

Amazon Pharmacy: Is it Prime time for prescription drugs?

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Amazon Pharmacy, the tech giant's latest venture into healthcare, launched a mail-order pharmacy on November 17. Does the new service disrupt, conform, or lay groundwork for future transformation?

What is Amazon Pharmacy?

Amazon Pharmacy provides mail prescription medication delivery for all patients, as well as the additional benefits of two-day prescription delivery and discounted medication prices for Amazon Prime (Prime) members through the Prime Rx program. Patients can have providers send prescriptions directly to Amazon or Amazon can contact the provider on the patient's behalf.¹

Amazon Pharmacy complements Amazon PillPack (PillPack), which sorts medications into small, individual packages based on the date and time of day they are scheduled to be taken.

A wide variety of both brand and generic medications are available on Amazon Pharmacy. Vitamins, over-the-counter (OTC) drugs, and diabetic testing supplies are excluded from the pharmacy platform, but can be purchased through traditional Amazon. Amazon Pharmacy does not cover drugs requiring customization or physician injection, such as compounded medications, suspensions, vaccines, and certain specialty products. Amazon details the full list of exclusions on its website.² These types of medications require significant coordination between physicians, patients, and insurance.

Can you pay with insurance?

Patients can choose to pay with or without insurance. For those paying without insurance, Amazon offers Prime members discounts up to 80% and 40% on generic and brand prescription medications, respectively.^{3,4} Additionally, a discount card is available to members for use at local retail pharmacies.⁵ For patients paying with insurance, Amazon pricing will reflect the appropriate member cost sharing, consistent with their benefit design. This is different from other discount card programs, such as GoodRx, which do not have options for combining insurance benefits with services.

How does Amazon Pharmacy fit into the current pharmacy supply chain?

Effectively, Amazon Pharmacy is joining the existing pharmacy supply chain. Amazon Pharmacy works with pharmacy benefit managers (PBMs) to ensure its mail-order pharmacy service is included in pharmacy networks when prescriptions are filled with insurance. When insurance is not used, Amazon offers Prime members discounted pricing through Amazon's mail-order pharmacy or at participating retail locations, similar to the discount program currently offered by GoodRx.⁶

What restrictions apply?

Amazon Pharmacy does not accept any coupon or discount codes apart from its own negotiated discounts. Manufacturer coupons are an increasingly common way patients receive assistance to pay for medications.⁷ However, these coupons are typically geared toward expensive brand and specialty pharmaceuticals and have a minimal impact to the generic prescription market.

Additionally, it is worth noting that Amazon Pharmacy will currently fill prescriptions greater than 30 days, such as 90-day, in 30-day increments. For example, it will fill a 90-day prescription in three, 30-day shipments over 90 days. Furthermore, automatic refills are not currently available; Amazon will send a notification when the prescription is due for a refill.

Patients must receive a prescription to purchase drugs and are still subject to the prior authorization or other utilization management restrictions of their insurance plans when using insurance in conjunction with Amazon Pharmacy.

Who might use Amazon Pharmacy?

Amazon Pharmacy is available to anyone (Prime member or not)⁸ aged 18 and older, who lives in one of the 45 U.S. states where Amazon Pharmacy is licensed (Hawaii, Illinois, Kentucky, Louisiana, and Minnesota are excluded).⁹ Both insured and uninsured patients with Prime memberships can access discounted prices at both Amazon Pharmacy and a variety of retail pharmacy chains. As of October 2020, about 126 million Americans have a Prime membership.¹⁰ Prime members may be the most likely to use Amazon Pharmacy, either via Amazon's

mail fulfillment through their own insurance or leveraging Amazon's discounts through Prime Rx.

Prime memberships are common among all age groups, but are currently most popular among those under age 55.¹¹ Additionally, households are more likely to have Prime memberships as their income increases.¹² Based on these age and income patterns, it is likely that Amazon Pharmacy members are positioned to primarily come from the employer-sponsored insurance and Patient Protection and Affordable Care Act (ACA) commercial markets. There are approximately 180 million of these members in the United States as of 2019.¹³ However, it is worth noting that less than 10% of prescriptions are filled by mail order, and mail use is even less common among the under-65 population, so it may be challenging to convert these patients to a mail-order pharmacy.^{14,15} Certainly, Medicaid and Medicare beneficiaries, or other patients, may use the Amazon pharmacy service as well.

Amazon recommends its service specifically for those who fill at least one prescription on a regular basis and specifically warns against using it for urgent medications. Patients looking to fill a one-time script, such as for an antibiotic, are not Amazon's target. Therefore, Amazon Pharmacy is most likely to attract patients who are managing a chronic condition (pharmacy spend for chronic conditions is around 60% to 70% of total commercial pharmacy spend) or otherwise use medications regularly.^{16,17} Amazon notes Amazon Pharmacy is "great for customers who need one or two medications," while PillPack may be better suited for those with many medications.¹⁸

Are Amazon Pharmacy prices competitive?

One critical consideration when gauging the potential impact of Amazon Pharmacy is whether its Prime Rx medication prices are competitive. As is often the case when comparing drug prices, the answer is not straightforward. We compare the prices for a small sample of medications below to illustrate the potential impact for some patients. While we note there are several competitors in this market, we chose to compare Amazon Pharmacy to GoodRx as it is currently the most popular program.

This information is for illustration purposes only and the result for an individual member will vary by insurance coverage and specific medication use. Figure 1 compares monthly Amazon Pharmacy and GoodRx mail-order prices for five highly utilized generic medications, while Figure 2 shows the same information for five of the highest total spend brand medications.¹⁹ Note that the pricing below assumes no insurance is used.

Figure 1: One-Month Supply Price, Select generics at mail¹⁹

Drug	Amazon	GoodRx
Atorvastatin Calcium - 20mg	\$14.90	\$5.10
Levothyroxine Sodium - 50mcg	\$3.80	\$3.60
Lisinopril - 10mg	\$3.80	\$3.60
Sertraline HCL - 100mg	\$8.90	\$2.40
Metformin HCL - 500mg	\$3.50	\$2.10

Notes:

1. Green denotes the lowest mail cost between GoodRx and Amazon Pharmacy.
2. GoodRx Mail costs are for 90-day fills divided by 3.
3. Excludes membership fees for Amazon Prime.
4. Medications selected based on utilization ranking, limited to one medication per therapeutic class, and reflect current pricing.

For the mail prescriptions we studied in Figure 1, GoodRx prices (offered through GeniusRx) are consistently lower than Amazon. Although GoodRx offers a lower price point for the selected generic medications, Amazon's customer loyalty and user experience may outweigh the price difference enough to sway patients to fill through Amazon Pharmacy.

Amazon Pharmacy may have set their mail generic prices to align with various other offerings from big box retailers, such as Walmart and Kroger, which both maintain a list of \$4/\$9/\$15²⁰ and \$0/\$3/\$6²¹ medications, respectively (price varies for groups of medications defined by retailer). Figure 1 supports this observation as Amazon's price is \$0.10 to \$0.50 lower than Walmart's aforementioned retail prices for all five generic products analyzed.

FIGURE 2: ONE-MONTH SUPPLY PRICE, SELECT BRANDS AT MAIL¹⁹

Drug	Amazon	GoodRx
Eliquis - 5mg	\$481	\$494
Gilenya - 0.5mg	\$8,836	\$9,085
Symbicort - 160mcg/4.5mcg	\$317	\$383
Truvada - 200mg/300mg	\$1,880	\$1,892
Xeljanz XR - 11mg	\$4,795	\$4,818

Notes:

1. Green denotes the lowest mail cost between GoodRx and Amazon Pharmacy
2. Excludes membership fees for Amazon Prime.
3. Medications selected based on claim cost ranking, limited to one medication per therapeutic class, and reflect current pricing.

Amazon offers lower prices via mail-order pharmacy for the five brand medications shown in Figure 2, which are among the highest for total spend.¹⁹ We note that for a couple of the highest-spend brand products—Humira and Trulicity—Amazon Pharmacy allows mail fulfillment whereas GoodRx does not offer a mail-order option or discount (thus they are excluded from Figure 2). GoodRx does not offer these medications, and others, likely due to their specialized handling and administration requirements.

As stated above, the Amazon prices assume an Amazon Prime membership and no insurance benefit. Amazon Pharmacy can also be used in conjunction with a patient's insurance. However, members do not have access to Prime Rx discounts when using insurance, but rather will access their insurer's negotiated discounts and applicable cost sharing. As a result, insured patients should compare their cost sharing to Amazon's Prime Rx prices (not covered by insurance), taking into account that prescriptions filled using Amazon's discount pricing will not accumulate toward their deductible or maximum out-of-pocket unless receipts are submitted to the insurance company.

Who retains manufacturer rebates on prescriptions filled through Amazon Pharmacy?

For prescriptions that are filled with insurance, Amazon has not publicly disclosed exactly who will retain rebates. However, rebates will likely be paid in a similar manner as when other pharmacies are used, consistent with a payer's PBM contracting terms.

When Prime members fill prescriptions without insurance, an unspecified portion of the manufacturer's rebates is shared directly with the member at the point of sale, similar to other discount programs.²² Bypassing insurance can be financially advantageous for people with high-deductible plans or high coinsurance and maximum out-of-pocket limits if drug manufacturer rebates are shared with the patient at the point of sale rather than with the PBM. Federal regulations are rapidly evolving in this area with regard to Medicare drug coverage.²³

Will utilization shift from existing pharmacies?

It is difficult to estimate exactly how many patients Amazon Pharmacy may attract, but it is likely that it will not be a major disruptor on a national level, at least in the immediate term, due to similar options already offered by competitors.

As previously mentioned, patients are more likely to come from the commercial market based on the distribution of Prime members. Many commercial patients have high deductibles and coinsurance benefits, so Amazon may be well-positioned to

attract such members, who could pay less with Amazon's discounts than what they would pay through their insurance plan. Amazon Pharmacy will most likely attract patients who utilize medications consistently, rather than those who only occasionally fill prescriptions. Amazon Pharmacy patients need to be willing to use a mail-order service, rather than retail, which is relatively uncommon, as discussed previously.

However, many people are accustomed to using Amazon for online shopping already, which may make Amazon's Pharmacy service convenient. Amazon may also gain traction through its established brand and general customer loyalty.²⁴ Additionally, the COVID-19 pandemic has provided another catalyst for mail-order use, increasing the demand for mail-order prescriptions.²⁵

As shown above, we found in our sample comparison that Amazon's discounts vary in their competitiveness. This dynamic will provide financial incentives for patients using certain medications, but many may continue their current habits given the similarity of price points among other retailers.

How does the launch of Amazon Pharmacy affect current stakeholders?

PBMS

Amazon Pharmacy will work with PBMs to be included in payers' pharmacy networks. PBMs will continue to set pharmacy reimbursement rates, design formularies, and help adjudicate claims for insurance plans.²⁶ In the short term, we do not expect major changes to PBM operations or financials as a result of Amazon Pharmacy joining the market.

- **Express Scripts:** Amazon is partnering with Express Scripts for its Prime Rx discount program when prescriptions are filled without insurance.²⁷ As a very large PBM, Express Scripts (a Cigna company) has a vast client base, and the addition of Amazon Pharmacy's membership is not likely to significantly change the negotiating power of Express Scripts with manufacturers. However, it is worth noting GoodRx partners with several PBMs, including Express Scripts, so Express Scripts may have more negotiating power with GoodRx given Amazon Pharmacy, now a competitor of GoodRx, has an exclusive relationship with Express Scripts.²⁸

PHARMACEUTICAL MANUFACTURERS

Manufacturers will likely continue negotiating primarily with PBMs, so we don't expect any significant changes to manufacturer operations or contracting at this time. If Amazon Pharmacy is able to attract new patients or improve adherence among existing patients, manufacturers would see a corresponding increase in medication use and revenue.

PAYERS

Payers largely negotiate with PBMs, thus we do not expect any material, direct impact to payers at this time. However, payers may choose to add Amazon Pharmacy to their participating pharmacy networks. To the extent Amazon Pharmacy's discounted, noninsurance prices are more advantageous to the member than insurance prices, patients may pay without insurance, which could reduce payers' claim liability. However, this is not expected to be a widespread dynamic across many prescription drugs. In contrast, if Amazon Pharmacy leads to increased prescription drug use, such as through Prime members who fill more scripts than at a retail pharmacy because of their familiarity with Amazon, then payers would likely be liable for a portion of that additional cost.

PHARMACIES

Amazon's mail pharmacy business is not likely to be a major disruptor in its current form as many pharmacies already offer mail-order prescriptions. For example, CVS and Walgreens both offer free mail prescription drug delivery.²⁹

Additionally, Amazon Pharmacy is a new competitor to existing mail pharmacies and may cause some patients to leave their current mail pharmacies in favor of Amazon. However, given Amazon's limited ability to dispense certain specialty medications, it is not likely to displace specialty mail pharmacies.

Prime Rx could shift market share away from retail pharmacies as the program matures if Amazon can gain widespread acceptance from its large base of Prime members.

PATIENTS

The launch of Amazon Pharmacy and Prime Rx will provide consumers more choices on how they purchase prescriptions. The service will likely benefit uninsured or underinsured individuals the most as Amazon presents another option to access PBM-negotiated prices without insurance.³⁰ Individuals with insurance also may benefit from the launch of Amazon Pharmacy by having another option to get mail prescriptions relatively quickly. More broadly, patients may benefit from Amazon's price transparency as it marks an additional point of reference for patients. Patients do not need to be Prime members to see prescription prices, which can help patients shop around. Patients may benefit from Amazon's entry into the pharmacy market in the future from further innovation in the pharmacy supply chain.

What else might Amazon do to disrupt the market?

It is almost impossible to predict how Amazon Pharmacy may evolve. However, we anticipate at least some level of innovation and disruption within the pharmacy supply chain. Below are some possible options that Amazon may be considering:

- Amazon may add retail pharmacies to its Whole Foods stores or elsewhere. This would allow Amazon to compete in the retail market and potentially offer services like vaccines that it currently cannot offer through its mail pharmacy.
- Amazon may change the consumer experience with mail-order pharmacy benefits by offering same-day prescription refills.³¹
- GoodRx and traditional PBM discount card programs currently charge participating retail pharmacies a fee per prescription for each fill. Prime Rx could eventually differentiate itself from these programs through a direct contract with retail pharmacies without any spread, potentially creating a low consumer price point without a fee paid by the pharmacy for discount program access.
- Amazon could leverage its scale to purchase generic medications from a wholesaler group purchasing organization (GPO), which may, in turn, increase competition among generic manufacturers.
- Amazon could share data with payers to help enable disease management programs as more generic prescriptions are dispensed and paid as cash claims.
- Amazon could integrate telemedicine and diagnostics to offer additional health options to patients at home.

It is unclear which options Amazon Pharmacy may pursue, as expansion pathways represent additional costs and risks.

It is worth noting that CVS, Walgreens, and GoodRx's stock prices all fell materially after Amazon's announcement of its new pharmacy offerings.³² Though much of the initial decrease following the announcement was recovered within a month, the impact on pharmacies can be seen through the share price decreases aligned with Amazon's notable pharmacy-related announcements, such as its acquisition of PillPack, over the past several years.^{33,34} While on the surface, Amazon's current pharmacy offerings may not seem like an immediate disruptive force, share price changes suggest these announcements have mitigated perceived long-term potential growth in competitors.

Caveats, Limitations, and Qualifications

This report is intended to summarize Amazon Pharmacy's offering and how it may interact with the current pharmacy market. This information may not be appropriate, and should not be used, for other purposes. We do not intend this information to benefit, and assume no duty or liability to, any third party that receives this work product. Any third-party recipient of this report that desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its specific needs. Any releases of this report to a third party should be in its entirety.

In preparing our analysis, we relied upon public information as sourced above. We are not attorneys and do not intend to provide any legal advice or expertise related to the topics discussed here. The opinions included here are ours alone and not necessarily those of Milliman.

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