Statin Medication Adherence Reports and Predictive Model:
Empowering Proactive Interventions

Medication non-adherence for managing chronic diseases can lead to increased health care utilization and complications. Early intervention for non-compliant beneficiaries can improve outcomes.

hMetrix developed the **Medication Adherence Predictive Model (MAP Model)** to help users identify beneficiaries who are at risk of not adhering to their prescription regimen for the management of their chronic conditions. Medication non-adherence identifies the lack of **timely refills** for active prescriptions related to a specific chronic condition.

MAP's Statin module was developed to improve identification of patients who are likely non-adherent to their statin prescription regimen for high cholesterol treatment. The modular design will incorporate other prevalent chronic condition-drug combinations in the future. Focus will be on combinations where non-adherence carries significant clinical and health care utilization risks.

The MAP Model has been added to the PopHealth Reporting Suite, empowering users to proactively identify and support patients with high risk of non-adherence.

How the Model Works

- **Data Integration:** The model is custom-built for the DC Medicaid population using administrative claims data, requiring FFS claims and Encounters to determine medication fills. The model does not include medications prescribed but not filled.
- **Model Inclusion Criteria:** Individuals 18 years and older with enrollment in Medicaid for the entire period of interest. Beneficiaries must have at least 2 statin prescription fills with 90 days supply in the prior 2 years.
- **Predictive Algorithm:** The module targets individuals with less than 80% Proportion of Days Covered (PDC) for Statin prescriptions. PDC reflects the proportion of days in the period of interest that the person has statin medication on hand. Predictive algorithm considers additional variables such as statin-covered days, PDC for statins, patient age, drug-specific and overall drug costs, and social determinants of health (Z-codes). The model suggests the most significant contributor to the risk score is historical prescription fill patterns.
- **Risk Stratification:** Each individual is assigned a personalized risk score based on key factors from the algorithm. Beneficiaries are then clustered into larger risk levels based on their predicted likelihood of non-adherence for ease of user interpretation (Likely Adherent, Low, Medium, or High Likelihood Non-Adherent).

Workflow Integration:

- **Patient Identification:** A new standalone report, **Statin Medication Adherence Report** has been added to the Prescription Drug Reports card. The report includes a list of individuals stratified by risk level, enabling users to easily identify beneficiaries at high-risk of medication non adherence.
- **Targeted Interventions:** Users can also utilize the **Roster functionality within the Population Navigator** tool, allowing users to filter their population by risk category and create subsets, called Rosters, to view the overall healthcare utilization for the targeted population via the other PopHealth reports.
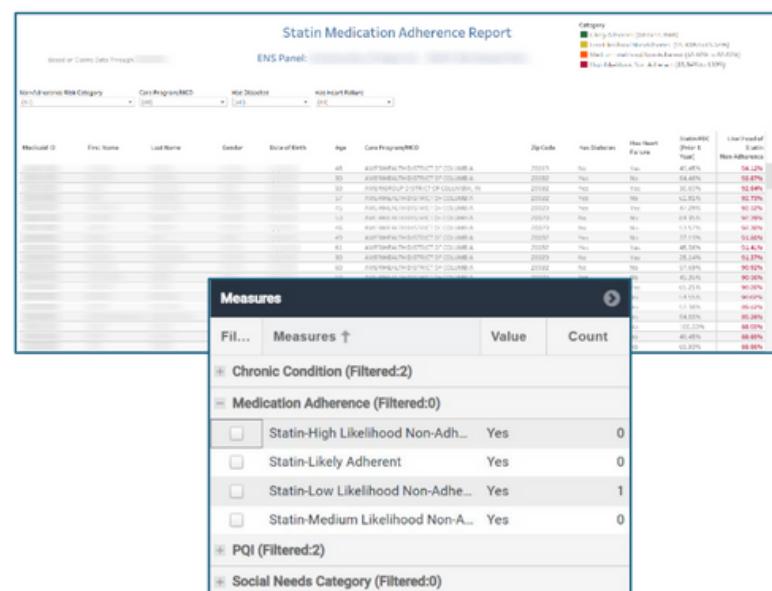
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