

POSTER ABSTRACTS

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Developing the Research Data Warehouse

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Background: A strength of the Group Health Cooperative (GHC) environment is the breadth and depth of patient encounter data collected by automated systems. A challenge in using this data is that they come from a number of distinct systems, and that data formats change over time. Access to this data has historically been through terminal emulation software to mainframe systems, which introduces a layer of complexity. Standardizing data formats and eliminating unfamiliar access methods promises to simplify use of the data.

Methods: Enrollment and encounter data, including hospitalizations, immunizations, pharmacy, and lab results, were copied from mainframe systems to a PC file server. The data were normalized so that each subset had a consistent file format. Macros were developed to support straightforward and consistent access to the data.

Results: The majority of data access needs are being met through use of the data warehouse. The learning curve for new programmers is reduced due to consistently formatted data, accessed through a familiar PC/Windows interface. Use of the data warehouse has increased over time, and new subsets of encounter data have been added to the system.

Conclusions: Development of a research data warehouse has significant benefits that outweigh the up-front and recurring costs. Because the data warehouse benefits many individual projects, staff development time and system (hardware) costs are best paid for on an organizational basis, rather than by a single project. The value of this shared resource needs to be recognized within the organization in order to make this investment.