	19780	DES MOINES-WEST DES MOINES, IA	$105,967	$93,172	$96,787
MI	19804	DETROIT-DEARBORN-LIVONIA, MI	$181,217	$173,914	$181,760
IN	21780	EVANSVILLE, IN-KY	$117,821	$102,447	$119,260
WI	24580	GREEN BAY, WI	$86,242	$70,592	$92,738
NC	24660	GREENSBORO-HIGH POINT, NC	$101,456	$106,287	$115,957
TX	26420	HOUSTON-THE WOODLANDS-SUGAR LAND, TX	$176,878	$172,630	$174,788
CA	31084	LOS ANGELES-LONG BEACH-GLENDALE, CA	$225,780	$216,880	$208,314
FL	33124	MIAMI-MIAMI BEACH-KENDALL, FL	$204,966	$182,316	$194,434
MN	33460	MINNEAPOLIS-ST. PAUL, MN-WI	$129,602	$113,317	$120,114
ME	23999	NON-MSA AREA, ME	$113,600	$107,892	$122,150
IL	37900	PEORIA, IL	$121,237	$108,380	$114,372
AZ	38060	PHOENIX-MESA-SCOTTSDALE, AZ	$116,618	$127,277	$121,581
MA	44140	SPRINGFIELD, MA	$142,313	$140,588	$137,161

This appendix was developed from CMS's Medicare FFS 5% sample claims data. It shows attachment points set at the 99th percentile nationally and for select MSAs in 2013, 2014, and 2015. The MSAs were selected as examples of NGACOs' service areas.

APPENDIX 4: VARIATION IN THE PORTION OF CLAIMS THAT EXCEED THE ATTACHMENT POINT

Aged and Disabled population from 2015 CMS Medicare FFS 5% sample claims data.

STATE	MSA	MSA NAME	CEDED %
CA	11244	ANAHEIM-SANTA ANA-IRVINE, CA	6%
MA	14454	BOSTON, MA	5%
IL	16974	CHICAGO-NAPERVILLE, IL	5%
IA	19780	DES MOINES-WEST DES MOINES, IA	1%
MI	19804	DETROIT-DEARBORN-LIVONIA, MI	6%
IN	21780	EVANSVILLE, IN-KY	2%
WI	24580	GREEN BAY, WI	0%
NC	24660	GREENSBORO-HIGH POINT, NC	4%
TX	26420	HOUSTON-THE WOODLANDS-SUGAR LAND, TX	6%
CA	31084	LOS ANGELES-LONG BEACH-GLENDALE, CA	9%
FL	33124	MIAMI-MIAMI BEACH-KENDALL, FL	6%
MN	33460	MINNEAPOLIS-ST. PAUL, MN-WI	7%
ME	23999	NON-MSA AREA, ME	2%
IL	37900	PEORIA, IL	4%
AZ	38060	PHOENIX-MESA-SCOTTSDALE, AZ	3%
MA	44140	SPRINGFIELD, MA	3%

This appendix was developed using CMS's Medicare FFS 5% sample claims data. It shows the portion of claims that exceed the monthly expenditure cap of $11,420 for 2015 from the NGACO PY1 settlement report for select MSAs in 2015. The MSAs were selected as examples of NGACOs' service areas.