VHCURES-VHIE Integration

September 26, 2023

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Agenda

1. Shared Values and Goals

2. Summary of Identified Barriers – *confirm with the subcommittee*

3. Use Cases – Prioritization

4. Next Steps

Shared Values and Goals

1. Patients are at the center of their health data

2. Providers to be empowered with more comprehensive data at the point of care, for better integrated, timely, effective and efficient patient-focused delivery of care

3. Advance health system goals, such as improving public health or payment reform including cost of care and access to care.

4. Advance data literacy for all customers—policy makers, researchers, and beneficiaries (patients, providers) understand limitations, biases, and fluid nature of data validity and reliability.

5. Data governance, privacy, security, equity, and quality are essential

6. Use limited funds and resources to benefit Vermonters in cost effective manner

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Summary of Identified Barriers

- Clarification from GMCB's Data Governance council if the patient index be released to the VHIE

- Clarification form the Legislature on what 'Public Disclosure' means

- Modification of the DUA process by GMCB's Data Governance council

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Use Cases - Prioritization

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2021-HIE-Claims-Subcommittee identified 26 use cases for Claims-Clinical Data Integration

#	Category	Use Case Name	Use Case Source / Stakeholder	Prioritization (Count)
1	Clinical - Individual	**Prescription Reconciliation, Fulfillment Monitoring**	Mary Kate Mohlman	**4**
2	Clinical - Individual	Validate the Service Provided	Mary Kate Mohlman	0
3	QI/Operations - Organization	Panel Management of Individuals with Chronic Conditions– identifying those whose conditions need better management	Mary Kate Mohlman	1
4	Evaluation - Population	Assessing Quality Improvement Initiatives on Hypertension Control and Outcomes	Mary Kate Mohlman	0
5	Reporting - Population	Percent of population with Hypertension in control and Diabetes in poor control	Mary Kate Mohlman	1
6	QI/Operations - Organization	Improving support and Care management for individuals with Hypertension and Diabetes in the State	Katelyn Muir	0
7	QI/Operations - Organization	Improve Immunization Rate	Katelyn Muir	1
8	Evaluation - Population	Evaluating the Clinical impact of the Care Coordination Model	Katelyn Muir	0
9	Evaluation - Population	Evaluation of primary prevention by Health Service Areas (HSA)	Katelyn Muir	0
10	QI/Operations – Organization	Determine payments made to providers participating in Medicaid value-based payment arrangements.	Pat Jones/Erin Flynn	1
11	Reporting - Population	AHS/DVHA Payment Reform Alternative Payment Model Program Monitoring and Reporting	Pat Jones/Erin Flynn	0
12	Clinical – Individual	Help inform Care Management Functions	James Mauro	0
13	QI/Operations – Organization	Identify Members for Integrated Health Programming including Risk Stratification	James Mauro	0
14	Evaluation - Population	Evaluate the performance of a Healthcare Reform/Payment Reform Program	James Mauro	0
15	QI/Operations – Organization	Development of a Healthcare Reform/Payment Reform Program	James Mauro	0
16	Reporting - Population	Conduct quality reporting that requires clinical data without relying on manual medical chart extractions	James Mauro	1
17	QI/Operations – Organization	Clinical data to support Utilization Management Program	James Mauro	0
18	QI/Operations - Organization	Defining more precise scope of a Health Care Organization (e.g., Provider landscape)	Sarah Lindberg	0
19	Evaluation – Population	Evaluation of Provider Quality	Sarah Lindberg	1
20	QI/Operations - Organization	Quality and Equity in Health Centers in Vermont	Thomasena E Coates	0
21	QI/Operations - Organization	**Reporting rates for preventive cancer screening (colorectal, cervical, breast) in support of improving quality of care**	Lauri Scharf	**3**
22	QI/Operations - Organization	Medicaid Program Integrity	Lisa Schilling	0
23	Evaluation - Population	Utilization Management	Lisa Schilling	0
24	Evaluation - Population	Benefit Design	Lisa Schilling	0
25	Evaluation - Population	Cost of Care (Moving away from payments based on fee-for-service [FFS] to value-based payments [VBP])	Lisa Schilling	0
26	Reporting - Population	Hybrid Performance Measure Production - Examples: Controlling High Blood Pressure and Diabetes in Poor Control	Erin Carmichael	0
	New Use Cases (2023)			0
27	-	Infection Surveillance	Catherine Fulton	0
28	-	Case Management and Care Coordination Tools	Catherine Fulton	0
29		<TBD>	Kate O'Neill	0
30		<TBD>	Kate O'Neill	0

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Next Steps - Discussion

- Act 167 – recommendation - a plan for a plan

- Governance discussion – how would we like to proceed?

- VHCURES Quality concerns – how would we like to proceed?

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Literature Review for Prescription Fill Use Case

"Nonfilling of prescribed medications is a problem of serious concern. Studies of health care costs and utilization associated with medication nonadherence frequently rely on claims data and usually focus on patients with specific conditions. It is estimated that 20%-30% of U.S. prescriptions never get filled and that **the lack of filling prescriptions caused about 125,000 deaths and cost the American health care system between $100 and $289 billion per year in the 2000s.** A more recent study estimates that the annual cost of prescription drug-related morbidity and mortality because of nonoptimized medication therapy, including medication nonadherence, was $528.4 billion in 2016."

Study Takeaway:

"Our study results indicate that having complete medication initiations was associated with lower total and medical costs, concurrently and prospectively. In addition, having complete medication initiations was associated with lower likelihood of health care utilization concurrently and lower likelihood of having any ED visits prospectively. The medication initiation measure, a simple binary marker, can enable population health management programs—especially programs administered by health care **providers that have access to both EHR and claims data**—to advance targeting their population-level interventions toward subpopulations (e.g., patients with incomplete medication initiations) that can bring the highest savings."

Integrating E-Prescribing and Pharmacy Claims Data for Predictive Modeling: Comparing Costs and Utilization of Health Plan Members Who Fill Their Initial Medications with Those Who Do Not

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ABSTRACT

BACKGROUND: Nonfilling of prescribed medications is a worldwide problem of serious concern. Studies of health care costs and utilization associated with medication nonadherence frequently rely on claims data and usually focus on patients with specific conditions. Past studies also have little agreement on whether higher medication costs associated with higher adherence can reduce downstream health care consumption.

OBJECTIVES: To (a) compare the characteristics between people with and without complete medication initiations from a general population and (b) quantify the effect of medication initiation on health care utilization and expenditures with propensity score weighting.

METHODS: We conducted a retrospective cohort study using 2012 and 2013 electronic health records (EHR) and insurance claims data from an integrated health care delivery network. We included 43,097 eligible primary care patients in the study. Annual medication fill rates of initial prescriptions in 2012 were defined as the number of filled prescriptions from claims divided by the number of e-prescriptions from EHRs, while excluding all refills. A claim was considered filled if (a) EHR and claims records were from the same drug class; (b) claims occurred between the date of a current EHR order and that of the next EHR order of the same class; and (c) the maximum fill rate was 100%. The 6 annual outcomes included total costs, medical costs, pharmacy costs, being a high-cost "outlier" (in top 5%), having 1 or more hospitalizations, and having 1 or more emergency department (ED) visits. Individuals were classified as either having completed all medication initiations (100% annual filling rate for initiations) or not. We used propensity score weighting to control for baseline differences between complete and incomplete initial fillers. We adopted linear and logistic regressions to model costs and binary utilization indicators for the same year (concurrently) and next year (prospectively).

RESULTS: Approximately 42% of the study sample had complete medication initiations (100% filling rate), while the remaining 58% had incomplete initiations. Individuals who fully filled initial prescriptions had lower comorbidity burden and consumed fewer health care resources. After applying propensity score weighting and controlling for variables such as the number of prescription orders, patients with complete medication initiations had lower overall and medical costs, concurrently and prospectively (e.g., $751 and $252 less for annual total costs). Complete medication initiation fillers were also less likely to have concurrent health care utilization (OR = 0.78, 95% CI = 0.68-0.90 for hospitalization; OR = 0.77, 95% CI = 0.72-0.82 for ED admissions) but no difference in prospective utilization other than for ED visits (OR = 0.93, 95% CI = 0.87-0.99).

CONCLUSIONS: Identifying the subpopulation of patients with incomplete medication initiations (i.e., filling less than 100% of initial prescriptions) is a pragmatic approach for population health management programs to align resources and potentially contain cost and utilization.

What is already known about this subject

- Lack of filling prescriptions is a worldwide problem of serious concern and cost the American health care system annually between $100 and $289 billion in the 2000s.
- Past studies measuring the cost of nonfilling medications have little agreement on whether higher medication costs associated with higher adherence can reduce downstream health care expenditures.

What this study adds

- After propensity score weighting and covariate adjustment, complete medication initiations (i.e., filling all initial prescriptions) were associated with lower health care costs concurrently and prospectively.
- After propensity score weighting and covariate adjustment, complete medication initiations were associated with lower likelihood of health care utilization concurrently and lower likelihood of having any emergency department visits prospectively.

Nonfilling of prescribed medications is a worldwide problem of serious concern. The World Health Organization estimates the adherence to long-term therapy for chronic diseases at only 50% in developed countries, including the United States, and even lower rates in developing countries.[1,2] Nonadherence leads to poor health outcomes and increased costs.[1] It is estimated that 20%-30% of U.S. prescriptions never get filled and that the lack of filling prescriptions caused about 125,000 deaths and cost the American health care system between $100 and $289 billion per year in the 2000s.[3] A more recent study estimates that the annual cost of prescription drug-related morbidity and mortality because of nonoptimized medication therapy, including medication nonadherence, was $528.4 billion in 2016.[4]

Past studies have estimated the cost and health care utilization associated with nonfilled medications. One study estimated that among patients with cystic fibrosis, compared with patients with a high composite medication possession ratio (MPR), those with low and moderate MPR were associated with higher concurrent medical costs ($14,211 and $8,493)

The business case for integrating claims and clinical data

By partnering with a smart, secure, and collaborative health data network, providers and health plans can access integrated claims and clinical data and more effectively transition to value-based care

Doctors using advanced health data networks typically see a full list of patients' medications, derived from claims, when they treat them. With this information available, doctors can avoid dangerous drug to-drug interactions when they prescribe new medications. After a visit, they can also follow up and see if a patient actually filled a prescription and is still taking it.

The issue of medication non-compliance – patients not picking up their prescription and taking as directed by their clinician – negatively impacts patients and costs our healthcare system millions of dollars. It's a leading cause for an estimated 125,000 avoidable deaths each year and $100 billion annually in preventable healthcare costs. By using integrated claims and clinical data to shine a light on medication patterns, provider organizations are benefiting patients and helping make healthcare more affordable.
The business case for integrating clinical and claims data is clear. Providers, health plans, and patients all benefit from uniting these data sets. By partnering with a smart, secure, and collaborative health data network, providers and health plans can now access integrated claims and clinical data and more effectively transition to value-based care.

Claudia Williams
Claudia Williams is CEO of Manifest MedEx, a California nonprofit health data network. She was previously Senior Advisor, Health Innovation and Technology at the White House where she led data sharing, care transformation and precision medicine efforts.