MEDITECH's
Solutions to Support Interoperable Care

January 2017

Executive Summary

MEDITECH's interoperability solutions improve patient care and provide the foundation for a solid population health strategy by supporting the active exchange of EHR data across care settings of all sizes. Our commitment to interoperability includes membership in the CommonWell Health Alliance® and the Argonaut Project, which bring a multitude of exchange possibilities. MEDITECH's interoperability initiatives, when combined, average more than 300 billion data transactions per year.

Healthcare organizations using our interoperable solutions exchange medical summaries, communicate with public health agencies, participate in health information exchange (HIE) networks, perform context-aware launching to other vendors' platforms and vice versa, manage electronic ordering at physician practices, reconcile clinical information across care settings, support the Blue Button® initiative, and electronically access clinical decision support.

Meaningful Use Stage 3 introduces additional requirements for C-CDA®, APIs, immunizations, syndromic surveillance, public health registries, and more. All of these are met with enhanced interoperability capabilities as part of MEDITECH's Meaningful Use Stage 3 release.

MEDITECH

Business Challenge

Healthcare organizations struggle to match patient data and locate records in a fragmented system due to barriers in technology and processes that inhibit health data exchange and silo data. Healthcare systems must be interoperable so that data is available to individuals and providers regardless of the care setting. This exchange is crucial to timely clinical decision-making as well as aggregating data as part of population health management.

In October 2015, CMS released the **final rule** for Meaningful Use Stage 3, which requires 60 percent interoperability in 8 reporting objectives for eligible professionals, eligible hospitals, and critical access hospitals. Moreover, vendors must incorporate APIs into their EHR systems. In addition, ONC released **Connecting Health and Care for the Nation**, an interoperability roadmap that strives to enable consumers to access and share health data, cease information blocking, and adopt national interoperability standards. The final roadmap establishes timelines and plans to make the US healthcare system fully interoperable within the next 10 years.

MEDITECH's EHR complies with all government mandates, ensuring our customers meet regulatory requirements and deploy cost-effective, usable solutions that encourage data exchange. Our solutions meet all Meaningful Use requirements and are certified under the ONC-ATCB program, as well as the 2014 Edition Electronic Health Record certification criteria.

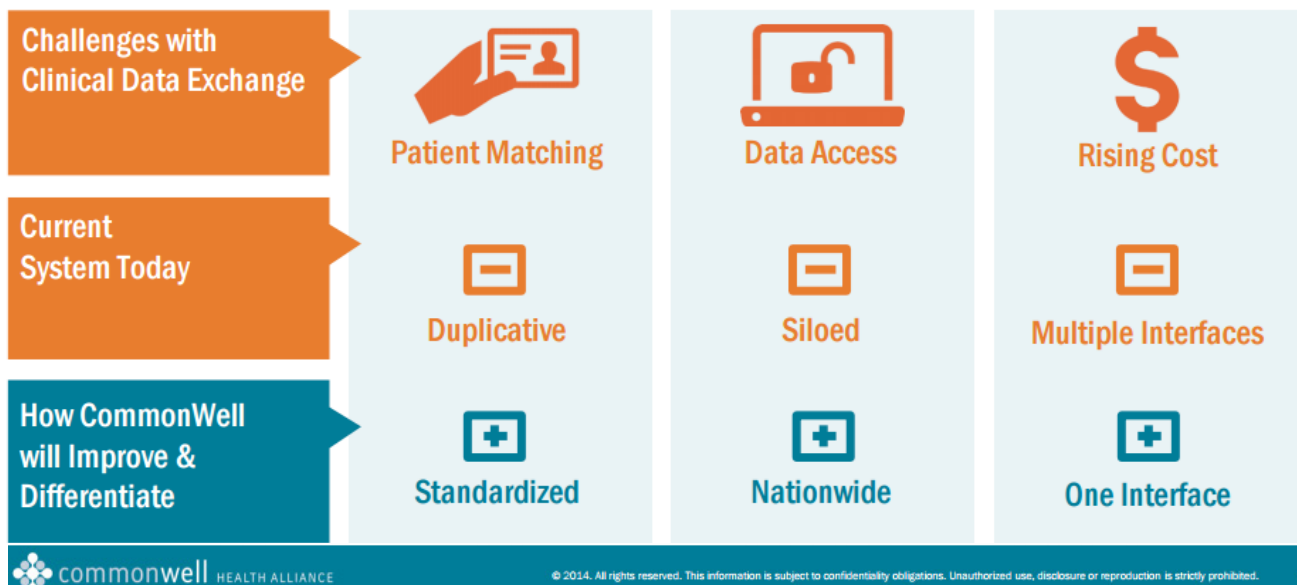# How Is MEDITECH Advancing Interoperability?

MEDITECH has a long history of supporting interoperability initiatives, advocating for the use of common standards, and promoting information sharing. We are connecting entities locally and nationwide.

CommonWell Health Alliance

CommonWell Health Alliance was formed in 2013 to develop and deploy a vendor-neutral platform that enables scalable, secure, and reliable interoperability. The platform enables health data exchange nationwide to improve patient care quality and safety. As a Contributor Member of CommonWell since April 2015, MEDITECH has the unique opportunity to help steer the future direction of this collaboration, and our customers are in a prime position to take advantage of CommonWell services, which include sharing medical summaries with a greater number of EHRs nationwide.

Since its founding, CommonWell has grown to 58 members, representing health IT vendors and industry organizations. Provider usability is crucial, and CommonWell is making strides to ensure the services seamlessly weave into providers' and administrators' workflows. The Alliance contributes to the continued development and utilization of APIs for data exchange, which means a brighter interoperability future for MEDITECH customers.

CommonWell Adds Value to Interoperability

Challenges with Clinical Data Exchange	Patient Matching	Data Access	Rising Cost
Current System Today	Duplicative	Siloed	Multiple Interfaces
How CommonWell will Improve & Differentiate	Standardized	Nationwide	One Interface

Argonaut Project

The Argonaut Project was formed in 2014 by EHR vendors eager to speed the development and adoption of the HL7® FHIR® standard across the healthcare industry. As the next-generation framework for interoperability, FHIR uses the latest web-based standards.
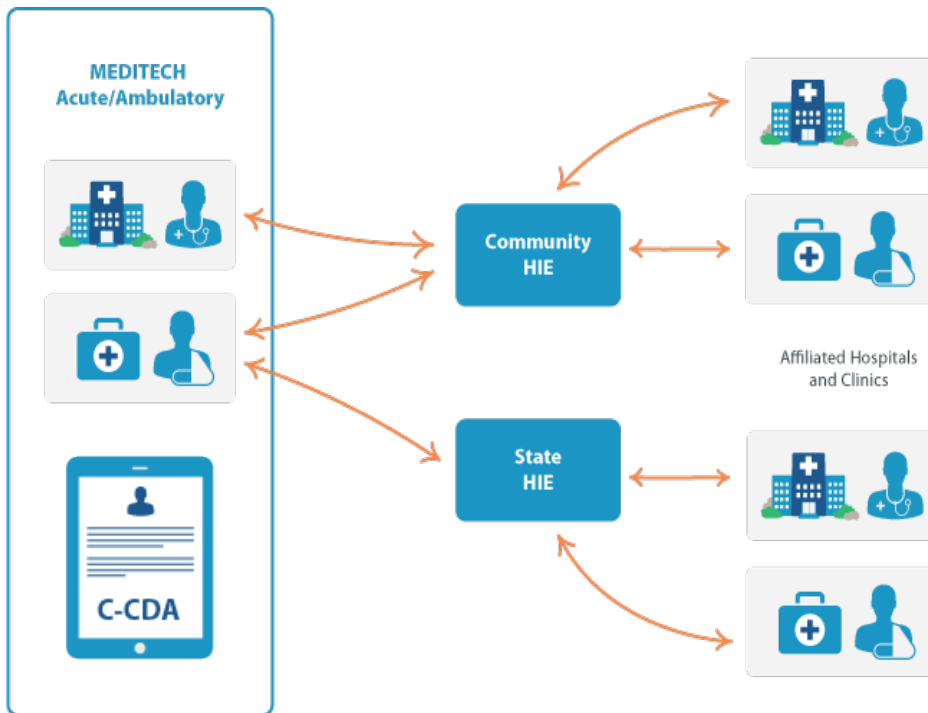
A collaborator in the Argonaut Project since its inception, MEDITECH is committed to increasing our customers' data exchange avenues. FHIR is a RESTful API, which leverages the latest web standards, has similarities to internet conventions, and is widely adopted in other industries. Known for its flexibility in accessing and delivering data, the technology can be applied to web-based applications, mobile devices, the cloud, and EHRs.

The Argonaut Project seeks to develop FHIR-based services to expand the sharing of EHRs. Part of MEDITECH's Meaningful Use Stage 3 release will include API infrastructure to support initial FHIR transactions.

C-CDA

MEDITECH's Meaningful Use Stage 3 release will include the latest mandated C-CDA version (v2.1), which will support additional data categories, content changes, and document types. Our support of C-CDA architecture includes a CCD® interface suite that enables many hospitals and ambulatory care facilities to exchange care summaries at the point of care using industry-standard protocols from HL7, IHE, and ONC. Clinicians use MEDITECH's CCD interface exchange suite to view relevant information without disruption. Flexible workflows present clinicians with pertinent sections of the received information, or the whole document, in various formats, making it easy to familiarize themselves with a patient's past history. Clinicians also have the option to reconcile medications, allergies, and problems directly from imported summaries.
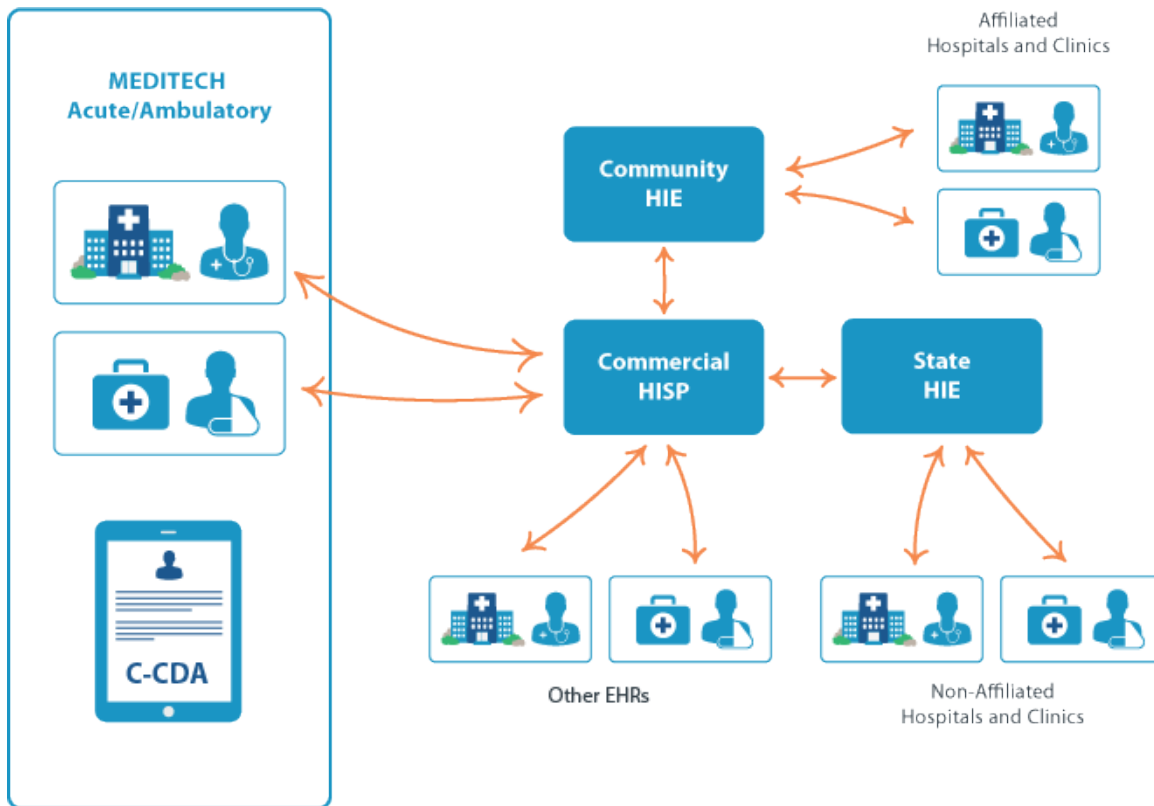
Citizens Memorial Hospital

Citizens Memorial Hospital (Bolivar, MO) is interoperable across multiple organizations and multiple locations through MEDITECH's EHR. This interoperability provides a single patient record that spans multiple Acute, Ambulatory, Long Term Care, and Home Health Hospice visits. Other vendor ancillary systems—PACS, document management, and OB maternal/fetal monitoring—from other vendors are seamlessly integrated into the MEDITECH system, ensuring patients receive safe, high quality care.

Using the Direct Messaging toolset within MEDITECH's CCD interface suite, Citizens exchanges medical summaries with other providers through their state HIE, Missouri Health Connect. In addition, Citizens utilized the CCD import to successfully migrate discrete Problems, Allergies, Medications, and an External Medical Summary for 39,000+ patients during an other vendor to MEDITECH conversion.
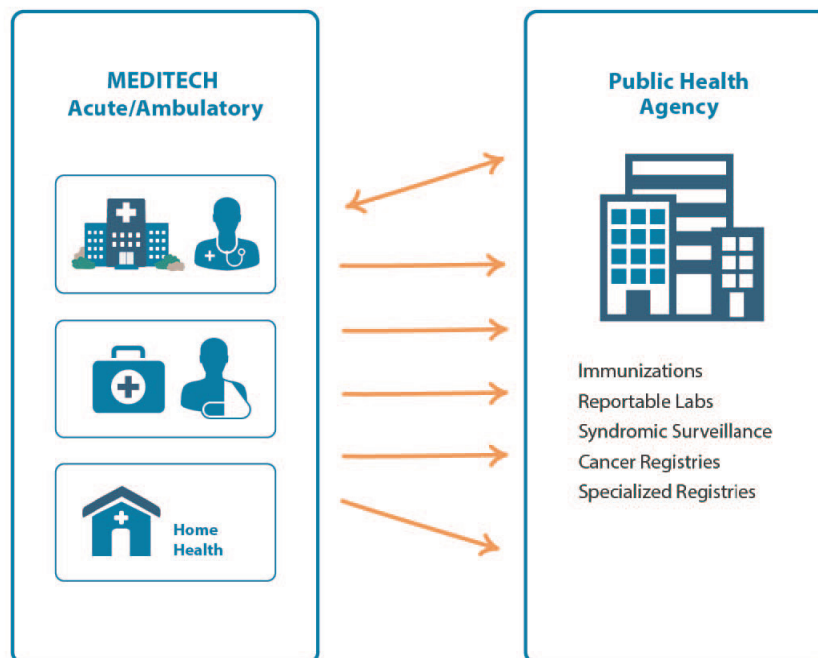
Direct Messaging

MEDITECH's CCD interface suite supports all required and optional methods for submission and receipt of C-CDA summaries via the Direct Messaging toolset. This workflow provides additional pathways for exchanging medical summaries each time a patient transitions between points of care, whether inside or outside of your HIE network.
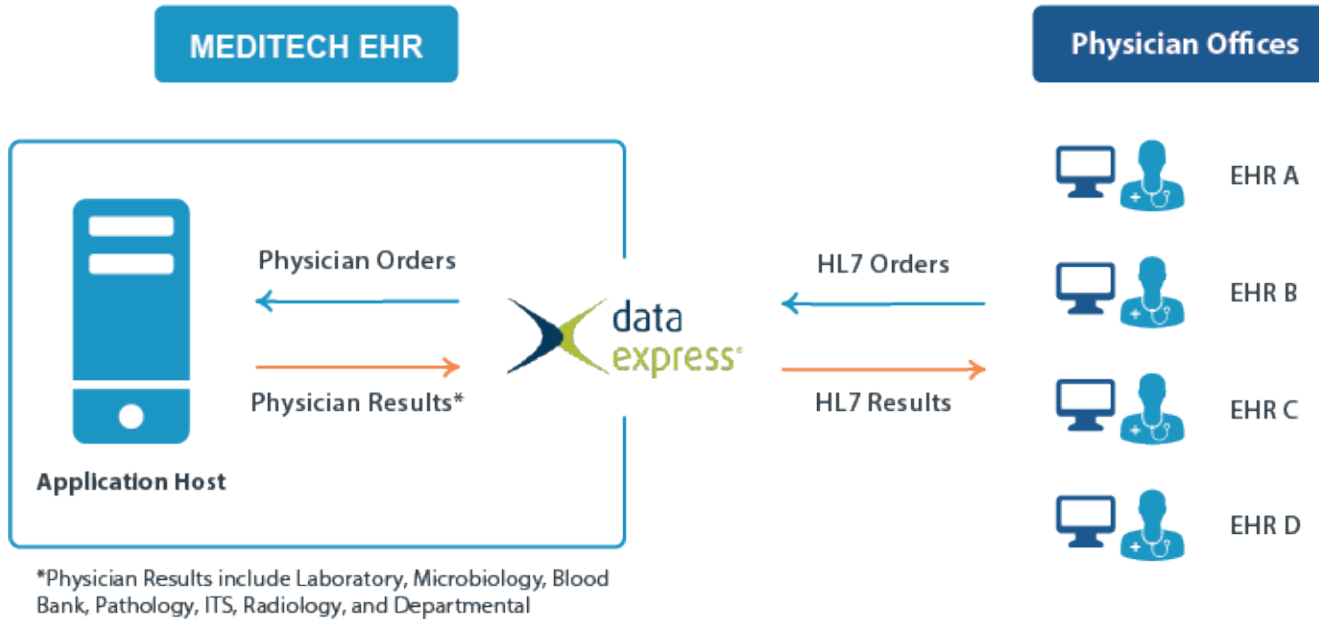

Public Health Reporting

MEDITECH is involved in all state initiatives requiring organizations to report biosurveillance data, immunization records, reportable lab results, and cancer case documentation to public health reporting agencies. HL7 interfaces are available and modified according to states' specifications. MEDITECH's Emergency Department Management and inpatient applications such as Nursing and Laboratory yield data that supports our nation's public health reporting efforts.

Meaningful Use Stage 3 introduces new requirements for query-based immunization registries, syndromic surveillance, and cancer registries — among other categories. MEDITECH will support these initiatives as part of its Meaningful Use software enhancement.

Independent Physician Practice Interoperability

Physician practices that do not use MEDITECH's Ambulatory EHR can exchange data via a variety of interoperable solutions. We have worked with many ambulatory EHR vendors to ensure seamless reporting and referral order services through a secure data exchange, from exchanging medical summaries and referrals to processing laboratory and radiology results ordered remotely. We also work with Forward Advantage® to manage electronic orders from ambulatory EHRs. The Data Express® solution provides a "one-to-many" interface suite, built on experience gained from connecting over 80 industry-standard and custom EHR solutions.

MEDITECH EHR

Application Host

Physician Orders

Physician Results*

data express®

Physician Offices

HL7 Orders

HL7 Results

EHR A

EHR B

EHR C

EHR D

*Physician Results include Laboratory, Microbiology, Blood Bank, Pathology, ITS, Radiology, and Departmental

Medication Reconciliation and e-Prescribing

MEDITECH reconciles patients' medications each time they transition between care settings. Through integration with the DrFirst® e-prescribing technology, clinicians are able to review a patient's list of current medications upon arrival and add reported home medications. In addition, clinicians can convert home or emergency department medications to inpatient medications upon admission, convert inpatient medications to ambulatory medications upon discharge, and send prescriptions to a preferred pharmacy.

Reconcile medications in clinical workflows.

Pull in medication history upon admission.

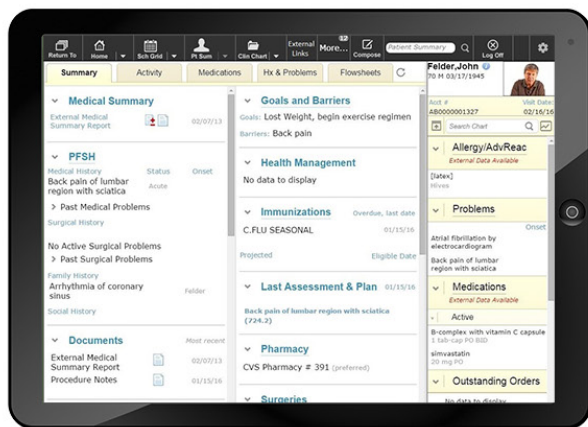Send active medications to local RX at discharge.

Context-Aware Launch to/from Other Vendor EHR

An increasing number of clinicians rely on access to external web-based features from within their EHR. Using MEDITECH's external connector feature, clinicians can access these services as part of their current workflows based on patient, user, and clinical context. A single click launches secure, user- and patient-context aware URLs from within the patient's chart. Web-based applications such as the following are accessible in view format:

- HIEs
- Provider portals
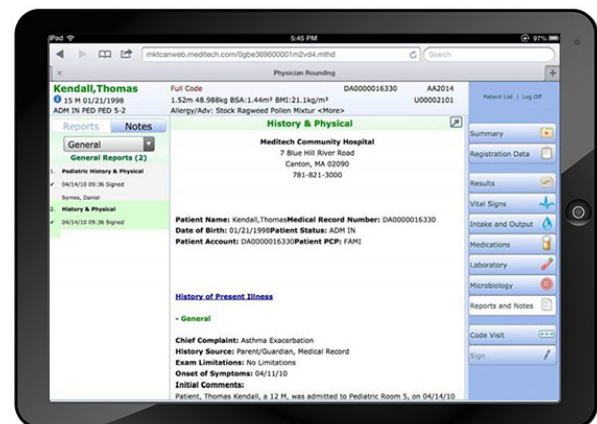- Web-based EHR feature
- Vendor-neutral archives.

Conversely, a third-party EHR can launch securely into MEDITECH's web-based Rounding to enable physicians to view a patient's clinical information within the MEDITECH EHR. Through a set of secure web services, the portal provides access to MEDITECH's Mobile Rounding web product for "view only" access to the patient's chart. Available data includes:

- Advance directives
- Resuscitation status
- Contact information
- Allergies
- Medications
- Problems
- Microbiology results and reports
- Pathology, Imaging and Therapeutic Services, and Physician Documentation reports
- Nurses' notes
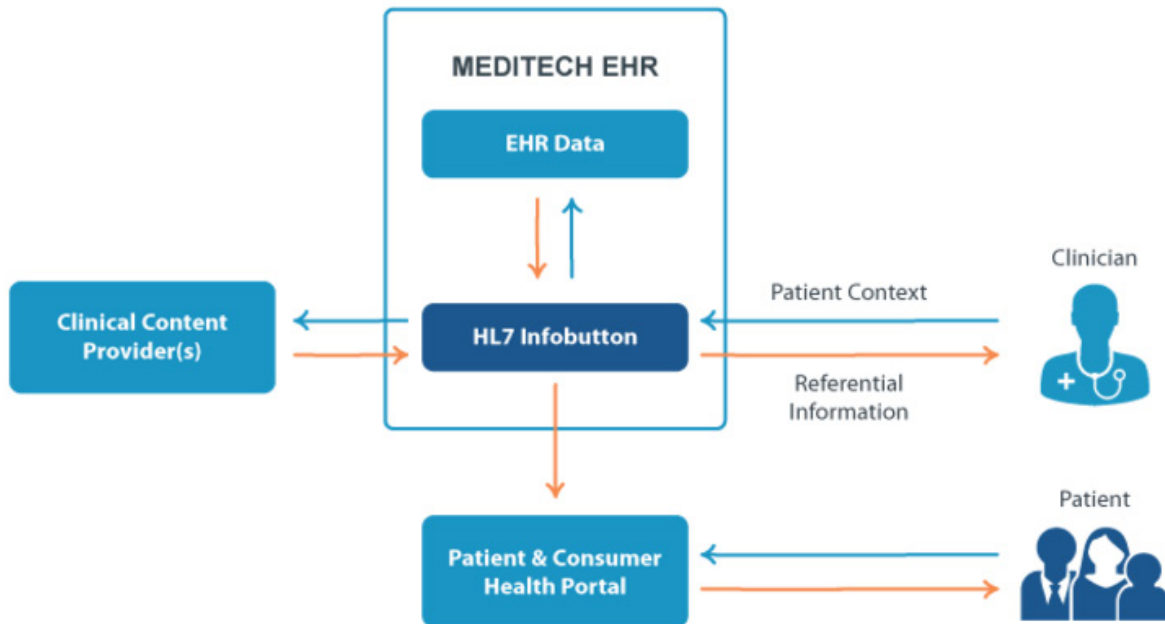- Vital signs
- Intake and output
- Laboratory results

Other Vendor EHR

Other Vendor EHR

Infobutton

To improve workflow and patient care, MEDITECH supports the HL7 Context-Aware Knowledge Retrieval (Infobutton) Standard. Clinicians can launch URL-based clinical decision support and patient education materials from various points within a patient's chart and at discharge. Subscription services are provided through many of the leading content vendors used with MEDITECH.

Blue Button

MEDITECH supports the Blue Button initiative by providing patients with downloadable medical histories from our Patient and Consumer Health Portal. Patients download both a formatted, readable version as well as an additional copy formatted to the C-CDA XML specification — the upload standard for sharing with another provider's EHR.
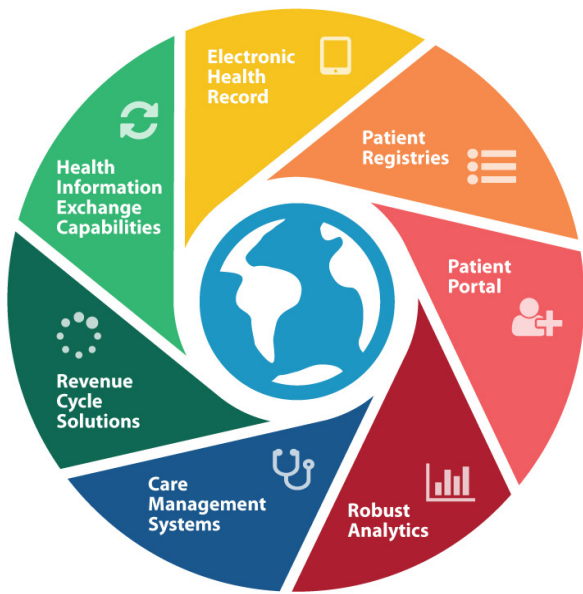
International

MEDITECH is actively engaged in international efforts to further interoperability on a global scale, where interest in interoperability initiatives is growing rapidly and adoption is expanding. MEDITECH has developed a variety of features in conjunction with international organizations and in response to mandates to foster greater connectivity. Some of the initiatives MEDITECH works with include:

Canada:

- **Ontario Laboratories Information System (OLIS)** used throughout the province of Ontario to store and send lab requisitions and results.

- **Connecting Greater Toronto Area (ConnectingGTA)** health data exchange in the greater Toronto area.

- **Wait Time Information System (WTIS)** wait time data collected and reported for surgeries and diagnostic imaging procedures.

United Kingdom:

- **Birth Notification Service** assignment of unique NHS Number to each newborn and linked to the Personal Demographics Service (PDS).

- **NHS e-Referral Service** appointment booking service for patient use.

- **Innovation & Collaborative Engagement Lab (ICE Lab)** environment for interoperability between general practitioner offices and acute facilities. This includes orders in/results out and ADT functionality.

- **EMIS Web** for portal viewing and future CCD exchange.

Population Health

To effectively manage patient populations, providers need an infrastructure that supports seamless care coordination. MEDITECH offers tools so you can deliver high-quality, low-cost care across the health ecosystem and help improve outcomes for all of your patients. Tools include an integrated and interoperable Web EHR; actionable and real-time patient registries; a consolidated patient portal; care management and home care workflows; predictive surveillance; and HIE capabilities.

Committed to Interoperability

With a combined average of more than 300 billion data transactions per year, MEDITECH is a proven leader in the interoperability movement and a collaborator in initiatives such as CommonWell Health Alliance and the Argonaut Project. Our numerous interoperability models accommodate established and emerging HIE activities.

To learn more about any of these solutions, please contact Marketing Product Solutions Manager **Stephen Valutkevich**, or visit **MEDITECH's website**.

MEDITECH (781) 821-3000 • www.meditech.com • info@meditech.com   Connect with us: