Newsbytes, 6/15

Raymond D. Aller, MD, and Hal Weiner

Consortium gaining ground in quest for interoperability Xifin purchases VisualShare CDC releases update on electronic lab result reporting to public health agencies Enzo Life Sciences releases ELISA plate reader app Orchard Software features white papers on website Imprivata expands reach with acquisition of HT Systems Sampleminded teams up with Exact Sciences

Consortium gaining ground in quest for interoperability

E-commerce giant Amazon, a pioneer in online shopping, was an early adopter of the infrastructure-as-a-service application programming interface, beginning a company-wide shift to the API in the early 2000s. A decade-and-a-half later, tech industry experts are increasingly touting open APIs as a driver of the digital economy. In the health care industry, however, open architecture in EHR systems is a newer concept, albeit one that's quickly gaining traction as enterprising players try to solve the industry's interoperability issues.

The Healthcare Services Platform Consortium is one of those players. The organization, which celebrated its second birthday last month and was officially incorporated as a Delaware nonprofit nearly a year ago, is creating an app store and development sandboxes for third-party software developers. The app store would allow those developers to distribute, for purchase or free of charge, applications and services focusing on unmet needs within electronic health record systems. HSPC service APIs and applications would be available to consortium members and the health care industry at large. The sandboxes would serve as testing labs where software developers could create new products.

The consortium, which has made tangible strides since its incorporation, has "settled on SMART on FHIR as the tech strategy," says Stan Huff, MD, HSPC chair and founding member, referring to a project out of Boston Children's Hospital and Harvard Medical School. The Substitutable Medical Apps and Reusable Technology, or SMART, platforms project is an API that adheres to Fast Healthcare Interoperability Resources, or FHIR, a draft set of standards that addresses the secure exchange of health care data between EHR systems. The latter was created by the international health IT standards body HL7.

"We've made good progress on creating a standard set of information models with terminology bindings that are specifying very clear definitions of detailed clinical data that would be used in creating the applications," says Dr. Huff. "We're starting to show the use of these services and apps in production systems."

Clear definitions of clinical data are critically important, he stresses. "The process of making these detailed models is really a way of saying exactly what the structure is for this data and exactly what LOINC codes and SNOMED codes are used to represent the data unambiguously."

Further down the road, Dr. Huff hopes the consortium will allow for greater clinician involvement in medical app development. "What we hope is that with an open architecture, medical app developers will be able to work closely with clinicians to make programs that are easy to use, fit the clinical workflow, and make the work more efficient," he explains.

Dr. Huff envisions app developers working closely with HSPC-member health care providers to understand

clinicians' needs before beginning product development. Developers could utilize the consortium's development sandboxes to create the new applications, using clinical data that patients had agreed, via their health care providers, to share for research and development purposes. Once a developer was satisfied with an application, that entity would submit it to the HSPC-certification body, an independent branch of the organization that would test the app to ensure it met the standards established by the consortium. "The HSPC-certification body will then give the app a 'good-housekeeping'-like stamp of approval," Dr. Huff says.

The consortium, which has only recently begun recruiting members, has two benefactor members, Intermountain Healthcare and Louisiana State University, and a verbal commitment from the Department of Veterans Affairs to become a third. Dr. Huff expects five to 10 organizations to join as benefactors and many more to join as associate members or individual members once the organization begins a recruitment push. Both associate and individual membership grant developers access to the consortium's sandboxes; the ability to have an EHR, EMR, or app certified as HSPC compliant; and permission to distribute apps in the consortium's app store.

Dr. Huff, who is also a pathologist and the chief medical informatics officer at Intermountain Healthcare, became interested in tackling the interoperability issue as a way to improve advanced clinical decision support programming. "Intermountain has about 150 advanced clinical decision support programs that help us make better decisions about patient care," he explains. "The way we do it today, we have to develop those programs, each one at a time. We then test the program, make sure it's behaving correctly, put it into the clinical workflow, and then we have to change things to accommodate how work actually gets done." If, however, Intermountain could create executable programs in tandem with other health care providers, instead of simply creating its own, the institution would be able to run thousands of advanced clinical decision support programs, rather than the current 150, Dr. Huff contends.

"We have to get to a new paradigm," he says, "where health care providers can create executable programs and share them across EHR systems." -*Charna Albert*

Xifin purchases VisualShare

Xifin, last month, acquired the diagnostic image-management provider VisualShare.

"We have had a successful strategic relationship with VisualShare for a number of years and have integrated their technology into Xifin's clinical products," says Xifin CEO Lâle White.

VisualShare technology was incorporated in the Xifin Health Economics Optimization cloud platform to enhance the Xifin LIS Anywhere lab system and Xifin ProNet integrated diagnostic content-management system. It is designed to improve Xifin users' ability to view, manage, and annotate radiology and whole-slide pathology images digitally and collaborate with health care providers over the Internet. The technology supports whole-slide imaging, DICOM and non-DICOM images, video, and next-gen sequencing.

Xifin, 858-436-2995

CDC releases update on electronic lab result reporting to public health agencies

A progress report from the Centers for Disease Control and Prevention indicates an upswing in the number of eligible hospitals participating in meaningful use that are sending lab reports to public health agencies electronically.

The document, titled "Update on Progress in Electronic Reporting of Laboratory Results to Public Health Agencies–United States, 2014," found that of 57 public health jurisdictions, electronic lab reports were received by 55 as of July 2014 and came from 3,269, or about 31 percent, of approximately 10,600 reporting labs. This represents an increase of about four percent from the July 2013 total of approximately 2,900 reporting labs that sent electronic laboratory reports.

While the proportion of laboratory reports received electronically varied among the jurisdictions, which included all 50 states, Puerto Rico, Washington, DC, New York City, Philadelphia, Chicago, Houston, and Los Angeles County, the number of jurisdictions that received 75 percent or more of lab reports electronically increased from 14 to 21 between July 2013 and July 2014 and the number that received fewer than 25 percent electronically decreased from nine to seven during the same period. Of the latter group, only the jurisdictions of West Virginia and Puerto Rico reported zero laboratory reports received electronically.

Public health laboratories account for 23 percent of total electronic lab reporting volume, according to the update. And, as of July 2014, nearly 3,000 eligible hospitals nationwide had registered their intent to send electronic laboratory reports to public health agencies in a manner that complies with the meaningful use program.

Enzo Life Sciences releases ELISA plate reader app

Enzo Life Sciences has introduced an ELISA plate reader app for iOS and Android tablets and cell phones.

The plate reader application can provide quantitative results in a variety of settings where a lab-based plate reader is inconvenient or unavailable.

Initial tests show a 90 percent correlation with the analysis made by a spectrophotometer. The imageanalysis-based reader, which can be downloaded from Enzo's website, is not intended to provide the sensitivity and reproducibility of a traditional plate reader.

Enzo Life Sciences, 800-942-0430

Orchard Software features white papers on website

Orchard Software offers on its website a series of white papers that cover a variety of pathology-related topics, including papers on how to address a laboratory's informatics needs, develop a test utilization program, and understand structured data.

The company occasionally adds new white papers to the series and will soon release a document addressing the progression of point-of-care testing and the importance of device connectivity to such testing.

"These white papers will provide the tools to make laboratorians feel confident in navigating the volume-to-value shift in the health care model," Orchard reports.

Orchard Software, 800-856-1948

Imprivata expands reach with acquisition of HT Systems

The health care information technology security company Imprivata has purchased HT Systems, a provider of palm-vein-based biometric patient identification systems.

"We are very excited that with HT Systems, we are acquiring a leading biometric patient identification product that we can leverage through our global distribution channel and partner ecosystem to expand rapidly and meet our customers' needs," says Omar Hussain, president and CEO of Imprivata.

HT Systems markets the PatientSecure biometric patient identification system, which registers the vein pattern in a patient's hand to retrieve the correct medical record in a health care provider's electronic health record system at patient check-in.

Imprivata, 781-674-2700

Sampleminded teams up with Exact Sciences

Sampleminded, a company that manages specimens and test results for diagnostics labs, research labs, and clinical trials, has partnered with Exact Sciences to manage the samples and test results for Exact Sciences' Cologuard noninvasive stool DNA screening test for colorectal cancer.

Sampleminded's scalable laboratory information management system alternative understands the context of the test. Therefore, it is able to remind laboratory technicians of next steps and flag protocol inconsistencies.

"While Cologuard performs all result calculations, the user-friendly interface and barcode system of Sampleminded's solution makes the process of tracking large volumes of samples and results more efficient and traceable," Sampleminded reports.

Sampleminded, 801-532-3080

[hr]

Dr. Aller is director of informatics and clinical professor in the Department of Pathology, University of Southern California, Los Angeles. He can be reached at raller@usc.edu. Hal Weiner is president of Weiner Consult-ing Services, LLC, Eugene, Ore. He can be reached at <u>hal@weinerconsulting.com</u>.