News Flash No.5: **COVID-19 Pandemic**

January 27, 2021





INSIDE

NEW RELEASE OF HEALTHSHARE

SOUTH AUSTRALIA'S HEALTH INFORMATION EXCHANGE SUPPORTS RAPID PREPARATION FOR THE SECOND WAVE

HEALTHSHARE* CMS SOLUTION PACK™ HELPS MEET NEW U.S. GOVERNMENT REQUIREMENTS PUTTING PATIENTS IN CHARGE OF THEIR DATA.

FOR A PATIENT-CENTRIC PANDEMIC RESPONSE, FOLLOW THE DATA

NEW PARTNERSHIP WITH ATHENAHEALTH

From the Desk of Jonathan Teich:

"... it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity..."

Dickens wrote that 160 years ago, but it's not a bad description of the current state of the world's healthcare throughout 2020, with stunning scientific developments arising monthly even as we struggle to have populations and governments accept and implement public health measures. In the time of Covid, each month brings us to a different phase, with new challenges and new ways to address those challenges – and information collection and delivery is always part of the answer. In the past year, priority has moved through detection, disease modeling, risk assessment, equipment supply chain, and treatment strategies, then onto contract tracing, syndromic surveillance,



Jonathan Teich, MD, PhD CMIO, Director of Product Management, HealthShare

and modeling the health risks of reopening. Now, it's about vaccine allocation and scheduling, tracking, reporting, and monitoring. We are deeply involved in these activities, together with many of you; the impressive customer stories in this issue provide a sampling. The things you are doing now will help us emerge from this crisis and will give the world better solutions for future crises.

Of course, HealthShare has moved forward in several other important directions as well. We have been fortunate to be able to keep our product and implementation operations going strong, although we miss the face-to-face contact with each other and with all of you. The 2020.2 release of InterSystems HealthShare® is out, including the CMS Solution Pack – a full set of data elements, tools, and functionality to fulfill the first round of the CMS Interoperability and Patient Access rule in the USA, with more coming to support future phases. This release also marks the rollout (starting in the United Kingdom) of Care Community for care coordination and planning, as well as HL7® FHIR® data expansion and flexible profile tools, enhancements to the Clinical Viewer and Provider Directory, greater third-party health app control, and a range of usability enhancements. See the story below for more details.



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In 2021, we will continue to focus HealthShare developments on two broad themes: building a yet faster/stronger/more nimble, broad-based health data platform, and creating health solutions that address important hot-button issues in the payer, provider, life science and regional health sectors. More to come on these in future issues of HealthShare Connections.

...it was the spring of hope...

As we kickoff the new year, we take a moment to remember the hardship and the loss that many of you have experienced in your families and in your work life. To take a little more inspiration from Dickens, we look forward to a spring of hope for the health, life, and economy of the world – a hope advanced by the achievements of the customers in these pages and by the rest of your good works. Stay safe, and Happy New Year.

New Release of HealthShare

We're pleased to announce the availability of InterSystems HealthShare® 2020.2, which delivers many valuable new enhancements and two new offerings – the CMS Solution Pack™ for payer organizations seeking compliance with new U.S. regulations, and Care Community, released in the United Kingdom, for team-based coordinated care.

New features and functionalities in the 2020.2 release include:

- The **CMS Solution Pack** provides a suite of data, access, and management features to help payers and providers in the U.S. fully meet the CMS Interoperability and Patient Access Final Rule requirements for access to clinical and claims data.
- As part of the Solution Pack, the HealthShare data model and FHIR gateway
 have expanded to cover the United States Core Data for Interoperability
 (USCDI) and Common Payer Consumer Data Set (CPCDS) elements, and to
 support the CARIN Alliance Blue Button® Framework.
- Care Community, launched in the United Kingdom, enables the entire care team to partner with each other and with the patient to collaborate, share information, plan care and improve health and wellness across the care continuum.
- **Health Insight** now includes a package of configurable COVID-19 solution templates supporting core measurements, syndromic surveillance, heatmapping, and more.
- **Personal Community** supports third-party applications (SMART on FHIR) for patients and their proxies, including connection to services such as Apple Health.
- **Provider Directory** also has been enhanced to support the new CMS requirements and Da Vinci FHIR profiles for provider information access. Additionally, authorized users can now directly add and edit provider records and broadcast changes to source systems, allowing Provider Directory to be a source of truth across the organization.
- **HL7**® **FHIR**® **R4** services have been further enhanced, including rapid upload of standard FHIR profiles and automatic configuration of search parameters.
- Clinical Viewer adds custom charts and icons for COVID-19 data and also features enhanced compliance with WCAG / Section 508 accessibility requirements.
- Multiple enhancements to improve platform performance, data quality, manageability, usability, integration, accessibility, and consistency

Read the **press release** here.

South Australia's Health Information Exchange Supports Rapid Preparation for the Second Wave

Whether they suffered great losses in the COVID-19 pandemic or escaped the worst of its wrath, communities around the world are bracing for a second wave. It's the top concern for nearly every health system leader and public health official: How will they manage another outbreak, which may well dwarf the first?

In Australia, a technology integration performed at lightning speed provided part of the answer.

In just three weeks, the South Australian Department of Health and Wellbeing (SA Health) interfaced its disease surveillance system to a new workflow system, arming SA Health with the information it needs to care for the state's 1.8 million residents should a second wave strike.

"If it happens, we can ramp up very quickly," says Darren McGlade, information manager for SA Health. "If we have an infected cruise ship come in with thousands of passengers, the new system can be used to rapidly boost contact tracing and end-to-end management for all the cases."

But how?

The project interfaced SA Health's Notifiable Infectious Disease Surveillance (NIDS) system with a new workflow system through the department's health information exchange, which runs on InterSystems interoperability technology. The HIE, or Health Information Broker, normalizes, shares, and performs integrity checks on data from across South Australia while also providing a rapid development environment to connect new systems and execute improvements.

Together, these technologies offered the perfect mix for SA Health to get critical COVID-19 data to healthcare organizations, clinicians, and state officials—when and where they need it.

The task wasn't that simple, though.

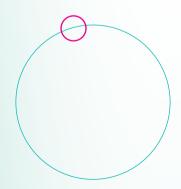
First, COVID-19 and staff changes left SA Health with a lot of work and few people to get it done before the second wave. Then there were the technology systems themselves. Built years earlier, NIDS didn't support a modern RESTful API, but the new workflow technology did. The challenge lied in ensuring the systems could communicate, in real time, to successfully aid public health and case management efforts.

SA Health contacted its longtime partner InterSystems, and weeks and several late nights later, the integration was complete.

Now, as a result, SA Health has the technology to follow the patient journey from the moment the patient receives a positive COVID-19 result to discharge from the hospital. And South Australians can feel more confident that technology innovation is enabling the state to prepare for a potential second wave.



"IF WE HAVE AN INFECTED CRUISE SHIP COME IN WITH THOUSANDS OF PASSENGERS, THE NEW SYSTEM CAN BE USED TO RAPIDLY BOOST CONTACT TRACING AND END-TO-END MANAGEMENT FOR ALL THE CASES."



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InterSystems HealthShare® CMS Solution Pack™ helps payers and providers meet new U.S. government regulations requiring health plans to provide members access to their clinical, claims and pharmacy benefit data and hospitals to better coordinate care by alerting PCPs and post-acute care of a patients admission, discharge or transfer.

A new rule from the United States <u>Centers for Medicare and Medicaid Services</u> (CMS), known as the Interoperability and Patient Access final rule, aims to empower patients and improve interoperability while reducing the burden on payers and providers. It is slated to be rolled out in 2021 and 2022.

Deployed either on premises or in the cloud, the HealthShare CMS Solution Pack leverages our vast expertise in interoperability and bundles together solutions enabling payers to share required claims, clinical, and pharmacy benefit data, regardless of its format, and transform it into FHIR® 4.0.1 representations, so that members can easily access it using third party mobile applications. The solution will also meet the requirements that payers expose their provider directory via FHIR APIs for public access.

As another part of the same regulation, providers will be better able to coordinate care through the easy exchange of patient information and alerts as patients transition between care settings.

Based on the implementation guides referenced in the final CMS rules, the solution pack includes a FHIR 4 gateway, full support for the United States Core Data for Interoperability (USCDI) clinical data set, all relevant CMS implementation guides, and the required privacy and security standards.

For payers subject to the rule, the HealthShare CMS Solution Pack will provide a turnkey solution to support patient access and provider directory APIs next year, and payer-to-payer data exchange subsequently. For providers, the HealthShare CMS Solution Pack has the alerting capabilities hospitals must implement by next May.

"Payers, providers, and patients need reliable, clean, actionable data to achieve a high-value health system," says Don Woodlock, vice president of healthcare solutions. "The CMS rules are a step in the right direction towards interoperability for all. With InterSystems HealthShare CMS Solutions Pack, payers and providers can meet the new requirements to access critical health information, make sense of the constant influx of data, and empower their staffs to put data in the hands of patients who want access to their data."

Read the **press release** here.



InterSystems Named a Visionary by Gartner

InterSystems has been named a visionary in the first Gartner Magic Quadrant for Cloud Database Management Systems (DBMS). InterSystems IRIS® data platform is a unified data platform that combines high-performance concurrent analytical and transaction processing with native interoperability for all types of data to power applications in healthcare, finance and other industries. InterSystems was ranked among the highest four vendors in the Logical Data Warehouse Use Case and the Operational Intelligence Use Case.

"Organizational resilience has been pushed to the limits this year, accelerating many digital transformation strategies. Organizations must add greater data accessibility and predictability to fuel their evolution in the ever-expanding digital world," says Scott Gnau, vice president of data platforms. "We've made key investments into the development of InterSystems IRIS to enable organizations along this transformation - from new tools such as IntegratedML and InterSystems IRIS Adaptive Analytics, to our continued focus on data interoperability. We're proud to help power some of the world's most mission-critical applications and will continue to arm our customers with the tools and capabilities required to enable an agile and resilient organization."

See this complimentary copy of the 2020 Magic Quadrant for Cloud DBMS.

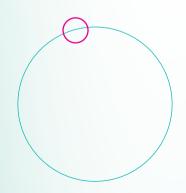


Figure 1: Magic Quadrant for Cloud Database Management Systems

Source: Gartner (November 2020)

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For a Patient-centric Pandemic Response, Follow the Data

As the COVID-19 case count began to rise in Texas, so too did life-or-death questions. Where is the virus spreading? Which underlying conditions make patients vulnerable to bad outcomes? And what best practice protocols were emerging for caregivers to help the ill?

None of these mysteries had an easy resolution. But healthcare professionals have been unearthing answers thanks to the health information exchange that covers patients in the state's largest city and across Texas.

Greater Houston Healthconnect, which handles data from millions of patients in 75 counties in Southeast, South, and East Texas, has emerged as the hub of patient medical activity. The health information exchange (HIE) and its ability to collect, normalize, and aggregate huge volumes of data has empowered public health officials, healthcare providers, and researchers to better understand the impact of COVID-19 and how to thwart it—now and long into the future.

"You must be able to find and match patients across the healthcare continuum and deliver comprehensive health information that spans across the patient's entire history," says Nick Bonvino, CEO of Greater Houston Healthconnect. "Our community is convinced this is not possible without a regional HIE."

To ensure local care coordination, Greater Houston Healthconnect leveraged its interoperable network, powered by InterSystems HealthShare®, to identify patients who tested positive for the virus. HealthShare enabled access to their complete medical histories, from hundreds of hospitals and thousands of practices and post-acute entities, delivering critical patient information into providers' clinical workflows when they needed it most.

All the while, the HIE has bolstered efforts from 16 public health departments to report COVID-19 cases, perform case investigations, and assist with contact tracing. The deployment of HealthShare Clinical Viewer enabled infectious disease specialists and epidemiologists to immediately access patients' clinical and demographic data making data driven decisions to deal with the tidal wave of

But Texas is just now reaping the benefits of what may well be Greater Houston Healthconnect's foremost contribution to the fight against COVID-19. The HIE is supplying the data to a public-private collaborative led by the University of Texas School of Public Health for research into COVID-19. Healthconnect created patient cohorts so large that they overshadow those assembled in early hot spots such as Wuhan, China, and New York City. The first cohort is 10,000 patients and the second more than 200,000, each coinciding with the first and second peaks of the pandemic.

The study is designed to collect the clinical data and longitudinally follow an ethnically diverse population of COVID-positive patients. The goals are to identify risk factors for both favorable and unfavorable outcomes, survey and analyze demographic, social, pharmacological, and comorbidity predictors, and develop best practices for the treatment of COVID-19 patients.

"Everyone understands the need for social distancing, wearing a mask, and washing hands," Bonvino says. "Insight into how this virus behaves, identifying modifiable predictors, and sharing best practice treatment protocols will mitigate the risk for the adverse outcomes we are experiencing today."

Insights gleaned from this project could represent a leap forward not just for hospitals, but patients, far beyond Texas.

New Partnership With athenahealth

Through a new partnership with athenahea1th, Inc., our payer customers now have access to the athenahea1th Hea1th Plan Data Exchange network, which includes more than 153 million patient records, in addition to existing national data networks available through InterSystems Hea1thShare Managed Connections. By connecting to InterSystems HealthShare Managed Connections (HSMC) and the athenahea1th Health Plan Data Exchange, payers now have a single connection point to access hundreds of thousands of member records on a growing network of more than 130,000 provider organizations.

With HealthShare Managed Connections and athenahealth's Health Plan Data Exchange, payers can automate data exchange for Healthcare Effectiveness Data and Information Set (HEDIS) and Risk Adjustment, and other payment and operations functions to reduce time, error, and cost utilizing a single connection. You can read the press release about this new partnership here.

This is only the first step of many to simplify and speed access to healthcare data for payers through HSMC. **CommonWell** recently announced the addition of their **payment and operations use case** which InterSystems will be certifying for in addition to the already existing treatment use case.

