

POSTER ABSTRACTS

15th Annual HMO Research Network Conference
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11:30 am–Noon & 1:30–2:00 pm
Monday, April 27th • Lobby

PS1 – 36

VDW Pharmacy File: Strengths, Weaknesses, and Recommendations

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Background: The HMO Research Network (HMORN) Virtual Data Warehouse (VDW) is a series of dataset standards and automated processes designed to facilitate the process of multi-site research. It is virtual in that there is no centralized database; data continue to reside locally. Our objective was to assess the cross-site availability and completeness of the outpatient prescription dispensing or Pharmacy file.

Methods: The VDW Pharmacy Working Group created a data checking plan to assess overall data availability and completeness of the Pharmacy file. A distributed SAS program was run at each HMORN site with a VDW Pharmacy file (n=11), with de-identified summary count data returned for analysis. The key Pharmacy file variables were National Drug Code (NDC), days supplied, and amount dispensed. NDCs were considered nonstandard for these reasons: not having exactly 11 digits; containing a character; or consisting of a single repeated number (e.g., 99999999999). For days supplied and amount dispensed, values of < 0, 0, = 500, or missing and values of < 0, 0, = 1000, or missing were considered out of typical range, respectively.

Results: 11 sites have Pharmacy data from 2000 - June 2007; some have data going back more than 10 years. There were 61 million dispensings in 2007, with an average 5.1 million monthly dispensings among 2 million monthly users. Average monthly dispensings per user was 2.5, and the range across sites was 2.2-2.9. Across all sites from 2000-2007, < 0.1% and 0.3% of dispensings had a missing or nonstandard NDC, respectively; and 0.1% and 0.3% had days supplied and amount dispensed out of typical range, respectively. Few dispensings were for over-the-counter medications (5%), medical supplies (2%), or infusions (0.1%). 89% of elderly (age = 65) with a drug benefit had at least 1 annual dispensing (average monthly dispensings per user, 3.5), compared to 52% of those without a benefit (average, 3.2).

Conclusions: The VDW Pharmacy file has good overall data quality, with few problems found, especially since 2000. Investigators can have confidence in the data in the Pharmacy file but may choose to limit studies to more recent years.