# UPMC

**POPULATION HEALTH**

## Connecting a broad community spanning Western Pennsylvania

UPMC was dbMotion's flagship client, going live in 2008. It was among the first health systems to recognize the importance of health information exchange in response to the nascent Triple Aim movement: improving access and quality, while better controlling costs.

## Opportunity

*Create a connected healthcare community where providers seeing patients across the vast enterprise would have access to comprehensive and up-to-date information.*

UPMC sought to create a clinical enterprise point of care, with disparate HIT systems contributing data that could be considered at every patient encounter to impact medical decision making. Its vision and approach likewise enabled it to connect with surrounding health systems and integrate with state initiatives, remote hospitals and the UPMC Health Plan. Ultimately, UPMC was committed to driving healthcare delivery redesign in the region, powered by a patient-centered record to advance accountable care and drawing from a single clinical pipeline for effective analytics.

## Solutions and Methodology

In 2008, UPMC began clinical usage of dbMotion at the point of care with tight connectivity to Epic and Cerner, as well as about 45 additional source systems. Building on the dbMotion interoperability platform, UPMC utilizes EHR Agent and Clinical Analytics Gateway (CAG). More than 36,000 users have easy access to the platform at UPMC, where more than 5.1 million records have been integrated in a production environment. dbMotion has also implemented two additional nodes at UPMC, one for the aggregation of claims data from UPMC HealthPlan, and one for the surrounding non-UPMC hospitals, collectively known as ClinicalConnect Health Information Exchange (CCHIE).

UPMC has discovered that leveraging the dbMotion technology has enabled the utilization of harmonized data in unique ways such as an untethered personal health record for patient engagement and displaying the data in a mobile format through a PDA application using exposed services.

UPMC also quickly discovered great value in connecting to regional care centers and accelerating plans to utilize information technology to integrate its surrounding communities. CCHIE—an independent 501(c)(3) organization—has been a resounding success, with nine health systems, three long-term care facilities, one pediatric

## Overview

### CLIENT PROFILE:

- UPMC—Pittsburgh, Pennsylvania
- Integrated healthcare enterprise
- 22 hospitals, 4,000 beds
- 400 outpatient locations
- 4,700 affiliated and 2,500 employed physicians
- Service area = 4 million people
- 4.5 million outpatient visits per year
- UPMC Health Plan
- ClinicalConnect Health Information Exchange (CCHIE)

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rehabilitation hospital, one pediatric physician practice and several more organizations joining. Data exchange went live among CCHIE members in June 2012. Currently the HIE includes approximately 8,000 physicians and encompasses more than 8 million unique patient records in western Pennsylvania.

## Outcomes

Providers now have quick access to a patient's data, such as allergies, medications, lab results, past hospitalizations, and other vital information important to clinical decisions—and there is no doubt access to this data influences care delivery. UPMC recently surveyed providers across the enterprise who use dbMotion and EHR Agent. A full two-thirds reported the solution directly impacts their clinical decision making and determines their plan of care.

The anecdotes providers share about the impact dbMotion has on care are equally remarkable. Shortly after dbMotion was deployed at UPMC, for example, a patient was admitted to the UPMC St. Margaret emergency department complaining of abdominal pain. He was referred for a standard workup, but the level of pain he was experiencing concerned the nurse caring for him. She consulted the complete medical record available through dbMotion and discovered the patient had a history of an aortic aneurysm—a condition neither the patient nor his caregiver son had disclosed at admission. The patient was immediately sent for a CT scan which revealed an acute dissection with the likelihood of a rupture. The UPMC St. Margaret team immediately decided to transfer the patient to UPMC Presbyterian for the complex operation. The nurse also noted that the patient's comprehensive record in dbMotion indicated he was taking a blood thinner—a critical piece of information for a patient about to undergo surgery. Appropriate therapy was initiated during transfer thus preventing further delay of surgery and saving the patient's life.

CCHIE reports similar results. dbMotion enables participants to reduce the time needed to access patient records and controls costs by reducing duplicative services. It also supports its members by:

- Allowing surrounding hospitals to share clinical outcomes by connecting employed, tightly affiliated and loosely affiliated clinicians;

- Achieving MU2 through the timely transfer of transition of care documents;

- Connecting to state, federal and other regional initiatives such as the PA Statewide Immunization Information System (PA SIIS) and federal NwHIN.