Pharmacy Automation and Technology

Exploring the ONC's Health IT Dashboard

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Readers are living the reality of the government's efforts to move the United States health care system into an electronic environment. It is often easy to develop tunnel vision and focus on efforts at your home institution. In this column, we explore a big picture perspective using an online resource that provides national-level data focused on specific areas of interest.

In May 2014, we explored the idea of health system dashboards. These dashboards provide real-time (or near real-time) data about operational performance on key parameters of interest – from the organizational level down to the provider level. In hospitals and health systems, parameters of interest are often organized in 3 primary categories: financial, clinical, and quality. The goal of the dashboard is to inform appropriate personnel for continued monitoring of important metrics to ultimately improve performance on these metrics. Your institution may indeed use dashboards. While dashboards may play an important role in operations specific to pharmacy, there is another dashboard that we follow because its scope is nationwide.

The Office of the National Coordinator for Health Information Technology (ONC) is responsible for overseeing efforts to implement interoperable electronic health records (EHRs). There are billions of dollars at play in these efforts, thousands of hospitals and providers' offices are being impacted, hundreds of thousands of providers' practice workflows are being modified, and millions of patients are ultimately projected to benefit from this massive adoption and implementation effort.

We believe that this is a very exciting time to be involved with health information technology (HIT). It can also be overwhelming to remain up to date and informed with all that is going on. The ONC's Health IT Dashboard (<http://dashboard.healthit.gov>) is one of our primary go-to sources for updated information on national efforts related to interoperability and adoption of EHRs. Other relevant topics that are closely related to EHR use and are available in

this dashboard include patient engagement, public health metrics, and safety issues. The unifying thread of each of these topics is, of course, that they are all supported and/or enabled by HIT.

Taking each of these topics, we will explore some of the facts we find most interesting. We begin with the core functionality of an EHR with notes functionality; an EHR with notes functionality includes patient history and demographics, problem list, physician notes, nursing assessments, list of patients' medications and allergies, computerized prescriber order entry (CPOE), and viewable lab, radiology, and diagnostic test results. At the state level, an average of 76% of all nonfederal acute care hospitals have an EHR with notes functionality. The data are presented via a national map, so you can compare your state to others. If we change to viewing small hospitals' (<100 beds) adoption, the state level average drops slightly to 70%. Comparing the 2 maps, the take-away is that adoption is fairly evenly spread by geography and that patterns of overall adoption are very similar to small hospitals' adoption. In other words, states that have low adoption among smaller hospitals also have lower adoption overall.

Moving on to interoperability, many argue that truly transformational change in the health care system can only be achieved through national interoperability. Unfortunately, interoperability is proving to be extremely difficult to bring to reality due to technical, operational, and financial reasons. At the national level, 40% of nonfederal acute care hospitals routinely have necessary clinical information available from *outside sources* during patient care. Interoperability can also be thought of as 4 specific

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activities: finding (through query) patient information from external sources and sending, receiving, and using patient summary of care records from external sources. Only 23% of nonfederal acute care hospitals report being able to perform all 4 activities. Clearly, much work remains to be done to achieve levels of interoperability that result in widespread transformation.

We often address patient engagement topics in this column. It is our third topic to explore from the IT dashboard. The most commonly found (all >90% nationally) functions focus on the provision of patient-specific education delivered electronically, electronic discharge instructions, and electronic copies of the patient's health record. Readers familiar with Meaningful Use requirements will recognize these functions. Other functions that bring patients into the care management process include the ability to download information from their medical record (82%), request an amendment to their record (72%), and request refills electronically (39%). A growing area of emphasis in the technology sector is the use of devices by patients to record health-related data and share it with providers. Thirty-two percent of hospitals reported this capability. Collectively, the efforts toward patient engagement are creating a health care experience that is much different than many of us remember from just 10 years ago.

Public health is our next focus and includes a variety of measures that indicate the use of HIT to monitor and inform efforts to positively influence health at the population level. Broadly, 72% of eligible hospitals reported data for all applicable public health measures specified under the Meaningful Use program in 2014. Looking at a specific activity that is important for pharmacists in the community, 90% of Medicare providers participating in the Meaningful Use program who provide vaccination services reported immunization information to registries in

2014. This number does not include pharmacists' vaccinations because pharmacists are not eligible for the Meaningful Use program. Certainly the use of HIT to improve outcomes for the person in front of you is important, but the ability to monitor and explore national trends provides valuable information that can inform policy.

Our last dashboard topic is safety. The most interesting data we found on this topic examines the impact of specific Meaningful Use requirements on patient safety by reviewing the literature. For example, a review of 100+ articles found that 65% reported positive impacts of clinical decision support on patient safety. Mixed positive, neutral, and negative effects were found in 17%, 11%, and 7%, respectively. The dashboard includes similar data for 8 other HIT tools, including CPOE (63% positive and 9% negative) and ePrescribing (52% positive and 16% negative). Among the 9 HIT tools, ePrescribing had the largest number of studies reporting negative impact. Readers who have worked in community settings can likely articulate the challenges that ePrescribing systems present.

The Health IT Dashboard provides more than statistics and visual depictions of the latest news related to HIT. It also provides downloadable data that are freely available to anyone who is interested. We encourage our readers to take a few minutes and visit the ONC's Health IT Dashboard as it provides an extensive view of the current state of HIT in the United States. You may find that your hospital is out in front of its peers in many areas. In those areas where more work needs to be done by your institution, we hope you can use the data to identify opportunities for your pharmacy department to jump in and contribute to needed improvements. We welcome your comments (Brent at foxbren@auburn.edu and Bill at felkebg@auburn.edu). ■