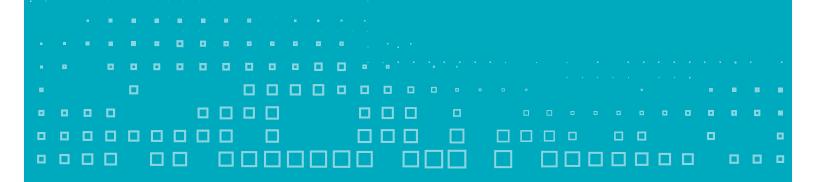
FEBRUARY 2018

Trends in Medicare Part D Benefit Design and Cost Sharing for Adult Vaccines, 2015–2017

Few Medicare Part D Plans Offer Adult Vaccines Without Cost Sharing

Annemarie Wouters, Senior Advisor
Sandy W. Robinson, Managing Director
Dhaval Patel, Senior Manager
Devin Stone, Manager
Kyla M. Ellis, Consultant
Andre Mota, Consultant

This issue brief is a companion document to the Manatt Health Strategies chart pack of the same name.



About Manatt Health

Manatt Health is a fully integrated, multidisciplinary legal, regulatory, advocacy and strategic business advisory healthcare practice comprised of professionals from Manatt, Phelps & Phillips, LLP, and its wholly-owned subsidiary, Manatt Health Strategies, LLC. Manatt Health's extensive experience spans the major issues reinventing healthcare, including payment and delivery system transformation; health IT strategy; health reform implementation; Medicaid re-design and innovation; healthcare mergers and acquisitions; regulatory compliance; privacy and security; corporate governance and restructuring; pharmaceutical market access, coverage and reimbursement; and game-changing litigation shaping emerging law. With more than 160 professionals dedicated to healthcare—including attorneys, consultants, analysts and policy advisors—Manatt Health serves its clients from nine offices across the country on projects in more than 30 states. For more information, visit www.manatt.com/ManattHealth.

For more information, contact:

Annemarie Wouters
Senior Advisor

Sandy W. Robinson
Managing Director
swrobinson@manatt.com

Trends in Medicare Part D Benefit Design and Cost Sharing for Adult Vaccines, 2015–2017

Few Medicare Part D Plans Offer Adult Vaccines Without Cost Sharing

Table of Contents

Executive Summary	4
Adult Vaccines, Medicare Part D, and the Affordable Care Act	
Part B and D Vaccine Coverage	7
Benefit Design	8
Analysis	8
Methodology	9
Findings	. 11
Non-LIS Enrollee Distribution by Cost Sharing Type Across MA-PDPs and PDPs	. 12
Trends in Coinsurance Rates Between 2015 and 2017 and by Plan Type	. 14
Trends in Copayment Amounts Between 2015 and 2017 and by Plan Type	. 16
Estimated Out-of-Pocket Costs by Vaccine and Region for MA-PDPs and PDPs	. 17
Distribution of MA-PDP and PDP Enrollees Across Levels of Estimated Out-of-Pocket	
Costs by Vaccine	. 19
Conclusion	. 23

Executive Summary

Vaccination utilization among U.S. adults is low, and well below the Healthy People 2020 Targets, despite widespread availability of safe and effective vaccines and long-standing use recommendations by the Centers for Disease Control and Prevention (CDC) and the Advisory Committee on Immunization Practices (ACIP).^{1,2} The 2010 Affordable Care Act (ACA) eliminated some coverage and financial access barriers to adult vaccinations covered by private health insurance and Medicaid,^{3,4} but it did not substantially change vaccine utilization or cost sharing for beneficiaries enrolled in Medicare Part D. The law requires that Medicare Part D plans cover all commercially available vaccines not already covered under Medicare Part B, if the vaccine is reasonable and necessary to prevent illness.5 Cost sharing guidelines for vaccines in Part D remained unchanged under the ACA. This study shows that despite encouragement by the Centers for Medicare & Medicaid Services (CMS) for Part D plans to provide vaccines without cost sharing to incentivize the use of these preventive services, about 4% or less of Medicare Part D enrollees had access to the

vaccines examined in this study with no cost sharing, depending on the vaccine, in either Medicare Advantage Part D Prescription Drug Plans (MA-PDPs) or standalone Prescription Drug Plans (PDPs) for CY 2017, with little change since 2015. Importantly, no PDPs offered zero-dollar cost sharing for the vaccines under study between 2015 and 2017.

Medicare Part D plans include MA-PDPs and PDPs; PDPs may be purchased by beneficiaries enrolled in traditional Medicare Part A and B programs. In January 2017, Part D enrollment across all types of Part D plans was approximately 42.2 million, with about 59% in PDPs.^{6,i} Enrollment increased from 38.6 million in January 2015 (61% in PDPs).7 This study focuses on non-low income subsidy (non-LIS) Part D enrollees in MA-PDPs and PDPs who can face high cost sharing, unlike enrollees eligible for LIS who, by statute, have reduced cost sharing. This study also excludes enrollees from demonstrations, national programs for all-inclusive care for the elderly (PACE) plans, employer group waiver plans (EGWPs), employer-direct contract plans, and plans where Medicare has suppressed public use data for various reasons.

Despite encouragement by CMS for Part D plans to provide vaccines without cost sharing to incentivize the use of these preventive services, about 4% or less of Medicare Part D enrollees had access to the vaccines examined in this study with no cost sharing, depending on the vaccine, in either Medicare Advantage Part D **Prescription Drug Plans** (MA-PDPs) or stand-alone **Prescription Drug Plans** (PDPs) for CY 2017, with little change since 2015.

Beginning in 2012, CMS permitted and encouraged Part D plans to create a "vaccine-only tier" that offers zero-dollar cost sharing in order to promote vaccine utilization.8 However, the inclusion of a dedicated vaccine-only tieror a "Select Care/Select Diabetes" tier that contains vaccine products—as part of a five- or six-tier formulary structure is not required. Sponsors who choose to offer one of these formulary tiers must set the cost sharing at zero dollars.9 Plans may also offer other tiers with zero-dollar cost sharing, such as preferred drug

These enrollment numbers include employer plans, PACE, demonstration and low-income subsidy (LIS) enrollees.

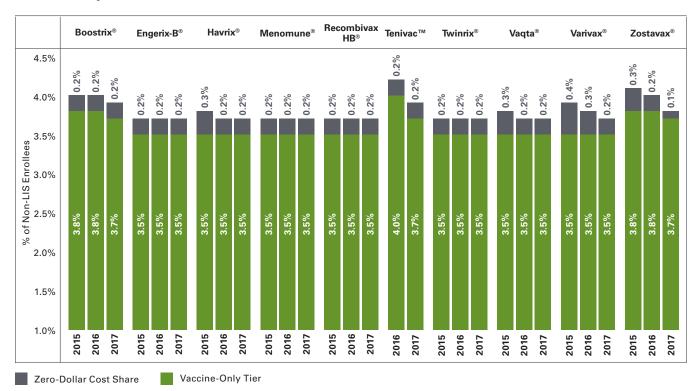
tiers. Manatt Health Strategies analyzed whether Part D plans were encouraging beneficiaries to be vaccinated by placing adult vaccines on tiers with zero-dollar cost sharing during calendar years 2015–2017. For this analysis, "zero-dollar cost share" tiers refers to any tier where cost sharing is zero, regardless of the tier label name.

We examined ten vaccines: tetanus toxoid, reduced diphtheria toxoid and acellular pertussis vaccine, adsorbed (Boostrix®); zoster vaccine live (Zostavax®); varicella virus vaccine live (Varivax®); A/C/Y/W-135, meningococcal polysaccharide vaccine, groups A, C, Y and W-135 combined (Menomune®); hepatitis A vaccine (Havrix®); hepatitis A vaccine, inactivated (Vaqta®); hepatitis B vaccine recombinant (Engerix-B®); hepatitis B vaccine recombinant (Recombivax HB®); hepatitis A and hepatitis B recombinant (Twinrix®); and

tetanus and diphtheria toxoids vaccine, adsorbed (Tenivac™). The vaccines selected for this study (known as study vaccines) address a broad range of preventable conditions and are recommended by ACIP/CDC either for general use for all adults 65 years old or older, or for adults with certain risk factors.¹0

As shown in Executive Summary Charts 1 and 2, the study findings revealed the following facts:

Executive Summary Chart 1: 2015–2017: Percentage of Non-LIS Enrollees with Vaccines in Dedicated Vaccine-Only Tier or Zero-Dollar Cost Share Tier



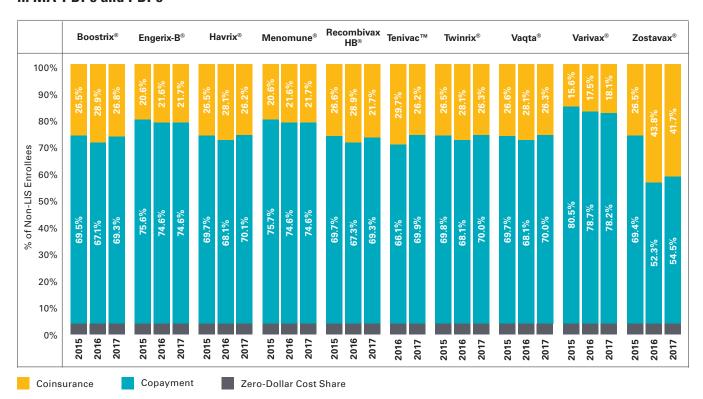
Notes: Analysis of all non-low income subsidy (LIS) enrollees in MA-PDPs and PDPs. No PDP enrollees had a dedicated vaccine-only tier or zero-dollar cost share. Excludes enrollees from demonstrations, national programs for all-inclusive care for the elderly (PACE) plans, employer group waiver plans (EGWPs), employer direct contract plans, and plans where data are suppressed in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files. No plans in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files list Tenivac in their 2015O2 formulary.

Few non-LIS Part D enrollees had access to vaccines through zero-dollar cost share. Across MA-PDPs and PDPs, about 4% or less of non-LIS Part D enrollees had access to the vaccines examined

in this study through zero-dollar cost sharing in 2017, depending on the vaccine (See Executive Summary Chart 1). When zero-dollar cost sharing was available, it was usually offered through

a dedicated vaccine-only tier.
There was little change in access to vaccines through dedicated vaccine-only tiers or other zero-dollar cost share tiers between 2015 and 2017.

Executive Summary Chart 2: 2015–2017: Percentage of Non-LIS Enrollees by Type of Cost Sharing in MA-PDPs and PDPs



Notes: Analysis of all non-low income subsidy (LIS) enrollees in MA-PDPs and PDPs. No PDPs enrollees had a dedicated vaccine-only tier or zero dollar cost-share. Excludes enrollees from demonstrations, national programs for all-inclusive care for the elderly (PACE) plans, employer group waiver plans (EGWPs), employer-direct contract plans, and plans where data are suppressed in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files. No plans in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files list Tenivac in their 2015Q2 formulary.

Sources: Manatt analysis of Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files for 2015Q2, 2016Q2, and 2017Q2; Medicare Part D Contract and Enrollment Data. See Methodology section for greater detail.

Less than 9% of non-LIS MA-PDP enrollees had access to vaccines through zero-dollar cost share in 2017. Between 8.0% and 8.6% of MA-PDP non-LIS enrollees in 2017 had access to the vaccines examined in

this study through zero-dollar cost sharing, depending on the vaccine. Among the MA-PDPs that required coinsurance for the study vaccines in 2017, more than 30% of non-LIS enrollees had a coinsurance

rate exceeding 35% for these vaccines. Among MA-PDPs that required copayments in 2017, less than 3% of non-LIS enrollees had copayments less than \$26 for these vaccines.

No PDPs offered zerodollar cost sharing to non-LIS enrollees for these vaccines. Among PDPs that required coinsurance in 2017, coinsurance rates for the study vaccines were rarely less than 11% for non-LIS enrollees, and average coinsurance rates were 35% or greater for nine of the ten vaccines. Among PDPs that required copayments, less than 15% of non-LIS enrollees had copayments under \$26 in 2015, declining to less than 9% under \$26 in 2017.

Among non-LIS enrollees with cost sharing for these vaccines, MA-PDPs had higher weighted

average copayment amounts, but lower weighted average coinsurance rates relative to PDPs. Although only MA-PDPs offered zero-dollar cost sharing for the vaccines studied, PDPs had a lower median estimated out-of-pocket cost for eight of the ten vaccines studied.

Median estimated cost sharing for non-LIS MA-PDP enrollees in 2017 was between \$39 and \$47 across the vaccines studied. By comparison, median estimated cost sharing for non-LIS PDP enrollees ranged between \$27 and \$75 depending on the vaccine, a slightly broader range than for

MA-PDP enrollees. However, estimated out-of-pocket costs could exceed \$100 for either MA-PDP or PDP enrollees for some vaccines.

In 2017, for the study vaccines, average weighted cost sharing at the state level was generally more homogeneous across states in PDPs, compared with MA-PDPs. Among MA-PDPs, the South region typically had the highest cost sharing, with the exception of the District of Columbia and Maryland. Among PDPs, Illinois and Arkansas had the highest out-of-pocket costs for most vaccines.

Adult Vaccines, Medicare Part D, and the Affordable Care Act

Despite the widespread availability of safe and effective vaccines and long-standing recommendations for their use by the CDC and ACIP, vaccination utilization among U.S. adults is well below Healthy People 2020 Targets.^{11,12}

Part B and D Vaccine Coverage

The ACA eliminated some coverage and financial access barriers to adult vaccination offered by private health

insurance¹³ and Medicaid,¹⁴ but did not substantially change vaccine coverage or cost sharing for Medicare beneficiaries under Medicare Part B or Part D. Few preventive vaccines are covered under Medicare Part B, and that coverage predates the implementation of the ACA. Part B covers pneumococcal, seasonal influenza and Hepatitis B (for patients at risk) vaccines without cost sharing.^{15,16} Coverage of the Hepatitis B vaccine for individuals at risk

also predates the ACA, but a zero-cost sharing requirement was implemented as part of the ACA.^{17,18} Aside from these vaccines, Medicare Part B covers only vaccines necessary to treat injury or direct exposure to disease (e.g., anti-rabies treatment, tetanus antitoxin or booster vaccine, botulin antitoxin, antivenin sera, or immune globulin),¹⁹ and cost sharing applies to these immunizations.

By comparison, Medicare Part D plans are required to cover all commercially available vaccines that are not covered under Medicare Part B, as long as the vaccine is reasonable and necessary to prevent illness. 20,21 Unlike for other commercial insurance and Medicare Part B, the ACA did not change cost sharing requirements in Medicare Part D.

Benefit Design

A 2011 Government Accountability Office report found that beneficiaries' cost sharing was a major deterrent to obtaining Part D

vaccinations. Beneficiaries cited unaffordability as a reason for declining Part D-covered shingles (48% of study beneficiaries) and Td/Tdap (23% of study beneficiaries) vaccines.²² Beginning in 2012, CMS permitted Part D plans to create a vaccine-only tier for low- or zero-dollar cost share to promote vaccine utilization.²³ While the inclusion of a dedicated vaccine tier-or an alternative Select Care/Select Diabetes tier that contains vaccine products—as part of a five- or six-tier formulary structure is not a requirement, sponsors who choose to offer

one of these formulary tiers must set the cost sharing at zero dollars for these tiers.²⁴

Over time, plans have moved toward using more cost sharing tiers. In 2007, most enrollees were in plans that used three tiers: generics, preferred brands and non-preferred brands. Between 2015 and 2017, the percent of MA-PDP and PDP enrollees in plans with five tiers-including two generic tiers, a preferred brand name tier, a non-preferred tier, and a specialty tier-increased.25 By 2016, about 97% of PDP enrollees and 76% of MA-PDP enrollees were in plans with five tiers.26

Analysis

For the period CY 2015 through CY 2017, this analysis examines to what extent MA-PDPs and PDPs were using zero-dollar cost sharing to encourage the use of adult vaccines. Because MA-PDPs are responsible for both medical and pharmacy expenditures, MA-PDPs may have more incentive to encourage vaccinations than PDPs because MA-PDPs would incur the medical costs of vaccine-preventable illnesses. For enrollees in MA-PDPs, coverage tends to be more generous than in PDPs.

In 2017, 90% of MA-PDPs offered enhanced benefits that cover a higher portion of healthcare costs than the standard Part D benefit, compared with only 42% of PDPs.²⁷

This study examined all Part D plans, but also compared trends in MA-PDPs and PDPs. It examined the following research questions for non-LIS Part D enrollees:

- Did Part D plans encourage non-LIS beneficiaries to be vaccinated by placing vaccines in tiers with zerodollar or low cost sharing during CY 2015–2017?
- Did Part D plan formulary designs rely more on copayments or coinsurance benefit design tools for vaccines during the CY 2015–2017 period? For each, what levels of copayments or coinsurance rates were used for these vaccines?
- What were the CY 2017
 estimated out-of-pocket
 costs for each of the vaccines
 selected for this analysis
 based on CY 2017 Part D
 formulary designs, as applied
 to the vaccine price per dose
 in the initial coverage phase of
 the Part D benefit?

Methodology

The Part D vaccines included in this analysis were selected because they address a broad range of preventable conditions and are included among the ACIP/CDC Recommended Adult Immunization Schedule for the United States between 2015 and 2017.²⁸ As shown in Table 1, the selected vaccines are recommended either for all adults age 65 years or older, or for adults with certain risk factors.

Table 1: Part D Vaccines Selected for Analysis

Part D Vaccines Selected for Analysis												
Proprietary Name	Nonproprietary Name	Labeler Name	Age <u>≥</u> 65	If Risk Factor(s) Present								
Boostrix®	Tetanus Toxoid, Reduced Diphtheria Toxoid, Acellular Pertussis Vaccine, Adsorbed	GlaxoSmithKline Biologicals SA	/									
Engerix-B®	Hepatitis B Vaccine (Recombinant)	GlaxoSmithKline Biologicals SA	✓	✓								
Havrix®	Hepatitis A Vaccine	GlaxoSmithKline Biologicals SA	/	✓								
Menomune®	A/C/Y/W-135, Meningococcal Polysaccharide Vaccine, Groups A, C,Y and W-135 Combined	Sanofi Pasteur Inc.	/	1								
Recombivax HB®	Hepatitis B Vaccine (Recombinant)	Merck Sharp & Dohme Corp.	/	✓								
Tenivac™	Tetanus and Diphtheria Toxoids, Adsorbed	Sanofi Pasteur Inc.	1	1								
Twinrix®	Hepatitis A and Hepatitis B (Recombinant)	GlaxoSmithKline Biologicals SA	1	1								
Vaqta [®]	Hepatitis A Vaccine, Inactivated	Merck Sharp & Dohme Corp.	/	✓								
Varivax [®]	Varicella Virus Vaccine Live	Merck Sharp & Dohme Corp.	/									
Zostavax [®]	Zoster Vaccine Live	Merck Sharp & Dohme Corp.	/									

Sources: Centers for Disease Control and Prevention (CDC). (2017). Recommended Immunization Schedules for Adults Aged 19 Years or Older, United States, 2017. Advisory Committee on Immunization Practices. Retrieved on Oct. 10, 2017 from https://www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf; CDC. (2017). Immunizations Information Systems: NDC Look Up Crosswalk. National Center for Immunization and Respiratory Diseases. Retrieved on Oct. 10, 2017 from https://www2a.cdc.gov/vaccines/iis/iisstandards/vaccines.asp?rpt=ndc.

This analysis used the Medi-Span database to identify National Drug Codes (NDCs) associated with the ACIP/CDC recommended adult vaccines chosen for this study and available for 2015 through 2017. It also relied on the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files for the second quarter of 2015, 2016 and 2017 to identify Medicare Part D plans that provide coverage for the vaccines studied. Information regarding

tier label names, including whether a plan designated a vaccine-only tier, came from the Plan Benefit Package files corresponding to that study year.

Enrollment numbers for each plan came from the Medicare Advantage/Part D Contract and Enrollment Data files by state and county, along with Medicare Part D Low-Income Subsidy (LIS) Enrollment files for each year studied. The analysis does not include enrollees

in demonstrations, national programs for all-inclusive care for the elderly plans, employer group waiver plans, employerdirect contract plans, and plans where data are suppressed in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files.

The Medicare study population for this analysis focused on non-LIS Part D enrollees as shown in Table 2 below.

Table 2: Medicare Study Population by Non-LIS Enrollment and Plan Type

Non-LIS Medicare Part D Enrollees	2015	2016	2017
MA-PDP	9,690,883	10,194,765	10,725,378
PDP	11,209,489	12,125,895	12,757,824
Total Non-LIS Enrollees	20,900,372	22,320,660	23,483,202

Number of Plans Analyzed	2015	2016	2017
MA-PDP	2,276	2,362	2,426
PDP	1,013	897	757

Note: The analysis does not include enrollment from demonstrations, national programs for all-inclusive care for the elderly (PACE) plans, employer group waiver plans (EGWPs), employer-direct contract plans, and plans where data are suppressed in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files.

Out-of-pocket amounts correspond to use of a single dose by a hypothetical non-LIS enrollee for the adult formulation version for each vaccine." The out-of-pocket amount calculations apply the specific Part D formulary and plan benefit design to the vaccine cost per administration as provided in the Part D public use files for each plan and do not reflect an analysis of actual utilization captured in claims data. The analysis assumed that the enrollee purchased the vaccine through a preferred retail pharmacy, whenever the

plan has one available; that the enrollee was in the initial coverage phase of his/her Part D benefit (i.e., not in the donut hole or catastrophic coverage); and that the enrollee did not have secondary insurance or Medicaid coverage. Average out-of-pocket amounts by state, by plan type (MA-PDPs versus PDPs) and nationally were calculated by weighting the out-of-pocket amount for each plan by the plan's total non-LIS subsidy enrollment.

No plans in the Medicare Prescription Drug Plan

Formulary, Pharmacy Network, and Pricing Information Quarterly Files listed Tenivac™ in their 2015 second quarter formulary. Therefore, data for the Tenivac™ vaccine was available only for CY 2016-2017 and only displayed in those years. In February 2017, Sanofi Pasteur announced the discontinuation of Menomune®.30 The vaccine remained on the market for a portion of 2017 and was included on Medicare Part D formularies in 2017, making it eligible for inclusion in this study.

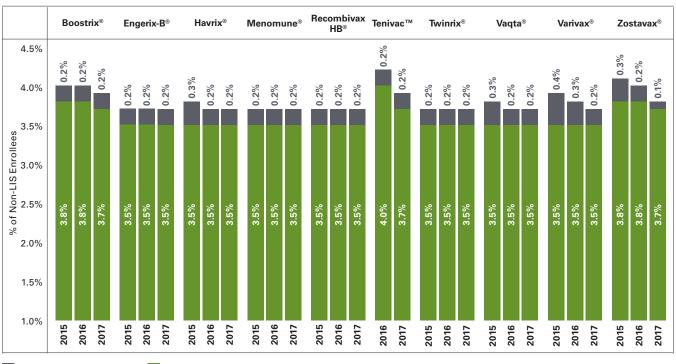
Findings

The study analysis findings are presented in five sections. In each of the charts below, all vaccines are listed alphabetically.

[&]quot;When multiple NDCs are available, the analysis assumed the enrollee would purchase the NDC that had the lowest out-of-pocket cost for that plan. When copayments or coinsurance amounts exceeded the average cost of the vaccine, the analysis set the out-of-pocket amount to equal the total vaccine cost.

Non-LIS Enrollee Distribution by Cost Sharing Type Across MA-PDPs and PDPs

Chart 1: 2015–2017: Percentage of Non-LIS Enrollees With Vaccines in Dedicated Vaccine-Only Tier or Zero-Dollar Cost Share Tier



Zero-Dollar Cost Share Vaccine-Only Tier

Notes: Analysis of all non-low income subsidy (LIS) enrollees in MA-PDPs and PDPs. No PDP enrollees had a dedicated vaccine-only tier or zero-dollar cost share. Excludes enrollees from demonstrations, national programs for all-inclusive care for the elderly (PACE) plans, employer group waiver plans (EGWPs), employer direct contract plans, and plans where data are suppressed in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files. No plans in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files list Tenivac in their 2015Q2 formulary.

Sources: Manatt analysis of Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files for 2015Q2, 2016Q2, and 2017Q2; Medicare Part D Contract and Enrollment Data. See Methodology section for greater detail.

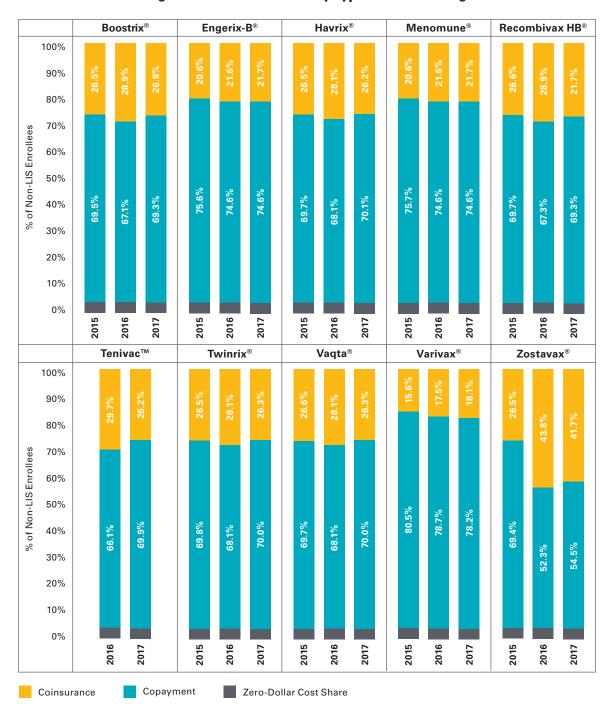
Between 2015 and 2017, few non-LIS Medicare Part D enrollees (3.7%–4.2%, depending on the vaccine) had access to the ten vaccines under study with zero-dollar cost sharing (See Chart 1). Trends in zero-dollar cost sharing through vaccine-only tiers or dedicated zero-dollar cost share tiers remained stable across all vaccines

during the study period, despite ongoing recommendations in the Medicare call letter to incentivize vaccine use. When zero-dollar cost sharing was made available under plan benefit designs, it was primarily offered under a dedicated vaccine-only tier.

Zero-dollar cost sharing declined slightly for most of the ten vaccines between 2015 and 2017.

Across MA-PDPs and PDPs, about 4% or less (depending on the vaccine) of non-LIS Part D enrollees had access to study vaccines through zero-dollar cost sharing in 2017, despite ongoing CMS recommendations to incentivize vaccinations.

Chart 2: 2015–2017: Percentage of Non-LIS Enrollees by Type of Cost Sharing in MA-PDPs and PDPs



Note: Analysis of all non-low income subsidy (LIS) enrollees in MA-PDPs and PDPs. No PDP enrollees had a dedicated vaccine-only tier or zero-dollar cost share. Excludes enrollees from demonstrations, national programs for all-inclusive care for the elderly (PACE) plans, employer group waiver plans (EGWPs), employer direct contract plans, and plans where data are suppressed in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files.

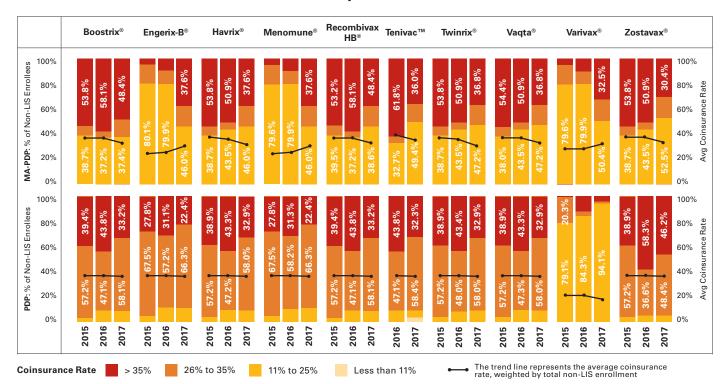
Approximately 4% or less of Part D non-LIS enrollees had access to vaccines with zero-dollar cost sharing in 2017, depending on the vaccine. The majority of non-LIS Medicare Part D enrollees paid for vaccines under a fixed copayment benefit design. Less

than 12% of MA-PDP non-LIS enrollees faced coinsurance for most vaccines, compared with 24% to 73% of non-LIS PDP enrollees in 2017, depending on vaccine (See Chart 2).

Across MA-PDPs and PDPs, most non-LIS enrollees must pay a copayment for the study vaccines and few had zero-dollar cost sharing.

Trends in Coinsurance Rates Between 2015 and 2017 and by Plan Type

Chart 3: 2015–2017: Trends in Non-LIS Enrollment by Coinsurance Rate



Notes: Analysis of all non-low income subsidy (LIS) enrollees in MA-PDPs and PDPs. No PDP enrollees had a dedicated vaccine-only tier or zero-dollar cost share. Excludes enrollees from demonstrations, national programs for all-inclusive care for the elderly (PACE) plans, employer group waiver plans (EGWPs), employer direct contract plans, and plans where data are suppressed in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files. No plans in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files list Tenivac in their 2015Q2 formulary.

During the study period, the distribution of cost sharing types across vaccines was generally stable for each vaccine, with the exception of Zostavax®. Between 2015 and 2016, there was a sharp increase in the percent of non-LIS enrollees accessing Zostavax® under coinsurance (from 26.5% to 43.8% between 2015 and 2016). In 2017, coinsurance was most common for Zostavax® (41.7%), compared with 27.1% for Recombivax HB®, 26.8% for Boostrix®, and 26.2% for Havrix®.

Between 2015 and 2017, weighted average coinsurance rates showed more variation for non-LIS enrollees in MA-PDPs compared with PDPs, which remained relatively stable with a slight downward trend (See Chart 3). However, average coinsurance rates were generally higher for non-LIS enrollees in PDPs, relative to those in MA-PDPs.

MA-PDPs: In 2017, among the MA-PDPs that required coinsurance, more than 30% of non-LIS enrollees had a coinsurance rate exceeding 35%. Generally, coinsurance rates varied over time and across vaccines without any consistent trend.

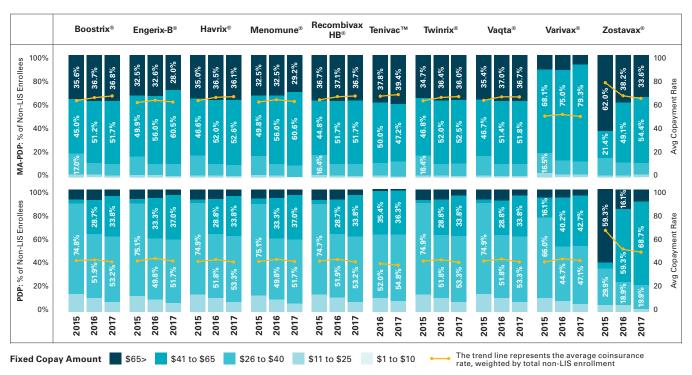
PDPs: In 2017, among the PDPs that required coinsurance as the type of cost sharing, coinsurance rates were rarely less than 11% for non-LIS enrollees. More than half of non-LIS enrollees in PDPs

Coinsurance rates were typically higher for non-LIS enrollees in PDPs, relative to MA-PDPs for these vaccines.

had coinsurance rates of 26% to 35% for eight of the ten vaccines (Boostrix®, Engerix-B®, Havrix®, Menomune®, Recombivax HB®, Tenivac™, Twinrix®, and Vaqta®). Three of the ten vaccines had more than a third of non-LIS enrollees in coinsurance arrangements over 35%.

Trends in Copayment Amounts Between 2015 and 2017 and by Plan Type

Chart 4: 2015–2017: Trends in Non-LIS Enrollment by Copayment Amount



Notes: Analysis of all non-low income subsidy (LIS) enrollees in MA-PDPs and PDPs. No PDPs enrollees had a dedicated vaccine-only tier or zero dollar cost-share. Excludes enrollees from demonstrations, national programs for all-inclusive care for the elderly (PACE) plans, employer group waiver plans (EGWPs), employer-direct contract plans, and plans where data are suppressed in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files. No plans in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files list Tenivac in their 2015Q2 formulary.

Sources: Manatt analysis of Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files for 2015Q2, 2016Q2, and 2017Q2; Medicare Part D Contract and Enrollment Data. See Methodology section for greater detail.

Weighted average copayment rates for these vaccines were generally stable between 2015 and 2017 for both plan types, except for Zostavax® (See Chart 4). The average weighted copayment amounts for Zostavax® decreased from \$73 in 2015 to \$61 in 2017 for MA-PDPs, and from \$63 in 2015 to \$47 in 2017 for PDPs. In 2017, copayments under \$26 existed

for less than 3% of non-LIS enrollees in MA-PDPs, and for less than 9% of non-LIS enrollees in PDPs.

MA-PDPs: Enrollees in MA-PDPs were more likely (79.3% versus 47.2%) to have a fixed copayment amount between \$41 and \$65. The average weighted copayments in 2017 were typically \$59 or

greater, except for Varivax®, which had an average weighted copayment of \$47.

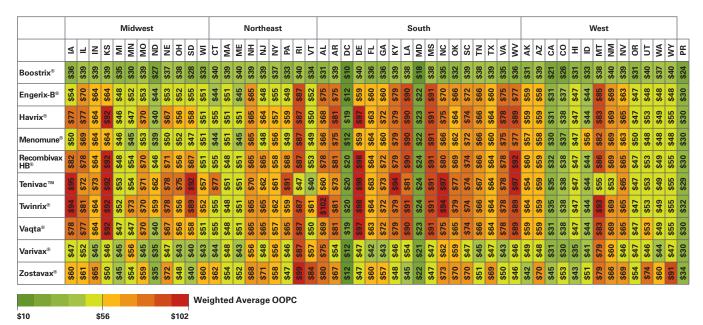
> Copayments were generally higher for non-LIS enrollees in MA-PDPs, relative to PDPs for these vaccines.

PDPs: Among PDPs that require copayments, less than 9% of non-LIS enrollees had copayments under \$26, a reduction from the 15% that had copayments under \$26 in 2015. For non-LIS

enrollees in PDPs, copayments between \$26 and \$40 were the most common for individual vaccines, except for Zostavax[®]. The most common copayment range for Zostavax[®] was between \$41 and \$65. In 2017, the average weighted copayments for non-LIS PDP enrollees ranged from \$37 to \$47.

Estimated Out-of-Pocket Costs by Vaccine and Region for MA-PDPs and PDPs

Chart 5: 2017 Estimated State-Level Out-of-Pocket Costs for Non-LIS Enrollees in MA-PDPs



Notes: Analysis of all non-low income subsidy (LIS) enrollees in MA-PDPs and PDPs. No PDP enrollees had a dedicated vaccine-only tier or zero-dollar cost share. Excludes enrollees from demonstrations, national programs for all-inclusive care for the elderly (PACE) plans, employer group waiver plans (EGWPs), employer direct contract plans, and plans where data are suppressed in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files.

Chart 6: 2017 Estimated State-Level Out-of-Pocket Costs for Non-LIS Enrollees in PDPs

					M	lidv	ves	t							N	lort	hea	st										Sc	outh													We	st					
	⊴	=	Z	KS	Ξ	Z	ΘM	9	뮐	Ы	SD	₹	C	MΑ	ME	¥ :	3	N A	- E	5	٩F	AR	DC	B	교	ВA	≥	4	₽ :	2 2	ž	သွ	Z	¥	≸	≩	AK	Ą	CA	8 =	E 9	<u> </u>	2	2	OR	5	W	≩
Boostrix®	\$17	\$30	\$26	\$25	\$25	\$17	\$26	\$21	\$19	\$27	\$19	\$24	\$29	\$28	\$29	\$26	178	\$30	\$27	\$26	\$26	\$31	\$29	\$27	\$28	\$28	\$27	\$27	\$28	426	\$27	\$26	\$26	\$26	\$27	\$27	\$24	\$26	\$26	\$24	\$22	\$27	\$29	\$25	\$24	\$23	\$25	\$22
Engerix-B®	\$45	\$57	\$46	\$47	\$45	\$45	\$45	\$48	\$47	\$44	\$48	\$47	\$40	\$41	\$40	\$43	\$44	\$41	\$42	\$43	\$50	\$57	\$41	\$43	\$46	\$44	\$45	\$45	\$43	\$40	\$52	\$44	\$47	\$49	\$46	\$44	\$44	\$44	\$44	\$45	\$40 \$E0	\$48	\$46	\$44	\$47	\$48	\$46	\$47
Havrix®	\$40	\$54	\$43	\$44	\$42	\$39	\$43	\$43	\$42	\$43	\$42	\$44	\$39	\$39	\$39	\$42	\$4.I	\$40	\$40	\$40	\$45	\$55	\$40	\$41	\$44	\$42	\$43	\$43	\$42	\$44	\$50	\$42	\$44	\$47	\$43	\$42	\$40	\$42	\$40	\$42	#38 #4E	¢43	\$45	\$42	\$43	\$44	\$42	\$43
Menomune®	\$37	\$53	\$40	\$42	\$21	\$37	\$40	\$40	\$39	\$43	\$40	\$42	\$43	\$45	\$48	\$50	0 1	\$47 \$48	\$47	\$48	\$43	\$53	\$46	\$42	\$42	\$42	\$41	\$41	\$44	243	\$48	\$46	\$41	\$45	\$42	\$48	\$41	\$40	\$39	\$ 4	420	240	\$44	\$39	\$54	\$42	\$52	\$40
Recombivax HB®	\$50	\$61	\$52	\$53	\$21	\$20	\$21	\$53	\$54	\$50	\$54	\$54	\$44	\$46	\$44	\$49	248	\$44	\$47	\$48	\$55	\$61	\$45	\$47	\$50	\$49	\$21	\$20	\$48	\$52 \$55	0000	\$49	\$52	\$55	\$51	\$20	\$49	\$49	\$47	\$50	940	\$54 454	\$50	\$50	\$53	\$54	\$51	\$53
Tenivac™	\$82	\$68	\$75	\$79	\$71	\$82	\$75	\$84	\$86	\$70	\$88	\$82	\$57	\$60	\$26	\$69	204	450	\$63	\$65	99\$	69\$	\$57	\$65	\$61	\$67	\$72	\$71	99\$	\$71	\$72	\$68	\$73	\$76	\$72	89\$	\$71	69\$	\$65	\$75	400	400	\$62	\$73	\$78	\$84	\$73	\$82
Twinrix®	\$77	\$77	\$71	\$75	\$70	\$77	\$72	\$80	\$81	\$67	\$83	\$78	\$26	\$29	\$56	\$68	202	\$54 \$64	\$62	\$64	\$78	\$76	\$56	\$63	\$63	\$65	69\$	\$68	\$64	\$78	\$76	\$67	\$73	\$76	69\$	\$65	89\$	99\$	\$63	\$71	000	000	863	\$70	\$76	\$80	\$71	\$78
Vaqta®	\$40	\$55	\$44	\$45	\$43	\$40	\$43	\$43	\$43	\$43	\$43	\$45	\$39	\$40	\$39	\$42	\$42	\$40	\$40	\$41	\$46	\$55	\$40	\$41	\$45	\$43	\$44	\$43	\$42	\$44 \$46	\$50	\$42	\$44	\$47	\$44	\$42	\$41	\$42	\$40	\$42	420	\$44	\$45	\$42	\$44	\$45	\$43	\$43
Varivax®	\$42	\$55	\$40	\$41	\$4	\$43	\$40	\$43	\$42	\$41	\$43	\$41	\$37	\$38	\$39	241	<u>_</u>	\$33 141	\$39	\$39	\$50	\$52	\$39	\$39	\$43	\$40	\$40	\$40	\$40	040	\$49	\$40	\$42	\$44	\$41	\$40	\$39	\$40	\$39	\$40	\$50 \$40	\$45 \$42	\$44	\$39	\$41	\$41	\$41	\$
Zostavax®	\$63	\$78	\$70	99\$	\$70	\$62	69\$	\$65	29\$	69\$	29\$	\$72	69\$	\$60	\$71	\$71	- /5	900	\$64	\$67	\$72	\$71	29\$	\$74	\$75	89\$	29\$	869	\$71	\$75 1	\$74	29\$	\$71	\$75	\$70	\$68	\$76	\$73	99\$	\$72	- 673	099	\$72	\$74	\$73	\$73	\$73	\$71
											v	Veig	ght	ed	Ave	erag	ge (OOF	С																													
617			\$!	52						\$88	П В																																					

Notes: Analysis of all non-low income subsidy (LIS) enrollees in MA-PDPs and PDPs. No PDP enrollees had a dedicated vaccine-only tier or zero-dollar cost share. Excludes enrollees from demonstrations, national programs for all-inclusive care for the elderly (PACE) plans, employer group waiver plans (EGWPs), employer direct contract plans, and plans where data are suppressed in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files.

Sources: Manatt analysis of Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files for 2015Q2, 2016Q2, and 2017Q2; Medicare Part D Contract and Enrollment Data. See Methodology section for greater detail.

In 2017, average weighted cost sharing at the state level for the study vaccines was generally more homogeneous across states in PDPs, compared with MA-PDPs (See Charts 5 and 6).

MA-PDPs: Among MA-PDPs, the South typically had the highest cost sharing, except for the District of Columbia and Maryland. The lowest cost sharing was generally found in the West region, with the exception of Montana. Boostrix® had low cost sharing across all regions, followed by Varivax® in most regions.

PDPs: Estimated average weighted out-of-pocket costs at the state level were more consistent in PDPs than in MA-PDPs across states and regions. Illinois and Arkansas had the highest out-of-pocket costs for most vaccines. Tenivac™, Twinrix® and Zostavax® had consistently higher cost sharing across all regions.

Cost sharing was generally more homogeneous for study vaccines across states for non-LIS enrollees in PDPs, compared with MA-PDPs.

Distribution of MA-PDP and PDP Enrollees Across Levels of Estimated Out-of-Pocket Costs by Vaccine

Chart 7: 2017: Distribution of Non-LIS MA-PDP Enrollees Across Levels of Estimated Out-of-Pocket Cost by Vaccine

Boostrix®	0.91M	0.29M	0.15M	0.28M	0.16M	0.05M	0.13M	6.23M	2.28M																
Engerix-B®	0.87M	0.20M	0.01M	0.02M	0.04M	0.06M	0.13M	0.33M	1.37M	4.45M	0.15M	0.06M	0.04M	0.00M	0.00M	M60.0	0.21M	0.26M	0.25M	1.12M	0.84M				
Havrix®	0.85M	0.20M	0.01M	0.02M	0.04M	0.07M	0.24M	0.32M	1.38M	3.74M	0.08M	0.01M	0.09M	0.19M	0.02M	0.04M	0.06M	0.20M	0.25M	1.11M	1.56M				
Menomune®	0.87M	0.20M		0.02M	0.02M	0.05M	0.24M	0.27M	1.36M	4.43M	0.08M	0.07M	0.25M	0.01M	0.00M	0.04M	0.10M	0.22M	0.28M	1.12M	0.84M			3.6K nrollee PC>\$1	
Recombivax HB®	0.85M	0.20M	0.01M	0.02M	0.04M	0.06M	0.14M	0.32M	1.27M	3.70M	0.08M	0.10M	0.06M	0.00M	0.06M	0.08M	0.18M	0.24M	0.39M	1.13M	1.56M				
Tenivac™	0.91M	0.26M		0.01M		0.05M	0.13M	0.40M	0.84M	3.73M	0.08M	0.01M	0.05M	0.04M	0.03M	0.11M	0.06M	0.21M	0.16M	1.43M	1.59M	0.09M		275K nrollee PC>\$1	
Twinrix®	0.85M	0.20M	0.01M	0.02M	0.04M	0.06M	0.14M	0.32M	1.27M	3.72M	0.08M	0.01M	0.04M	0.00M	0.12M	0.05M	0.06M	0.19M	0.26M	1.21M	1.56M			257K nrollee PC>\$1	
Vaqta [®]	0.85M	0.20M	0.01M	0.02M	0.04M	0.06M	0.27M	0.32M	1.38M	3.67M	0.08M	0.01M	0.09M	0.17M	0.03M	0.04M	0.06M	0.19M	0.25M	1.11M	1.62M				
Varivax®	0.88M	0.22M	0.02M	0.05M	M60.0	0.06M	0.15M	0.36M	1.29M	6.21M	0.08M	0.12M	0.00M	0.00M	0.02M	0.13M	0.05M	0.08M	0.25M	0.07M	0.16M	0.05M	Er	158K nrollee PC>\$1	
Zostavax®	0.92M	0.22M	0.01M	0.04M	0.07M	0.05M	0.10M	0.36M	1.06M	4.01M	0.20M	0.04M	0.02M	0.15M	0.03M	0.02M	0.05M	0.12M	0.30M	1.36M	1.21M	0.13M		2.4K nrollee PC>\$1	
Ç	o 4€	\$10	÷ ÷	\$20	\$ 25	\$30	₩ (\$40	\$45			ocket		\$70	\$75	\$80	\$	06\$	\$95	÷ ÷	\$105	\$110	\$115	\$120	

Notes: Analysis of all non-low income subsidy (LIS) enrollees in MA-PDPs and PDPs. Excludes enrollees from demonstrations, national programs for all-inclusive care for the elderly (PACE) plans, employer group waiver plans (EGWPs), employer-direct contract plans, and plans where data are suppressed in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files. The visual distribution was artificially cut at \$110. Out-of-pocket costs above \$110 are indicated separately.

In 2017, median estimated cost sharing for non-LIS MA-PDP enrollees was between \$39 and \$47 across the

vaccines studied (See Chart 7 and Table 3). Comparatively, median estimated cost sharing for non-LIS PDP enrollees

ranged between \$27 and \$75, depending on the vaccine (See Chart 8 and Table 4).

Table 3: 2017 Out-of-Pocket Cost Percentiles for Non-LIS Enrollees in MA-PDPs

	Out-of-Pocket Cost in MA-PDPs													
Vaccine	25th Percentile	50th Percentile Median	75th Percentile	95th Percentile										
Boostrix [®]	\$38.05	\$39.28	\$39.89	\$40.84										
Engerix-B®	\$42.00	\$47.00	\$80.00	\$100.00										
Havrix [®]	\$42.00	\$47.00	\$95.00	\$100.00										
Menomune®	\$42.00	\$47.00	\$63.93	\$100.00										
Recombivax HB®	\$42.00	\$47.00	\$95.00	\$100.00										
Tenivac™	\$45.00	\$47.00	\$97.00	\$100.00										
Twinrix®	\$42.00	\$47.00	\$97.00	\$100.00										
Vaqta [®]	\$42.00	\$47.00	\$95.00	\$100.00										
Varivax [®]	\$42.00	\$47.00	\$47.00	\$93.00										
Zostavax®	\$42.00	\$47.00	\$95.00	\$100.00										

Note: The analysis does not include enrollment from demonstrations, national programs for all-inclusive care for the elderly (PACE) plans, employer group waiver plans (EGWPs), employer-direct contract plans, and plans where data are suppressed in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files.

Sources: Manatt analysis of Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files for 2015Q2, 2016Q2, and 2017Q2; Medicare Part D Contract and Enrollment Data.

MA-PDPs: The median outof-pocket cost was \$47 or greater for nine of the ten vaccines (Engerix-B®, Havrix®, Menomune®, Recombivax HB®, Tenivac™, Twinrix®, Vaqta®, Varivax® and Zostavax®).

Estimated out-of-pocket costs exceeded \$100 for the highest 5th percentile of MA-PDP enrollees for eight of the ten vaccines.

Boostrix® had the least variation in cost sharing. The 25th percentile of out-of-pocket

cost was \$38 and the 95th percentile was approximately \$40. As demonstrated in the geographic analysis, there was less variation for Boostrix® across states and regions than for other vaccines.

Chart 8: 2017: Distribution of Non-LIS PDP Enrollees Across Levels of Estimated Out-of-Pocket Cost, by Vaccine

Boostrix®		0.35M	3.23M	1.20M	1.01M	0.86M	0.58M	2.60M	2.63M																
Engerix-B®				0.17M	0.27M	0.90M	1.23M	2.45M	0.83M	2.50M	0.03M	2.82M	0.00M	0.05M	0.85M	0.06M	0.04M		0.08M	0.20M					
Havrix [®]				0.19M	0.52M	0.87M	0.80M	2.41M	0.65M	4.97M	0.13M	0.82M	0.06M	0.74M	0.04M				0.08M	0.20M					
Menomune®				0.20M	0.51M	0.92M	1.03M	2.42M	3.48M	2.49M	0.85M	0.06M	0.04M		0.04M				0.08M	0.20M				147K nrolle PC>\$	es
Recombivax HB®				0.17M	0.27M	0.87M	0.82M	2.38M	0.71M	2.04M	0.03M	0.00M	3.07M	0.06M	0.14M	0.79M	M60.0	0.01M	0.81M	0.20M					
Tenivac™				0.21M	0.27M	0.86M	0.76M	2.43M	M06.0	1.95M	0.00M	0.24M		0.00M	0.04M	0.05M					0.00M	2.80M	Er	1,948I nrolle IPC>\$	es
Twinrix®				0.17M	0.27M	0.86M	0.58M	2.37M	0.65M	1.93M	0.24M	0.00M	0.00M	0.05M	0.12M	0.08M	0.01M	0.03M	0.08M	0.22M	2.92M	0.13M	Er	1,754k nrolle)PC>\$	es
Vaqta®				0.19M	0.52M	0.87M	M69.0	2.49M	0.66M	4.98M	0.13M	0.82M	0.06M	0.74M	0.04M				0.08M	0.20M					
Varivax®				0.17M	0.27M	0.86M	1.01M	2.41M	1.72M	5.29M	0.05M	0.16M	0.01M	0.03M	0.04M	0.01M	0.01M	0.00M	0.12M	0.21M		0.06M		45K nrolle PC>\$	
Zostavax®					0.01M	0.22M	0.24M	0.44M	0.63M	1.97M	0.04M	0.12M	0.68M	0.35M	3.01M	0.52M	1.85M	0.47M	0.90M	0.27M		0.74M			
Ç V	о ц Э (01-8	. 	\$20	\$25	\$30	33	\$40	2 45 2 42			ocket		02\$	\$75	08.5	98 98 98	065	\$ 68		\$105	\$110	\$115	\$120	

Notes: Analysis of all non-low income subsidy (LIS) enrollees in MA-PDPs and PDPs. Excludes enrollees from demonstrations, national programs for all-inclusive care for the elderly (PACE) plans, employer group waiver plans (EGWPs), employer-direct contract plans, and plans where data are suppressed in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files. The visual distribution was artificially cut at \$110. Out-of-pocket costs above \$110 are indicated separately.

PDPs: Compared with MA-PDP enrollees, a smaller proportion of non-LIS PDP enrollees had access to vaccines for \$10 or less in 2017 (See Chart 8 and

Table 4). However, non-LIS enrollees in PDPs had lower median estimated out-of-pocket costs than in MA-PDPs for eight of the ten vaccines studied.

Zostavax® was the only vaccine for which median estimated out-of-pocket costs were lower in MA-PDPs.

Table 4: 2017 Out-of-Pocket Cost Percentiles for Non-LIS Enrollees in PDPs

	Out-of-Pocket Cost in PDPs													
Vaccine	25th Percentile	50th Percentile Median	75th Percentile	95th Percentile										
Boostrix [®]	\$13.34	\$27.00	\$36.00	\$40.24										
Engerix-B®	\$35.00	\$45.00	\$57.85	\$72.75										
Havrix [®]	\$35.00	\$45.67	\$46.90	\$67.24										
Menomune [®]	\$35.00	\$43.10	\$46.00	\$54.44										
Recombivax HB®	\$35.00	\$46.00	\$62.08	\$91.35										
Tenivac™	\$35.00	\$46.00	\$107.78	\$162.22										
Twinrix®	\$35.00	\$47.00	\$101.53	\$149.64										
Vaqta [®]	\$35.00	\$46.00	\$47.00	\$68.60										
Varivax®	\$35.00	\$43.00	\$45.86	\$58.79										
Zostavax®	\$47.00	\$74.60	\$84.94	\$108.26										

Note: The analysis does not include enrollment from demonstrations, national programs for all-inclusive care for the elderly (PACE) plans, employer group waiver plans (EGWPs), employer-direct contract plans, and plans where data are suppressed in the Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files.

Sources: Manatt analysis of Medicare Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Quarterly Files for 2015Q2, 2016Q2, and 2017Q2; Medicare Part D Contract and Enrollment Data.

The median out-of-pocket cost was \$43 or greater for nine of the ten vaccines (Engerix-B®, Havrix®, Menomune®, Recombivax HB®, Tenivac™,

Twinrix®, Vaqta®, Varivax® and Zostavax®). Boostrix® remained the vaccine with the lowest out-of-pocket costs, with a median cost of \$27 in 2017 for non-

LIS PDP enrollees. Estimated out-of-pocket costs exceeded \$100 for a few PDP enrollees for Tenivac[™], Twinrix[®] and Zostavax[®].

Conclusion

The study shows that, despite CMS recommendations since 2012 that Part D plans incentivize the use of adult vaccination by placing vaccines on zero-dollar cost sharing tiers, most Part D plans (either MA-PDP or PDP-only) continue to require enrollees to pay out-of-pocket costs for vaccines. In 2017, about 4% of Part D enrollees had access to low- or

zero-dollar cost sharing, and there has been little change since 2015. For non-LIS enrollees, only some MA-PDPs allowed zero-dollar cost sharing for the vaccines under study.

Most non-LIS enrollees faced a copayment—the most prevalent form of cost sharing for the vaccines under study in both MA-PDP and PDPs.

MA-PDPs had lower weighted average coinsurance rates but higher weighted average copayment amounts for these vaccines relative to PDPs.

Non-LIS enrollees in MA-PDPs had slightly higher median estimated out-of-pocket costs compared to enrollees in MA-PDPs for eight of the ten vaccines studied.

GlaxoSmithKline provided funding for this analysis. Manatt Health Strategies, LLC, maintained full editorial control over the selection of the vaccines, methodology and content of this issue brief and accompanying chart pack.

- ¹U.S. Department of Health and Human Services (HHS). (2011). Healthy People 2020. Retrieved on Oct. 10, 2017, from https://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases/objectives
- ²U.S. Department of Health and Human Services. (2016). National Adult Immunization Plan. The National Vaccine Program Office. Retrieved on Oct. 10, 2017, from https://www.hhs.gov/sites/default/files/nvpo/national-adult-immunization-plan/naip.pdf
- ³ Affordable Care Act. Sections 1302, 2001 and 4106. Retrieved on Oct. 10, 2017, from https://www.gpo.gov/fdsys/pkg/BILLS-111hr3590enr/pdf/BILLS-111hr3590enr.pdf
- ⁴CMS. (2012). Essential Health Benefits in the Medicaid Program. Memo to State Medicaid Directors. U.S. Department of Health and Human Services. Retrieved on Oct. 13, 2017, from https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/SMD-12-003.pdf
- ⁵ CMS. (2016). Medicare Prescription Drug Benefit Manual. Chapter 6: Section 20.4 and 30.2.7. Retrieved on Oct. 10, 2017, from https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/Downloads/Part-D-Benefits-Manual-Chapter-6.pdf
- ⁶ CMS. (2017). Medicare Advantage, Cost, PACE, Demo, and Prescription Drug Plan Organizations—Monthly Report by Plan—January 2017. Medicare Advantage/Part D Contract and Enrollment Data. Retrieved on Oct. 10, 2017, from https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MCRAdvPartDEnrolData/Monthly-Enrollment-by-Plan.html
- ⁷ CMS. (2015). Medicare Advantage, Cost, PACE, Demo, and Prescription Drug Plan Organizations—Monthly Report by Plan—January 2015. Medicare Advantage/Part D Contract and Enrollment Data. Retrieved on Oct. 10, 2017, from https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MCRAdvPartDEnrolData/Monthly-Enrollment-by-Plan.html
- ⁸ CMS. (2016). Announcement of Calendar Year (CY) 2017 Medicare Advantage Capitation Rates and Medicare Advantage and Part D Payment Policies and Final Call Letter. Retrieved on Oct. 10, 2017, from https://www.cms.gov/Medicare/HealthPlans/MedicareAdvtgSpecRateStats/Downloads/Announcement2017.pdf
- ⁹ CMS. (2016). Announcement of Calendar Year (CY) 2017 Medicare Advantage Capitation Rates and Medicare Advantage and Part D Payment Policies and Final Call Letter. P. 198
- ¹⁰ Centers for Disease Control (CDC). (2017). Recommended Immunization Schedules for Adults, CY 2017. Advisory Committee on Immunization Practices. Retrieved on Oct. 10, 2017, from https://www.cdc.gov/vaccines/schedules/hcp/adult.html
- ¹¹ U.S. Department of Health and Human Services. Healthy People 2020. Objectives IID-12 through IID-15.
- ¹² U.S. Department of Health and Human Services. (2016). National Adult Immunization Plan. The National Vaccine Program Office.
- ¹³ Affordable Care Act. Sections 1302, 2001 and 4106.
- ¹⁴ CMS. (2012). Essential Health Benefits in the Medicaid Program. Memo to State Medicaid Directors. U.S. Department of Health and Human Services.
- ¹⁵ Social Security Administration. Section 1861(s)(10)(A) and regulations at 42 CFR 410.57.
- ¹⁶ CMS. (2017). Chapter 15: Covered Medical and Other Services. Medicare Benefit Policy Manual. Section 50.4.4.2. Retrieved on Oct. 10, 2017, from https://www.cms.gov/Regulations-and Guidance/Guidance/Manuals/Downloads/bp102c15.pdf
- 17 Ibid.
- ¹⁸ CMS. (2014). Reminder—Beneficiary Cost Sharing for Medicare-Covered Preventive Services Under the Affordable Care Act. Medicare Learning Network. Number: SE1129. Retrieved on Oct. 10, 2017, from https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/downloads/SE1129.pdf
- ¹⁹ CMS. (2017). Chapter 15: Covered Medical and Other Services. Medicare Benefit Policy Manual. Section 50.4.4.2.
- ²⁰ CMS. (2016). Medicare Prescription Drug Benefit Manual. Chapter 6: Section 20.4 and 30.2.7.
- ²¹ Ibid.

²² U.S. Government Accountability Office. (2011). Many Factors, Including Administrative Challenges, Affect Access to Part D Vaccinations. Retrieved on Oct. 10, 2017, from http://www.gao.gov/assets/590/587009.pdf

²³ CMS. (2016). Announcement of Calendar Year (CY) 2017 Medicare Advantage Capitation Rates and Medicare Advantage and Part D Payment Policies and Final Call Letter

²⁴ Ibid.

²⁵ Kaiser Family Foundation. (2016). Medicare Part D in 2016 and Trends Over Time. Retrieved on Nov. 13, 2017, from http://files.kff. org/attachment/Report-Medicare-Part-D-in-2016-and-Trends-over-Time

²⁶ Medicare Payment Advisory Commission (MEDPAC). (2017). Chapter 14: Status of the Medicare Prescription Drug Program (Part D). Report to Congress: Medicare Payment Policy. P. 401

²⁷ Medicare Payment Advisory Commission (MEDPAC). (2017). Chapter 14: Status of the Medicare Prescription Drug Program (Part D). Report to Congress: Medicare Payment Policy. P. 396

²⁸ Centers for Disease Control (CDC). (2017). Recommended Immunization Schedules for Adults Aged 19 Years or Older, United States, 2017. Advisory Committee on Immunization Practices. Retrieved on Oct. 10, 2017, from https://www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf

²⁹ Wolters Kluwer. (2016). Medi-Span Electronic Drug File (MED-File) v2. Retrieved on Oct. 10, 2017, from http://www.wolterskluwercdi.com/drug-data/medi-span-electronic-drug-file/

³⁰ Sanofi Pasteur US. (2017.) Sanofi Pasteur Statement on the discontinuation of meningococcal polysaccharide vaccine, groups A, C, Y and W-135 combined. Retrieved on Oct. 10, 2017, from http://sanofipasteurus.mediaroom.com/press-statements?item=34577

manatt

Albany Chicago Los Angeles New York

Orange County

Palo Alto

Sacramento

San Francisco

Washington, D.C.