Trish E, Xu J, Joyce G. Growing number of unsubsidized Part D beneficiaries with catastrophic spending suggests need for an out-of-pocket cap. Health Aff (Millwood). 2018;37(7).

Appendix

Appendix Exhibit 1: Trends in Part D Enrollment and Breakdown of Beneficiaries Reaching Catastrophic Coverage, by LIS Status

Total Beneficiaries	2007	2008	2009	2010	2011	2012	2013	2014	2015
All	26,157,822	27,529,249	28,688,097	29,647,983	31,396,363	33,708,608	37,764,056	39,907,380	41,771,711
LIS	10,384,537	10,600,758	10,819,842	11,217,222	11,621,299	11,984,418	12,299,818	12,666,867	13,043,632
Non-LIS	15,773,285	16,928,491	17,868,255	18,430,761	19,775,064	21,724,190	25,464,238	27,240,513	28,728,079
% Non-LIS	60.3%	61.5%	62.3%	62.2%	63.0%	64.4%	67.4%	68.3%	68.8%
Number Reaching Catastrophic									
All	2,254,128	2,394,674	2,346,305	2,353,995	2,628,610	2,558,559	2,803,454	3,387,327	3,604,573
LIS	1,848,029	1,968,762	1,942,493	1,958,582	2,133,512	2,039,745	2,120,894	2,485,706	2,586,554
Non-LIS	406,099	425,912	403,812	395,413	495,098	518,814	682,560	901,621	1,018,019
% Non-LIS	18.0%	17.8%	17.2%	16.8%	18.8%	20.3%	24.3%	26.6%	28.2%
Percent of Beneficiary Type Reaching Catastrophic									
All	8.6%	8.7%	8.2%	7.9%	8.4%	7.6%	7.4%	8.5%	8.6%
LIS	17.8%	18.6%	18.0%	17.5%	18.4%	17.0%	17.2%	19.6%	19.8%
Non-LIS	2.6%	2.5%	2.3%	2.1%	2.5%	2.4%	2.7%	3.3%	3.5%

Source: Authors' analysis of Centers for Medicare and Medicaid Services beneficiary summary file and prescription drug event files from a 100 percent sample of Medicare beneficiaries, 2007-2015.

Notes: The sample includes beneficiaries enrolled in stand-alone prescription drug plans or in Medicare Advantage plans that had prescription drug coverage. Low Income Subsidy (LIS) beneficiaries include those receiving both partial and full benefits; beneficiary LIS status was assigned according to their LIS eligibility status in the last month of enrollment in each year. Beneficiaries were categorized as reaching catastrophic coverage if they had one or more prescription drug claims that included spending in the catastrophic coverage benefit phase.

Appendix Exhibit 2: Use, Price, and Quantities of Top Classes of Drugs in Catastrophic Coverage

	% Users among Beneficiaries that Reach Catastrophic Coverage			Average 30-Day Price			Average Days Supplied per User in Catastrophic	
Non-LIS	**2007**	**2015**		**2007**	**2015**		**2007**	**2015**
Cancer	11%	14%		$1,911	$6,653		109	165
Mental Health	55%	46%		$124	$99		190	236
Hepatitis C	0%	3%		$1,241	$27,691		212	98
Multiple Sclerosis	2%	4%		$1,741	$5,673		200	244
HIV/AIDS	2%	3%		$665	$1,180		531	493
Diabetes	31%	42%		$102	$359		168	241
Rheumatoid Arthritis	3%	4%		$1,614	$3,801		166	175
Pulmonary Hypertension	1%	1%		$3,215	$5,356		218	293
Pain	32%	32%		$176	$246		89	100
LIS								
Cancer	5%	5%		$822	$3,413		107	147
Mental Health	72%	69%		$193	$192		308	363
Hepatitis C	0%	2%		$1,247	$27,588		212	97
Multiple Sclerosis	1%	2%		$1,791	$5,720		191	246
HIV/AIDS	4%	5%		$658	$1,158		525	519
Diabetes	34%	43%		$97	$316		196	277
Rheumatoid Arthritis	1%	2%		$1,685	$3,913		165	194
Pulmonary Hypertension	0%	0%		$2,969	$4,776		208	282
Pain	42%	46%		$163	$166		119	136

Source: Authors' analysis of Centers for Medicare and Medicaid Services beneficiary summary file and prescription drug event files from a 100 percent sample of Medicare beneficiaries, 2007-2015.

Notes: The sample includes beneficiaries enrolled in stand-alone prescription drug plans or in Medicare Advantage plans that had prescription drug coverage. Low Income Subsidy (LIS) beneficiaries include those receiving both partial and full benefits; beneficiary LIS status was assigned according to their LIS eligibility status in the last month of enrollment in each year. Prices are reported in nominal amounts and represent list (i.e., pre-rebate) prices. Price increases over time could be due to multiple factors, such as the introduction of new, higher priced products in the class, increasing prices of existing products, substitution toward higher priced products in the class, or some combination of the three. Mental health drugs include antidepressants, antipsychotics, and anticonvulsants.

Detail on Estimating the Premium Increase Attributable to Implementing a Cap on Out-of-Pocket Spending in Part D

Capping beneficiary cost-sharing at the catastrophic coverage threshold would necessarily increase expenditures for Part D plans, assuming no changes in the generosity of the federal reinsurance program. As a result, it is likely that plans would increase premiums to offset this increased liability. Here we estimate the magnitude of such a premium increase under two different scenarios: 1) where legislation would cap out-of-pocket spending for all beneficiaries (including both LIS and non-LIS beneficiaries); and 2) where legislation would cap out-of-pocket spending only for non-LIS beneficiaries, and federal subsidies that offset cost-sharing liability for LIS beneficiaries would continue to finance what would otherwise be beneficiary cost-sharing for LIS beneficiaries in the catastrophic coverage phase. A change in federal law could presumably take either of these approaches. Moreover, there is precedent for variation in Part D benefit design for LIS and non-LIS beneficiaries, as the ACA's provisions to fill in the doughnut hole via manufacturer-financed discounts for brand name drugs and increased plan liability for branded and generic drugs apply only to non-LIS beneficiaries, whereas the LIS cost-sharing subsidy program continues to finance this liability for LIS beneficiaries.

For all estimates, we assume no changes in utilization or prices and a one-for-one pass-through of additional plan liability to premiums (e.g., no additional administrative costs).

Option 1: Cap Out-of-Pocket Spending for All Beneficiaries (including both LIS and non-LIS beneficiaries)

In the 2015 Part D claims, we observe a total of $2.58 billion in combined beneficiary out-of-pocket spending and low-income cost-sharing subsidies paid by the federal government occurring in the catastrophic coverage phase, representing approximately 5% of the total $50.8 billion spending incurred while beneficiaries were in the catastrophic coverage phase (based on actual paid amounts at the point-of-sale, prior to any additional rebates paid to plans). If beneficiary out-of-pocket spending were capped at the catastrophic coverage threshold for all beneficiaries (and absent any changes in the generosity of the federal reinsurance program), this $2.58 billion would become additional plan liability. If spread evenly across the approximately 41.7 million Part D beneficiaries in 2015, this would represent an increased plan liability of $61.82 per beneficiary, or $5.15 per member per month.

However, because the federal government subsidizes premiums for all Part D beneficiaries, the premium impact for beneficiaries would be less than this additional plan liability of $5.15. Federal subsidies for basic Part D coverage aim to subsidize 74.5% of covered spending, which is done through a combination of federal reinsurance subsidies and direct subsidies for premiums for all beneficiaries (in addition to premium and cost-sharing subsidies for low income beneficiaries). In 2015, the direct subsidy was $37.05 per member per month,[1] or 53% of the nationwide average bid amount of $70.18 per member per month.[2]

If the additional $5.15 per member per month was passed through as a one-for-one increase in the national average bid amount, the nationwide average bid amount would instead have been $75.33 ($70.18+$5.15=$75.33). Assuming no change in the national average federal reinsurance subsidy of $59.74 per member per month,[3] average total covered spending (of nationwide average bid plus reinsurance subsidy)

[1] Assistant Secretary for Planning and Evaluation. Part D Program Assumptions [Internet]. Washington (DC): ASPE; cited 12 Apr 2018. Available from: https://aspe.hhs.gov/system/files/pdf/256306/Yamamoto_PartD_Program_Assumptions_December_19-20.pdf
[2] Centers for Medicare and Medicaid Services. Annual Release of Part D National Average Bid Amount and other Part C & D Bid Information [Internet]. Baltimore (MD): CMS; cited 12 Apr 2018. Available from: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/PartDandMABenchmarks2015.pdf
[3]Assistant Secretary for Planning and Evaluation. Part D Program Assumptions [Internet]. Washington (DC): ASPE; cited 12 Apr 2018. https://aspe.hhs.gov/system/files/pdf/256306/Yamamoto_PartD_Program_Assumptions_December_19-20.pdf

would have been $135.07 (rather than $129.92=$70.18 (national average bid) + $59.74 (national average reinsurance)). Thus, in order to maintain the overall subsidy rate of 74.5% (assuming no change in reinsurance bids), the overall federal subsidy would be $100.63 per member per month ($135.07*0.745=$100.63), resulting in a direct subsidy of $40.89 per member per month ($100.63-$59.74=$40.89). Thus, the national average beneficiary premium would be $34.44 ($75.33-$40.89=$34.44), or a $1.31 (4%) increase ($34.44-$33.13[4]=$1.31).

We note that actual beneficiary paid premiums deviate from the national average beneficiary premium amount based on the premium bid of the actual plan that the beneficiary chooses, which is why the national average beneficiary-paid premium for a basic Part D plan referenced in the text is $30 rather than $33.13. Premiums may also be higher for beneficiaries who choose enhanced plans. Moreover, these premium increases for LIS beneficiaries would be paid by federal LIS premium subsidies.

Option 2: Cap Out-of-Pocket Spending only for Non-LIS Beneficiaries (and maintain low-income cost-sharing subsidies as the financing source for out-of-pocket liability for LIS beneficiaries in the catastrophic coverage phase)

Of the $2.58 billion in combined beneficiary out-of-pocket spending and low-income cost-sharing subsidies paid by the federal government occurring in the catastrophic coverage phase in 2015, about $786 million of this was paid out-of-pocket by non-LIS beneficiaries. If beneficiary out-of-pocket spending were capped at the catastrophic coverage threshold only for non-LIS beneficiaries (and the federal government continued to finance cost-sharing for LIS beneficiaries) but the premium increase was spread across all beneficiaries, the resulting premium increase per member per month would be lower than that estimated under Option 1.

If this additional $786 million were spread evenly among the approximately 41.7 million Part D beneficiaries in 2015, this would represent an increased plan liability of $18.81 per beneficiary, or $1.57 per member per month. However, as described above, the premium impact for beneficiaries would be less than this additional plan liability of $1.57.

If the additional $1.57 per member per month was passed through as a one-for-one increase in the national average bid amount, the nationwide average bid amount would instead have been $71.75 ($70.18+$1.57=$71.75). Assuming no change in the national average federal reinsurance subsidy of $59.74 per member per month, average total covered spending (of nationwide average bid plus reinsurance subsidy) would have been $131.49. Thus, in order to maintain the overall subsidy rate of 74.5% (assuming no change in reinsurance bids), the overall federal subsidy would be $97.96 per member per month ($131.49*0.745=$97.96), resulting in a direct subsidy of $38.22 per member per month ($97.96-$59.74=$38.22). Thus, the national average beneficiary premium would be $33.53 ($71.75-$38.22=$33.53), or a $0.40 (1%) increase ($33.53-$33.13=$0.40).

The implications for federal spending and, in particular, the distribution across different federal financing schemes (e.g., direct subsidy, low income premium subsidies, and low-income cost-sharing subsidies) would vary across these two different options. Both options would increase federal spending (absent other changes), but Option 1 would reduce federal spending on the low-income cost-sharing subsidy, while increasing federal spending on the direct subsidy and low-income premium subsidies.

[4] Centers for Medicare and Medicaid Services. Annual Release of Part D National Average Bid Amount and other Part C & D Bid Information [Internet]. Baltimore (MD): CMS; cited 12 Apr 2018. https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/PartDandMABenchmarks2015.pdf

Detail on Estimating the Additional Plan Liability Attributable to the ACA's Provisions to Fill-In the Doughnut Hole and the 2018 BBA's Modifications to Plan Liability in the Doughnut Hole for Branded Drugs

The ACA's provisions to fill in the doughnut hole gradually increased plan liability for spending for non-LIS beneficiaries while in the doughnut hole, from 0% in 2010 to 25% for brand-name drugs and 75% for generic drugs in 2020. However, the Bipartisan Budget Act of 2018 reduced plan liability to 5% for brand-name drugs by increasing manufacturer-financed discounts from 50% to 70% and accelerated this change to 2019.

In order to estimate the increased plan liability resulting from these changes as a comparison, we used CMS data and the 2015 Part D claims to calculate total spending by non-LIS beneficiaries in the doughnut hole phase, separated by spending for branded and generic drugs. CMS data indicate that the value of manufacturer-financed discounts for brand-name drugs totaled $5.8B in 2015[5]; multiplying by 2 (since the rebates financed 50% of drug spending) suggests that total brand-name drug spending among non-LIS beneficiaries while in the doughnut hole phase was $11.6B. Additionally, based on our analysis of the 2015 claims data, we found that non-LIS beneficiaries spent a total of $3.2B on generic drugs while in the doughnut hole phase.

Had the ACA's provisions been fully-implemented in 2015, plans would have been responsible for 25% and 75% of spending on brand-name and generic drugs, respectively, or $5.3 billion ($11.6B*0.25 + $3.2B*0.75 = $5.3B). If spread evenly across all beneficiaries (including both LIS and non-LIS beneficiaries), this equates to an additional $10.61 in plan liability per member per month (($5.3B / 41.8M) / 12 = $10.61). However, as described above, the premium impact for beneficiaries would be less than this additional plan liability of $10.61.

If the additional $10.61 per member per month was passed through as a one-for-one increase in the national average bid amount, the nationwide average bid amount would instead have been $80.79 ($70.18+$10.61=$80.79). Assuming no change in the national average federal reinsurance subsidy of $59.74 per member per month, average total covered spending (of nationwide average bid plus reinsurance subsidy) would have been $140.53. Thus, in order to maintain the overall subsidy rate of 74.5% (assuming no change in reinsurance bids), the overall federal subsidy would be $104.69 per member per month ($140.53*0.745=$104.69), resulting in a direct subsidy of $44.95 per member per month ($104.69-$59.74=$44.95). Thus, the national average beneficiary premium would be $33.53 ($80.79-$44.95=$35.84), or a $2.71 (8.2%) increase ($35.84-$33.13=$2.71).

However, as a result of the 2018 BBA, plan liability for brand-name drugs while beneficiaries are in the doughnut hole will be reduced to 5% starting in 2019. Thus, here we also estimate the premium impact of filling-in the doughnut hole as if the 2018 BBA's provisions had been fully-implemented in 2015. Had that been the case, plans would have been responsible for 5% and 75% of spending on brand-name and generic drugs, respectively, or $3.0 billion ($11.6B*0.05 + $3.2B*0.75 = $3.0B). If spread evenly across all beneficiaries (including both LIS and non-LIS beneficiaries), this equates to an additional $5.98 in plan liability per member per month (($3.0B / 41.8M) / 12 = $5.98). However, as described above, the premium impact for beneficiaries would be less than this additional plan liability of $5.98.

If the additional $5.98 per member per month was passes through as a one-for-one increase in the national average bid amount, the nationwide average bid amount have instead been ($70.18+$5.98=$76.16). Assuming

[5] Centers for Medicare and Medicaid Services. Coverage Gap Discount Program (Total Coverage Gap Discount Amount by Drug Therapeutic Use for 2015) [Internet]. Baltimore (MD): CMS; cited 12 Apr 2018. Available from: https://www.cms.gov/Medicare/Medicare-Advantage/Plan-Payment/CGDP.html

no change in the national average federal reinsurance subsidy of $59.74 per member per month, average total covered spending (of nationwide average bid plus reinsurance subsidy) would have been $135.90. Thus, in order to maintain the overall subsidy rate of 74.5% (assuming no change in reinsurance bids), the overall federal subsidy would be $101.25 ($135.90*0.745=$101.25), resulting in a direct subsidy of $41.51 per member per month ($101.25-$59.74=$41.51). Thus, the national average beneficiary premium would be $34.65 ($76.16-$41.51=$34.65), or a $1.52 (4.6%) increase ($34.65-$33.13=$1.52).