Chile has been transforming its entire public healthcare system, shifting to a network-centric universal access model where primary care facilities deliver public health programs across the nation and patients receive the care they need in the right setting. These important reforms are deeply impacting the country’s citizens, healthcare providers, and government health agencies, and require coordination, collaboration, and robust yet flexible technology. To help realize its vision, the Chilean government selected InterSystems TrakCare®, a unified health information system, and InterSystems HealthShare®, a family of connected health solutions, both built on InterSystems health informatics platform. The government’s success to date has made it an international leader in e-health implementation.

Like many countries, Chile is challenged with an aging population and a high prevalence of chronic disease. The Chilean government needed to implement country-wide reform to control escalating costs, increase the focus on preventive care, and provide more personalized patient services. It achieved this in part by creating 29 regional Health Services with autonomous boards to shift demand from public hospitals, where treatment is more expensive, to primary care facilities.

In 2008, the Chile Ministry of Health launched a project known as SIDRA (Sistemas de Información de la Red Asistencial, or Information Systems Healthcare Network in English), to implement EMR systems throughout the country. TrakCare was selected as a key shared EMR and is now used by about a third of the country’s Health Services. Many of them have begun to adopt advanced functionality, such as patient portals and real-time performance dashboards, to derive increasing benefits.

Additionally, two neighboring regional Health Services with different EMR systems have trialed HealthShare to collaborate and share health records. The result has been improved patient services and outcomes.

A Unified Healthcare System

TrakCare has been seamlessly deployed through Chile’s national healthcare computer network to more than 60 hospitals and 200 primary care facilities. Because the system is hosted in the cloud, maintenance and support are centralized and easily delivered.

TrakCare supports Chilean Spanish and is configured to meet the distinct needs of different Chilean health settings, as well as the country’s regulatory requirements. Within a single shared data repository, TrakCare offers different facilities — whether primary care, hospital department, allied health, or specialist — their own views of the data, with software tailored to their practices.

The technology has improved efficiency by reducing duplication and creating tighter workflow integration. Reporting is also faster, with test results delivered instantly to care providers. Staff changes and off-site referrals no longer disrupt patient care, because the EMR always includes up-to-date information.

Chile has also taken advantage of TrakCare’s
referral and waiting list management, scheduling, and reporting capabilities. Its unique Referral Map tool can serve multiple hospitals within a region and integrate with primary care facilities to automatically route referral requests to the right hospital accordingly to rules based on clinical and administrative criteria that are easily configured and maintained by the boards.

TrakCare also includes protocol plans for the timely sequence of appointments, diagnosis, and treatments for all government-listed proprietary conditions, such as diabetes, renal diseases, and schizophrenia.

As TrakCare generates regional information, automated reporting instantly highlights inefficiencies and unused or overloaded resources. Strategic dashboards — both administrative and clinical — deliver real-time performance indicators, with aggregated views available from a bird’s eye perspective of the entire network down to the site or related care provider. Emergency and outpatient units can use them to monitor the number of patient visits, urgency of cases, categorization times, top diagnoses, and waiting and visit times.

**EMR Benefits Already Achieved**

Facilities that have implemented TrakCare are expanding its scope as they progress in their e-health journeys. They have already achieved a number of patient care and other benefits, including the following:

- Management can easily identify workload peaks and troughs and budget effectively. Administrators can better allocate limited healthcare resources, improving care without incurring higher costs. Full patient and episode data is available, including length of patient stay, triage distribution, frequency of diagnoses and test orders, and epidemiologic maps.

- As the Health Services’ boards have adopted more of TrakCare’s rich clinical capabilities, health facilities have been able to provide enhanced care through strategies like identifying at-risk patients. The instant availability of patient clinical data and tests results has also significantly reduced laboratory orders and associated costs.

- Schedule and appointment confirmation management are now supported by TrakCare, and HealthShare provides a patient portal that reminds patients of their appointments and involves them directly in activities such as confirming or rejecting them so that the appointment slots can be opportunistically reused with other patients. This has generated huge savings, with patient no-shows reduced to 5% in the Talcahuano region. (No-show rates in regions can exceed 30%, wasting the valuable time of medical specialists and extending patient waiting lists.)

**Interoperability Brings New Benefits**

In the next phase of the Chilean government’s program, health data will be shared across regional Health Services to support improved healthcare planning and collaboration. Prevention will be a key focus, with patients better able to access healthcare information and actively participate in their own treatment.

The regions of Talcahuano and Concepción are now using HealthShare in a successful health information exchange trial. Using HealthShare as a common platform, they can share clinical data and strategic management dashboards, despite having different EMR systems. Previously isolated medical records are now part of a comprehensive shared virtual record as a component of a larger health information ecosystem.

Before this common platform was implemented, clinical data was only shared between regions via paper referrals. Tests were often duplicated when patients traveled between regions, and clinicians had to rely on incomplete patient histories. With HealthShare enabling Chile’s first online cross-region medical record system, doctors and patients have a comprehensive view of all test results and treatment notes.

**Enhanced Coordination Across Regions**

The information exchange trial between Talcahuano and Concepción has resulted in greatly enhanced coordination and reduced waiting times for patients. Real-time dashboards, which measure key public health indicators and monitor clinical demand at a regional level, are also delivering increased efficiencies. An unexpected benefit of the trial is that it has significantly increased adoption of TrakCare by providers who are keen to take advantage of the benefits of an even richer patient record. Further benefits are expected with the development of strategic dashboards for referrals and waiting lists and other solutions enabled by HealthShare.

Other benefits of comprehensive shared health records are emerging. Family history data and clinical results, for example, have allowed patients at risk of developing chronic diseases such as diabetes or high blood pressure to be identified automatically in the system. With early intervention and monitoring, serious disease progression can be prevented, improving quality of life and reducing costs.

The TrakCare unified EMR is bringing care providers together for improved care coordination and better patient care. HealthShare — through seamless interoperability across different systems — is extending the scope of this collaboration, and helping to provide ever-greater levels of benefit as Chile continues along its connected-care journey. The country’s investment in e-health technology has empowered primary care facilities and patients by providing comprehensive patient information and supporting coordinated treatment across the healthcare network.

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