Perspectives and Updates on
Health Care Information Technology

HIT Perspectives

Biopharma Insights

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Point-of-Care Partners helps Life Science and Biopharmaceutical companies develop EHR and Health IT strategies to increase product adoption, drive growth, and help their healthcare customers succeed in the world of value based care.

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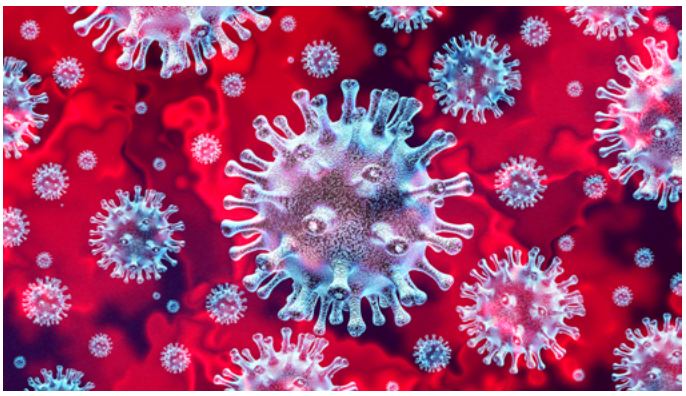
1 Part 1: The Critical Role of Health IT in Fighting COVID-19

By Michael Burger, Practice Lead, EHRs and EDI, and Ken Kleinberg, Innovative Technologies Practice Lead

American health care is in the fight of its life to address the pandemic caused by the coronavirus disease 2019 (COVID-19). As a country, we have had to quickly ramp up ways to contain, diagnose and treat this virus in unprecedented ways. While things have seemed grim as the dimensions of the scope and severity of the virus became known, there is good news: we've rapidly been able to leverage health information technology (health IT) in the fight. Here are some examples.



Telehealth.

Use of telehealth has skyrocketed in the scramble to combat COVID-19. To be sure, virtual visits have been on the rise for several years; but now in the face of the COVID-19 pandemic, policymakers quickly jumped on the potential of telehealth to provide care, protect patients and health personnel and limit community spread of the virus. This was facilitated by many relaxed regulatory restrictions. For example, **Medicare** announced waivers and policy changes related to telehealth payments while restrictions for multistate physician licensure (a major barrier) have been temporarily lifted. **The Federal Communications Commission** relaxed broadband rules to give health systems and broadband providers more opportunities to improve connectivity and expand telehealth and mobile health capabilities. The Drug Enforcement Administration **eased restrictions** on controlled substance prescribing for telehealth.

Virtual visits come in all sizes and shapes. They can be just telephonic or in-person sessions through Zoom, Skype or specialized applications. **Allscripts**, for example, provides telehealth capabilities within their FollowMyHealth patient engagement platform, which enables providers to give direct patient-to-provider telehealth services. **eClinicalWorks** has a televisit capability within its Healow platform, which provides secure and fully virtual visits integrated into the eClinicalWorks electronic health record (EHR), leveraging existing equipment and webcams by both providers and patients.

Telehealth leader **American Well** has made its virtual care platform available in **Epic's App Orchard**. The American Well Telehealth (Clinical) app enables providers to embed video visits into their existing clinical workflows and launch an American Well-powered video consultation from the patient chart with one click. A physician can use a patient's electronic health record (EHR) to access clinical information during the virtual visit to triage for testing and treatment and arrange for interventions. Similarly, Amwell's telehealth solution **is embedded** within Cerner Millennium, enabling providers to launch video consultations directly within Millennium using single sign-on and eliminate the need for dual screens.

EHR platforms can pair with various kinds of applications (apps), wearables and other technologies to provide clinical information (such as heart rate and glucose levels) that will better inform the interaction between patient and provider, as well as improve satisfaction and outcomes.

There also are innovations in remote **monitoring** that are being brought to bear — both to prevent exposure to the virus as well as provide needed care. For example, Israel's **largest hospital** is deploying an **EarlySense** monitor under mattresses of COVID-19 patients isolated in hospital rooms and their homes. The EarlySense sensor measures a patient's respiration and heart rates and motion. It has an artificial intelligence (AI)-based algorithm that alerts the care team when a patient is deteriorating or about to crash, typically 6 to 8 hours before that happens. This gives the care team the opportunity to assess the patient and arrange for higher-level care, such as transfer to the intensive care unit (ICU).

Patient portals.

Patient portals also aren't new. In fact, their use is one way to meet the Advancing Care Information requirement under the federal Merit-based Incentive Payment System. Using patient portals linked to certified EHR technologies is one of the easier ways to provide patient access to their health data. According to **research** by Kaiser Permanente, access to a patient portal can increase engagement in outpatient visits, potentially addressing unmet clinical needs, and reduce downstream health events that lead to emergency and hospital care, particularly among patients with multiple complex conditions. Despite a number of successes, such as patient use of Epic's MyChart and Kaiser Permanente's success with its portal, uptake across the industry has been sparse — roughly a **third** of patients use portals even though **90%** of provider organizations offer them.

That is changing rapidly in response to the COVID-19 crisis. Health systems are encouraging patients to use existing portals; consequently, patients are migrating to portals to schedule virtual visits and COVID-19 tests. They are exchanging secure messages with their providers about their symptoms and places to go for care. All this can have a huge bearing on treatment efficacy, utilization and patient outcomes and satisfaction, aside from limiting the spread of the virus and mitigating hospital overload.

Secure messaging via portals also is used to triage those having been exposed to the virus and requiring treatment. For example, Alphabet's **Verily** launched a website on which California residents can complete a short survey regarding their current condition and, if they meet certain criteria, could be referred to a nearby mobile COVID-19 testing site. Labs run the samples and Verily sends the results to patients.

Electronic health records.

EHRs are ubiquitous in hospital and ambulatory settings. They have many functionalities that are being brought to bear in the COVID 19 crisis.

- **Electronic prescribing.** EHRs are the main way to prescribe medications in the United States. Electronic

Use of telehealth has skyrocketed in the scramble to combat COVID-19.

prescribing (ePrescribing) currently is key for patients who need prescriptions and refills not related to the virus. ePrescribing's problem list and medication history functions can help inform virtual visits. As we start to turn the corner on the emergency, ePrescribing will be essential for prescribing new treatments and vaccines as they become available.

- **Ordering of tests.** Many EHR vendors and users have integrated the ordering of tests and equipment into the EHR workflow. Intermountain Healthcare in Utah has configured its EHRs so clinicians can more easily order COVID-19 tests and necessary equipment.
- **Providing clinical guidance.** Decision support capabilities are already within EHRs to provide clinical guidance. It's just a matter of configuring them, populating them with appropriate content, and updating content and workflow as they evolve for COVID-19. Many EHR vendors have created COVID-specific workflows, screening tools, order sets and care paths, and are distributing them to their clients.
- **Identifying those at risk.** EHRs can be leveraged to identify at-risk patients based on certain metrics. For example, data analytics within **Epic**'s suite of products can be used to create and run reports that indicate how patients are being affected within a community. One possibility is a search that might map positive COVID-19 patients by ZIP code to reveal potential hot spots. Boston's **Brigham and Women's Hospital** is leveraging information from its EHR to trace patient and staff contacts for follow-up if they have been in contact with providers who test positive for the virus.

Screening.

EHR vendors are enhancing tools to help providers screen patients. Cerner's **Soarian Clinicals** is an example. Its Provider Documentation and Inpatient Nursing Assessment model provides communicable disease screening questions as well as alerts and patient-level icons. In another example, **MEDITECH** is providing additional system configuration instructions and guidance for screening patients suspected of COVID-19 infection.

Mobile apps.

Mobile apps are becoming central to health care in general and to the fight against COVID-19 in particular. They attempt to address all aspects of diagnosis and treatment.

Athenahealth's epocrates mobile app for clinicians now features an interactive decision tool based on the latest CDC guidance. In under 60 seconds, a clinician can access the CDC's updated guidance relevant to a patient's situation directly from a mobile device. **MobileSmith Health**'s COVID Response Mobile Apps enable hospitals to communicate with the community, hospital employees and volunteers. The **Sentinel Fever Tracker** is a new app to help health systems, hospitals, government agencies and employers monitor the temperatures of people under self-quarantine due to possible exposure to the virus. Hospitals are using **real-time locator** apps and wireless real-time location system technology to keep track of people and equipment, which is essential in the current hectic and fluid environment surrounding COVID-19. Apple has teamed up with the White House Coronavirus Task Force and federal agencies to stand up a mobile app and web site for COVID-19 screening and resources.

Data analytics.

Health IT vendors are continually expanding their products to include more and sophisticated data analytics capabilities. Use of such data analytics as AI, machine learning and predictive modeling have been on the rise before the pandemic. Now they are essential to fighting the virus and its spread. Hospitals and public health officials are leveraging data analytics tools embedded in EHRs to identify outbreak clusters and epidemiological patterns. Data analytics companies are **rolling out** new modules to enable clients to track where patients who test positive for COVID-19 have been within the health system and which staff members have interacted with these patients. Optimal scheduling of precious resources such as ICU beds can benefit from advanced analytics and technologies. **Health IT** vendors are using AI to identify gaps in the supply chain and which workers will need hardware and software to work remotely. AI algorithms can identify abnormal chest X-rays of COVID-19 patients, providing "instant triage" that could speed diagnosis and improve resource management.

Going forward.

The COVID-19 epidemic will forever change the face of health care and how we work (**see our predictions** in this issue of HIT Perspectives). Reach out to us for more information on how health IT is being used to fight COVID-19, new developments in the field and postscript analysis once the pandemic has receded. For example: Which relaxed regulations will have legs and continue forward and which ones will not be reinstated? How will telehealth continue to impact diagnosis, treatment and monitoring? How will working remotely affect various workforces? How will telehealth impact physician engagement with pharmaceutical manufacturers? You can reach us at **michael.burger@pocp.com** and **ken.kleinberg@pocp.com**. •

Use of such data analytics as AI, machine learning and predictive modeling have been on the rise before the pandemic. Now they are essential to fighting the virus and its spread.

2 Part 2: Five Predictions on How the COVID-19 Crisis Will Transform Health IT


By Michael Solomon, Practice Lead, eCare Management and Jocelyn Keegan, Payer/Practice Lead

The health care system is under siege in addressing the crisis surrounding the novel coronavirus disease 2019 (COVID-19) and its impacts. New information about the virus' severity, life cycle, transmission mechanisms and spread come to light every day. We know our response to the COVID-19 crisis will forever change health care and health information technology (health IT), but that response has shone light on the importance of health IT to the health care system, particularly exposed risks and gaps requiring attention. Here are some early predictions on what — and how — health IT will change, even though the pandemic is far from over.

Prediction: Telehealth is here to stay. Response to the virus is built on a growing telehealth platform. There is wind to our backs and patients, providers and payers will not want to backslide.

- **Where we are today:** Telehealth was on a growth trajectory before the COVID-19 crisis, which then expanded its use exponentially. According to the American Medical Association, physician use of telehealth and virtual visits doubled during the 3-year period ending 2019. Kaiser Permanente already employed virtual visits for 90% of its routine care before the pandemic. Medical centers across the country are **rolling out telehealth** services to mitigate the risk of spreading the virus by reviewing patients' symptoms remotely and replacing in-person, non-COVID-19 visits with telehealth. **A recent survey** of consumers found two-thirds more willing to use telehealth due to fear of infection as a result of going to a doctor's office. This will likely be the tipping point toward broader adoption of telehealth by patients, payers and providers.

  Several factors came into play. Telehealth instantly became an easy-to-use, reliable method to connect patients and providers that eliminated risk of exposure to the virus and curtailed its spread. Restrictions were temporarily relaxed, including multistate physician licensure requirements, payments for telephonic and other types of telehealth visits, and prescribing via virtual consultations by the Drug Enforcement Administration.

- **What needs to happen:** Virtual (video and telephonic) visits should become part of agreed-upon standard, reimbursable services covered by all government and commercial payers. Reimbursement models require refinement to reflect differences in the level of intensity of a telehealth visit compared with an in-office exam. Restrictions on conditions treated and appropriate use should be evidence based. Oversight of telehealth use is needed at the local, state and federal levels. Other restrictions will need to be lifted at the federal and state levels, including multistate licensure of physicians, pharmacists and other health professionals and the ability to prescribe across state lines. Expansion of broadband coverage must be accelerated. The digital divide should be acknowledged so vulnerable

populations can avail themselves of virtual visits. Electronic health records (EHRs) and telehealth applications must become seamlessly and fully integrated, enabling providers to stay within their clinical workflow, have direct access to a patient's medical history, and be able to order medications and services while virtually consulting with a patient. New virtual workflows will be created. The myriad telehealth applications proliferating today — some not much more than a Zoom session — will consolidate to a market of robust, reliable and scalable systems. As the value of telehealth in the primary care and specialty settings becomes more evident, innovative uses in other areas will emerge, including behavioral health and population health management. Regulators and telehealth providers must be diligent in ensuring applications protect patients' privacy and security. For example, some Zoom sessions have been hacked, while Microsoft **warned** of ransomware attacks on hospitals whose staff are working remotely.

Prediction: COVID-19 will further drive data exchange among payers and providers.

- **Where we are today:** Payers are sitting on a mountain of patient data. The complete view of that information is key to diagnosis and treatment, not just every day but in times of crisis. The COVID-19 response highlights the need for more complete access to patient information, which also will be needed if another round of the virus appears in the fall and certainly as other public health crises arise. The COVID-19 pandemic is an untenable use case for widespread exchange of health information among payers, providers and their patients/members. However, payers are still in the early phases of adapting their internally focused data streams to share information with providers and other organizations that are not closely held trading partners. Defined data endpoints are not in place. Providers — even those who are connected to a health information exchange — are unable to share essential patient health information across the continuum of care, particularly subacute care providers, home health and social service agencies. Connectivity with public health agencies is limited.
- **What needs to happen:** Evolving health information exchange — particularly bringing payers into existing and emerging data exchange infrastructure with providers — will need to leverage ongoing federal and stakeholder initiatives. The first is adoption of standards required for uniform data exchange under new rules from the Office of the National Coordinator for Health Information Technology (**ONC**) and the Centers for Medicare & Medicaid Services (**CMS**). They are: 1) the US Core Data for Interoperability standard, which will support the exchange of codified data elements; and 2) the Health Level 7(HL7) Fast Healthcare Interoperability Resource (FHIR) standard, version 4, which is being adopted as the foundational standard to support data exchange via secure application programming interfaces.

Stakeholder initiatives also will be key to transforming payer

data exchange. An example is the stakeholder-led HL7 Da Vinci Project, which focuses on using the FHIR standard to share data necessary for value-based care. Several use cases could be applied to the COVID-19 response. For example, risk-based member identification use cases flesh out a standard for ways partners can agree for which patients they will exchange data. The Payer Data Exchange set of use cases focuses on the ability for payers to tell partners — whether they be providers, other payers or health information exchanges — everything they know about a patient. Payers, providers, public health entities and health information exchanges (HIEs) need to become involved.

Prediction: Unique patient and provider identifiers will be created.

- **Where we are today:** The response to the virus has highlighted the fact that there is no single way to identify patients and providers. Legislation instituting a **ban** on creation of a national patient identifier standard by the government was enacted in 1999. As a result, there is no single way to identify patients. Stakeholders have created one-off proxies, which remain imprecise.

  The problem has come to a head again with COVID-19. Patients receive care from disparate health care organizations (urgent care facilities, field hospitals, pharmacies, labs, payers and various types of providers) in different venues and even different states. Many of these sites are outside of patients' normal health care channels, so their records (and advance directives) aren't available to their care team. Epidemiologists need precise patient information to track the spread and severity of the virus. Providers need to accurately and quickly identify patients to determine their risk from comorbidities when being treated for COVID-19, manage treatments and document outcomes. Uniquely identified (and accurate) patient information is crucial to clinical trials for treatments and vaccines.

  Similarly, there is no unique provider identification (ID), which makes it difficult to identify providers in the fluid environment of COVID-19 response. Physicians and health professionals are being called out of retirement, brought in from various geographic areas and moved in and around states. Some 40,000 health professionals from inside New York and out of state have volunteered to fight the virus there. They are practicing in novel sites of care, such as field hospitals. A unique provider ID is crucial for vetting licensure, knowing who provided care and where, and tracking quality and outcomes. A national provider identifier would help payers sort out billing at the back end of the crisis.

- **What needs to happen:** There finally will be an appetite to take politics out of the creation of a patient identifier, which is no longer a "third rail." Congress will be pushed to remove the ban on government development of a standard. This should leverage the considerable stakeholder efforts already in place for patient ID algorithms. In terms of a provider ID, the Medicare National Provider Identifier (**NPI**) could be adapted. It is a unique 10-digit identification number issued to providers billing Medicare; that is, nearly all primary care physicians and a significant number of specialists. However, the number isn't issued to all providers and lacks some useful data, such as the state of residence or specialty. The NPI could easily be expanded and used to jump-start the creation of a national provider ID, which may require legislation.

Prediction: HIEs will emerge stronger and more interoperable than ever.

- **Where we are today:** In the early days of the push for interoperability, about a decade ago, HIEs emerged as a promising way to exchange patient information. However, there were technological issues and questions about sustainability. Although many HIEs failed, a strong core have thrived and the HIE model has evolved with many state, regional and private-sector HIEs now in place. Nonetheless, there are still gaps in connectivity and data systems. COVID-19 has exposed these issues. HIEs often are not connected with one another, much less with providers across regions and government agencies. Such connectivity and data exchange aid in early identification and even prediction of the centers of epidemics. Patient consent across HIE platforms is not uniform, although some HIEs have temporarily relaxed such restrictions in response to COVID-19.

Recognizing the value of HIEs, the Centers for Disease Control and Prevention (CDC), the Sequoia Project and Audacious Inquiry have introduced a new, but one-off way to identify patients and associate them with their records called PULSE-COVID, which is a health IT disaster platform modeled after one created during Hurricane Katrina. It allows verified providers to find and view electronic patient health and medication histories across national HIE networks. It is now connected to the eHealth Exchange, which includes more than 60 regional and state HIEs and 75% of all hospitals in the United States. However, this kind of capability is only rolled out when disaster strikes.

HIEs generally do not transmit nonmedical information. This includes information related to social determinants of health, which is essential for population health management and disaster response.

- **What needs to happen:** The need for a nationwide information superhighway is crucial, not only for everyday health care information exchange but for the inevitable future epidemics and natural disasters. HIEs have a huge role to play. Their roles and some of their interoperability could be addressed through the implementation of ONC's Trusted Exchange Framework and Common Agreement (**TEFCA**). This creates a codified set of principles, terms and conditions to support the nationwide exchange of electronic health information across disparate qualified health information networks (QHINs). A successful rollout of TEFCA would go a long way toward ensuring that a health care consumer's data are available in a standard format anywhere they are needed via a nationwide health information network.

  What if TEFCA required QHINs to connect with and report to public health entities? This would tie together all QHINs into one national network that includes HIEs, health systems, and public health.

  In the meantime, policymakers should work on a standards-based, scalable and interoperable platform for HIEs that would dovetail with TEFCA and other federal interoperability efforts. The need for uniform patient consent and other privacy issues need to be reviewed and normalized.

Prediction: Public health data systems will become more interoperable with the rest of health care.

- **Where we are today:** Local public health data systems are a **patchwork**. Traditionally, public health agencies and health care providers (including those in federal qualified health centers) have not used the same information systems, data formats or even data standards. While there is a **National Syndromic Surveillance Program**, it isn't as seamless as it could be. This has prevented the timely and complete exchange of information, which has been exacerbated with the COVID-19 crisis.
- **What needs to happen:** A limited number of public health agencies are currently connected with HIEs to receive lab results and reportable diseases. Just imagine if every public health agency was connected with a national health information network to receive test results before the COVID-19 pandemic arrived. Public health funding for interoperability tools needs to be on par with that of other agencies. Data silos need to be eliminated. In addition, the CDC should continue to update its platforms using the FHIR standard. This will standardize data exchange and reduce the time and resources needed to collect and analyze data. CDC should continue to work with burgeoning implementation guides under development at HL7, like the Da Vinci Project, to identify additional use cases and standards that may be extended to meet public health's unique needs. Additional funding should be provided to the CDC for these efforts. The CDC should ensure interoperable access to immunization registries, which will be important once a COVID-19 vaccine is approved and deployed. Finally, the PULSE system should be merged or made interoperable with EHRs and HIEs on a nonemergency basis — perhaps as part of the QHIN model but with facets that could be employed during disaster response when other networks are down.

Looking ahead.

There are many health IT innovations springing up in response to the COVID-19 crisis. Point-of-Care Partners is keeping on top of these developments. Want to know more? Reach out to us at **michael.solomon@pocp.com** and **jocelyn.keegan@pocp.com**. •

3 Part 3: Take Note of the Health IT Opportunities Emerging From the Final Interoperability Rules of ONC and CMS


By Gary Austin, Payer/Provider Interoperability Lead and Ken Kleinberg, Innovative Technologies Practice Lead

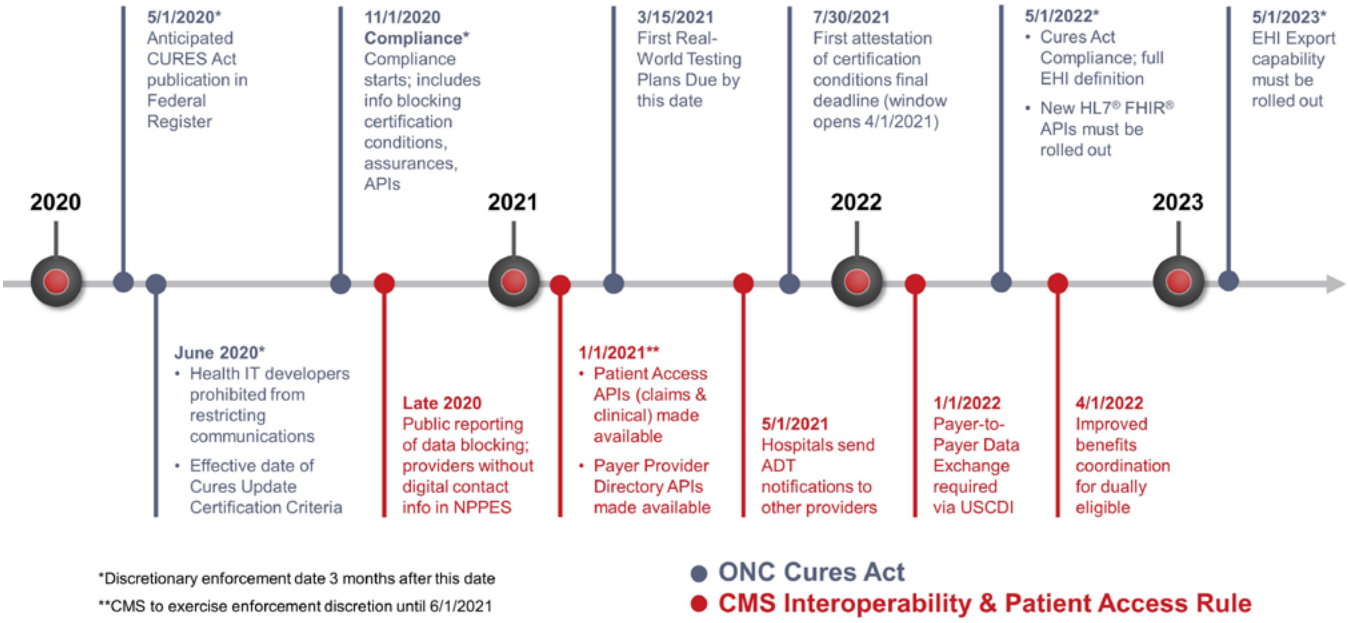
The long-awaited interoperability rules from the Office of the National Coordinator for Health Information Technology (ONC) and Centers for Medicare and Medicaid Services (CMS) arrived just as the response to the novel coronavirus disease 2019 (COVID-19) crisis ramped up. As conveyed in our recent blog and March 13 webinar, the rules will be game changers for consumers, payers, providers and technology vendors despite the challenges swirling around the health care system in these uncertain times. And, while the timeline updates made by ONC and CMS last week give stakeholders a 3–6 month reprieve from potential penalties for noncompliance, stakeholders should be "heads down" now analyzing how both sets of rules will impact their business.

These rules present opportunities for both operational improvement and market differentiation. It's critical that your business and development teams understand the value-based care landscape, the impact of other federal rules in play, and how planned releases of named and synergistic standards will be impacted, including how multi-stakeholder groups are using the Fast Healthcare Interoperability Resources (FHIR) today to advance interoperability. Your competitors will be moving full steam ahead on not only meeting rules compliance, but also leveraging the new capabilities for marketplace leadership. Will you be ready? What are some of the opportunities that will arise?

Will Your Organization Be Ready for the "New Interoperability"?

Readiness is one of the most critical issues for all stakeholders. In the past, stakeholders have not always felt urgency around implementation of federal regulations. It's different with the interoperability rules. Their short implementation timelines—despite the handful of relatively small extensions—coupled with the COVID-19 response will push innovation and adoption forward at rocket speed. As shown in the figure below, time will be of the essence and readiness will be a primary market differentiator.

ONC/CMS Final Rules Timeline



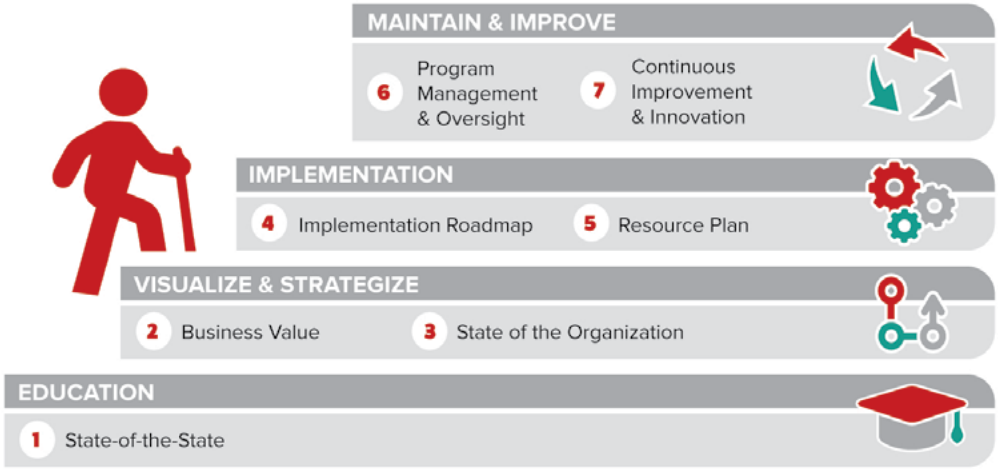
With short implementation timeframes beginning this fall, stakeholders should ask themselves:

- **Are we ready for APIs?** The new interoperability rules will force quick creation and adoption of application programming interfaces (APIs) to enable data sharing among providers, patients and payers—not to mention the new use cases that will be springing up in response to COVID-19. As mandated by the new rules, APIs will be based on FHIR version 4. To be sure, other standards may be included into the mix as time goes on, but stakeholders must use FHIR v. 4 to get the ball rolling, if they haven't already. While FHIR adoption has been rapidly accelerating over the past few years, not all payer and provider systems have been updated for FHIR-based data transfer.
- **Do we have a plan?** Planning is always important, but not all organizations do it at the beginning of the process or do it well. With the new interoperability, planning will take on even greater importance. And it needs to be done sooner rather than later. With everyone scrambling to comply with the interoperability mandates at the same time, stakeholders need to create unique value, which starts with planning. The figure below shows key steps in the process.
- **Do we have the right resources in place?** Implementing the plan requires understanding of the necessary resources, both in terms of technology and staff. Payers and vendors face many challenges.

  Payer resources. For Payers, it's critical to identify underlying technology gaps related to patients' data access, payer-payer data transfer, and creation and maintenance of provider directories. They must understand all the nuances around sharing data singly and in bulk, such as ensuring data accuracy. Payers who do not have the underlying technology in place to accomplish the heavy lift needed for each of these (and most don't) will need to start building it as soon as possible.

  Vendor resources. For health information (healthIT) technology vendors, the challenges are somewhat different. They must figure out how to provide patient

Key Steps Toward Achieving the New Interoperability

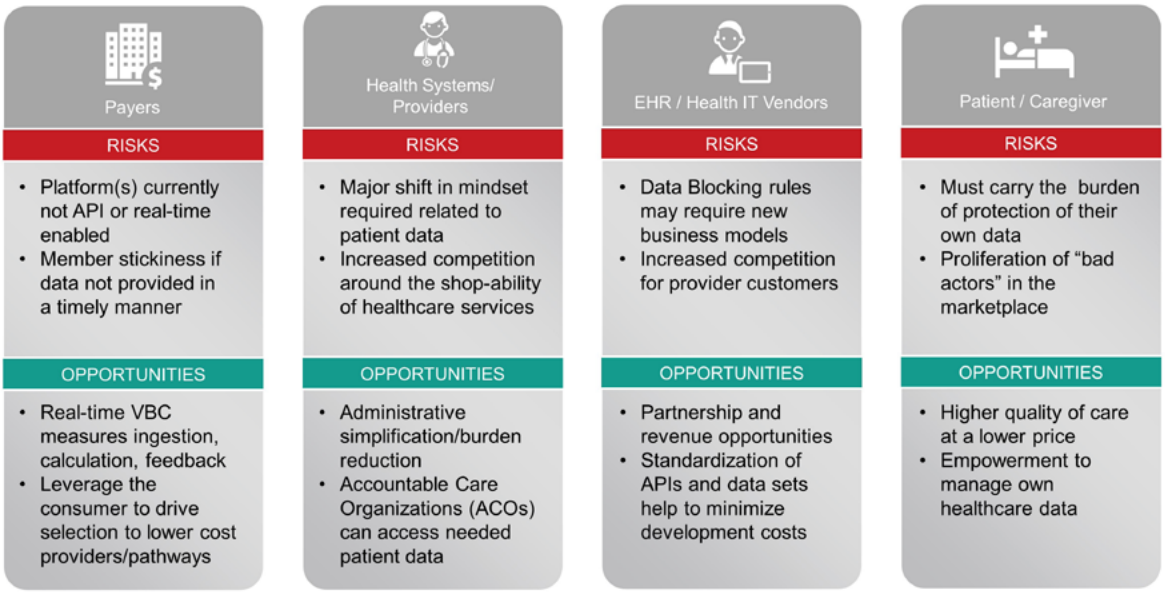


(and caregiver) access to data across payer and provider platforms. This must be done while conforming to ONC's certification and information blocking requirements to avoid financial penalties for noncompliance. Are the right technology stacks in place to accommodate APIs? What is on the shelf that will work to fulfill the new mandates? What adaptations will be needed to enable data exchange with older systems that are not FHIR based?

Risks/Opportunities of Interoperability Rules

Organizations will have to ramp up quickly to meet the compliance deadlines and avoid penalties. Amid the flurry of preparation, organizations should take the time to identify risks and opportunities. We've included some examples, based on Point-of-Care Partner's long-standing leadership in strategic positioning in the health IT field.

Payers. Payers control a goldmine of data about patients, and now they will be forced to move from a mindset of optional data sharing to required data sharing. They must take the lead and make data available, while letting consumers direct who can access and use the information. APIs, based on the FHIR standard, version 4, will be key to value-based care success. Accountable care organizations will benefit by being more readily able to share and obtain needed patient data. That said,



Your competitors will be moving full steam ahead on not only meeting rules compliance, but also leveraging the new capabilities for marketplace leadership.
Will you be ready?

payers will find themselves in a new competitive environment with radically accelerated price transparency. What prices will be shared? What will they reimburse for and how much for drugs and treatments? This, in turn, will affect client loyalty. Patients won't stay if premiums, copays and deductibles are too high. Payers also will have to adjust or redo their platforms, which may not be enabled for APIs or certain standards. The CMS rule's technology requirements could be a challenge for state Medicaid agencies, which typically don't have large health IT budgets.

Providers. Providers will also have to make a major mindset shift related to patient data. They sit on a huge repository of data in EHRs and their new required liquidity will necessitate workflow changes. At the same time, increased access to payer data will help improve quality of care. Providers, however, will need to educate patients about how their data might be used by third-party app vendors that operate outside of the Health Insurance Portability and Accountability Act (HIPAA). Protection of data, once it flows to apps, would fall to the Federal Trade Commission, from whom we expect guidance this year.

The new "shopability" of care puts providers in new competitive modes, in which patient recruitment and retention will be influenced by easy access to their data and how they are exchanged. Improved price transparency and lower costs of care could affect reimbursement, which will depend on health IT to provide the necessary data to support payment metrics as well as submit required information. Analytics and artificial intelligence will also have roles in helping make this voluminous amount of data actionable for physicians and operations.

EHR and health IT vendors. These entities will clearly need to make business policy and contract changes and implement new approaches to address data blocking rules. Their provider clients will increasingly be required to share data -- vendors who make data sharing "easy" will have a competitive advantage. It will be easier for customers to air usability challenges in the market due to vendors' inability to fully hide their customers' complaints behind gag clauses. There will also be increased competition for provider customers, whose business needs also will evolve to respond to the changing regulatory and payment landscapes. The rules are likely to level the playing field among players: big, small, old and new.

Patients/Consumers. The new interoperability rules put consumers, for the first time, firmly in the drivers' seat for accessing and sharing their own health data. This is primarily done through consumer-facing applications (apps) and health IT tools developed for them from third parties and other stakeholders to access payers and providers via open application programming interfaces (APIs). It will enable consumers to select lower-cost and better performing providers and procedures as well as drive down the costs of care. Additionally, patients will have more data to evaluate their health plan networks and reimbursement/

Payers must take the lead and make data available, while letting consumers direct who can access and use the information.

coverage. Low health literacy is still a barrier. Effective patient education programs will be needed to help patients understand their data and how to use them to make informed choices.

Applicable transactions, synergistic rules and initiatives

These interoperability rules are just one aspect of our nation's drive to a more consumer-centric health care delivery system that rewards value and which we are all painfully aware now needs to be more agile in responding to health care crises (see our related article in this issue of HIT Perspectives). Another key aspect is advancing the use of standardized health IT transactions that will improve patient access to medications and reduce provider burden. During the past year, we've seen a number of related federal rules that will work in concert with these interoperability rules, such as:

- **Electronic Prior Authorization: NCPDP version 2017071 Required by 1/1/2021 for Part D Covered Drugs**
  - Impacts: Part D plan sponsors, prescribers and pharmacies
  - Supporting final bills: **H.R. 6 SUPPORT Act**, **21st Century Cures Act**. Supporting proposed rule: **CMS–4189–P**. For a deeper drive about this proposed rule, read our **related blog**
- **Electronic Prescribing for Controlled Substances: Required by 1/1/2021 for Part D Covered Drugs**
  - Impacts: Part D plan sponsors, prescribers and pharmacies
  - Supporting final bill: H.R. 6 SUPPORT for Patients and Communities Act of 2018
- **Real-Time Benefit Check: Required by 1/1/2021 for Part D Covered Drugs**
  - Impacts: Part D plan sponsors, prescribers, EHR vendors
  - Supporting final bill: CMS-4180-F Modernizing Part D and Medicare Advantage to Lower Drug Prices and Reduce Out-of-Pocket Expenses
- **Beneficiary Real-Time Benefit Tool (RTBT): Required by 1/1/2022**
  - Impacts: Beneficiaries, Part D plan sponsors
  - Supporting proposed rule: CMS-4190-P would require Part D plan sponsors to implement a beneficiary RTBT to allow enrollees to view plan-provided, patient-specific, real-time formulary and benefit information

Remember: This is an **interoperability journey**. It will be vital for stakeholders to design and build supportable strategies, create a roadmap for successful implementation and develop a sustainable organization. POCP is uniquely positioned to guide your organization in the transition to the growing, patient-facing health IT economy. Reach out to us at Gary "Lumpy" Austin (**gary.austin@pocp.com**) and Ken Kleinberg (**ken.kleinberg@pocp.com**). We'd love to hear from you. •