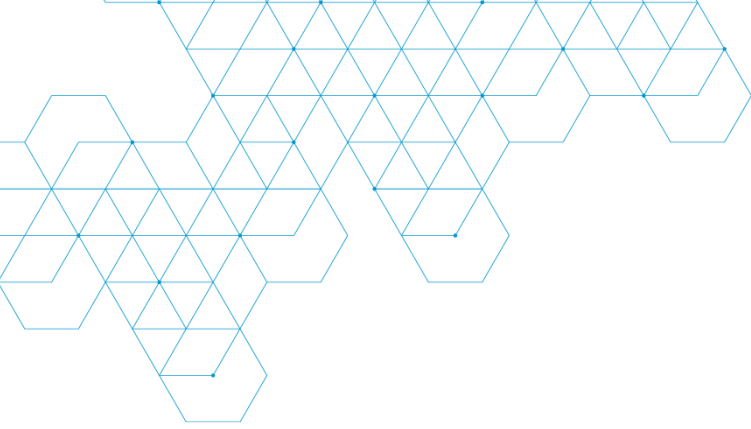




Understanding Medicine Abandonment as a Barrier to **Health Equity**

2022



In the United States, nearly 1 in 10 new prescriptions, a total of 55 million, were never picked up at the pharmacy in 2020.¹ New analysis based on IQVIA data finds that certain demographics and social determinants are associated with an increased likelihood of patients with commercial insurance abandoning their prescribed medicines.

Specifically, African American patients are disproportionately more likely to abandon their brand medicines at the pharmacy counter than white patients. Similarly, patients with lower incomes are more likely to abandon their brand medicines than those in higher income brackets.

To put it another way: when given a new brand medicine prescription, certain populations, including African Americans and patients from lower-income households, are less likely to fill their prescriptions. This can lead to worse health outcomes and further widen existing health disparities. The relationships between medicine abandonment and race and income are likely reflective of inequities driven by a multitude of factors related to social and structural challenges. In order to close these gaps, we first need to understand the sources and drivers of health disparities. To begin to understand – and ultimately address – these drivers, data analyses are needed to observe and measure trends.

Accurate, actionable data are essential to improving health outcomes for all Americans, and crucial to remedying the disparities faced by marginalized communities.² By conducting this analysis based on real-world data, we hope to contribute to a growing body of research taking a meaningful look at health disparities.



Methodology and Limitations

Using Longitudinal Access and Adjudication Data (LAAD) and Experian Consumer Demographics Data, IQVIA developed a descriptive analysis to measure the share of patients with commercial insurance who failed to pick up a newly prescribed brand medicine from the pharmacy within 30 days of receiving approval from their insurer. This observational analysis compares how the rate of abandonment differs by race/ethnicity and income.

This analysis did not control for potential confounding factors, such as the effects of racism, income, health status, education, geography, or social determinants of health. Due to these limitations, causal inferences cannot be made. Further research is needed to understand the many factors that contribute to differences in medicine abandonment between populations. See the Appendix for full methodology and a description of the underlying datasets.

Results

Rate of Abandonment by Race/Ethnicity

African American patients with commercial insurance are more likely to not pick up their new brand prescriptions at the pharmacy counter compared to white patients across several classes of medicines. Overall, African American patients are 7% more likely than white patients to abandon a new prescription. However, this disparity increases among select conditions, with the largest differences observed among insulins (20%), atypical antipsychotics (31%), and HIV Pre-Exposure Prophylaxis (PrEP) (41%).

Previous research has demonstrated that rates of medicine abandonment increase as cost sharing increases.³ This trend was confirmed and built upon in our analysis. African American patients experience a more dramatic increase in rates of abandonment as cost sharing increases compared to white patients. In other words, when faced with out-of-pocket costs of \$125 or more for their prescriptions, the difference in rates of abandonment between white and African American patients with commercial insurance intensifies. Depending on the class of medicine, our research found that African American patients are 10% to 34% more likely to abandon their new brand prescriptions compared to white patients.

FIGURE 1. Abandonment Rate of New Prescriptions for Brand Medicines, 2020

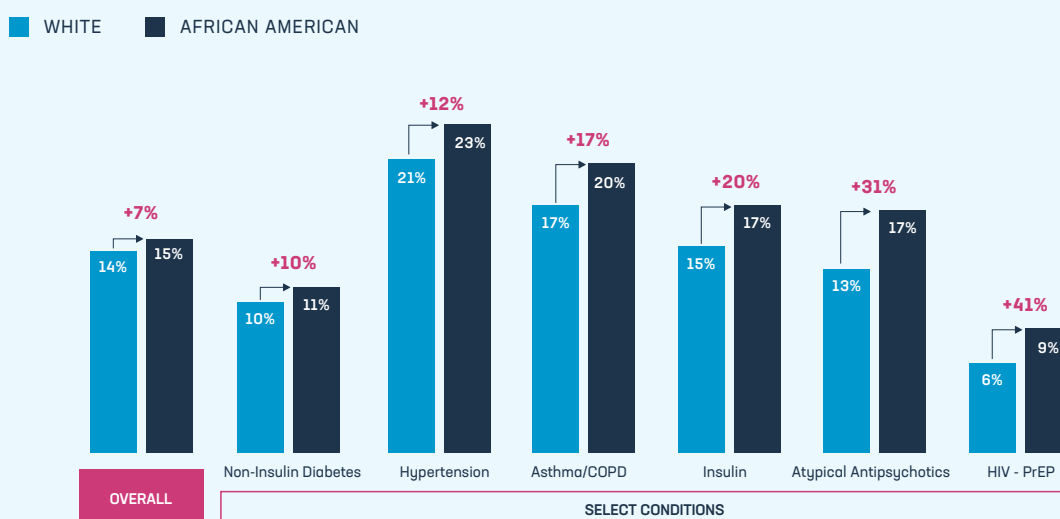
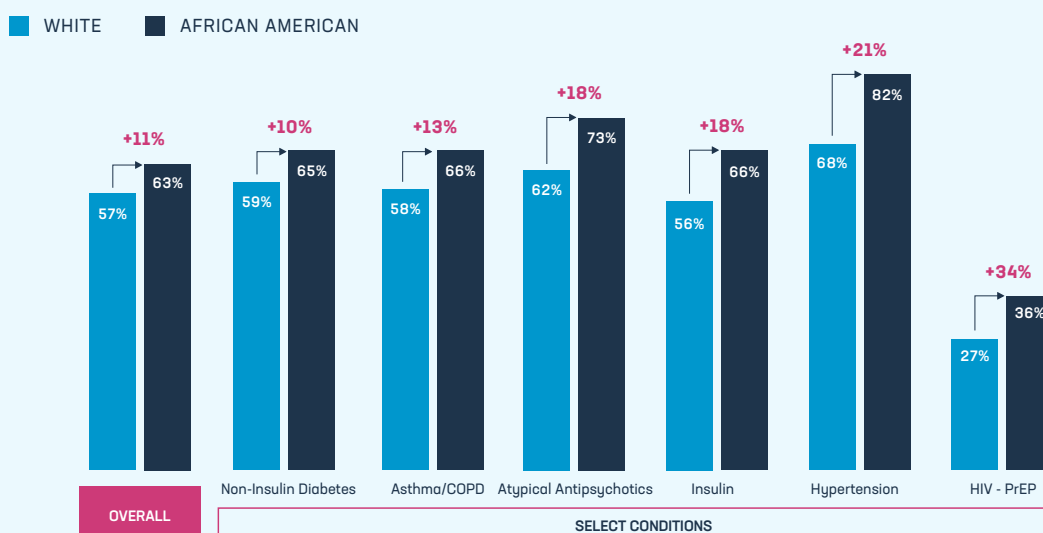


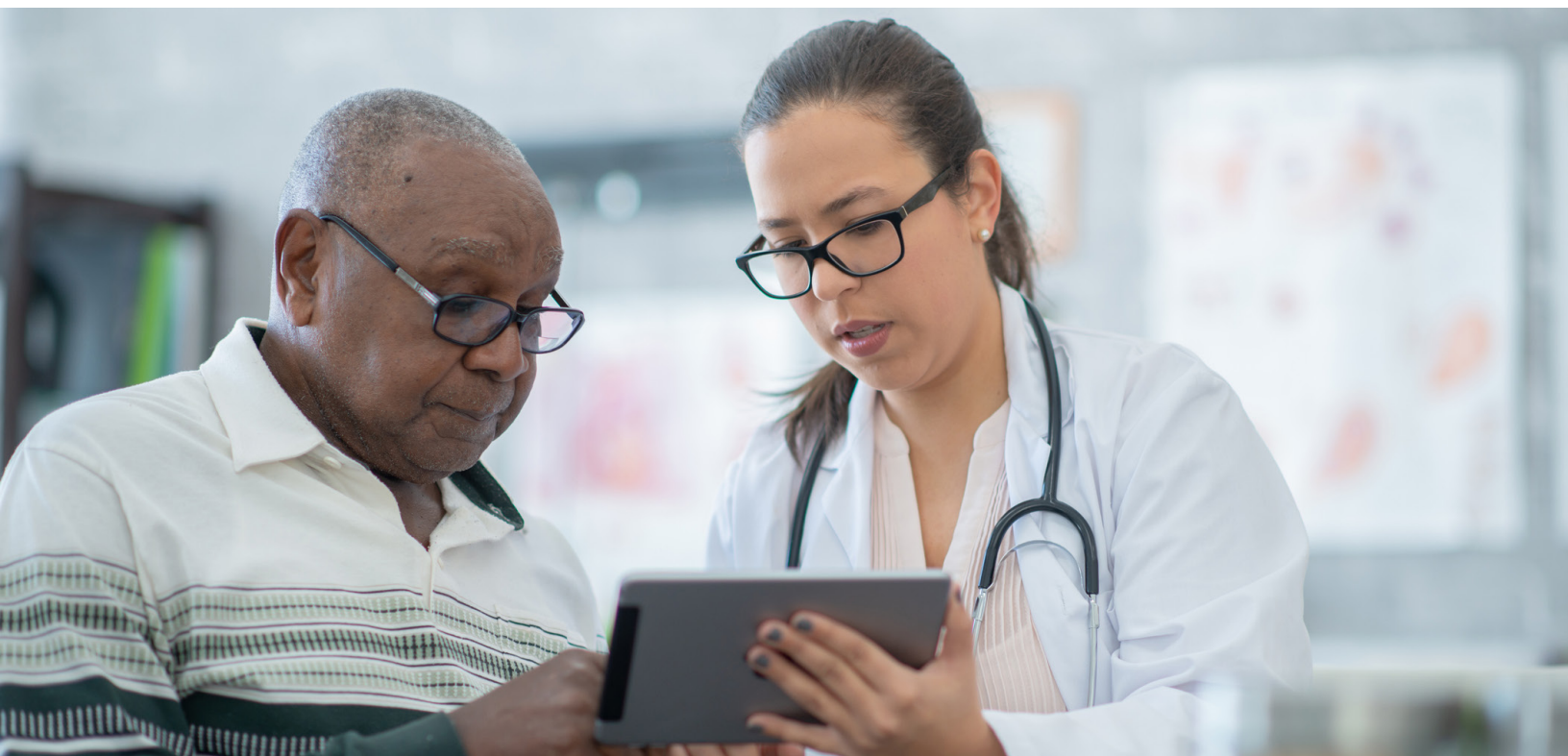
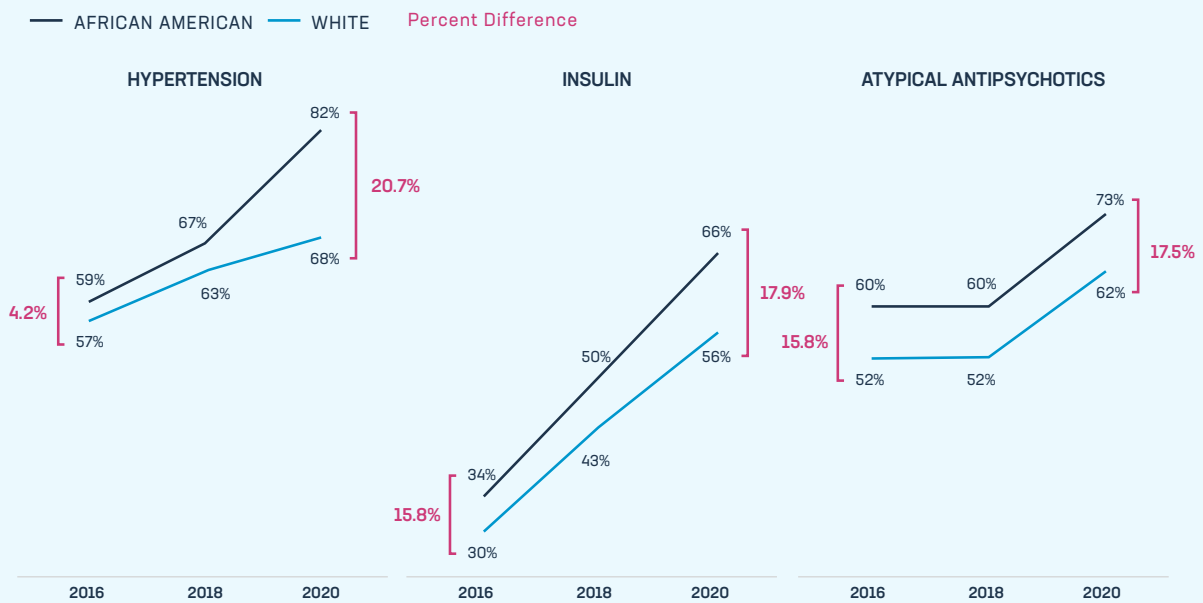
FIGURE 2. Abandonment Rate of New Prescriptions for Brand Medicines with High Out-of-Pocket Costs (\$125+), 2020



It is important to note that differences in characteristics between the African American and white study populations, such as income, the effects of racism, social determinants of health and other social, economic, and health risk factors may be driving or contributing to the observed health disparities.

Between 2016 and 2020, rates of abandonment grew steadily for all patients with commercial insurance across nearly all medicine classes included in the study (see Appendix). However, the rate of abandonment for some chronic disease medicines with high out-of-pocket costs is growing more rapidly for African American patients than white patients. The growing difference in rates of abandonment between white and African American patients over the study period demonstrates a growing gap in access and adherence to medicines between these patient populations.

FIGURE 3. Abandonment Rate of New Prescriptions for Brand Medicines with High Out-of-Pocket Costs (\$125+) by Class, 2016-2020



Rate of Abandonment by Income Level

When considering differences in income levels, commercially insured patients with annual incomes of less than \$50,000 were more likely to abandon new brand prescriptions compared to higher-income patients (those making \$100,000+/ year) across several different conditions.

Similar to the racial/ethnic demographics findings, trends intensify when looking specifically at new brand prescriptions that cost commercially insured patients \$125 or more at the pharmacy counter. Overall, when faced with these high out-of-pocket costs, patients making less than \$50,000 per year are 16% more likely to abandon a new brand prescription compared to patients making \$100,000 or more annually.

FIGURE 4. Abandonment Rate of New Prescriptions for Brand Medicines, 2020

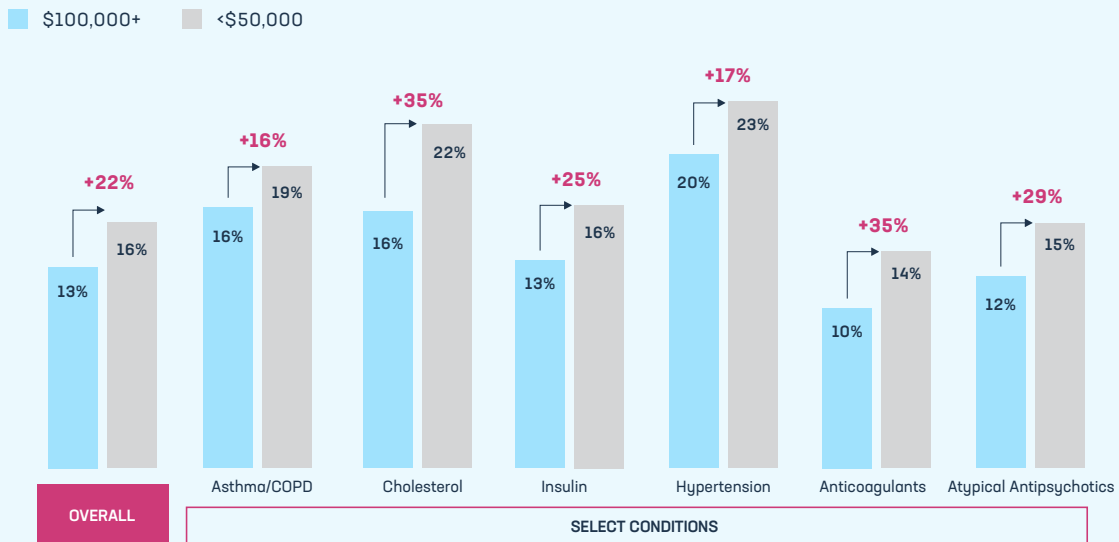
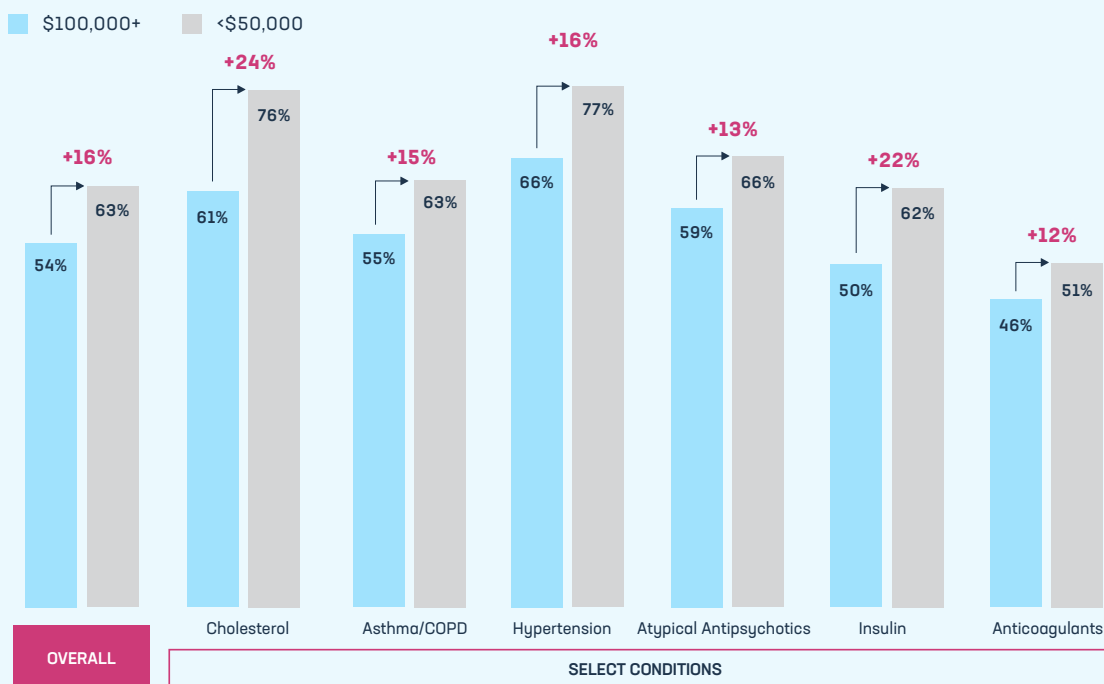


FIGURE 5. Abandonment Rate of New Prescriptions for Brand Medicines with High Out-of-Pocket Costs (\$125+), 2020



Discussion

The results demonstrate a clear association between medicine abandonment, exposure to high out-of-pocket costs, and patient demographics like race/ethnicity and income levels. These findings raise serious concerns about worsening challenges in patient affordability and access that may exacerbate health disparities. When patients fail to take their medicine as prescribed, they are more likely to experience avoidable health complications and poorer overall outcomes.⁴

The results show that lower-income and African American populations—who may face stigmas, discrimination, and social barriers to health care—are more likely to abandon new medicines than their counterparts. Consequently, the relationship between medicine adherence and health outcomes can further worsen already pervasive disparities in health outcomes, including disease-specific mortality.⁵

It is important to better understand the root causes of medicine abandonment within certain populations to develop solutions to meaningfully improve patient outcomes. The relationships between medicine abandonment and race and income are likely reflective of inequities driven by a multitude of factors related to social and structural challenges, including systemic racism, discrimination, education, economic mobility, geography, and access to transportation or childcare.⁶

While these findings align with previous research demonstrating disparities in medicine access, adherence and abandonment based on demographics and social determinants,⁷ they offer just a snapshot of current trends. More research is needed to better understand inequities in use of medicines and the role of insurance and other social determinants of health, including where a patient lives or works, their ability to access a provider or pharmacy, and seek regular care. Improving collection and reporting of health data at the local, state, and tribal levels by race, ethnicity, and other factors is critical to identifying and

addressing health inequities and alleviating them through better access to care. Evaluating and strengthening policies or community practices that aim to improve access to care and adherence to medicines for vulnerable populations should be a priority for policymakers.

For disadvantaged and socioeconomically deprived communities, the eroding value of health insurance likely plays a key role in limiting access to providers and needed care. This limited access can lead to delays in diagnosis and access to medicines, further contributing to disparities in health outcomes. Several potential policies could **offer relief** to disadvantaged patients struggling to afford their medicines, including:

- 1 Allowing patients to benefit directly from the savings and discounts manufacturers provide to health insurers and pharmacy benefit managers in the form of lower cost sharing on medicines
- 2 Covering certain medicines from day one instead of first requiring patients to meet a deductible
- 3 Ensuring manufacturer cost-sharing assistance counts toward plan deductibles and out-of-pocket maximums to prevent health insurers from penalizing individuals who need assistance

The biopharmaceutical industry is advocating for necessary systemic and long-term changes that better meet the needs of underserved communities. By doing this, the industry hopes to ensure everyone can fully benefit from the innovative medicines our member companies develop. Patient-centered solutions to address data collection, medicine access, and patient affordability could meaningfully improve patient outcomes for underserved populations.

PhRMA and our member companies support fixing the health care system so that it works better for all patients. As a committed partner in the health equity space, we're releasing the following appendix of data to help facilitate proactive research that expands our understanding of the drivers of health disparities and improves health equity.

Appendix

Methodology Details and Data Source Descriptions

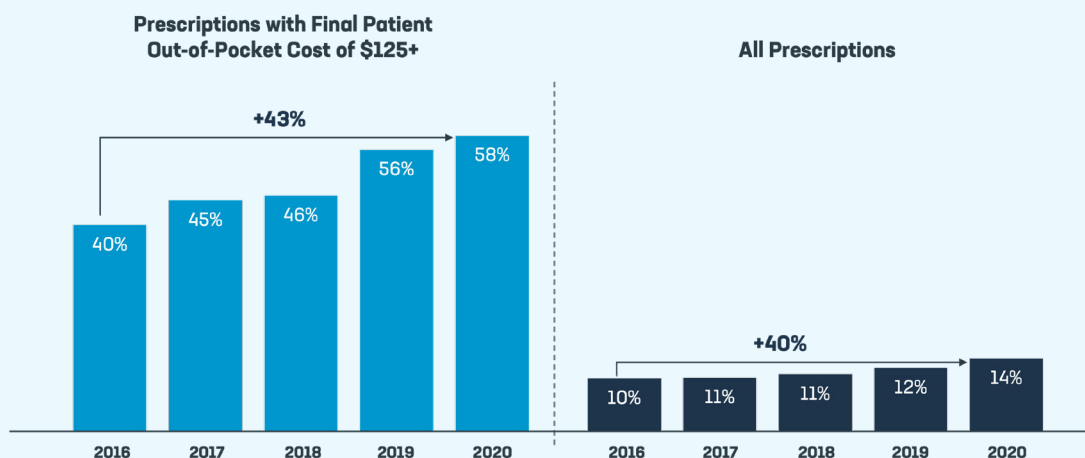
New Patient Abandonment – New patient abandonment is a longitudinal analysis that quantifies the number of patients that do not initiate treatment within 30 days of an initial payer approval. New patients are confirmed with a 9-12 month look-back for prior data activity, ensuring that patients categorized as new are not an artifact of data capture. New patient abandonment compared across patient out-of-pocket (OOP) cohorts is indicative of patient sensitivity to cost.

Longitudinal Access and Adjudication Data (LAAD) – LAAD is a de-identified patient dataset that includes both pharmacy and medical claims. The pharmacy claims used in this analysis are sourced from pharmacies, PBMs, and insurers and provide visibility into the cost sharing and lifecycle of a claim. Plans covering all commercial payer types are represented in the data.

Experian Consumer Demographics Data, ConsumerView[®] – Experian is a de-identified consumer dataset that includes a variety of metrics regarding socioeconomic status and background. Anonymized cryptographic token process allows IQVIA to link all Experian data as non-identified consumer information and validated with proprietary methods. Experian data can be appended to IQVIA LAAD claims data, providing insight into patient race/ethnicity, household income, education, and more.

Additional Data on Rates of Abandonment

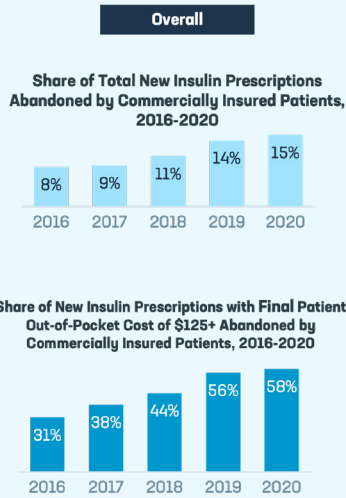
1. Share of brand medicine prescriptions abandoned by commercially insured patients, 2016-2020



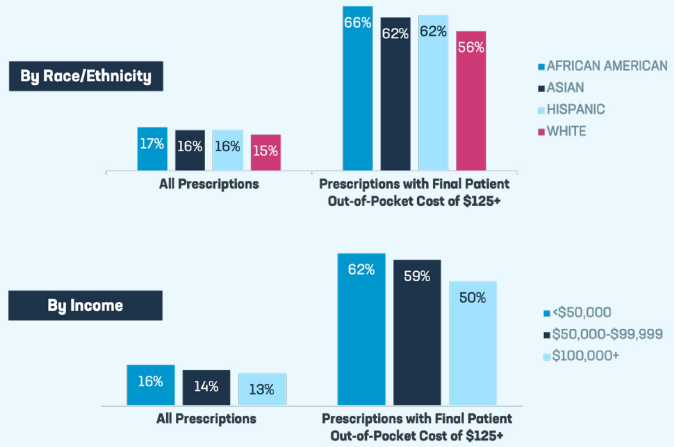
*30-Day NBRx Abandonment Rate by Copay Cohort (Commercial; All Markets; Experian Matched Patients; (2016-2020), Claims included in each copay cohort are claims with eligible cost data; all claims are included in "Overall"
Source: IQVIA LAAD; Experian Data; US Market Access Strategy Consulting analysis

2. Share of brand medicine prescriptions abandoned by commercially insured patients by therapy area, 2016-2020

2.1. Insulin

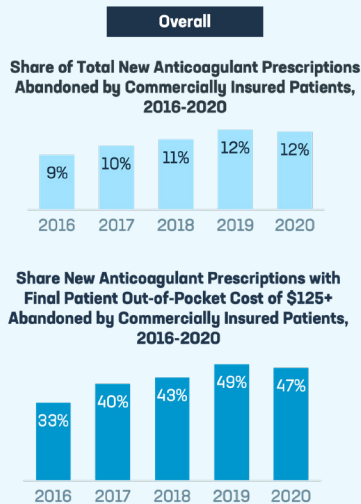


Share of New Insulin Prescriptions Abandoned by Commercially Insured Patients, 2020

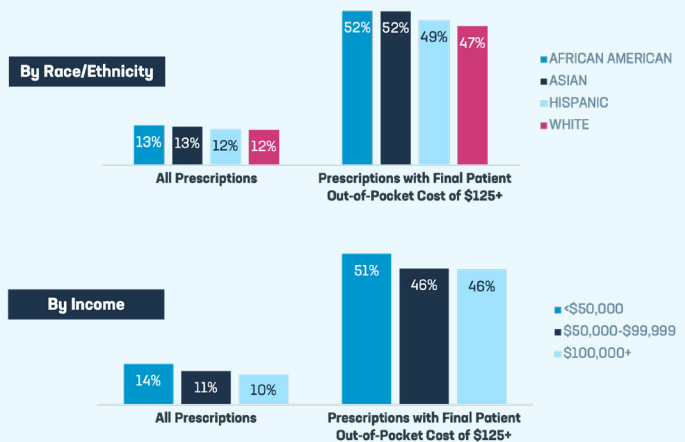


Note: Distributions limited to patients who have matched to Experian data only. Includes brand drugs only.
Source: IQVIA LAAD; Experian Data; US Market Access Strategy Consulting analysis

2.2. Anticoagulants

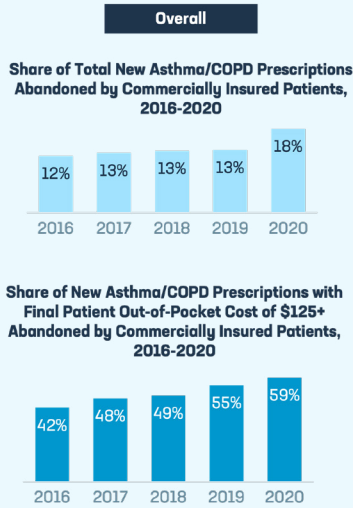


Share of New Anticoagulant Prescriptions Abandoned by Commercially Insured Patients, 2020

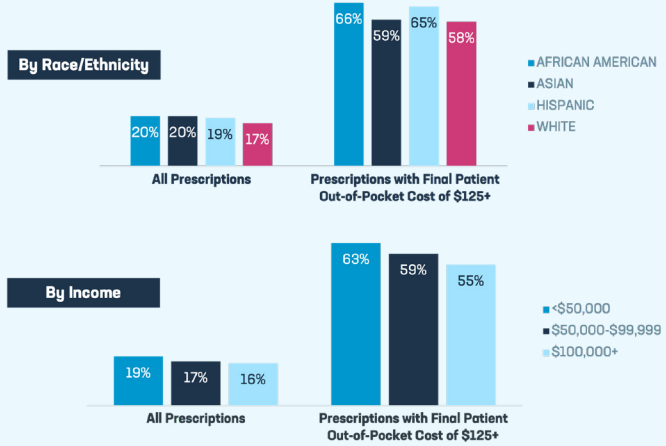


Note: Distributions limited to patients who have matched to Experian data only. Includes brand drugs only.
Source: IQVIA LAAD; Experian Data; US Market Access Strategy Consulting analysis

2.3. Asthma/COPD

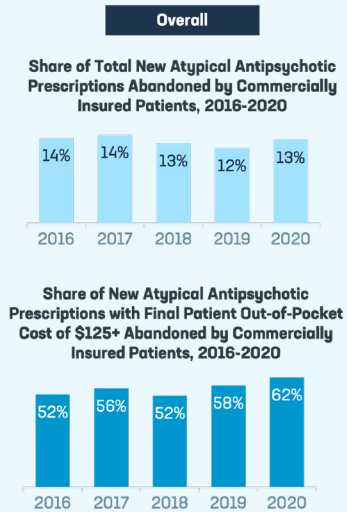


Share of New Asthma/COPD Prescriptions Abandoned by Commercially Insured Patients, 2020

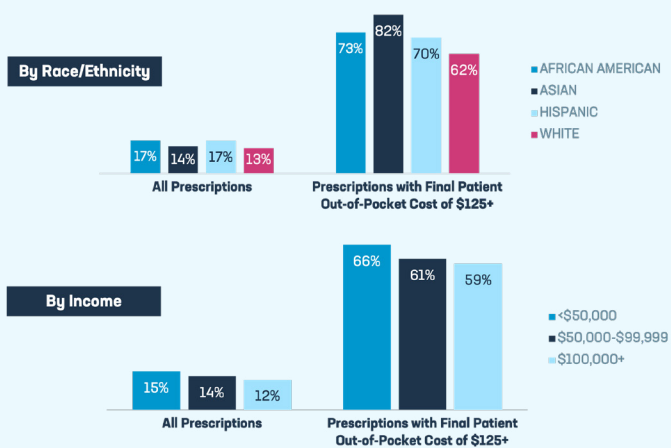


Note: Distributions limited to patients who have matched to Experian data only. Includes brand drugs only.
Source: IQVIA LAAD; Experian Data; US Market Access Strategie Consulting analysis

2.4. Atypical Antipsychotics

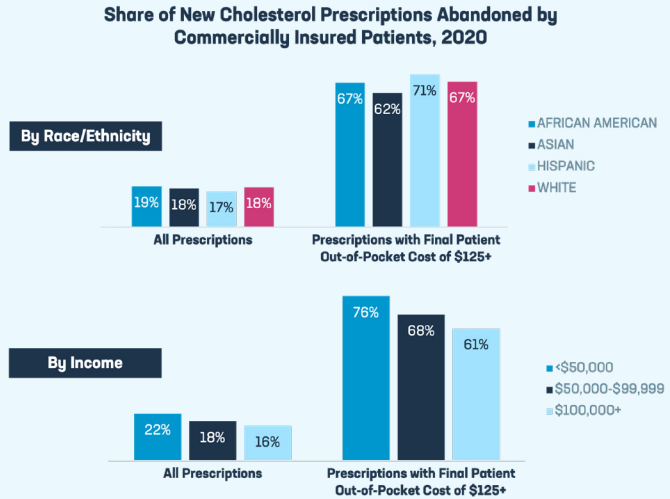
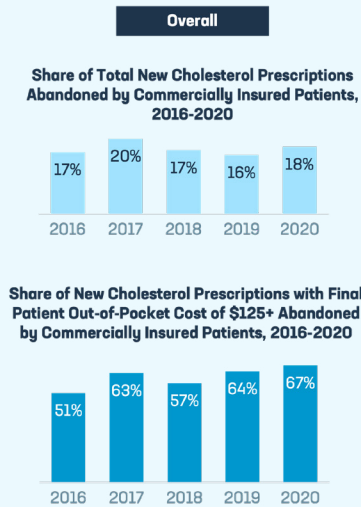


Share of New Atypical Antipsychotic Prescriptions Abandoned by Commercially Insured Patients, 2020



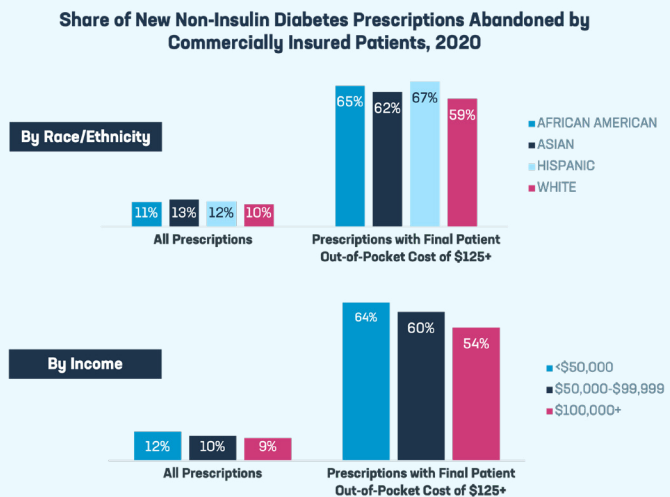
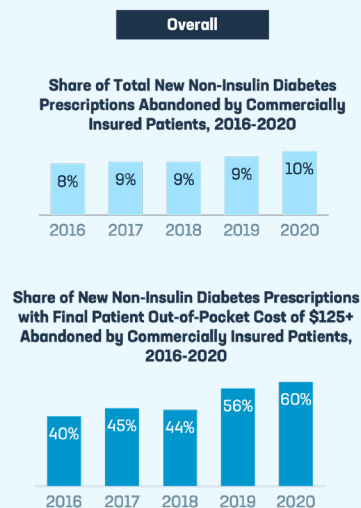
Note: Distributions limited to patients who have matched to Experian data only. Includes brand drugs only.
Source: IQVIA LAAD; Experian Data; US Market Access Strategie Consulting analysis

2.5. Cholesterol Medicines



Note: Distributions limited to patients who have matched to Experian data only. Includes brand drugs only.
Source: IQVIA LAAD; Experian Data; US Market Access Strategy Consulting analysis

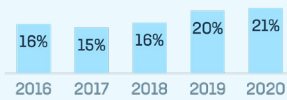
2.6. Non-Insulin Diabetes Medicines



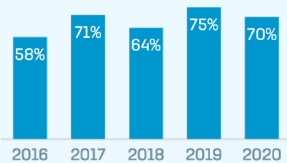
Note: Distributions limited to patients who have matched to Experian data only. Includes brand drugs only.
Source: IQVIA LAAD; Experian Data; US Market Access Strategy Consulting analysis

2.7. Hypertension Medicines

Overall
Share of Total New Hypertension Prescriptions Abandoned by Commercially Insured Patients, 2016-2020

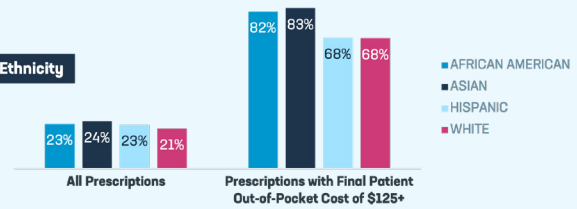


Share of New Hypertension Prescriptions with Final Patient Out-of-Pocket Cost of \$125+ Abandoned by Commercially Insured Patients, 2016-2020

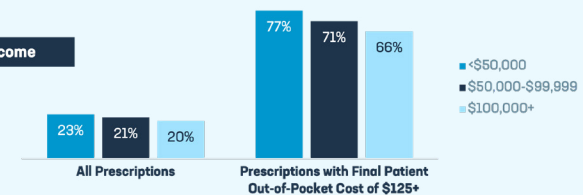


Share of New Hypertension Prescriptions Abandoned by Commercially Insured Patients, 2020

By Race/Ethnicity



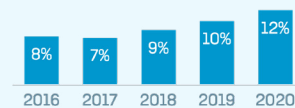
By Income



Note: Distributions limited to patients who have matched to Experian data only. Includes brand drugs only.
Source: IQVIA LAAD; Experian Data; US Market Access Strategy Consulting analysis

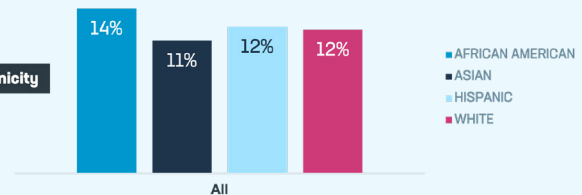
2.8. Autoimmune Medicines

Share of Total New Autoimmune Prescriptions Abandoned by Commercially Insured Patients, 2016-2020

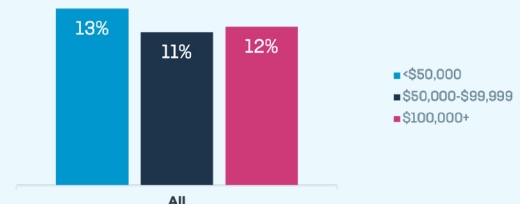


Share of New Autoimmune Prescriptions Abandoned by Commercially Insured Patients, 2020

By Race/Ethnicity



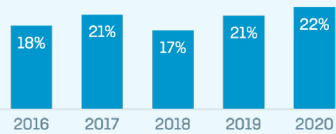
By Income



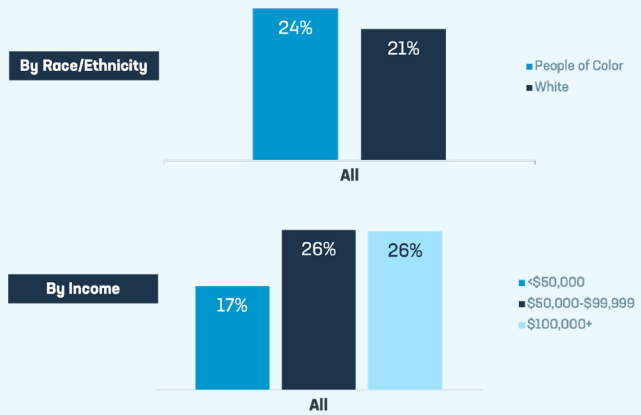
Note: Distributions limited to patients who have matched to Experian data only. Includes brand drugs only. Due to high use of debit copay assistance cards within this class of medicines, we are unable to determine final out-of-pocket costs to patients. Therefore, results by cost cohort were omitted.
Source: IQVIA LAAD; Experian Data; US Market Access Strategy Consulting analysis

2.9. Multiple Sclerosis (MS) Medicines

Share of Total New MS Prescriptions Abandoned by Commercially Insured Patients, 2016-2020



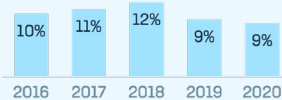
Share of New MS Prescriptions Abandoned by Commercially Insured Patients, 2020



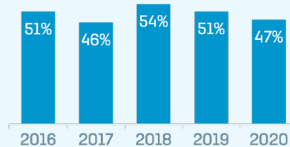
Note: Distributions limited to patients who have matched to Experian data only. Includes brand drugs only. Due to high use of debit copay assistance cards within this class of medicines, we are unable to determine final out-of-pocket costs to patients. Therefore, results by cost cohort were omitted. Race/ethnicity data cannot be further disaggregated due to small sample size. Source: IQVIA LAAD; Experian Data; US Market Access Strategy Consulting analysis

2.9. PCSK9s

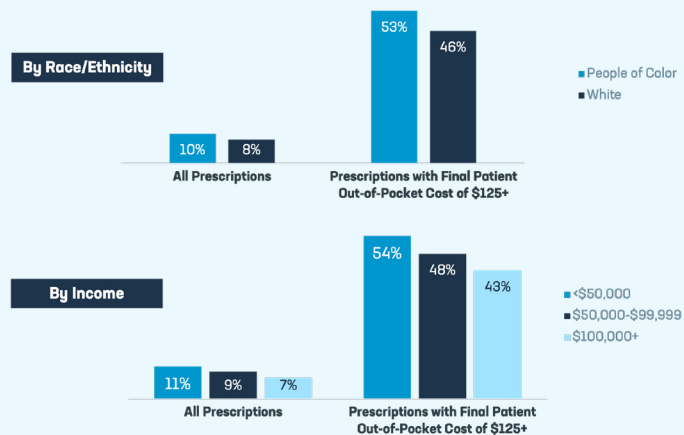
Share of Total New PCSK9s Prescriptions Abandoned by Commercially Insured Patients, 2016-2020



Share of New PCSK9s Prescriptions with Final Patient Out-of-Pocket Cost of \$125+ Abandoned by Commercially Insured Patients, 2016-2020



Share of New PCSK9s Prescriptions Abandoned by Commercially Insured Patients, 2020



Note: Distributions limited to patients who have matched to Experian data only. Includes brand drugs only. Race/ethnicity data cannot be further disaggregated due to small sample size. Source: IQVIA LAAD; Experian Data; US Market Access Strategy Consulting analysis

Endnotes

- 1 IQVIA. "Use of Medicines in the U.S.: Spending and Usage Trends and Outlook to 2025," May 2021. Available at: <https://www.iqvia.com/insights/the-iqvia-institute/reports/the-use-of-medicines-in-the-us>.
- 2 PhRMA. "Gaps in Available Data Exacerbate Health Disparities and Create Barriers to Change," January 2021. Available at: <https://phrma.org/Report/Gaps-in-Available-Data-Exacerbate-Health-Disparities-and-Create-Barriers-to-Change>.
- 3 IQVIA. "Use of Medicines in the U.S.: Spending and Usage Trends and Outlook to 2025," May 2021. Available at: <https://www.iqvia.com/insights/the-iqvia-institute/reports/the-use-of-medicines-in-the-us>.
- 4 Nittala A, Nahmens I, Ikuma L, Thomas D. "Effects of Medication Adherence on Healthcare Services Use among Asthma Patients." *J Healthc Qual Res.* 2019; 34(6): 301-307.; Mosen DM, Glauber H, Stoneburner AB, Feldstein AC. "Assessing the association between medication adherence and glycemic control." *Am J Pharm Benefits.* 2017;9(3):82-88.; Ruppap TM, Cooper PS, Mehr DR, Delgado JM, Dunbar-Jacob JM. "Medication Adherence Interventions Improve Heart Failure Mortality and Readmission Rates: Systematic Review and Meta-Analysis of Controlled Trials." *J Am Heart Assoc.* 2016;5(6):e002606.
- 5 Office of Minority Health. "Minority Health Profiles," October 2021. Available at: <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=2&lvlid=26>.
- 6 Dharbhamalla V, et al. "AMCP Partnership Forum: Racial health disparities—a closer look at benefit design." *J Manag Care Spec Pharm.* 2022;28(1):125-31. Available at: <https://www.jmcp.org/doi/pdf/10.18553/jmcp.2021.21217>.; Pharmacy Quality Alliance. "Access to Care: Development of a Medication Access Framework for Quality Measurement," March 2019. Available at: <https://www.pqaalliance.org/assets/Research/PQA-Access-to-Care-Report.pdf>.
- 7 Hall-Lipsy EA, Chisholm-Burns MA. "Pharmacotherapeutic disparities: racial, ethnic, and sex variations in medication treatment." *Am J Health Syst Pharm.* 2010;67(6):462-468.
- 8 ConsumerView is a national marketing database that offers coverage on 95% of the U.S. population, including more than 311 million individuals and 126 million households. Data attributes, including demographics, purchasing habits, lifestyles, interests, and more, provide a 360-degree view of consumers and support data-driven marketing campaigns. Data are collected from a variety of public and proprietary sources, which includes self-reported information, public records, and purchase transaction information. Experian implements values-based practices that govern the acquisition, compilation, and sale of consumer data; to provide transparency and address consumer privacy considerations.

