2019

INDUSTRY TREND REPORT in Pharmacy Quality



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LETTER FROM THE CEO

LETTER FROM THE CEO



Dear Healthcare Partners:

Despite the degree of uncertainty and pace of change taking place within the healthcare environment, Pharmacy Quality Solutions, Inc. (PQS) understands the importance of collaboration and partnership in the industry to truly drive value and make a lasting impact on patients. PQS has been privileged to serve as a neutral intermediary collaborating to manage performance information on the quality of medication use with our payer and provider partners.

We believe there's a great opportunity to help payer and pharmacy communities recognize trends, challenges, and opportunities related to quality improvement. We also believe there is an opportunity to enhance our understanding of how patients recognize the value of pharmacy and its role in the future of healthcare.

To help facilitate this opportunity and create a common "language" for pharmacy quality, value and performance, we are excited to announce our new Trend Report in Pharmacy Quality (Trend Report). We have collaborated with members of the pharmacy profession across several associations and societies to develop initial survey questions. The members worked closely with a team of research partners to guide our initial areas of focus.

The annual Trend Report will track trends in perceptions, performance, approaches and considerations as they relate to pharmacist-provided services and value-based performance programs across both payers and pharmacy providers.

We are excited to share our first Trend Report and hope you see the possibilities and opportunity to learn from each other on our pathway to optimize value through improved quality.

Hwell

JEFF NEWELL, RPH Chief Executive Officer, Pharmacy Quality Solutions, Inc.

TREND REPORT in Pharmacy Quality

INTRODUCTION

PQS is excited to launch our inaugural Trend Report in Pharmacy Quality. We hope the results of the surveys and collected perceptions across patients, payers and pharmacies will be of value to you. Our goal is to help everyone learn how we communicate and understand the many differences in languages and perceptions within healthcare among providers, payers and patients.

We hope this report will serve as a reference to help community pharmacies understand how to best engage patients with new services, and additionally recognize types of performance-based programs deployed by payers across various provider types.

For payers, we hope the trend report will help highlight the current and shifting perceptions of patients on the role of community pharmacies and additionally, community pharmacies' readiness for supporting more advanced roles for optimizing medication outcomes.

METHODOLOGY/ GENERAL APPROACH

The first draft of each survey was developed by PQS staff and external research partners. A committee of experts representing healthcare payers and various types of community pharmacies reviewed and provided feedback using a Delphi method with structured communication and systematic methods.

For each section in the report supported through survey data, the specific questions used to collect the data may be paraphrased and summarized for length and may not reflect the exact question from the survey instrument.

For most sections, not all survey questions were included in the report due to size limitations. As a result, questions and data are shown where results were thought to have the most significant impact for the broad professional audience.

| NAME | ORGANIZATION | ТҮРЕ |
|-------------------|---|------------------|
| John Beckner | National Community Pharmacists Association | Committee Member |
| Christie Boutte | National Association of Chain Drug Stores | Committee Member |
| Anne Burns | American Pharmacists Association | Committee Member |
| Kim Caldwell | Pharmaceutical Care Management Association Consultant | Committee Member |
| Susan Cantrell | Academy of Managed Care Pharmacy | Committee Member |
| Chris Cozzolino | Student Representative- University of Iowa | Committee Member |
| Amanda Harrington | Independent Consultant | Research Partner |
| Laura Miller | National Association of Chain Drug Stores | Committee Member |
| Terri Warholak | University of Arizona | Research Partner |
| | | |

COMMITTEE MEMBERS

Project led by: Todd Sega VP, Client Relations & Services

Note: The survey questions or summary results from this report do not necessarily represent those of the individuals serving on the Trend Report Committee or the organizations they represent. PQS would like to thank our committee members for their dedicated time and commitment towards the profession and the opportunity to improve marketplace partnerships.

Section 1: CONSUMER PERCEPTIONS

INTRODUCTION

As stakeholders within the healthcare marketplace, we often become caught up in our daily whirlwinds. Those whirlwinds of activities can sometimes take us further away from personal interactions with patients, or more importantly, the ability to ask patients what they believe and perceive throughout their journey of receiving care.

To help the broader profession obtain visibility outside of our own "four walls," we've established a section in our Annual Trend Report that will be focused on consumers and patients. We'd like to expand this section to include additional areas, but for the first year, we focused the survey on perceptions from consumers associated with pharmacist-provided services. We'll track consumers' perceptions and how they may change over time.

SURVEY APPROACH

- A large panel of consumers across the country, representative of the general US population who were over the age of 18 were targeted for survey administration.
- Consumers needed to have visited a pharmacy in the past 12 months in order to be selected for possible survey completion.
- An invitation to participate in the survey was sent to 5,662 consumers from the panel who met the inclusion criteria. Of those who received the invitation, around 88% agreed to participate. Of those who agreed, around 45% viewed the survey, 1,999 started the survey, and a total of 1,001 completed the survey.

SURVEY DEMOGRAPHICS

GENDER

| 67.50% |
|--------|
| 32.50% |
| |

N=1,001

| | A G E | |
|-------|-------|--|
| 18-24 | 6.9% | |
| 25-34 | 22.1% | |
| 35-44 | 20.3% | |
| 45-54 | 16.6% | |
| 55-64 | 14.3% | |
| 65-74 | 15.9% | |
| 75+ | 3.9% | |

*One respondent with missing age response (N=1,000)

| R E G I | ON |
|-----------|-------|
| Southwest | 11.% |
| West | 12.4% |
| Midwest | 21.5% |
| Northeast | 24.8% |
| Southeast | 30.3% |

^{*}One respondent with missing region response (N=1,000)

RACE

| White | 80.6% |
|-----------------------------------|-------|
| Black or African-American | 10.8% |
| American Indian or Alaskan Native | 0.7% |
| Asian | 3.7% |
| Native Hawaiian | 0.5% |
| From multiple races | 2.2% |
| Some other race | 1.5% |
| | |

*Two respondents with missing race response (N=999)

EDUCATION

| Less than high school degree | 2.2% |
|----------------------------------|--------|
| High school degree or equivalent | 22.78% |
| Some college but no degree | 22.48% |
| Associates degree | 13.69% |
| Bachelor degree | 27.97% |
| Graduate degree | 10.89% |
| | |

N=1,001

HEALTH INSURANCE STATUS

| None | 9.3% |
|------------------|-------|
| Private | 51.4% |
| Medicare | 27.2% |
| Medicaid | 11.5% |
| Other not listed | 0.5% |

*Five respondents with missing insurance status response (N=1,001)

PHARMACY TYPE USED



PHARMACY LOCATION USED BY AGE

Note: One 35-64-year-old survey respondent selected 'other' pharmacy location. One 18-34-year-old survey respondent did not provide a pharmacy location response.

Across the types of pharmacies used by respondents, there is no specific type of pharmacy that is used disproportionately by either age or region. Across the entire country, the most commonly used pharmacy type was a retail chain used by 48.9% of respondents. The second most common type of pharmacy was a grocery store with a pharmacy representing 22.0% followed by mass merchant, independent, and clinic outpatient pharmacy types at 15.8%, 9.1%, and 4.1% respectively.



PHARMACY LOCATION USED BY REGION

Note: One survey respondent reporting "grocery store with pharmacy" did not select a region. One survey respondent reporting "Southeast" region did not select a pharmacy location. One survey respondent reporting "Southeast" region selected "other" pharmacy location.

PHARMACY AND VACCINE Administration

POPULATION RECEIVING VACCINES AT A PHARMACY AND LEVEL OF COMFORT



In the survey, respondents were asked if they had ever received a vaccine from a pharmacy and were also asked their level of comfort with receiving vaccines in another survey question. This graph displays the level of comfort based upon whether the respondents had ever received a vaccine at a pharmacy.

400 respondents (40%) indicated they have never received a vaccine from a pharmacy but approximately 55% of these individuals said they would be comfortable or very comfortable receiving vaccines at a pharmacy. This represents a significant opportunity for pharmacies to capture a missing demographic of patients who currently are not receiving vaccines from a pharmacy but are willing to receive them.



POPULATION RECEIVING VACCINES AT A PHARMACY BASED UPON TYPE OF PHARMACY

PHARMACY AND VACCINE ADMINISTRATION

Among the different types of pharmacies visited by respondents, retail pharmacies appear to vaccinate the highest percentage of their patients with 64% of respondents indicating they have received a vaccine at their pharmacy. However, within the last 12 months, pharmacies in grocery store settings appear to vaccinate the highest percentage of their patients with approximately 50% of respondents indicating receipt of a vaccine within this time period.

Based upon these results, a significant opportunity exists for independent pharmacies where respondents were least likely to have received a vaccine in the last 12 months and additionally report the highest percentage (55%) of patients who have never received a vaccine at a pharmacy.

Yes, < 12 100% months 80% Yes, > 12 60% months 40% No. Never at a pharmacy 20% 0% Private Medicare Medicaid None

POPULATION RECEIVING VACCINES AT A PHARMACY BASED UPON INSURANCE TYPE

Note: Five survey respondents reporting "yes, within last 12 months" did not select an insurance type. Three survey respondents reporting "yes, within last 12 months" and two reporting "no, never at a pharmacy" reported "other" insurance type. Chi-squared test, p<0.001

 It may not be surprising that the highest percentage of respondents who have never received a vaccine at a pharmacy are the individuals who also reported not having health insurance.
However, approximately 20% of the uninsured population indicated receiving a vaccine from a pharmacy within the last 12 months. Despite the various reasons for not having health insurance, individuals saw value in receiving a vaccine.

Additionally, the second highest percentage of respondents that have never received a vaccine at a pharmacy reported having Medicaid. While the explanation and rationale for this is most likely multifaceted, it presents an opportunity to further explore state or managed care organization (MCO)-based regulations to ensure that patients can receive vaccines at a pharmacy without a restrictive age limitation. (e.g., State may only allow pharmacy vaccine administration for those who are 18 years of age or older.) Among the respondents with Medicare, approximately 65% indicated they have received a vaccine from a pharmacy which may point to the potential impact of benefit design and lowered or waived copays as a means to encourage higher use of preventative services.

PERCEPTION OF PHARMACISTS' ROLES

BACKGROUND

In the survey, respondents were asked how they viewed the role of the pharmacist today and how a pharmacist could help them or their family in today's present time. As a follow up question, respondents were asked how a pharmacist may help them or their family in the future. Lastly, respondents were asked to rate their top three most valuable roles for the future.



PERCEPTION OF PHARMACISTS' ROLES: TODAY VS. FUTURE

In this assessment, we analyzed how each individual responded to the question on their perception of the pharmacist's role today and compared those same individuals for how they responded on their perceived role in the future. The results identify the roles they believe would specifically change compared to the perceived roles of today. Among the roles that were listed for selection, respondents believed that two roles would not be different in the future which includes dispensing and educating about medications.

Respondents believed there would be an increased or expanded set of roles in the future for all other roles, with the most noticeable difference occurring with conducting health screenings. Of those who didn't believe conducting health screenings was a role today, 24% of those respondents believe it will be a role in the future. Similarly, of those who didn't see prescribing medications or coordinating care with other prescribers as a role today, approximately 14% of those individuals believed these roles would be roles in the future.



MOST VALUABLE FUTURE ROLES OF PHARMACISTS BY AGE

In this assessment, we only compared age groups based upon respondents selecting the most valuable role in the future. Respondents were limited to picking three roles that were of the most value. As a result, respondents may have believed there could be additional valuable roles, but the ones selected were the most valuable.

Many of the most valuable roles weren't perceived to be different based upon respondent age except for the roles of prescribing medications, administering injectable medications and coordinating care with prescribers. A Bonferroni Correction was performed to validate differences in selected future roles based upon respondent age. Interestingly, those that were 65 years of age and older were more likely to select a most valuable role of administering injectables and coordinating care compared to those who were 18-34 or 35-64 years of age.

In contrast, when it came to the role of prescribing medications, the younger populations of those aged 18-34 and 35-64 were more likely to view this as a valuable role compared to those who were 65 and older. In contrast, when it came to the role of prescribing medications, the younger populations of those aged 18-34 and 35-64 were more likely to view this as a valuable role compared to those who were 65 and older.

PERCEPTION OF PHARMACISTS' ROLES



MOST VALUABLE FUTURE ROLES OF PHARMACISTS BY LOCATION TYPE

*Fisher's exact test, p < 0.040

Note: Survey respondents reporting "other" pharmacy location used specified three roles they viewed to be top for pharmacists in the future: review medications, manage medications, and administer injectable medications. Two survey respondents reported "other role not listed" as being top future roles.

Like the assessment by age, roles that were believed to be most valuable were similar across all pharmacy location types. The only role with a significant difference based upon the type of pharmacy location used by respondents was reviewing medications. In particular, among the top future roles selected by respondents, only 27% of those using independent pharmacy locations believed reviewing medications would be considered a highly valuable role in the future. This compares to 39% for mass merchant, and approximately 43-46% for retail chain, grocery store and outpatient client pharmacy location types.

TESTING FOR CHRONIC CONDITIONS AND CARE COORDINATION

LIKELIHOOD AND COMFORT WITH SCREENINGS PERFORMED BY PHARMACISTS



In this assessment, respondents were requested to imagine they were a patient diagnosed with a chronic condition such as diabetes, high cholesterol, or high blood pressure and were asked how comfortable they would be with a pharmacist performing tests at a pharmacy. In a separate question, respondents were also asked how likely they were to have a pharmacist perform these tests. This assessment combines respondents' likelihood and comfort with receiving these tests from a pharmacist.

- Overall, 74% of respondents were comfortable or very comfortable with receiving screenings at a pharmacy. The majority were also likely or very likely (62% for Hemoglobin A1c [HbA1c], 69% for cholesterol, and 80% for blood pressure) with receiving screenings at a pharmacy. Screening for blood pressure through measurement at the pharmacy was the screening test that respondents were both highly likely to receive and most comfortable with. In contrast, testing for Hemoglobin HbA1c had the highest number of respondents least likely and most uncomfortable with receiving. However, 62% of the respondents stated that they would be very likely and highly comfortable with receiving HbA1c tests from pharmacists. As a result, those who are comfortable are also more likely to receive various tests at the pharmacy and the opportunity for the profession is to help consumers and patients feel more comfortable about receiving services from pharmacies.
- Post hoc testing was also completed to assess the level of comfort with pharmacists performing tests based upon the type of pharmacy location. The results had no statistically significant differences indicating that consumers were comfortable with pharmacists performing tests no matter what location the pharmacist is at.

TESTING FOR CHRONIC CONDITIONS AND CARE COORDINATION

LEVEL OF COMFORT WITH PHARMACIST CHANGING DOSES AND MEDICATIONS 100% -Verv uncomfortable 80% Uncomfortable 60% Comfortable 40% Very 20% comfortable 0% Uncomfortable Comfortable Uncomfortable Comfortable Changing Doses Changing Medication

In this assessment, respondents were requested to imagine they were a patient diagnosed with a chronic condition such as diabetes, high cholesterol, or high blood pressure. They were asked how comfortable they would be with a pharmacist working with their prescriber to change the dose of their medication and, a separate question, asking their level of comfort with a pharmacist changing their medication. Both scenarios would be for the purpose of improving their treatment.

Whether it was changing the medication completely, or changing the dose, almost 70% of respondents indicated they were comfortable or very comfortable with the pharmacist making these changes.



Section 2: PHARMACY READINESS FOR OUTCOMES-BASED MEASUREMENT

INTRODUCTION

Whether you are a payer, a government agency, a healthcare provider, or health system, many recognize the increasing need to drive value by maximizing outcomes with cost effective approaches. For those looking to fulfill this need, community pharmacies can represent a unique opportunity by being highly accessible to impact medication outcomes coupled with often comparatively lower site of care costs. As a result, it becomes important to assess how prepared community pharmacies are if payers and providers were to begin collaborating with community pharmacies for outcomes or value-based contracts.

To help keep the marketplace informed on the progress and advancing capabilities, annually, we'll track the readiness across the community pharmacy setting for accepting and supporting programs related to improving specific outcomes for chronic diseases.

SURVEY APPROACH & RESPONDENT DEMOGRAPHICS

- A total of 40 pharmacy organizations, representing approximately 90% of all community pharmacies within the United States, were surveyed representing national and regional chains and groups of independents through respective Pharmacy Services Administrative Organizations (PSAOs). The survey was administered to various organizations representing community pharmacies and not individual pharmacies.
- A total of 19 (47.5%) completed the survey.
- Those completing the survey represent a total of 29,100 community pharmacies which translates to approximately 45% of all community pharmacies in the United States.
- The individual with the most applicable responsibility or oversight related to performance and quality measures responded to the survey for the organization.

DEFINITIONS USED FOR THE SURVEY

QUALITY MEASURES

Throughout the survey, "**quality measures**" were defined as quality standards to which the organization is held (either directly or indirectly). The measures may or may not be tied to financial incentives.

DEFINITIONS USED FOR THE SURVEY CONTINUED

Additionally, measures were classified as intermediate outcome or outcome measures. The following were definitions and examples of each type of measure:

INTERMEDIATE OUTCOME

"Intermediate Outcome" refers to a change produced by a health care intervention that may lead to an improved potential impact to a medical or health-related outcome.

Medication adherence (lowers risk of developing disease and related complications)

OUTCOME

"Outcome" refers to a change produced by a health care intervention that leads to a longer-term medical outcome

- Reduction in blood pressure (lowers the risk of cardiac infarction or stroke events)
- Reduction in Hemoglobin A1c (lowers the risk of developing diabetes and diabetes complications)

TYPES OF PHARMACY ORGANIZATIONS COMPLETING SURVEY



PERFORMANCE-BASED REIMBURSEMENT APPROACHES

CONFIDENCE AND MEASUREMENT TYPES



- Respondents were asked to select which type of quality measures they would be most confident in if their organization were held financially responsible based upon their performance.
- Not surprisingly, the respondents were most confident in intermediate outcome quality measures which is most likely due to the fact that these measures are the most common in the marketplace. In contrast, 11% of the respondents selected they would feel most confident with financial accountability tied to outcomes-related measures. Combining these respondents with those who selected being most comfortable with both intermediate and outcomes-related measures, indicates that 43% of the respondents are expressing confidence in being held accountable for outcomes-related measures.





Note: The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses. Scale: 1=Least Confident, 6=Most Confident. POS = Point of Sale

- Respondents were asked about a scenario where their organization and/or pharmacies were being evaluated on either intermediate outcome or outcome related quality measures where a corresponding reimbursement was associated with performance. Respondents were asked to rank the six different scenarios from 1-6 with the highest ranking indicating the scenario with the most confidence.
- The two reimbursement approaches that were ranked highest were actually more of a hybrid type of reimbursement where there is some baseline level of payment as fee for service, but coupled with a payment at year end that could be associated with the pharmacy's year-end performance. One respondent commented that they were open to performance-based reimbursement but had selected Fee for Service to ensure there was an understanding that reimbursement for products dispensed would still be necessary when undertaking new performance-based contracting approaches.
- Overall, the trend indicates that respondents were more confident when payments were more timely with most still desiring to have some component at the point of sale to ensure some baseline level of reimbursement was occurring.

CAPABILITIES AND TRAINING NEEDS TO SUPPORT OUTCOMES-BASED INITIATIVES

TESTING CAPABILITY AND FUTURE PLANS TO SUPPORT



CAPABILITIES AND TRAINING NEEDS TO SUPPORT OUTCOMES-BASED INITIATIVES

- Respondents were asked to indicate the current and future capability that patients have if they request to receive testing for lab or biometric data. The testing capabilities were specifically related to blood pressure, HemoglobinA1c (HbA1c), and cholesterol levels within their pharmacy(ies).
- For capabilities for patients to monitor blood pressure, only 5% of respondents indicated that patients do not have a current capability. However, those respondents also indicated that while there are no current capabilities, they plan to offer blood pressure screening within the next 3 months. The vast majority of respondents, almost 95%, indicated that patients have the current capability to test blood pressure while at the pharmacy, with 26% indicating that pharmacists and pharmacy staff recommend patients to test.
- For HbA1c and cholesterol testing capabilities, approximately 43% and 52% respectively, said patients currently have the ability to test at the pharmacy. Thirty-two percent and 26% respectively said patients don't have the capability to test with no plans to support in the future. However, 26% of respondents stated that while patients don't currently have the capability to test for HbA1c at the pharmacy, they plan to support within the next 12 months.



CAPABILITIES AND TRAINING NEEDS TO SUPPORT OUTCOMES-BASED INITIATIVES

PERFORMANCE MEASURE TYPE AND LIKELIHOOD TO CONTRACT WITH PAYERS



Respondents were asked how likely they would be to contract with payer if their organization were offered to be reimbursed on a new program or initiative related to either intermediate outcome or outcome related quality measures.

While the vast majority of respondents were somewhat or very likely to support either type of quality measures for a new initiative, there was only a minor difference (10%) among the respondents who said they were very likely to support an outcomes-related quality measure initiative compared to initiatives related to intermediate-outcomes.



CAPABILITIES AND TRAINING NEEDS TO SUPPORT OUTCOMES-BASED INITIATIVES

TIMELINE TO SUPPORT NEW PROGRAMS BASED UPON MEASURE TYPE



 Respondents were asked how quickly they would be able to support these new initiatives if their organization contracted with payers on new initiatives involving intermediate outcome or outcome-based quality measures.

As most initiatives today between payers and pharmacies involve intermediate-outcome quality measures, it is not surprising that many respondents (84%) indicated they currently have the ability to support these types of initiatives. However, as initiatives involve outcomes-based quality measures, longer timelines are required. Despite 32% of respondents indicating they also have the current ability to support outcomes-based quality measures of approximately 12 months, with 16% indicating a

CAPABILITIES AND TRAINING NEEDS TO SUPPORT OUTCOMES-BASED INITIATIVES



SOFTWARE CAPABILITIES RELATED TO SUPPORTING OUTCOMES-BASED MEASUREMENT

- As lab values and biometric screening results are key elements supporting outcomebased quality measures, respondents were asked to consider the current capabilities of their pharmacy management and dispensing software systems. In particular, respondents were asked how capable their current system is to record and track lab values.
- Many respondents may have considered either their current software system or thirdparty software systems that integrate with their respective pharmacy management system.
- The vast majority, 63% believed their current system is already somewhat capable but would need enhancements in order to maximize the ability to record and track lab values. Twenty-six percent of respondents also reported being unsure about current capabilities while just over 10% of respondents indicated that their current system is capable and the system is currently tracking lab values when available. This question will represent a key assessment to track over time as pharmacies adopt new standards for interoperability and data exchange among other providers, payers, and health systems.

CAPABILITIES AND TRAINING NEEDS TO SUPPORT OUTCOMES-BASED INITIATIVES

TRAINING NEEDS ASSOCIATED WITH OUTCOME-BASED MEASURES



Note: Results are rounded to the nearest whole number

While many respondents indicated being somewhat or highly likely to contract with payers on new initiatives related to outcomes-based measures, many organizations recognized the need for additional training and education for pharmacists and pharmacy staff.

- In fact, approximately 37% of respondents indicated that a substantial amount of training was needed for staff to understand outcomes-based quality measures. However, almost one-third of respondents believed only a little amount of training was necessary with 11% indicating that no additional training was necessary at all.
- While the amount of training needed to support outcomes-based measures may vary by respondent and organization, the results underscore that standard approaches to measurement will be needed to help minimize the variability associated with specific types of outcomes-based quality measures.

Section 3: **PAYER CHALLENGES AND OPPORTUNITIES WITH PERFORMACE IMPROVEMENT**

INTRODUCTION

Common to all payers is an underlying, fundamental goal to improve the lives of those they serve. As many payers have embarked on this mission to improve the experience and optimize the health of their individual members, quality measures have become an integral way to assess how well they are impacting and improving their core goals.

However, as new efforts and multifaceted strategies are deployed, there's an important need to help share best practices and learn from the strategies that have been implemented. The Trend Report in Pharmacy Quality will annually assess these strategies and monitor how they change, so payers and providers alike can continue to recognize opportunities for patients to optimize care.

The following section contains key insights from payers related to the types of providers and provider programs they have implemented to maximize performance, the challenges that continue to make performance improvement difficult, and an understanding of which challenges they have been most successful in overcoming. Additionally, this section also highlights current and future possibilities for partnering with community pharmacies on approaches related to performance improvement.

SURVEY APPROACH & RESPONDENT DEMOGRAPHICS



*Covered lives from PBMs were removed from the total amount of covered lives to prevent double counting the number of ensured lives

PAYER ORGANIZATION BY TYPE



Organizations were asked to have the individual with the most applicable responsibility or oversight related to quality measures and value-based contracting with network providers respond to the survey for the organization.

DEFINITIONS USED FOR THE SURVEY

- Throughout the survey, "quality measures" were defined as quality standards to which an organization is held (either directly or indirectly) (e.g. by an external regulatory agency). The measures may or may not be tied to financial incentives (e.g., could be reported on a quality rating report publicly available and/or be associated with bonus payments based on performance). Examples of government-regulated programs with quality measures may include the Medicare Star Ratings System, a Quality Rating System for Healthcare Exchange/Marketplace, or Managed Medicaid.
- In some questions of the survey, quality measures were classified as access/structural, process, intermediate/ surrogate, outcome, or patient experience.
- A "**provider**" in the survey referred to any individual or organization that can provide healthcare services which are either in-network OR out-of-network.

QUALITY MEASURES & CHALLENGES AND SUCCESSES WITH PERFORMANCE IMPROVEMENT



Is your organization accountable for performance/outcomes related to quality measures and evaluated according to certain thresholds?

PERCENTAGE OF ORGANIZATIONS HELD ACCOUNTABLE TO QUALITY MEASURE PERFORMANCE*



| Yes |
|-----|
| |

No

Note: N=17. *Even those that responded with "No" are likely still responsible through indirect accountability.



To what type of quality measure(s) is your organization held accountable?

QUALITY MEASURES WITH ACCOUNTABILITY*

Intermediate/ Surrogate outcomes measure(s) (e.g., medication adherence)

Process measure(s) (e.g., annual flu vaccine, MTM, CMR Completion)

Patient Experience Measure(s) (e.g., CAHPS surveys

Access/ Structural measure(s) (e.g. ratio of providers to patients, use of electronic medical records)

Outcome measure(s) (e.g., surgical complicatons, surgical mortality rates)



Note: N=14 as not all respondents indicated their organization was directly accountable for performance/improvement related to quality measures. MTM=Medication Therapy Management, CMR=Comprehensive Medication Review, CAHPS=Consumer Assessment of Healthcare Providers and Systems. *Respondents were able to select all that applied, therefore a given percentage does not represent the percentage of respondents but the number of times the selection was chosen.

CHALLENGES AND SUCCESSES WITH PERFORMANCE IMPROVEMENT

BACKGROUND

Respondents were presented with a list of 13 identified challenges, including an "other" response option where respondents could provide additional challenges associated with performance improvement. The challenges may not incorporate all challenges an organization may identify. The list was developed through common challenges identified in published literature or other publicly available reports that had been commissioned by government agencies such as the Centers for Medicare and Medicaid Services.

There were three different questions involving these challenges whereby respondents were first asked to select all factors that represented their greatest challenges with performance improvement. Respondents were then asked to identify which of the challenges they had previously identified and believed were most successful in overcoming over the past two (2) years. Lastly, respondents were asked to select which challenges they have been unable to overcome over the past two (2) years. The graph on the next page incorporates the responses of all three responses.

CHALLENGES AND SUCCESSES WITH PERFORMANCE IMPROVEMENT

Provider awareness and understanding quality measures

Aligning quality improvements across various external providers

Ability to invest in dedicated resources for performance improvements

The evolving reimbursement landscape related to performance with quality measures

Understanding which intervention(s) has the greatest impact

Coordinating care for high cost/high utilizer members with low health literacy

Lack of timely data from external data sources (e.g., hospitals, providers)

Member education related to covered benefits

Collecting data from disparate sources

Aligning quality measure improvement within the organization

Complying with growing list of quality and performance measures**

Complying with regulatory requirements

Other*



Note: N=14. *Other comments were: Member health literacy, budget constraints, measures not designed or adjusted for at risk populations. **Was not a response option for most successful or unable to overcome. ^Respondents were able to select all that applied, therefore a given percentage does not represent the percentage of respondents but the number of times the selection was chosen.

VALUE AND OUTCOMES-BASED CONTRACTING



With which provider(s) do you have a value-based or outcomes-based contract(s) that involve quality measures? (select all that apply)

PROVIDER TYPES WITH VALUE OR OUTCOMES-BASED CONTRACTS





Note: N=13 as not all respondents had value or outcomes-based contracts in place with providers. Respondents indicated that these contracts were with in network providers where some respondents had contracts for preferred providers (100%), while some also had contracts non-preferred providers (54%). PT=Physical Therapy, OT=Occupational Therapy. *Respondents were able to select all that applied, therefore 85% does not represent the percentage of respondents but the number of times the selection was chosen.



VALUE AND OUTCOMES-BASED CONTRACTING



Of the provider(s) with whom you have a value-based or outcomes-based contract(s), what reimbursement structure(s) are used? (Select all that apply.)

PROVIDER REIMBURSEMENT APPROACHES WITH VALUE OR OUTCOMES-BASED CONTRACTS



Upside Benefit: E.g., providers are eligible to earn all or a percentage of any healthcare savings their care incurs; no risk/ penalty for not meeting performance thresholds, just missed bonus amount

Two-sided risk: Combination of upside benefit and downside risk

Downside risk: E.g., providers who incur actual care costs for a care episode or patient that go over the financial benchmark must refund the payer for all or a portion of the losses; withheld amount whereby provider performance determines the percentage of withheld dollars that can be earned back

N=11. *Respondents were able to select all that applied, therefore 90% does not represent the percentage of respondents but the number of times the selection was chosen.



When reviewing the impact of your organization's value-based or outcomes-based contract(s) with provider(s), how would you rate the success of your programs at achieving the intended goals?



PAYERS & COMMUNITY PHARMACIES



Which quality measure(s) do you believe community pharmacies can influence? (Select all that apply.)

MEASURES WITH PERCEIVED INFLUENCE BY COMMUNITY PHARMACIES

Medication adherence for hypertension (RAS antagonists)

Medication adherence for diabetes medications

Annual flu vaccine

MTM program completion rate for CRMs

Medication adherence for cholesterol (statins)

Diabetes care - blood sugar controlled

Statin use in persons with Diabetes (SUPD)

Statin therapy for patients with cardiovascular disease

Medication reconciliation postdischarge

Controlling blood pressure

Care for older adults medication review

Consumer assessment surveys (i.e., CAHPS)

Health outcomes survey (HOS)

Adult body mass index (BMI) assessment



Note: N=12. *Respondents were able to select all that applied, therefore a given percentage does not represent the percentage of respondents but the number of times the selection was chosen.

PAYERS & COMMUNITY PHARMACIES



If community pharmacies could submit agreed upon evidence of biometric test results or physical assessment findings for a quality measure in accordance with data source mandates (e.g., point of care testing for hemoglobin A1c and submit testing results; blood pressure measurement for blood pressure control), how likely are you to contract with community pharmacies to perform the service?



LIKELIHOOD TO CONTRACT WITH PHARMACIES FOR SERVICES SUPPORTING OUTCOMES*

Note: N=12, *Many outcomes-based quality measures payers are accountable to specify acceptable sources data sources which do not commonly include community pharmacies. In this survey question, payers were asked to assume these data sources were allowable according to the measure specifications and were asked to report their likelihood to contact with pharmacies based upon this understanding.

PQS INDUSTRY TREND REPORT 2019 PART 2: Data Driven Insights & Performance Trends

INTRODUCTION TO PART 2 - DATA INSIGHTS

Humans are skilled at identifying problems. Solutions, however, are another matter entirely. How often does one hear "the problem is" or "the issue is", with no suggestion of how to find answers needed to solve it? The truth is that we have a lot of difficult-to-solve problems which require teamwork, dedication, passion for meaningful change, and—especially in today's environment-DATA.

One persistent problem in the healthcare marketplace is nonadherence. Despite the best efforts of prescribers, pharmacists, payers, and others, people still do not take their medications as prescribed. For people with chronic conditions, nonadherence can mean avoidable medical expenditures and unnecessary disease progression.

For example, in a recent study published in Medical Care, Medicare could save \$13.7 billion annually if just 25% of non-adherent enrollees became adherent.¹ Additionally, the study estimated that this improvement in adherence could save well over 100,000 emergency department visits and 7 million inpatient hospital stays. Our goal with this Trend Report is to take frequently asked questions involving nonadherence and examine them under the lens of data to illuminate causes and risk-factors to propose solutions.

1. Lloyd J, Maresh S, Powers C, Shrank W, Alley D. How much does medication nonadherence cost the Medicare fee-for-service program? Med Care. 2019; 00: 1-7.

As an example, for one of the questions explored in this report, I'd like to introduce you to a man named Joe whom I met at a dog park in Southern California where I was visiting with family. In chatting with Joe, he stated he has been 100% adherent with his morning walks with his dog. In fact, he said he has not missed a day walking with his dog in the park for the last 10 years. As I was getting to know Joe and as he learned I was a pharmacist, Joe said, "I have a complaint about you pharmacists, especially the one who works for my insurance company." He said, "I've been a diabetic for the last 15 years and I go to the doctor like clockwork. My cholesterol has always been good and not even close to being high, yet the pharmacist said I needed to take a statin."

Joe did not believe it. He did not understand why it was important to have the statin. I asked how old Joe was and it was clear he falls within the guidelines as a diabetic between 40-75. As a result, Joe said he tried to take his statin, but if he missed a dose, he did not think it was that important since in his mind's eye he did not really need to take it anyways. How many others are like Joe? Could we learn something that may change the approach we take?

In the above example, data helped quantify the problem at hand, but it still leaves us all with a problem and a question: How do we improve medication adherence?

Examples and problems like these helped PQS see the need for greater discovery, so we can help all medication-use stakeholders and lead to better solutions for the growing list of problems and questions. As a result, PQS was thrilled to recently establish a new data science department to help our clients and industry partners create solutions to persistent problems. One of our first steps in showcasing our new capabilities and highlighting the importance of helping us all learn better together has been the launch of Part 2 for the PQS Trend Report in Pharmacy Quality. In Part 2 of the Trend Report, PQS has compiled results and answers to several different questions or potential factors related to medication adherence.

Here at PQS we have a lot of questions, and we've shared answers to some of those questions in our first Trend Report. We know you all have questions too, and we would like to hear from you! What additional questions do you have that we can incorporate into future analyses or discoveries? What questions do you have or stories like Joe's that make you wonder if there's an impact across larger populations?

Please send us a note at TrendReport@pharmacyquality.com. We look forward to hearing your feedback and learning about what you found impactful. We are excited about working together to help us all move from data to discovery through questions and problems, and we want to all collaboratively learn to give people the support and care they deserve.

TODD SEGA, PHARMD

SVP, Development & Strategy Pharmacy Quality Solutions, Inc.

EXECUTIVE SUMMARY

PQS has been privileged to work with pharmacies and pharmacy organizations representing more than 90% of all community pharmacies and managed care organizations representing four out of every five covered Medicare Part D lives. By having such a broad and expansive set of engaged stakeholders, we are excited to begin our next phase of work to help people receive the highest quality of care. We aim to help industry stakeholders learn about factors influencing enrollees' behavior and actions that payers and providers may take to improve performance.

The initial set of questions and insights for Part 2 of the PQS Trend Report were provided by our managed care and pharmacy partners, building off some of our most frequently asked questions. Part 2 focuses on better understanding potential risk factors impacting medication-related quality measures. Each analysis contains the problem or question that was posed, the data that was used, the analytic methods, and findings with potential implications. We aim to provide our stakeholders with information which may guide decision making or lead to additional questions for what can be explored. We look forward to collaboratively learning, so enrollees can receive the highest quality of care.

Unless otherwise stated, each analysis is looking at full calendar year 2018 adherence data where adherence is as defined by PQA/Medicare specifications and population adherence is the proportion of people having medication covering 80% or more of eligible days.

A HIGH-LEVEL SUMMARY OF EACH ANALYSIS:

- Enrollees with diabetes have significantly higher statin adherence than do enrollees without diabetes, a difference of 0.33% for Medicare and 3.64% for Medicaid.
- Enrollees affected by the ongoing angiotensin II receptor blocker recall had 0.73% higher year-end adherence than those not affected by the recall.
- Medicare beneficiaries who go to multiple pharmacies have higher or lower adherence than those who go to a single pharmacy depending on their condition, income, and plan. For enrollees without a low-income subsidy, the effect is positive, while for enrollees with a low-income subsidy, the effect is negative.
- Medicaid population adherence steadily increases from ages 25 to 60, and Medicare adherence increases from ages 65 to 71 and then decreases onwards across Diabetes/ RASA/Cholesterol PDC measures.
- Medicare beneficiaries who have discontinuous care (newly qualifying, switched payers, or did not have enough claims to qualify for the measure the previous year) have population adherence that is on average 7.6% lower for Diabetes, 5.9% lower for RASA, and 7.4% lower for Cholesterol.
- Those who are adherent to their antidepressants have 24% higher adherence for diabetes medications, 28% higher adherence for RASA medications, and 29% higher adherence for statins. Similarly, those who are adherent to their antipsychotics have 18% higher adherence for diabetes medications, 26% higher adherence for RASA medications, and 26% higher adherence for statins.

Project led by:

Technical Advisor:

PETER MASTERS

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BEN URICK, PHARMD, PHD

Research Assistant Professor Center for Medication Optimization UNC Eshelman School of Pharmacy

WHAT SHOULD BE DIFFERENT OR INCLUDED IN NEXT YEAR'S REPORT?

If you have ideas or comments, we'd like to hear from you! If you'd like to participate and would be willing to serve as a resource for feedback on next year's report, please let us know. You can share your feedback or ideas at trendreport@pharmacyquality.com.

STATIN ADHERENCE IS HIGHER IN ENROLLEES WITH DIABETES



CHART NOTES

We collected enrollees' status as adherent or not to statins (PDC Statins), if the enrollee is taking statins because they're diabetic (Statin Use in Enrollees with Diabetes – SUPD), and their demographic info (line of business, date of birth, gender) for all enrollees qualifying for PDC Statins in 2018. We then created two cohorts: Medicare ages 65-75, and Medicaid ages 40-63. Using this info, we ran a multi-variate linear model measuring statin-adherence by age and diabetic status.

Statins effectively prevent complications from cardiovascular disease, the most common cause of death in the US. Additionally, lower adherence to statins increases hospitalization rates and expenditures.² As enrollees for whom statins are recommended have expanded in recent years, there are questions as to the impact of comorbid conditions on medication adherence. Specifically, there is insufficient knowledge on the adherence to statins among diabetic enrollees as compared to enrollees without diabetes. If statin users who take diabetes medications, this may cause concerns among those seeking to maximize statin use in enrollees with diabetes as maximizing this measure may adversely impact statin adherence scores. However, if the opposite is true, this would lead to an added incentive to maximize statin use.

To explore these possibilities, we defined two populations for those who qualify for the statin use in enrollees with diabetes measure: Medicare (Age 65-75; N=5.6 million) and Medicaid (Age 40-63; N=0.2 million). Within each of these populations, we defined two cohorts: 1) statin users who also had at least two diabetes medication fills; and 2) statin users who had no diabetes medication fills. To control for the impact of age on medication adherence, we stratified the cohorts by age as of end of the measurement year and compared adherence between cohorts across each age category.

Overall, 5.6 million Medicare and 0.2 million Medicaid enrollees met eligibility criteria for this analysis. Enrollees who qualified for the statin use in persons with diabetes make up 31% of the Medicare statin measure population and 45% of the Medicaid statin measure population. We observed that medication adherence is consistently higher among enrollees who use both statins and diabetes medications than statins alone. Controlling for age, the average difference between statin users who also used diabetes medications and those who did not was 0.33% (p-value << 0.05) for Medicare and 3.64% (p-value << 0.05) for Medicaid. Although these results are cross sectional, it suggests that there may not be significant concern for negative impacts on the statin adherence measure when diabetic enrollees are encouraged to initiate statin use.</p>

A primary concern of providers and measures focused on "gaps in care" has been the additional enrollees being eligible for medication adherence measures and therefore, could also lead to additional enrollees who are nonadherent. Greater adherence to statins among enrollees who also use diabetes medications warrants additional research. For example, does this statin adherence continue over a longer period? If this finding holds among diabetes medication users who newly initiated statins because of changes in the cholesterol treatment guidelines, would a similar effect be seen for other "gaps in care" measures and trends for medication adherence? Finally, providers have at times struggled with closing the statin therapy gap and may have difficulty collaborating with prescribers to get enrollees initiated on a statin therapy.

2. Bitton A, Choudhry N, Matlin O, Swanton K, Shrank W. The impact of medication adherence on coronary artery disease costs and outcomes: a systematic review. Am J Med. 2013; 126(4): 357.e7-357.e27.

PEOPLE AFFECTED BY ARB RECALL HAD HIGHER RASA ADHERENCE COMPARED TO THOSE WHO WERE NOT

RASA YTD POPULATION ADHERENCE BY RECALL EXPOSURE



| Exposed to Recall |
|--------------------------------|
| Not Exposed to Recall |
| Pre-Recall Difference (+0.39%) |
| Adjusted Difference (+0.73) |

CHART NOTES

Using a list of impacted NDCs definition is based on the NDC and year-end adherence in

- In July of 2018 the FDA began a recall of some angiotensin 2 receptor blockers (ARBs) containing trace possible carcinogens. Medication recalls can be very disruptive for enrollees, and this disruption may manifest in the form of reduced medication adherence. Knowledge of how recalls can impact adherence may guide prescribers, pharmacists, and health plans as they consider future recalls and coordinating new prescriptions completely or switching to medications from different manufacturers.
- To explore this possible impact, we compared the difference in 2017 and 2018 end-ofyear RASA adherence between people who took ARBs who were and were not affected by the recall. This allows us to explore the impact of the recall while controlling for any baseline differences that may have existed between these populations before the recall occurred.
- Of people who took ARBs, those affected by the recall (N=1.82 million) had significantly higher year-end adherence than those not affected by the recall (N=1.92 million). We found that the population impacted by the recall had an adherence score that was 0.73% (95% confidence interval 0.63-0.84) greater than those who were not affected.
- The finding that adherence went up among the population impacted by the recall is surprising. One possibility for this finding is that the data source for measuring adherence among the recall-exposed enrollees is biased as they could have days covered by medication that they returned to the pharmacy or altogether discarded and then received fills of an alternative RASA medication which added to the total covered days during the period. Alternatively, it could be that pharmacists reaching out about the recall resulted in more enrollee interactions and could have prompted enrollees to be reminded about the importance of remaining adherent to their RASA medications leading to higher adherence. Regardless, there does not appear to be a strongly negative impact of the mass recall on RASA adherence in 2018.
- While this performance data showed that adherence may have increased for enrollees impacted by the recall, providers and health plans should continue to develop strategies related to medication recalls that may be impacting enrollees who take medications for a chronic therapy. Additional research could be considered to determine how pharmacies, prescribers and health plans address medication recalls, trends in medications that are interchanged with those impacted by the recall and time to initiate an enrollee on a new therapy post-recall. When recalls for medications continue to occur, additional research findings could also evaluate how these recalls may impact overall adherence rates for a measure (such as the RASA PDC measure) and any impact this may have on benchmarks, such as the CMS Star Ratings.

MEDICARE ENROLLEES WHO GO TO MULTIPLE PHARMACIES HAVE HIGHER OR LOWER ADHERENCE THAN ENROLLEES WHO GO TO A SINGLE PHARMACY DEPENDING ON THEIR CONDITION, INCOME, AND PLAN



CHART NOTES

To explore the impact of multiple pharmacy use, we collected for given enrollees their status as adherent or not adherent to the Diabetes/RASA/Cholesterol PDC measures, how many different pharmacies they had claims at this year (by NPI), and what their line of business was through their payer to get plan info and income level. The adherence for those who go to multiple pharmacies compared to enrollees who go to a single pharmacy is +4.43% at baseline, but PDP enrollees have lower observed adherence than MAPD enrollees (-1.53%), and enrollees with low-income subsidy have lower observed adherence than those without a low-income subsidy (-4.00%). RASA users have lower observed adherence than those who take non-insulin diabetic medications (-2.52%), and statin users also have lower observed adherence than those who take non-insulin diabetic medications (-2.76%).

People may travel seasonally or throughout the year for various reasons. Care continuity can be challenging for pharmacies and payers when enrollees that do not consistently use the same pharmacy or prescribers throughout the year. For people who do move around or receive care in multiple areas, it can become important for their pharmacist to reinforce the importance of maintaining adherence and planning for travel with enrollees to ensure consistent care can be provided. The first step is understanding how use of multiple pharmacies may impact medication adherence scores.

Among the data set used for analysis, a total of 5.0 million enrollees qualified for the diabetes adherence measure and approximately 1.0 million receive non-insulin diabetes medications from multiple pharmacies (20%). Of the 15.2 million RASA enrollees, 2.9 million received target medications from multiple pharmacies (19%). Of the 16.4 million cholesterol enrollees, 3.0 million received target medications from multiple pharmacies (18%).

Every condition, income and plan combination has significantly different population adherence for Medicare beneficiaries who go to multiple pharmacies than enrollees who go to a single pharmacy, except for people with a standalone Prescription Drug Plan (PDP) and those who qualify for the RASA adherence measure. For enrollees without a low-income subsidy, the affect is positive, while for enrollees with a low-income subsidy the affect is negative.

The incidence rate of going to multiple pharmacies for Medicare beneficiaries is substantial and therefore could have an impact on how both pharmacies and health plans develop adherence resources for their enrollees. Enrollees with a lower socio-economic status may tend to have barriers to adherence and it could be further determined if going to multiple pharmacies is a factor that exacerbates nonadherence. These findings could also be considered with quality measure design or specifications. Enrollees using multiple pharmacies for the current set of medication-related quality measures are generally attributed to the pharmacy that fills most of their prescriptions. However, acknowledgement that enrollees may have varying levels of adherence when using multiple pharmacies could warrant considerations for measurement or program designs.

ENROLLEES WITH DISCONTINUOUS CARE HAVE LOWER ADHERENCE ACROSS MOST AGES

DIABETES ADHERENCE VS. Continuity of care by Age



RASA ADHERENCE VS. Continuity of care by age



CHOLESTEROL ADHERENCE VS. CONTINUITY OF CARE BY AGE



CHART NOTES

Enrollees qualifying for each of the adherence measures throughout the 2017 calendar year were identified and compared to enrollees qualifying for the adherence measures throughout the 2018 calendar year. Enrollees were aggregated into two cohorts based upon enrollees without discontinuous care who were in the 2017 list and the other cohort as enrollees who had discontinuous care and were not in the 2017 list. Enrollee-level adherence was identified as adherent or not adherent and was coupled with demographic info such as eligibility, low-income subsidy level, and age. Within each cohort, enrollees were grouped by age in order to create population adherence plots. Each assessment on the adherence scores for each cohort was assessed across the three adherence measures representing 3.8 million, 11.4 million, and 12.3 million measure qualifying enrollees across the diabetes, RASA, and statin adherence measures, respectively, with average difference being calculated across ages.

Enrollees who have been taking the same medication and have had consistent insurance coverage year-over-year may already have a routine and established behavior of how they take their medications. Some of that behavior can be transferred across different payers and pharmacies. Enrollees who are newly diagnosed, newly covered on insurance, or newly qualify for a measure may not have the same routine which supports medication adherence. This can be a blank slate to create a lasting impact on the importance of remaining adherent and having a routine. Understanding if there is an impact on adherence for enrollees who newly qualify or newly enroll compared to enrollees with longer historical experience could represent new ways to target enrollees between payers and pharmacies.

Medicare enrollees who have discontinuous care** (newly qualifying, switch payers, or do not have enough claims to qualify for the measure the previous year) have lower adherence across most ages and the three PDC measures except at age 65 where an influx of people are new to Medicare. Medicare enrollees who have discontinuous care have population adherence that is on average 7.6% lower for Diabetes, 5.9% lower for RASA, and 7.4% lower for Cholesterol compared to Medicare enrollees with continuous care. Enrollees with discontinuous care make up approximately 40% of measure qualifying beneficiaries under 65, and approximately 30% of beneficiaries above 65.

While these findings suggest enrollees who maintain coverage and access tend to maintain adherence, could the same be considered for enrollees and the pharmacy that they use? These findings may suggest that an enrollee-centered approach where the enrollee utilizes the coverage and providers who they know and are comfortable with may help to improve their utilization of healthcare resources and potentially improve their health outcomes.

MEDICAID POPULATION ADHERENCE INCREASES WITH AGE WHILE MEDICARE POPULATION ADHERENCE PEAKS AROUND AGE 71



CHART NOTES

Enrollee level adherence scores were assessed along with the corresponding age of each enrollee as of December 31, 2018. Adherence and age were assessed across the three PDC measures for Medicare representing 5.2 million enrollees qualifying for the diabetes adherence measure, 15.2 million enrollees qualifying for the RASA PDC measure, and 12.3 million enrollees qualifying for the cholesterol adherence measure. Across Medicaid, a total of 52 thousand, 124 thousand, and 109 thousand enrollees qualified for each measure respectively.

- If payers and providers had a clear view on the impact that age has on medication adherence, would outreach or initial education when newly starting therapy be approached any differently? Would the counseling, education and support from the pharmacy/payer/prescriber be targeted to a younger Medicare beneficiary compared to someone who is older if age had a high correlation to population adherence rates? Understanding the impact may help providers predict enrollees who may benefit from further interventions.
- To explore this question, we evaluated adherence trends by age for a cohort of Medicaidenrolled enrollees aged 25-60 and a cohort of Medicare-enrolled enrollees aged 65 or older. Adherence was evaluated across the non-insulin diabetes medications, RASA, and cholesterol (i.e. statins).
- Medicaid population adherence steadily increases from ages 25 to 60, and Medicare adherence increases from ages 65 to 71 and then decreases onwards across the three PDC measures.
- Various studies have already evaluated differences with medication adherence and age. The information here may suggest that age, knowledge of disease state and complexity of disease may all be related to medication management and the quality of enrollee care that is provided. As further research is developed around age and impact on medication adherence, these factors could be considered as factors for risk adjustment.

MEDICAID ENROLLEES WHO ARE ADHERENT TO THEIR BEHAVIORAL HEALTH MEDICATION ARE MORE LIKELY TO BE ADHERENT TO THEIR OTHER MEDICATIONS

ADHERENCE TO ANTIDEPRESSANTS AFFECT ON OTHER ADHERENCE MEASURES



ADHERENCE TO ANTIPSYCHOTICS AFFECT ON OTHER ADHERENCE MEASURES



CHART NOTES

On behalf of WellCare (Medicaid data), PQS collected adherence rates for all enrollees qualifying for PDC Diabetes, PDC RASA, PDC Cholesterol, Anti-Depressants (NCQA-AMM), and Anti-Psychotics (NCQA-AAPDC) if applicable. Using this information, we compared the means of the different groups. Our null hypothesis is that adherence for the three PDC measures of adherent behavioral health enrollees is equal to non-adherent behavioral health enrollees. Our alternate hypothesis is that adherence for the three PDC measures of adherent behavioral health enrollees. Our alternate hypothesis is that adherence for the three PDC measures of adherent behavioral health enrollees is not equal to that of nonadherent behavioral health enrollees.

- Like understanding the "Adherer Effect" for an enrollee with routine medication regimens, it is also important to know if there are certain conditions that should be prioritized alongside diabetes, hypertension, and hypercholesterolemia. For example, improving adherence for antidepressants and other behavioral health medications may have a positive cascading effect on an enrollee's adherence to other medications. Understanding the relationship between adherence to cardiovascular medications and antidepressants as well as antipsychotics may help direct care and education for targeted interventions.
- The population of people who are adherent to their antidepressants have a population adherence rate that is 24% higher for diabetes medications, 28% higher for RASA medications and 29% higher for statins. The population of people who are adherent to their antipsychotics have a population adherence rate that is 18% higher for diabetes medications, 26% higher for RASA medications, and 26% higher for statins. These are all statistically significant except for the effect of being adherent to antipsychotics on diabetes medication due in part to a relatively small sample size.
- Enrollees who are being treated with medication for behavioral health may have additional complexity for adherence and/or gaps in therapy recommendations. Healthcare providers should consider prioritizing underlying issues, such as emphasizing the important of continual adherence to medication for behavioral health and attending therapy. Without addressing behavioral health conditions, there may be complications which make addressing adherence and interventions for other disease states less effective and not aligned with an enrollee-centered approach to healthcare services.



ABOUT PHARMACY QUALITY SOLUTIONS

You can't manage what you don't measure. At Pharmacy Quality Solutions (PQS), we believe that meaningful improvement is obtained in the presence of relentless measurement and that good measurement is timely, reliable, actionable, and simply understood. PQS is the leading provider of performance management services representing almost 80% of Medicare Advantage payers and 95% of community pharmacies. PQS delivers the quality insights and guidance necessary to support its customers' efforts to optimize the quality of medication management and use for their Medicare, Medicaid and commercial populations. PQS connects medication use stakeholders to actionable, quality information in a consistent and reliable fashion, allowing them to move more quickly from measurement to improvement. Its industry-leading platform, EQuIPP™, provides consistent and reliable measurement and reporting on key medication use quality measures, including addressing medication adherence, gaps in care, and patient safety.

WHAT SHOULD BE DIFFERENT OR INCLUDED IN NEXT YEAR'S REPORT?

If you have ideas or comments, we'd like to hear from you! If you'd like to participate and would be willing to serve as a resource for feedback on next year's report, please let us know. You can share your feedback or ideas at trendreport@pharmacyquality.com.



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