



# ASOP Global Foundation 2025 U.S. Consumer Behavior Survey

## **Executive Summary**

#### **Online Purchasing Behavior:**

- **38% of U.S. adults** have purchased prescription medicines online; among these purchasers, **55%** now **buy all or most** prescriptions online. Three-quarters (73%) began purchasing within the past three years.
- 73% of those who have purchased prescription medicines online say it's very important the source they use is a U.S.-licensed pharmacy (79% among GLP-1 purchasers); 91% say they verify licensure at least some of the time, but only 39% use official sources (NABP, State BOP, LegitScript, or PCAB).
- 73% of those who have purchased prescription medicines online say they only trust U.S. sellers and 76% trust only medicines intended for the U.S. market, yet 59% of online purchasers report buying medicines they believed were shipped from or intended for sale outside the U.S.; and 91% knew/suspected this before purchase.

#### **Perceptions of Risk:**

- 66% of U.S. adults consider using medicines purchased online risky—a 22-percentage point increase from 2023.
- 87% of U.S. adults believe the **health consequences** of counterfeit or substandard online medicines would be **serious**.
- 47% of those who have purchased prescription medicines online have taken a
  medicine purchased online without being fully confident it was as safe as the
  medicine they would find at their local pharmacy.
- 27% of those who have purchased prescription medicines online report having personally received **substandard/counterfeit** medicine or being **harmed** by a medicine they bought online.

#### **Public Misconceptions:**

- 65% of U.S. adults **falsely believe** all websites offering online Rx/health services are **reviewed/approved by FDA or state regulators**.
- 51% of U.S. adults falsely believe that only safe, verified sellers appear on the first page of search results.
- 44% of U.S. adults **falsely believe** an online pharmacy can sell a prescription **without a prescription** if medical-history information is provided.

#### **GLP-1 Medications:**

- 56% of U.S. adults report seeing GLP-1 ads frequently (daily/weekly).
- **14**% of U.S. adults have taken **GLP-1 medications** for diabetes or weight loss. 25% of these individuals have bought GLP-1 medications online.
- 40% of those who have purchased GLP-1 medications online report having
  personally received substandard or counterfeit prescription medicines or been
  harmed by prescription medicine bought online, nearly double the prevalence
  reported by online purchasers of all other medications.

## **About**

The Alliance for Safe Online Pharmacies Foundation (ASOP Global Foundation) is a charitable, not-for-profit organization dedicated to addressing the growing public health threat of illegal online drug sellers, concentrating its activities in research and education to inform consumers and policymakers.

The ASOP Global Foundation conducted this survey to assess how Americans perceive, purchase, and evaluate the safety of prescription medicines sold online.

To allow for longitudinal analysis of trends, questions asked of respondents in similar surveys conducted in 2020 and 2021 were repeated in this survey.

## **Methods**

The 2025 ASOP Global Foundation Consumer Behavior Survey was conducted to assess how Americans perceive, purchase, and evaluate the safety of prescription medicines sold online. It builds on prior surveys conducted in 2020, 2021, and 2023, with refined question wording to more precisely capture home-delivery purchasing behavior and consumer understanding of risk, safety, and trust.

The following definitions were applied in the 2025 survey:

#### Online Pharmacy:

Not specifically defined in 2025. The question wording excluded websites or apps used by local brick-and-mortar pharmacies to process refills or delivery.

#### Prescription Medication:

A prescription medicine is a drug that should only be obtained with approval from a licensed healthcare professional (physician, physician assistant, nurse practitioner) based on a medical evaluation. Prescription medications do NOT include over-the-counter (OTC) medicines, vitamins, minerals, or herbal supplements, which can be bought in stores without prior consultation with a licensed healthcare professional (physician, physician assistant, nurse practitioner).

#### • GLP-1 Receptor Agonists (GLP-1 Drugs):

A type of prescription medication commonly used to treat type 2 diabetes and weight loss in individuals with obesity. Examples include Ozempic (semaglutide), Wegovy (semaglutide), Rybelsus (semaglutide), Mounjaro (tirzepatide), Zepbound (tirzepatide), Trulicity (dulaglutide), Saxenda (liraglutide), and Victoza (liraglutide).

Additionally, in 2025, the survey wording for questions on online purchasing was revised to clarify that "online purchase" refers to websites or apps used to order prescription medications for home delivery. The definition excludes purchases made online or through apps for local pharmacy pickup, which was intended to more accurately reflect consumer behavior specific to digital pharmacies and online marketplaces.

The survey was composed of 60 questions and was administered online from August 22 to 26, 2025 by Abacus Data, a full-service market and public opinion research agency. A random sample of panelists were invited to complete the survey from a set of partner panels based on the Lucid Exchange platform, which connects market research agencies with panel provider companies. Panel providers on Lucid Exchange employ a diverse set of recruitment/sourcing methodologies, ensuring that the collective panel is not overly reliant or dependent on any demographic or segment of the population. Panels are double opt-in and blended to manage out potential skews in the data from a single source. Respondents are sourced from a variety of methods including ads and promotions across various digital networks, search, word of mouth and membership referrals, social networks, online and mobile games, affiliate marketing, banner ads, TV and radio ads, and offline recruitment with mail campaigns. Incentives are also varied.

To ensure adequate statistical power for subgroup analyses, the 2025 survey included an intentional oversample of U.S. adults who reported currently or previously taking a GLP-1 receptor agonist. All survey results were subsequently weighted to match the demographic composition of the U.S. adult population by age, gender, region, and educational attainment based on the most recent U.S. Census data. In addition, a secondary weighting adjustment was applied to correct for the oversample of GLP-1 users so that their representation in the weighted dataset reflects their true incidence in the general

population (approximately 14%). This two-step weighting process ensures that national estimates are representative of all U.S. adults while maintaining sufficient analytic base sizes for GLP-1–specific analyses. Unless otherwise noted, n-values shown for GLP-1 users and GLP-1 online purchasers represent unweighted subgroup sizes, while percentages presented in the report reflect population-weighted results consistent with these adjustments.

Results were also compared with similar surveys of 1,500 American adults conducted May 19–21, 2021, and September 7–10, 2023.

The margin of error for a comparable probability-based random sample of the same size is ± 2.51 percentage points, 19 times out of 20.

All survey results were subsequently weighted to match the demographic composition of the U.S. adult population by age, gender, region, and educational attainment based on the most recent U.S. Census data.

## **Results**

### **Online Prescription Purchasing in 2025**

## Prevalence of Online Prescription Purchasing, Types of Online Sources, and Referrals

Online purchasing of prescription medicines is increasingly common and habitual for many Americans.

- 38% of U.S. adults have previously purchased prescription medicines online for themselves or a dependent.
- Of those who have purchased online, **55**% now buy *all or most* of their prescriptions online.
- Three in four (73%) Americans who have purchased medications online report first doing so within the past three years, highlighting the rapid growth of this behavior.

Most Americans who buy prescriptions online use multiple types of online sources, most commonly two to three.

- 54% of online purchasers report experience with more than one type of online source (41.5% have used one, 38% have used two to three, and 16% have used four or more).
- On average, Americans who purchase medications online have experience with 2.3 different types of online sources.

Home-delivery online pharmacies and telehealth prescription services dominate, but some consumers also turn to higher-risk and more unconventional channels.<sup>1</sup>

- **65**% have used an **online home-delivery pharmacy**, making it the most popular source.
- 29% have used an online telehealth prescription service, reflecting the growing popularity of integrated direct-to-patient (DTC) digital health platforms.
- 24% have purchased from an online international pharmacy.
- Other sources include:
  - o **20%** Online compounding pharmacy
  - o **20%** Online specialty pharmacy
  - o 17% Online wellness clinic or medical spa
  - o **15%** Social media
  - o **13%** Online marketplace
  - 5% Messaging app

Consistent with 2023 survey results<sup>2</sup>, Americans' decisions about where to buy prescriptions online are shaped by both healthcare professionals and people they personally know. Healthcare providers and pharmacists remain year over year—presumably valued for their expertise in medication safety—and family members, friends, and acquaintances, who are likely viewed as reliable first-person sources of experience.

- On average, respondents reported **2.4 different influences** affecting their decision to purchase medicines online or determine which sources to use.<sup>3</sup>
- 49% said their healthcare provider recommended they try or use specific online sources.
- 31% said their **pharmacist** made such a recommendation.
- 27% said they were influenced by a family member, friend, or acquaintance, and another 27% said their health insurance recommended the online source they use.

<sup>&</sup>lt;sup>1</sup> **Note:** Respondents could select multiple options; totals may exceed 100%.

<sup>&</sup>lt;sup>2</sup> https://asopfoundation.pharmacy/wp-content/uploads/2023/12/ASOP-Foundation-Consumer-Behavior-Survey-Key-Findings-2023.pdf

<sup>&</sup>lt;sup>3</sup> **Note**: Respondents could select multiple options; totals may exceed 100%.

- Social and media influences are also prevalent:
  - 17% Celebrities or social media influencers
  - o 15% Ads on social media
  - 15% Others in online forums
  - o **13%** Coach, trainer, or gym recommendation

#### **Types of Medications Purchased**

Consumers continue to buy a wide range of prescription medications online. However, the most common medications are for pain and nausea, cardiovascular conditions, mental health needs, metabolic conditions, and skin, hair, and eye conditions. These trends are relatively consistent with 2023 survey results except for infectious disease medications, which saw a decline in prevalence and medications for weight management, which saw an increase.

Also worth noting is the relatively high percentage of online buyers who report having purchased controlled substances, including opioid pain medications (12%) and benzodiazepines (8%) online.

- Medications for pain and nausea:
  - 19% have bought non-opioid pain medications (gabapentin [Neurontin], baclofen [Lioresal])
  - 14% have bought medications for migraines (sumatriptan [Imitrex], ubrogepant [Ubrelvy])
  - 12% have bought opioid pain medications (oxycodone [OxyContin], tramadol [Ultram])
- Medications for metabolic conditions and weight management:
  - 16% have bought GLP-1 medications online for diabetes or weight loss (semaglutide [Ozempic], liraglutide [Saxenda].<sup>6</sup>

<sup>&</sup>lt;sup>4</sup> **Note**: Respondents could select multiple options; totals may exceed 100%.

<sup>&</sup>lt;sup>5</sup> https://asopfoundation.pharmacy/wp-content/uploads/2023/12/ASOP-Foundation-Consumer-Behavior-Survey-Key-Findings-2023.pdf

<sup>&</sup>lt;sup>6</sup> **Note** – 16% of Americans <u>who have purchased prescription medicines online</u> reported having previously purchased GLP-1 medications online.

 16% have bought medications for diabetes (metformin [Glucophage], linagliptin [Tradjenta]

#### Medications for chronic cardiovascular or inflammatory conditions:

- 18% have bought medications for blood pressure or arrhythmia (lisinopril [Prinivil], amlodipine [Norvasc], Diltiazem [Tiazac], Metoprolol [Lopressor], Apixaban [Eliquis])
- 18% have bought medications for high cholesterol (atorvastatin [Lipitor], rosuvastatin [Crestor])
- 10% have bought asthma/COPD medications (albuterol [ProAir], budesonide/formoterol [Symbicort])

#### Medications for mental and cognitive health:

- 17% have bought medications for depression (sertraline [Zoloft], bupropion [Wellbutrin])
- 12% have bought medications for anxiety (buspirone [Buspar], propranolol [Inderal])
- 8% have bought benzodiazepines online

#### Medications for skin, hair, and eye conditions:

- 12% have bought acne and wrinkle medication (tretinoin [Retin-A], spironolactone [Aldactone], tretinoin [Renova], niacinamide)
- 12% have bought eczema medication (tacrolimus [Protopic], crisaborole [Eucrisa])
- 12% have bought hair loss medication (minoxidil [Rogaine], finasteride [Propecia])

Most Americans report purchasing generic medicines (71%) and brand medicines (61%) online. But many Americans are also purchasing medications not FDA approved.

- 39% report buying compounded medications
- 32% report buying personalized medications
- 19% of online purchasers report buying peptides
- 11% report buying medications labeled "for research purposes only"

#### **Who Purchases Prescription Medicines Online**

Online purchasing of prescription medicines is more common among younger and middle-aged adults than older adults.

- Online purchasing of prescription medicines is equally prevalent among adults aged 18–34 (46%) and 35–54 (46%), but only 24% of adults 55 and older have purchased prescription medicines online.
- Regionally, prevalence is relatively even: **South (39%)**, **West (38%)**, **Northeast (39%)**, and **Midwest (35%)**.

Online purchasing of prescription medicines is more common among men, those with higher education, and those with higher household income.

- **46**% of males report having purchased prescription medicines online, compared to **30**% of females.
- **42**% of college-educated Americans report purchasing prescription medicines online, compared to **29**% of those with a high school degree or less.
- 61% of those living in households earning \$100,000 or more have purchased prescription medicines online, compared to 41% of those earning \$50,000–\$100,000 and 29% of those earning \$50,000 or less.

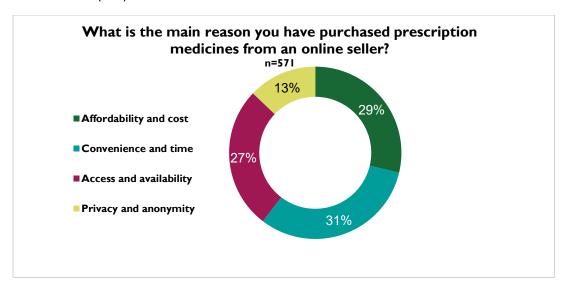
Many online purchasers still face challenges affording medications, though most have health insurance coverage.

- About **half (49%)** of those who have purchased prescription medicines online report they **struggle to afford** at least some of their prescription medications—significantly higher than the **25%** of Americans who have not purchased medicines online.
- The vast majority (94%) of online purchasers report having health insurance that covers at least some prescription costs, compared to 83% of Americans who have not purchased prescription medicines online.

## **Why Americans Purchase Medicines Online**

- Americans purchase prescription medicines online mainly for convenience and time savings (31%), affordability and cost (29%), and access and availability (27%).
  - The most common specific motivation (10%) is that it's easier to get refills when ordering online.
  - Other leading reasons include being able to get better prices through specific online sellers recommended by health insurers (9%) and saving more money overall (8%).

 Convenience also extends to having medications shipped directly to their door (7%).



AFFORDABILITY & COST (29%)	My health insurance offers a lower price if I use a specific online seller	9%
	I can save more money when I purchase my medications online	8%
	Buying medication online allows me to get medication when I cannot afford to see a healthcare provider for a prescription	5%
	Buying medication online helps me get medication my health insurance does not cover	5%
	Buying medication online allows me to afford medications I cannot afford at my local pharmacy	2%
CONVENIENCE & TIME (32%)	It is easier to get refills when I order online	10%
	It is more convenient to have online sellers ship the medication directly to my door	7%
	It is more convenient to order my medications online because I don't have to see a healthcare provider in person	5%
	The online ordering process is simpler and/or less time consuming than at my local pharmacy	5%
	Buying online allows me to buy larger quantities of the medication than at a local pharmacy	4%

ACCESS & AVAILABILITY (27%)	Buying medication online allows me to get my medication when I cannot get to my nearest pharmacy	6%
	I can get medications online that are often out of stock at my local pharmacy	5%
	Online pharmacies allow me to get medications not available in the U.S.	5%
	Buying medication online allows me to get medication when I cannot get an appointment with a local healthcare provider	5%
	I can get medications that I want or need that are only available online	3%
	I can get medications online without worrying that a local healthcare provider might not prescribe it	2%
PRIVACY & ANONYMITY (13%)	Buying medication online allows me to get medication without having to discuss it in person with a healthcare provider	6%
	Buying medication online helps me keep my medication private from my insurance company, healthcare provider, employer, etc.	4%
	Buying medication online helps me keep my medication private from family, roommates, acquaintances, etc.	3%

## **Knowledge Gaps and Misconceptions**

#### **What Americans Know**

Most Americans, including those who purchase prescription medications online, are aware that all online sellers of prescription medicines need to be licensed as pharmacies. They are also aware of that FDA requires the manufacturers of brand and generic medicines to meet the same quality standards.

- 80% of Americans are aware that websites and apps selling prescription medicines must be licensed as pharmacies in every state they ship to.
  - 82% of online prescription-medicine purchasers answered this correctly.
  - 84% of online GLP-1 purchasers answered this correctly.
- 83% of Americans know that manufacturers of brand-name and generic drugs meet the same FDA quality standards.
  - o 83% of online prescription-medicine purchasers answered this correctly.

92% of online GLP-1 purchasers answered this correctly.

## What Americans DON'T Know - Online Protections and Prescription-Medicine Regulations

Despite being informed about the fundamental requirement that pharmacies be licensed, most Americans make dangerous, false assumptions about the extent to which this requirement is enforced online. Many Americans also seem uninformed or confused about the standards of practice required for pharmacies to acquire and maintain licensure. These misconceptions are significantly more prevalent among those who have previously purchased medicines online and those who have purchased GLP-1 medications online.

- 65% of Americans falsely believe that all websites offering prescription medicines
  or health-care services online have been reviewed and approved by FDA or state
  regulators to ensure compliance with the law.
  - 75% of online prescription-medicine purchasers hold this same false belief.
  - o 76% of online GLP-1 purchasers hold this same false belief.
- 51% of Americans falsely believe that only safe, verified online sellers of prescription medicines appear on the first page of search-engine results.
  - 64% of online prescription-medicine purchasers have this same false belief.
  - o **68% of online GLP-1 purchasers** have this same false belief.
- 44% of Americans falsely believe that online pharmacies can sell prescription medicines without a valid prescription if medical-history information is provided.
  - 58% of online prescription-medicine purchasers hold this same false belief.
  - o 62% of online GLP-1 purchasers hold this same false belief.

#### What Americans DON'T Know - What are Compounded Medications

Most Americans are aware that there are fundamental standards that manufacturers of brand and generic medicines must meet, when it comes to compounded medications, misunderstanding is widespread and particularly acute amongst those who have previously purchased medicines, including GLP-1 drugs online.

Compounded medications are essentially copies of FDA-approved medications that the FDA permits certain facilities to prepare either when there is a shortage of medication, such as what occurred with many GLP-1 medications from March 2022 to February 2025, or when a patient requires a special formulation when the brand or generic version isn't suitable for them to take. However, many Americans appear to conflate compounded medications with generics and most assume that, like brand and generic medications, they are evaluated by the FDA for safety and quality. This is particularly concerning, given the prevalence of use of online compounding pharmacies (20%) and use of compounded medicines procured through online sources (39%).

- 43% of Americans falsely believe that compounded medications are the same as generics.
  - o 54% of online prescription-medicine purchasers share this false belief.
  - 57% of online GLP-1 purchasers share this false belief.
- 73% of Americans falsely believe that compounded medications are evaluated by FDA for safety and efficacy.
  - 80% of online prescription-medicine purchasers share this false belief.
  - o 86% of online GLP-1 purchasers share this false belief.

## U.S. Pharmacy Licensure – Dissonance Between Perceived Importance and Practice

Most Americans who purchase prescription medicines online value U.S. pharmacy licensure and believe they verify—but fewer than half directly confirm licensure status using official sources.

- **82**% of those who have purchased prescription medicines online know that websites and apps selling prescription medicines must be licensed as pharmacies in every state they ship to.
- 71% say it is *very important* that they purchase from a U.S.-licensed pharmacy, and 80% view purchasing from a non-U.S.-licensed online pharmacy as risky.
- **90**% believe the source they purchase from is licensed in one or more U.S. states, and **91**% report verifying licensure either sometimes (35%) or always (56%).
- However, when asked *how* they verify licensure, only **39**% report using official sources such as NABP, state boards of pharmacy, LegitScript, or PCAB.

Despite high self-reported confidence in using licensed pharmacies, many consumers also appear to lack a clear understanding of how legitimate, licensed pharmacies operate—

potentially leading them to purchase from online sellers that fall outside accepted pharmacy standards.

- **Nearly half (46%)** of online prescription buyers report submitting their prescriptions by email, scan, or fax—methods that are inconsistent with NABP standards, which require that electronically transmitted prescription drug orders be transmitted direct from prescriber to pharmacy and include a prescribing practitioner's electronic or digital signature.
- An additional **5**% report that none of the online pharmacies they've used required a prescription at all, violating state laws which almost universally require that a valid prescription be obtained before any medicine is dispensed.

Despite expressing that pharmacy licensure is important and acknowledging the risks associated with unlicensed online sellers, many consumers who purchase their medicines online appear willing to forgo the protections and assurances offered by licensed pharmacies when presented with potential benefits, such as affordability, access, convenience, or privacy.

- While 39% of online prescription medicine buyers said they would stop purchasing medicines online if they learned the sellers they use weren't licensed anywhere, 33% said they would continue buying from an unlicensed source if it significantly improved their primary motivation for purchasing online—be it cost savings, increased convenience, increased access, or increased privacy.
- When asked how specific benefits might affect their behavior, a substantial
  proportion of Americans who purchase prescription medicines online indicated a
  willingness to trade the safety associated with buying from a licensed and regulated
  pharmacy for each perceived benefit:
  - 45% would buy from an unlicensed or unregulated source if it provided greater privacy when buying medicines.
  - 43% would buy from an unlicensed or unregulated source if it made ordering medicines more convenient.
  - 41% would buy from an unlicensed or unregulated source if it gave them access to medicines they could not otherwise obtain.

<sup>&</sup>lt;sup>7</sup> National Association of Boards of Pharmacy. (2025, August). Model State Pharmacy Act and Model Rules of the National Association of Boards of Pharmacy. Mount Prospect, IL: National Association of Boards of Pharmacy. © 2025 NABP.

<sup>&</sup>lt;sup>8</sup> **Note**: Respondents could select multiple options; totals may exceed 100%.

- 41% would buy from an unlicensed or unregulated source if it offered lower prices.
- When asked how changes in healthcare and prescription costs might affect their behavior, many Americans who purchase prescription medicines online indicated a willingness to trade the safety associated with buying from a licensed and regulated pharmacy for affordability:
  - 40% said they would be more open to purchasing from an unlicensed or unregulated online source if their overall healthcare costs rose sharply.
  - 30% said any increase in healthcare costs would make them more open to unlicensed sources.
  - 29% said even a modest increase in prescription costs could push them toward unlicensed sources.
  - 28% said a large increase in prescription costs would make them more open to unlicensed sources.

These findings suggest a disconnect between the perceived importance of the protections of pharmacy licensure and actual practice of those who purchase prescription medications online.

## **U.S. Sourcing - Dissonance Between Perceived Importance and Practice**

Many consumers say they only trust U.S.-based sellers and acknowledge the risks of purchasing medicines that ship from entities located outside of the U.S.

- 73% of online purchasers say they only trust sellers located in the U.S., and 76% say they trust only medicines intended for the U.S. market.
- **74**% say it is **risky** to take prescription medicines shipped from outside the U.S.— even if based solely on a **healthcare provider's recommendation**.

Despite these concerns, many online purchasers reported knowingly having purchased medicines they believed had a high likelihood of coming from international or foreign-market sources.

24% of online prescription medicine purchasers have reportedly used an
international pharmacy, and 59% have purchased medicines they believed were
shipped from or intended for sale outside the U.S.

 Among these purchasers, 91% said they knew or suspected this prior to completing the purchase (62% knew, 29% suspected), suggesting deliberate risk-taking behavior.

Many consumers who purchase their medicines online are willing to purchase their prescription medicines from international sources when offered greater affordability, access, convenience, or privacy.

 While 39% of online prescription medicine buyers said they would stop purchasing medicines online if they learned the medicine was sold by someone in a foreign country, 52% said they would continue purchasing from a foreign source if it significantly improved their primary motivation for purchasing online—whether cost savings, increased convenience, increased access, or increased privacy.

#### **What Online Purchasers Value Most**

#### **Factors Prioritized When Choosing Online Sources**

When asked what the top 3 most important factors are when purchasing prescription medication, those that have purchased medications online prioritize affordability, licensure status, and country of shipment over assurances of safety and quality.

- 48% said knowing what country the medicines are shipped from was among their top three factors (34% top reason, 8% second, 7% third).
- **48%** said knowing the **seller is licensed as a pharmacy** was among their top three (24% top, 17% second, 7% third).
- **48%** also said **affordability** was among their top three factors (14% top, 16% second, 18% third).
- By comparison, fewer prioritized product quality and safety:
  - 40% said being certain the quality/safety matches their local pharmacy was among their top three (7% top, 18% second, 15% third).
  - 33% said being confident in the quality/safety of medicines was among their top three (5% top, 13% second, 15% third).

## **Risk Perceptions and Health Consequences**

## **Confidence and Perceived Ability to Identify Risks**

Perceived risk associated with purchasing prescription medicines online remains high and has risen sharply since 2023. Most Americans recognize that the health consequences of counterfeit or substandard medicines can be serious. Yet many continue to purchase medicines online despite limited confidence in the safety or effectiveness of the products they receive—leaving them vulnerable to harms that may be underreported due to the difficulty of detecting counterfeit or substandard products.

- 66% of U.S. adults consider using medicines purchased online risky—a 22-percentage-point increase from 2023.
- **87**% believe the health consequences of taking counterfeit or substandard medicines purchased online would be **serious**.

While most consumers acknowledge these risks, many who have purchased prescription medicines online nonetheless express confidence in their own ability to distinguish legitimate from illegitimate products.

- 72% of those who have purchased prescription medicines online agree they can
  trust that the medicines they buy online are just as effective as those from a local
  pharmacy.
- 91% of those who have purchased prescription medicines online say they are at least somewhat confident they can tell whether a medicine bought online is as safe and effective as one from a local pharmacy.

Despite this confidence, many admit to taking medicines without full assurance of safety or quality—often using personal experience after taking the drug to judge its legitimacy.

- 47% of online prescription medicine purchasers report having taken a medicine bought online without being fully confident it was just as safe as what they'd receive at their local pharmacy.
- 46% of online prescription medicine purchasers report having taken a medicine bought online without being fully confident it was just as effective as what they'd receive at their local pharmacy.

#### **Medication Issues Encountered**

A growing number of Americans who purchase medicines online report direct experience with products of questionable quality or safety. Nearly one in four have encountered at least one serious issue involving counterfeit, expired, or damaged medicines.

- 23% of online purchasers report experiencing at least one serious product-quality or safety concern, including counterfeit, expired, or improperly stored medicines.<sup>9</sup>
  - o 13% said the medication they received was counterfeit or fake.
  - o 10% said they had received expired medication.
  - o 7% said they had received damaged or improperly stored medication.

Many also report receiving a medication different from what they ordered—discovering discrepancies through packaging, appearance, or performance.

- 17% said they received a different medication than ordered.
  - 52% said the name of the medication was not the same as what was ordered.
  - o 51% said the packaging looked different than expected.
  - o 50% said the ingredients were not the same as ordered.
  - o **45%** said the **appearance** of the medication was different.
  - o 32% said the medication did not work as it had before or as it should have.
  - 32% said the medication came from a different manufacturer than expected.
  - o 14% said the medication caused unusual or unexpected side effects.

Additional issues reported by online buyers include:

- 25% said the seller misused their payment information.
- 24% said their medication was seized during shipping.
- 23% said the seller misused their personal information.
- 19% said they were charged but never received the medication.

### **Reported Medication-Related Harms**

More than one in four online purchasers report having received counterfeit or substandard medicines or being harmed by products purchased online—a figure that likely underestimates the true scope of harm, since cases involving insufficient or absent active ingredients often go undetected.

<sup>&</sup>lt;sup>9</sup> **Note**: Respondents could select multiple options; totals may exceed 100%.

- 27% of online purchasers report either having received a counterfeit or substandard medicine or being harmed by medicine they purchased online.
- 26% have reported a medicine purchased online because they believed it was fake or harmful.

When problems occur, consumers most often turn to trusted health professionals and regulators for help.<sup>10</sup>

- 48% said they would report an issue to their healthcare provider.
- 38% said they would report it to their pharmacist.
- 38% said they would report it to the online seller.
- 32% said they would report it to the FDA.

That Americans who purchase prescription medicines online most often turn to healthcare providers and pharmacists—both when selecting an online seller and when facing product-quality concerns—suggests that these professionals are uniquely positioned to disrupt cycles of online harm. Yet the fact that more than a quarter of online purchasers report exposure to counterfeit, substandard, or otherwise harmful medicines indicates that while some providers help normalize online purchasing, not all are guiding patients to legitimate, verified sources.

Educating healthcare providers and pharmacists about their pivotal role in patient decision-making—and equipping them with practical tools and resources to identify legitimate online sellers—may be among the most effective strategies to reduce patient exposure to unsafe products and to strengthen confidence in lawful, verifiable online access to prescription medicines.

## **GLP-1 Medications Are Reshaping Online Demand**

#### **Prevalence of Online GLP-1 Purchasing and Demographics**

GLP-1 receptor agonists (GLP-1 RAs) have rapidly become a popular medication used by Americans in the last few years and not surprisingly, this sharp rise has also been reflected in the online marketplace. GLP-1 medications have become a prominent and fast-growing category in the online prescription marketplace, drawing new consumers into online purchasing and exposing them to a wide range of online sources, both traditional and higher-risk channels.

<sup>&</sup>lt;sup>10</sup> **Note**: Respondents could select multiple options; totals may exceed 100%.

- 14% of Americans report they are currently or have previously taken are (7% currently, 7% previously), and another 14% say they are considering taking one.
- Among those with experience taking a GLP-1 medication, 25% have purchased GLP-1 medications online.

#### **Types of GLP-1 Medications Purchased Online**

Americans who have purchased GLP-1 medications online report experience with a wide range of product types—including formulations that have not been approved by the FDA. While nearly all report purchasing brand-name products, many also report purchasing generic, compounded, "personalized/custom", "peptide," or "for research purposes-only" formulations, suggesting substantial variability in what consumers encounter and how these products are marketed online.<sup>11</sup>

- 95% reported purchasing brand-name GLP-1 RAs online.
- 89% reported purchasing generic GLP-1 RAs online.
- 74% reported purchasing compounded GLP-1 RAs online.
- 72% reported purchasing personalized or custom GLP-1 RAs online.
- **68**% reported purchasing **peptide** GLP-1 drugs online.
- 56% reported purchasing GLP-1 drugs marketed "for research purposes only."

However, on average, Americans who have purchased GLP-1 medications online report experiencing purchasing **4.6 out of 6** listed GLP-1 product types from online sources and nearly half (**48**%) of GLP-1 online purchasers reported experience with **all six** categories of GLP-1 medications.

These results likely either significant confusion between several product types and or significant overlap in how these products are marketed rather than distinct purchases. Many respondents may have encountered overlapping or misleading claims (for example, compounded semaglutide marketed as "generic" or "personalized"), making it difficult to discern what kind of product they are taking.

## **Knowledge Gaps and Misunderstandings**

Results from accompanying knowledge-assessment questions show widespread misunderstanding among online GLP-1 purchasers about how compounded and generic medications differ and the extent of FDA oversight.

<sup>&</sup>lt;sup>11</sup> **Note**: Respondents could select multiple options; totals may exceed 100%.

- **86**% of online GLP-1 purchasers **incorrectly believe** that compounded medications are evaluated by the **FDA for safety and efficacy.**
- 57% incorrectly believe that compounded medications are the same as generics.

These findings point to significant confusion among online GLP-1 purchasers regarding the regulatory status of the medicines they buy and help explain why many report experience with multiple product types.

#### Types of Online Sources and Referral Pathways

Americans who have purchased GLP-1 medications online report using a broader range of online sources than those who have purchased other prescription medicines online. On average, 39% of GLP-1 online purchasers report prior experience with 2-3 online sources and 34% report experience with 4+ online sources compared to 38% and 8% of other online prescription purchasers respectively. Additionally, certain non-traditional and higher-risk online sources are also more prevalent among those who purchase GLP-1 medications online. When asked directly whether they've used these resources to purchase GLP-1 medications, the prevalence confirms that they are using these online sources for GLP-1.

- **82%** of online GLP-1 purchasers have used an **online, home-delivery pharmacy** (compared to 59% of Americans who purchase other prescription medicines online).
- 50% of online GLP-1 purchasers have used an online telehealth prescription service (compared to 21% of Americans who purchase other prescription medicines online).
- 32% of online GLP-1 purchasers have used an **online international pharmacy** (compared to 21% of Americans who purchase other prescription medicines online).
- 27% of online GLP-1 purchasers have used an **online compounding pharmacy** (compared to 18% of Americans who purchase other prescription medicines online).
- 28% of online GLP-1 purchasers have used an online wellness clinic or med-spa (compared to 13% of Americans who purchase other prescription medicines online).
- **19%** of online GLP-1 purchasers have used **social media** (compared to 13% of Americans who purchase other prescription medicines online).
- **11%** of online GLP-1 purchasers have used a **messaging app** (compared to 3% of Americans who purchase other prescription medicines online).

Those who purchase GLP-1 medications online also report on average more external influences on their decision to order medications online or what online sources to order from. On average, GLP-1 online purchasers report being influenced to order medications online or receiving referrals for specific sellers from 3.5 external sources compared to the average 2.4 external influences reported by their peers. Additionally, certain external influences are more prevalent among those who purchase GLP-1 medications online.

- 67% of online GLP-1 purchasers said they were influenced by a **healthcare provider** (compared to 42% of Americans who purchase other prescription medicines online).
- 44% of online GLP-1 purchasers said they were influenced by a pharmacist (compared to 26% of Americans who purchase other prescription medicines online).
- 40% of online GLP-1 purchasers said they were influenced by a **health-insurance** recommendation or plan (compared to 23% of Americans who purchase other prescription medicines online).
- 36% of online GLP-1 purchasers said they were influenced by **family or friends**. (compared to 24% of Americans who purchase other prescription medicines online).
- 23% of online GLP-1 purchasers said they were influenced by ads on social media (compared to 12% of Americans who purchase other prescription medicines online).
- 22% of online GLP-1 purchasers said they were influenced by **celebrities or social-media influencers** (compared to 15% of Americans who purchase other prescription medicines online).
- 21% of online GLP-1 purchasers said they were influenced by **online reviewers** (compared to 9% of Americans who purchase other prescription medicines online).
- 21% of online GLP-1 purchasers said they were influenced by a coach, trainer, or gym (compared to 10% of Americans who purchase other prescription medicines online).

### **Risk Perceptions and Reported Harms**

Reported harms are notably higher among those who have purchased GLP-1 medications online GLP-1 compared to Americans who have bought other medications online.

• 40% of those who have purchased GLP-1 medications online report having personally received substandard or counterfeit prescription medicines or been harmed by prescription medicine purchased online, nearly double the prevalence (22%) reported by online purchasers of all other medications.

This could be because online GLP-1 purchasers report a higher tolerance for risk compared to their peers.

- 54% of online GLP-1 purchasers have taken a medicine they bought online without being fully confident it was just as safe as what they would receive at their local pharmacy (compared to 44% of online purchasers of all other medication).
- 53% of online GLP-1 purchasers have taken a medicine they bought online without being fully confident it was just as effective as what they would receive at their local pharmacy (compared to 43% of online purchasers of all other medication).

Also, while most online GLP-1 purchasers recognize the dangers associated with unverified or potentially unsafe online sellers:

 84% of online GLP-1 purchasers agree it is risky to take a prescription medication obtained from an online seller that the FDA has warned may provide incorrect doses or harmful formulations.

As noted above, many online GLP-1 purchasers use sources the FDA has cautioned against.<sup>12</sup>

- **36**% online GLP-1 purchasers have used **international online sellers** to purchase GLP-1 medications.
- 31% online GLP-1 purchasers have used **online compounding pharmacy** to purchase GLP-1 medications.
- 21% online GLP-1 purchasers have used **online med-spa or wellness clinic** to purchase GLP-1 medications.
- **22**% online GLP-1 purchasers have used **social media** to purchase GLP-1 medications.

Also as noted above, many online GLP-1 purchasers take GLP-1 formulations the FDA has cautioned against.<sup>13</sup>

<sup>&</sup>lt;sup>12</sup> U.S. Food & Drug Administration. *FDA's Concerns with Unapproved GLP-1 Drugs Used for Weight Loss*. 25 Sept. 2025, www.fda.gov/drugs/postmarket-drug-safety-information-patients-and-providers/fdas-concerns-unapproved-glp-1-drugs-used-weight-loss.

<sup>&</sup>lt;sup>13</sup> U.S. Food & Drug Administration. *FDA*'s Concerns with Unapproved GLP-1 Drugs Used for Weight Loss. 25 Sept. 2025, www.fda.gov/drugs/postmarket-drug-safety-information-patients-and-providers/fdas-concerns-unapproved-glp-1-drugs-used-weight-loss.

- **74**% reported purchasing **compounded** GLP-1 RAs online.
- 72% reported purchasing personalized or custom GLP-1 RAs online.
- **68%** reported purchasing **peptide** GLP-1 drugs online.
- 56% reported purchasing GLP-1 drugs marketed "for research purposes only."

## **Impact of Social Media**

Social media continues to evolve both as a marketing tool and a transactional sales channel for prescription medicines, particularly in the weight-loss and wellness space. While using social media to purchase prescription medicines online remains relatively uncommon compared with other online sources, social media platforms are playing a gradually more prominent role in how consumers—especially those who have purchased GLP-1 medications online—encounter, evaluate, and engage with online prescription medicine sellers.

## Awareness and Use of Social Media as a Source of Prescription Medications

General awareness of social media being used to purchase prescription medicines remains modest, but use of social media for this purpose is somewhat higher among those who have purchased GLP-1 medications online. This trend suggests that increased algorithmic targeting and social-media marketing around weight-loss and wellness products may be exposing GLP-1 buyers to these platforms more frequently than other consumers.

- 24% of Americans with experience ordering prescription medicines online have heard of social media being used as a source for prescription medicines, yet only 15% report having personally used social media for this purpose.
- Use of social media as a source for purchasing prescription medicines is slightly higher among those who have purchased GLP-1 medications online (19%) compared to those who have purchased other prescription medicines online (13%).

While online GLP-1 purchasers are only modestly more likely to use social media as a resource to purchase their medicines, they are more likely to have utilized certain sources that have relied heavily on social-media and influencer partnerships to gain visibility and promote GLP-1 products in the last few years.

 Compared to those who have purchased other prescription medicines online, online GLP-1 purchasers are more likely to use online wellness-clinics or medspas (28% vs. 13%), online compounding pharmacies (27% vs. 18%), and online specialty pharmacies (33% vs. 16%) to purchase their GLP-1 medicines.

#### Social Media as a Source of Promotion

Social media plays a greater role in shaping awareness of online sources among GLP-1 purchasers than it does for those who buy other medications online. They are more likely to have first encountered online medicine sellers through social media ads, influencers, or online discussion forums.

- 33% of Americans who have purchased GLP-1 medicines online said they first learned about online sources of prescription medicines through ads on social platforms, compared with 21% of other online purchasers.
- 25% of GLP-1 online purchasers said they were introduced to online sources by another social-media user, compared with 11% of other online purchasers.
- **16**% of GLP-1 online purchasers said **a celebrity or social-media influencer** first made them aware of online sellers, compared with **7**% of other online purchasers.
- **16**% of GLP-1 online purchasers said they first heard about an online source in **an online discussion group or forum**, compared with **5**% of other online purchasers.

#### Influence of Social Media on Decision-Making

Social media exerts a modestly stronger influence on purchasing decisions among GLP-1 buyers compared with other online purchasers. However, GLP-1 consumers also rely on a wider range of external sources when deciding whether and where to buy, suggesting that they are not dependent on social media alone but rather use it as one of multiple inputs guiding their decisions.

- 23% of Americans who have purchased GLP-1 medicines online said ads on social platforms influenced their decision to order or helped them decide which seller to use, compared with 12% of other online purchasers.
- 22% of online GLP-1 purchasers said celebrities or social-media influencers influenced their decision, compared with 15% of other online purchasers.
- **18**% of online GLP-1 purchasers said **others in online forums** influenced their decision, compared with **13**% of other online purchasers.
- However, on average, online GLP-1 purchasers rely on **3.5 sources** when deciding where to buy, compared with **2.4** among other online purchasers.

## Perceptions of Influencer-Driven Promotion and Risk

Although social media plays an expanding role in how consumers discover and assess online sellers, Americans remain broadly skeptical of influencer-driven claims and advice.

Even among those who have purchased prescription medicines online—including GLP-1 buyers—most perceive influencer-based recommendations as risky.

- 87% of U.S. adults report that taking a prescription medicine based solely on a social-media influencer's recommendation is risky.
- Among those who have purchased prescription medicines online, 84% share this view.
- Among those who have purchased GLP-1 medicines online, 85% consider it risky as well.

These findings indicate that while online GLP-1 purchasers are not necessarily more trusting of social-media sources, they are more immersed in digital ecosystems where social-media marketing amplifies exposure to a broader array of online sellers. When medications are in high demand, such as GLP-1 products, social media often serves as a gateway—connecting consumers not only to legitimate pharmacy services but also to potentially riskier online sources.

## **Impact of GLP-1 Advertising**

#### **Exposure to GLP-1 Advertising**

Americans are heavily exposed to GLP-1 advertising, which increasingly shapes perceptions and decisions—particularly among those who purchase prescription medicines online.

- 56% of Americans report seeing GLP-1 RA ads frequently (daily or weekly).
- Among those who have prior or current experience using a GLP-1 medication,
   81% report frequent exposure to GLP-1 ads, compared with 42% of Americans who have not used a GLP-1 medication.
- Exposure is even higher among online purchasers of prescription medicines (72%) and especially among online purchasers of GLP-1 medications (86%).

#### **Advertising and Online Purchasing Behavior**

Frequent exposure to GLP-1 advertising is linked with use of a wider range of online purchasing channels. Compared to those who rarely or never see such ads, those who see GLP-1 ads daily or weekly are more likely to engage with more types of online sellers and are more likely to use certain higher-risk online sellers compared to those who rarely or never see such ads.

• 70% of all frequent GLP-1 ad viewers have used an online or home-delivery pharmacy, compared to 54% of those with limited or no exposure.

- 33% of all frequent GLP-1 ad viewers have used telehealth prescription services, compared to 18% of those with limited or no exposure.
- 28% of all frequent GLP-1 ad viewers have used international pharmacies, compared to 12% of those with limited or no exposure.

#### **Advertising and Decision Influences**

Frequent GLP-1 ad exposure also corresponds with a broader range of influences shaping purchasing decisions.

• Those who see GLP-1 ads daily or weekly are significantly more likely to cite health insurers (31% vs. 11%), celebrities or influencers (19% vs. 8%), social-media ads (17% vs. 6%), and online forums (13% vs. 2%) as factors influencing where they purchase—roughly double the rates among those with little to no ad exposure.

#### **Expectations of Advertising Credibility**

At the same time, **the vast majority of Americans (86%)** say it is important that **ads for prescription medicines sold online make only clinically supported claims**—a view shared by **90%** of online purchasers and **96%** of online GLP-1 purchasers. This contrast highlights a clear gap between consumers stated expectations of advertising accuracy and the confusion that persists among those most frequently exposed to promotional content.

## **Demographic Profile of Respondents**

[**Figure 1. Demographic Profile of 2025 Respondents** — Side-by-side comparison of All Respondents, Online Prescription-Medicine Purchasers, and Online GLP-1 Purchasers.]

		Total (n=1501)	Online prescription medicine purchasers (n=571)	Online GLP-1 Purchasers (n=156)*
		%	%	%
GENDER	Male	48%	59%	47%
	Female	52%	41%	53%
AGE GROUP	18 to 24	12%	12%	13%
	25 to 34	17%	24%	16%
	35 to 44	16%	22%	14%
	45 to 54	17%	19%	16%

	55 to 64	19%	13%	20%
	Over 65	19%	10%	21%
	South	38%	39%	38%
	West	24%	24%	24%
REGION USA	Northeast	17%	18%	17%
	Midwest	21%	19%	21%
Which best describes where you live?	Urban/metropolitan – Densely populated, city or large town	38%	46%	37%
	Suburban – Mainly residential, bordering a city or large town	41%	40%	41%
	Rural – Sparsely populated, small town or village	21%	14%	22%
EDUCATION	HS or less	30%	23%	32%
EDUCATION	PSE	70%	77%	68%
	White (Non-Hispanic)	67%	63%	67%
	Hispanic or Latino	14%	15%	14%
	Black or African American	13%	15%	13%
What is your	Asian	4%	5%	4%
race or ethnicity?	Native American or Alaska Native	1%	1%	1%
	Native Hawaiian or Other Pacific Islander	1%	0%	1%
	Other (please specify):	0%	0%	0%
	Prefer not to answer	0%	0%	0%
	Christian – Protestant	32%	32%	33%
	Christian – Catholic	23%	29%	22%
Which of the following religions do you most closely identify with?	Christian – Other (e.g., Orthodox, LDS, Evangelical)	9%	8%	10%
	Spiritual but not religious	8%	6%	9%
	Jewish	4%	5%	4%
	Muslim	4%	7%	3%

	Buddhist	1%	2%	1%
	Hindu	1%	1%	1%
	Atheist	4%	3%	4%
	Agnostic	4%	4%	4%
	Other (please specify)	4%	2%	4%
	Prefer not to answer	7%	3%	7%
Generally speaking, do	Democrat	30%	29%	31%
	Republican	37%	45%	36%
you think of yourself as a	Independent	27%	22%	27%
Democrat, a Republican, an independent, or something else?	Something else	6%	3%	6%
Including yourself, how many individuals live in your household?	1	25%	19%	26%
	2	28%	21%	29%
	3	19%	22%	19%
	4	18%	28%	16%
	5 or more	10%	10%	10%
INCOME	Low	61%	47%	64%
	Middle	31%	40%	29%
	High	9%	13%	7%

<sup>\*</sup>The total unweighted number of GLP-1 online purchasers is n=156. For analyses, this was adjusted to account for oversampling of U.S. adults who reported currently or previously taking a GLP-1 receptor agonist (for diabetes or weight management).