Piloting PQA Adult Immunization Pharmacy Measure Concepts in Payer-Pharmacy Partnerships

A report from the PQA Quality Innovation and Research Center (QuIRC)

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PQA

Introduction

As value-based arrangements (VBAs) between payers and pharmacies continue to proliferate, standardized pharmacy quality measures are vital to ensure programs work as intended for payers, pharmacies, and, most importantly, patients. PQA, the Pharmacy Quality Alliance, is committed to advancing standard pharmacy measures that meet this need.

In response to preferences identified during a 2021 PQA-convened multistakeholder summit, PQA previously completed a project exploring the use of an initial set of prioritized pharmacy measure concepts, focused on A1C control and improvement and blood pressure control and improvement, in payer-pharmacy VBAs.

To build on the learnings generated from that project, PQA launched a second proof-of-concept pilot focused on adult immunizations, which represents another highly prioritized area for pharmacy quality measurement. This work was completed with financial support from GSK, Johnson & Johnson, Pfizer, and Sanofi.

In this pilot, PQA studied the use of immunization measure concepts in payer-pharmacy VBAs to better understand pharmacy-payer data exchange, which strongly influences the feasibility of pharmacy quality measurement. Beyond this interoperability focus, the pilot also evaluated participants' performance on the measure concepts and gathered their feedback to refine the measure specifications. Finally, the pilot gathered broad learnings from participants to support future payer-pharmacy VBAs. The eight studied concepts are listed below.

Immunization Status Measure Concepts

1. Immunization Status: Adults – Influenza [Pharmacy]
2. Immunization Status: Adults – Td/Tdap [Pharmacy]
3. Immunization Status: Adults – Herpes Zoster [Pharmacy]
4. Immunization Status: Adults – Pneumococcal [Pharmacy]

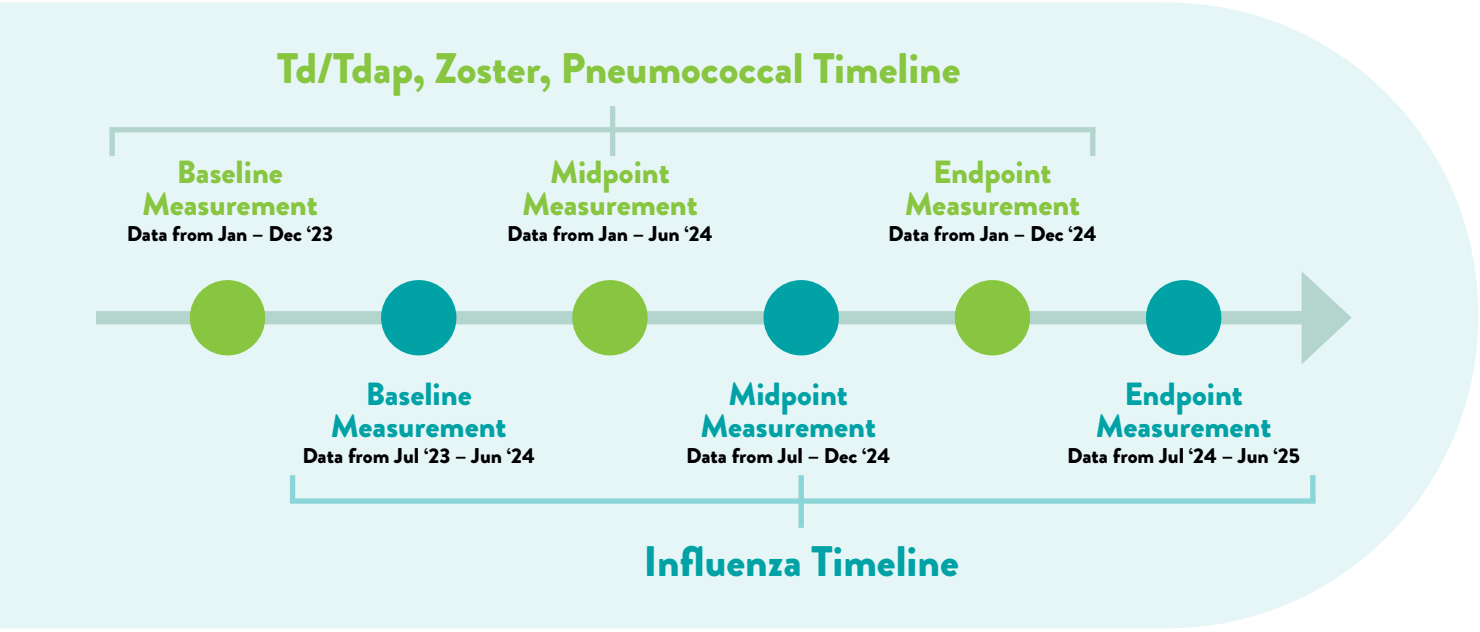
Immunization Gap Closure Measure Concepts

1. Immunization Gap Closure: Adults – Influenza [Pharmacy]
2. Immunization Gap Closure: Adults – Td/Tdap [Pharmacy]
3. Immunization Gap Closure: Adults – Herpes Zoster [Pharmacy]
4. Immunization Gap Closure: Adults – Pneumococcal [Pharmacy]

This work was conducted through the PQA Quality Innovation and Research Center (QuIRC) and leveraged the center's unique approaches to addressing challenges in developing, testing, and refining complex measure concepts.

Pilot Design

This pilot was structured around the calculation of eight measure concepts during three measurement periods (baseline, midpoint, endpoint) over a two-year span. These measurement periods aligned with calendar years except for influenza, where measurement periods were shifted to align with established influenza seasons.



During each measurement period, participants provided both their measure rate calculations and the underlying raw data to PQA. PQA calculated the measure rates independently and then compared PQA-derived results with participant-derived results in a validation process. Where discrepancies existed, PQA worked with participants to reconcile differences to produce final validated rates. This approach allowed PQA maximum visibility into the data available to participants while ensuring that reported rates were as accurate as possible.

Compared to many other services or medications, immunizations can be provided in a variety of settings spanning from a provider's office to a pharmacy to the workplace. This results in the generation of different types of data, which are often fragmented. To account for this, PQA intentionally structured the pilot to allow a broad set of data types (collectively referred to as value sets) to be used in measurement:

- **National Drug Codes** (NDCs) anticipated to be present on prescription claims
- **Common Procedural Terminology** (CPT) and **Healthcare Common Procedure Coding System** (HCPCS) codes anticipated to be present on medical claims
- **CVX** (vaccine administered) codes anticipated to be present in state immunization registries
- **Systematized Nomenclature of Medicine Clinical Terminology** (SNOMED CT) codes anticipated to be present in electronic medical records

Pilot Design

The characteristics of populations included in the pilot are provided below. Some differences in the number of patients and pharmacies between baseline, midpoint, and endpoint are expected due to data availability, changing network participation or plan eligibility, and other factors. The lines of business were primarily commercial for one participant and primarily Ohio Medicaid for the other two participants, in addition to a small number of beneficiaries within the Medicare Advantage line of business.

Participant	Baseline		Midpoint		Endpoint	
	Patients (N)	Pharmacy NPIs (N)	Patients (N)	Pharmacy NPIs (N)	Patients (N)	Pharmacy NPIs (N)
Participant 1	26,667	121	20,495	118	23,669	121
Participant 2	163,831	210	120,505	211	146,814	211
Participant 3	21,271	1,194	12,181	1,094	21,321	1,173

NPI = National Provider Identifier

Findings

Strong Interest in Payer-Pharmacy VBAs

Following the release of a Request for Interest to identify interested participants, PQA narrowed an impressive field of four payer organizations and seven pharmacy organizations down to two payer and two pharmacy participants: CareSource, in conjunction with CPESN Ohio pharmacies and Kroger pharmacies within Ohio; and Kroger Prescription Plans (a pharmacy benefit manager that administers prescription coverage for Kroger employees), in conjunction with Kroger pharmacies. The recruitment process underscored the widespread interest to engage in payer-pharmacy VBAs using standardized measures.

Measure Concept Feasibility is Strong, But Non-Claims Data Remain Challenging

Although PQA designed the pilot value sets for maximum data source flexibility, participants primarily relied on administrative claims. Myriad barriers, from lack of trust in immunization registry data to costs associated with data exchange infrastructure, made use of non-claims data (such as registry or clinical data) challenging. This insight is important because pharmacy quality measures must ultimately be usable in payer-pharmacy VBAs.

The measure rate validation process was critical to fully understanding measure feasibility and the underlying data sources used for measure calculation. Ultimately, PQA achieved near-perfect agreement (i.e., 99.99% - 100%) with both participants. These results not only highlight the benefit of having a measure steward like PQA validate that measures are being accurately calculated but also demonstrate promising feasibility and clarity of the measure specifications.

Findings

Limited Pharmacy Impact on Immunization Status and Gap Closure Measure Rates

Participant performance rates demonstrated limited improvement from baseline to endpoint. Participants were not surprised by these results and cited increased vaccine hesitancy and broad challenges to immunization gap closure in the past year. These sentiments are consistent with publicly available data that suggest nationwide declines in influenza immunization coverage from 2023-2024 to 2024-2025, which may also be extrapolated to other immunization types. However, two participants demonstrated modest improvement from baseline to endpoint for the Td/Tdap immunization status measure concepts. Due to the age criteria of the pneumococcal immunization gap closure and status measure concepts (65+), denominator sizes were small across all participating pharmacies in the primarily Ohio Medicaid population; therefore, measure rate results for these measure concepts have been omitted.

Final Mean Rate Results and Comparison

Participant	Immunization	Immunization Gap Closure Measure Results			Immunization Status Measure Results		
		Baseline Mean	Endpoint Mean	Absolute Change	Baseline Mean	Endpoint Mean	Absolute Change
Participant 1	Td/Tdap	6.94	7.23	+ 0.29	32.45	35.20	+ 2.75
	Herpes Zoster	2.20	2.05	- 0.15	11.35	11.59	+ 0.24
	Influenza	19.21	12.27	- 6.94	19.21	12.27	- 6.94
Participant 2	Td/Tdap	7.77	8.33	+ 0.56	34.28	39.08	+ 4.80
	Herpes Zoster	4.86	4.33	- 0.53	16.45	17.94	+ 1.49
	Influenza	19.60	13.69	- 5.91	19.60	13.69	- 5.91
Participant 3	Td/Tdap	8.10	7.53	- 0.57	17.68	17.15	- 0.53
	Herpes Zoster	4.82	4.27	- 0.55	23.60	23.01	- 0.59
	Influenza	38.31	36.68	- 1.63	38.31	36.68	- 1.63

Key Learnings and Promising Practices

The pilot generated valuable learnings for pharmacies and payers interested in engaging in immunization-related VBAs as well as for pharmacy measurement more broadly.

Findings

Key learnings include:

1. Standardized measures and measure rate validation provide value.
2. VBA participants should expect extended upfront contracting timelines lasting 12+ months.
3. Immunization interventions are challenging; timing and multi-channel approaches are important.
4. Use of non-claims data is challenging and many organizations are limited to claims.
5. Strong demand continues to exist for payer-pharmacy VBAs, although demand specific to immunization may be mixed.

The pharmacy participants described the best approach to closing immunization gaps as multimodal, inclusive of proactive outreach, text reminders, and in-person discussions while an individual is already at the pharmacy. Integration of vaccine conversations into existing programs, such as medication synchronization programs, were also noted as an excellent opportunity for pharmacists to exercise "soft skills" in educating patients and responding to patients' questions and concerns.

Participants noted the value in VBAs and desire to continue engaging in payer-pharmacy partnerships. However, when asked about continued interest in immunization-related VBAs, responses were mixed. Some participants noted that they anticipate future VBAs to focus on other areas, such as chronic condition management, while others cited the broad challenges in the current immunization environment.

Conclusion and Next Steps

Ultimately, this pilot represented an important step towards developing standardized pharmacy measures. It demonstrated the feasibility of pharmacy quality measures in the real-world setting, generated much-needed learnings on how data is exchanged in payer-pharmacy arrangements, and showed how standard quality measures can reduce burden. However, bidirectional data exchange between payers and pharmacies and use of non-claims data was limited, and greater use of clinical or case management data from pharmacies and other providers is needed to support scale and better demonstrate the value of payer-pharmacy VBAs. It is important to consider that these pilots took place during a challenging time for immunizations, which likely contributed to lower-than expected performance and some negative sentiments on future immunization VBAs.

The results of this pilot will be used to inform opportunities for broader use of pharmacy measure concepts (immunization-focused as well as others), given the recognized value of standardized measurement to support quality improvement and value-based care.

About PQA

PQA, the Pharmacy Quality Alliance, is dedicated to improving the appropriateness, effectiveness and safety of medication use and addressing issues that impact a person's ability to access and use medications. Through quality measurement, research, education and convening, PQA's consensus-driven initiatives help improve health care outcomes and lower costs.

PQA was established in 2006 as a public-private partnership with the Centers for Medicare & Medicaid Services. PQA was created because prescription drug programs were a major area of health care where there was no organization or national program focused on quality improvement. Today, PQA is an independent, non-profit organization with nearly 200 diverse members across health care.

PQA member organizations include pharmacies, health plans, health care providers, pharmacy benefit managers, biopharmaceutical companies, technology vendors, government agencies, associations, health information technology organizations, researchers, accrediting organizations and academia. PQA's work is patient-centered and includes participation from individuals with relevant lived experience, caregivers and advocates.

The PQA Quality Innovation and Research Center (QuIRC) is dedicated to advancing medication use quality while fostering innovation. The Center uses environmental scans, scoping reviews, and evidence synthesis to provide a clear and in-depth understanding of current research landscapes, ensuring our work is impactful and informs future research and quality measurement.

Within QuIRC, PQA develops and rigorously tests new measurement methodologies to ensure robust and patient-centered approaches to medication use quality assessment. We also identify and champion effective strategies that translate research into practice, ultimately enhancing value-based care and improving patient outcomes.

To address some of the most difficult issues surrounding medication use quality, the Center brings together the expertise needed to:

- Prioritize initiatives aligned with national quality goals to address quality gaps in medication use
- Generate evidence to support quality measurement and medication use quality
- Address challenges and provide solutions for improving medication use and medication management services