

THE VIRTUAL DATA WAREHOUSE



The *Virtual Data Warehouse (VDW)* is an integrated research data warehouse, combining multiple administrative source systems into a single, easy-to-use format.

It provides IHR analysts and programmers efficient access to data – that’s rigorously quality checked – from a variety of sources and systems. Governed by the Health Care Systems Research Network (HCSRN), the VDW was originally created to streamline multi-site research projects. It’s ‘virtual’ in that 17 separate care organizations create and maintain identical data models utilizing local programmers with singular expertise about their administrative systems.

While it can be thought of as a data warehouse that combines data from all 17 organizations, there’s no centrally located store of data where data from all sites can be touched in one single run. This is known as a ‘federated’ data model.

Analytic programs are written by a lead site, distributed to a sub-site where they’re manually run, results are reviewed, and data returned by personnel to the sites who retain complete control over their local data. This process preserves privacy for all patients and ensures the quality of the data returned for analytics.

The [standard HCSRN VDW data model](#) is the core of our KPCO VDW. It also serves as a primary source for other common data models managed by the IHR, including:

- [Sentinel Common Data Model \(SCDM\)](#) – Funded by the FDA, the SCDM is a federated data model used for surveillance and analytics of adverse events associated with medical products.
- [Colorado Health Observation Regional Data Service \(CHORDS\)](#) – A federated data model employed by a seven-county regional network to support public health monitoring and evaluation efforts.
- [Patient Centered Outcomes Research Network \(PCORNet\) Common Data Model](#) – A federated data model to support patient-centered research initiatives.