

Linkage of Patient Services and Real-world Healthcare Data: A Unique Approach to Gain Insights into Factors that Impact Medication Adherence

Samuel Igweokpala¹, Irene Pan¹, Irene Cosmatos¹ ¹ United BioSource Corporation, King of Prussia, PA, USA

- patient access, usage, and adherence to prescribed therapies.
- during enrollment in a patient support program.
- drug adherence.

- experiences of more than 330 million U.S. patients.
- topics such as management of disease symptoms.
- patient level to drive improved outcomes.

- Map between November 2019 and September 2024.
- therapy initiation were assessed for each patient.
- 2 filled prescriptions using the proportion of days covered (PDC) measure.



TABLE 1: Cohort characteristics.

Demographics	Entire Cohort (n=8,215)	Drug Cohort (n=2,856)	Adherence Cohort (n=1,128)
Mean (SD) Age	34.03 (16.11)	34.13 (16.10)	32.47 (15.75)
Age Group, n (%)			
<18 years	1,630 (19.84%)	565 (19.78%)	265 (23.49%)
19-40 years	3,861 (47.00%)	1,344 (47.06%)	538 (47.70%)
41-65 years	2,424 (29.51%)	849 (29.73%)	289 (25.62%)
>65 years	294 (3.58%)	96 (3.36%)	36 (3.19%)
Unknown	6 (0.07%)	2 (0.07%)	0 (0%)
Sex, n (%)			
Male	3,497 (42.57%)	1,217 (42.61%)	484 (42.91%)
Female	4,659 (56.71%)	1,607 (56.28%)	633 (56.12%)
Unknown	59 (0.72%)	32 (1.12%)	11 (0.98%)

FIGURE 3: Year of first dispensed prescription for each patient in the adherence cohort.



Study limitations

 \rightarrow Potential bias in the estimation of adherence and exclusion of patients in cases where prescriptions were filled in pharmacies not covered by the Healthcare Map. Furthermore, the direction of bias (i.e., overestimation vs underestimation) cannot be assessed in the current context.

Assessment of adherence in only a subset of \rightarrow patients (14% of the initial population), with the majority considered ineligible to be included in the analysis for various reasons (Figure 2).

Inability to evaluate the effect of other factors \rightarrow contributing to medication adherence (such as patient disease knowledge and patient-provider relationship) due to the absence of information on these factors in claims data.

EPH185

datavant

komodo®

FIGURE 4: PDC distribution of patients in the adherence cohort.



Conclusion and next steps

 \rightarrow Data linkage between patient support programs and real-world data is highly feasible and can provide valuable insights into the patient healthcare journey.

 \rightarrow Tokenization and data linkage provide enriched longitudinal data for analyses while maintaining patient privacy.

 \rightarrow Further analyses will explore other potential factors that contribute to lower adherence in this patient population, such as comorbidities, insurance type, and adverse outcomes.