

HEALTHSHARE NSW

# Implementing a Statewide Health Information Exchange with Evercore® at the Center of It All

**Health system**

New South Wales, Australia

**Patient population**

7 million citizens, 32% of Australia's total population

**Average annual imaging procedures**

3 million

**Connected facilities**

110 facilities across 9 Area Health Systems

Like many of the world's health systems, HealthShare NSW faces an array of significant challenges. At the top of the list is a call for continued improvements in clinical outcomes. The system's aging patient population, however, increasingly presents with chronic and complex disease. Optimal treatment thus requires a level of real-time clinical collaboration that can be difficult to achieve, especially in a cost-efficient manner.

To address these challenges, HealthShare NSW began exploring opportunities made possible through the use of Electronic Health Records (EHR). The system zeroed in on one of its first steps in 2006: Development of an Enterprise Imaging Repository (EIR).

With an EIR, HealthShare NSW knew it would be able to eliminate walls between disparate, system-wide data and departments—and begin to leverage the vast amount of critical information acquired for patient treatment and diagnosis purposes.

HealthShare NSW submitted its EIR development business case for government review in 2006. The plan was approved in 2007. In 2010, TeraMedica's Evercore Enterprise Vendor Neutral Architecture (VNA) was chosen as the framework, when Fujitsu was awarded a contract as a system integrator.

## Landscape

There are nine Area Health Services in New South Wales, Australia, encompassing 110 clinical facilities. Each has its own PACS and RIS, as well as clinical processes and business practices. There was a strong desire to minimize interruption to the resources and workflows of each Area Health Service during EIR implementation. However, the following mutual goals were identified:

- The ability to share imaging data
- Timely clinical decision making
- Increased efficiency for transporting patients
- Reduced repeat procedures
- Access to images for clinical users from their EMR

## The Pilot

Two Area Health Services were identified for the pilot phase of EIR implementation: Sydney West Area Health Service and Children's Hospital Westmead.

Combined, the two Services operate 12 hospitals with more than 2,500 beds in place and 400,000 studies conducted annually. Because they are in a similar geographic area, the Services share patients regularly, yet patient data exists on a mix of systems, including that of nine total PACS vendors, two PAS-RIS vendors, and two different versions of EMR.

In order to facilitate data-sharing at this scale, a statewide Enterprise Patient Registry was first required. The Registry went live in December 2011, with the EIR following in February 2012.



## Setting the Framework

The Evercore Enterprise VNA served as the framework for the project. The patented technology allows for the integration and management of patient-centric clinical content, including standard DICOM objects, in clinical and research settings. It also facilitates the ability to natively manage and distribute beyond DICOM using global formats such as MPG, JPG and PDF, as well as other critical clinical content such as treatment plans or reports in non-standard formats. The Univision\* feature makes it possible for even remote physicians to access a universal view of all content.

When the EIR system receives an order, it automatically initiates a search for previous studies and results associated with that patient, thereby providing a more comprehensive picture of condition and medical history. In addition, when a patient is registered for a visit at a facility, the EIR automatically inserts a link into the patient's electronic medical record (EMR). This allows clinicians to quickly access relevant information at the point of care.

*\*Image viewing through Univision is not intended to be used for diagnostic or therapeutic purposes.*

### Pilot Deployment

- Children's Hospital Westmead – Live February 2012
- Sydney West – Live February 2012

### General Deployment

- West/Far West – Live April 2013
- Sydney – Live May 2013
- Northern New South Wales/Mid North Coast – Live October 2013
- Southeast Sydney/Illawarra – Live November 2013
- North Sydney Central Coast – Live November 2013
- Hunter New England – Live December 2013
- Southwest Sydney – Live December 2013
- Southern/Murrumbidgee - Live July 2014

## Results and Responses

With the pilot phase successfully implemented, Joe Hughes, Program Manager for HealthShare NSW Support Services, reports satisfaction across the board.

*"The program on the whole has been a tremendous success. We are proud of the work we've done, and that it is unprecedented. More importantly, however, is the satisfaction that our clinicians and radiologists have with our progress. They are all very positive about what the EIR means for their patients and their workflow. The benefits are immediate, as soon as you turn it on you get instant access. People love that."*

## Final Steps

In July 2012, HealthShare NSW began the enterprise rollout of the EIR, across the remaining Area Health Services. General deployment was completed at the end of December 2013. (Due to the inception of a PACS at the final Area Health Service, the Southern New South Wales/Murrumbidgee, deployment occurred in July 2014.) Over the past 18 months, there have been multiple go-lives occurring during that timeframe. With the completion of full deployment at all Area Health Services, there are approximately 3,000,000 studies being sent to Evercore each year.

## Company

TeraMedica, Inc., a global healthcare informatics company based in Milwaukee, WI, is the leading provider of vendor neutral, enterprise-wide solutions for unrestricted medical image management. The Company began in 2001 with the successful development of a cross-departmental, patient-centric clinical image archive for the Mayo Clinic in Rochester, MN. To date, TeraMedica has over 600 customer-driven deployments on six continents. Such flexibility can only be achieved by an organization that is committed to exceeding customer expectations using a technology platform that has been designed for adaptation.



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