



The Employer Role in Improving Healthcare through Data

Employers have the incentive and power to advance the use of personal health data to improve the experience, efficiency and cost of healthcare.

Employers are incented, positioned and empowered to achieve a goal that the healthcare system has failed to achieve on its own: the timely, secure use of personal health data to optimize care for individuals. Using innovative healthcare advocacy solutions that take advantage of timely health data delivered by health plans and digital point solutions, employers can drive the development of a “whole-person profile” for

each employee and family member covered by their health plan. The whole-person profile serves as the foundation for individuals to understand more about their health and well-being, to feel empowered to make the right healthcare decisions, and to work with providers to get the right care at the right time. The result is a better healthcare experience, higher satisfaction, and reduced healthcare costs for employee and employer.

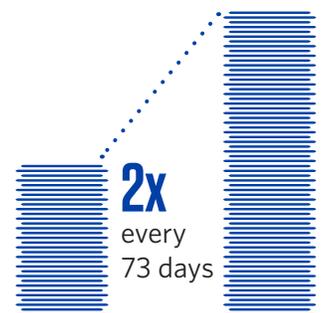
The Promise of Data Interoperability & Exchange to Improve Healthcare

For nearly 15 years, the healthcare industry has chased the promise of data interoperability as a critical cure to the ailing healthcare system. If we could unlock the health data stored in separate clinical and financial systems, combine it and share it in a timely way, everyone would benefit.

Patients would have ready access to their personal health data whenever and wherever they need it. Compliance with treatment plans would become easier. Emergency room doctors would know about a patient’s life threatening allergies before administering medicine. Society would see a reduction in unnecessary or redundant tests and procedures, which contribute to the approximately 40% of waste in healthcare spending in our country. **The quality of care would improve and costs would go down - bringing great relief to individuals, families and employers.**

And with medical data expected to double every 73 days by 2020¹, the promise of big data and analytics - powered by cloud computing, the rise of “wearables,” and unprecedented innovation in digital health solutions - knows no bounds.

Expectations have never been higher for data exchange to drive a new level of insight and improvements in U.S. healthcare. But after 15 years, we’re still waiting, even though the technology to achieve data interoperability exists today.



MEDICAL DATA GROWTH FORECAST

Expected to

DOUBLE every 73 days
by 2020

A lot of progress digitizing information but not exchanging data

The U.S. has made great strides in shifting from paper to electronic health records (EHRs), with nearly 100% adoption of EHRs by acute care hospitals². **When it comes to exchanging data and using it for patient care, however, the healthcare system has stalled for a number of reasons, including:**

- Most **EHR systems are not designed to communicate with each other**. As of 2015, only 26% of hospitals electronically find patient information and send, receive and use patient summary-of-care records from sources outside of their health system – up from 23% in 2014.⁴
- Patient identification matching issues, resulting from data entry errors, remain a big challenge and can compromise quality of care and cause costly errors. Studies show a **rate of patient medical record duplication of up to 16 percent in large U.S. health systems**.³
- EHRs are designed primarily to store “structured data” – e.g., names, dates, codes and other data that’s “computer readable.” The trouble is, an estimated 80% of data in the healthcare system is unstructured, e.g., clinical notes, audio files, faxed or scanned documents, images, text messages, and many others sources of information.⁵ Which means **the majority of patient health data needed – for a complete patient story, for fully informed healthcare decisions, and for research or analysis – is not readily accessible or usable through electronic health records.**

Consumers have more access to more of their personal health data, but is it making a difference?

Healthcare reform has shown more success in making personal health data accessible to individuals in order to increase patient engagement. Test results, health histories, allergies, discharge summaries, visit summaries, secure messages and other personal health data stored in health system EHRs are now commonly available directly to individuals through patient portals or Personal Health Records (PHR) tied on the back end to the provider EHR. However, **when it comes to making an impact on the experience, efficiency and effectiveness of healthcare, the sharing of data via patient portals is mired with challenges:**

1. **Barriers to adoption of patient portals.** Not everyone has access to the Internet via a computer or device, or the technology savviness to sign in to a patient portal.
2. **Another portal, another password.** Like EHRs, patient portals are not connected to each other. Many people can’t recall which providers offer a patient portal, as they likely have multiple providers and portals to access. Others can’t find them or recall their passwords.
3. **Patient portals don’t talk to each other.** Like EHRs, patient portals or PHRs don’t share data, so healthcare data remains fragmented and limited in value.
4. **What do those test results mean?** Most people are not trained to read lab results or health records, which are written for clinicians, not consumers. Studies have shown that even those in the healthcare system aren’t familiar with every care code.

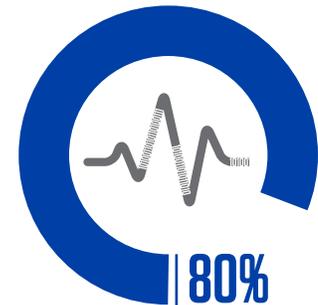
RATE OF RECORD DUPLICATION

up to **16%** in large U.S. health systems



JUST **26%**

of hospitals are exchanging patient data outside of their health system

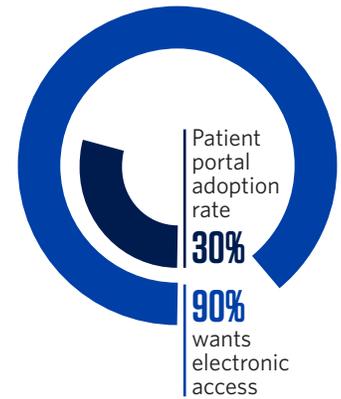


80%

of healthcare data is unstructured and can't be stored in EHRs

5. **Doctors are busy.** Primary care physicians often don't have time to write anything more than cursory notes and are not able or incented to collaborate with patients through the portal.

As a result of all of these factors, **patient portals or PHRs are not meeting expectations for engaging patients in their healthcare**; in fact, it's estimated that less than 30% of people have adopted and use patient portals, even though nearly 90% say they want electronic access to their health data.⁶



Where do we go from here?

With true healthcare data interoperability stalled, patient portals that miss the mark, and healthcare reform mandates under review by a new administration, **what can be done to advance the secure and timely sharing of health data to improve the experience, quality and cost of care?**

Employers can lead the data-driven approach to healthcare

Rather than expecting the healthcare system - led by hospitals and physician clinics - to tackle the significant undertaking of health data exchange, **self-insured employers can take the lead.**

More than 178 million Americans receive healthcare benefits from their employer. As of 2015, 86% of employees at large organizations (>1,000 employees) were enrolled in self-insured health plans. Not only are self-insured employers incented to help their employees get the right care at the right time - think healthy employees, lower healthcare costs, higher workplace presence and productivity and overall satisfaction - but they are well-positioned and empowered to do so.

- Escalating healthcare costs threaten their ability to compete in the global marketplace - shifting profits away from compensation or R&D to healthcare costs. Employers also look to provide a better health and benefits experience as a critical strategy for acquiring and retaining the best talent in a competitive job market.
- As a group with leverage, **employers can demand their health plans make member claims and utilization management data available on a timely basis** to enable more personalized healthcare support to members, which is proven to improve clinical and financial outcomes - for everyone.
- Employers can spearhead the adoption of new technology solutions that integrate and make use of a much broader range of personal health data than is currently supported by EHRs and PHRs.

In short, **employers can help achieve what healthcare reform has been promising but failed to deliver to date:** the secure and timely use of personal health data to personalize healthcare support, improve the consumer healthcare experience, increase efficiency and reduce costs.

CLAIMS DATA ACCESS

Access to

TIMELY



claims data is critical to improving healthcare quality and costs

Enabling the “whole-person profile” for personalized employee care

Accolade, a healthcare advocacy company for employers and health plans, has developed an open technology platform that pulls in a wide range of information and data to create a “whole-person profile” on each covered employee. In contrast to closed EHRs, the Accolade platform stores much more than structured clinical data. The result is a whole-person profile that serves as the foundation for delivering personalized healthcare for each individual in the employee population.

The Accolade open platform aggregates:



- **Claims data:** historical, daily and weekly medical, behavioral health and Rx claims data provided by health plans, used to identify new conditions, utilization patterns and compliance issues requiring intervention.
- **Utilization Management data:** daily medical and behavioral UM data provided by health plans, used to generate outreach triggers to prepare the individual for testing, procedures, inpatient stays and discharge.
- **Lab results and biometric data:** blood pressure, total cholesterol, height, weight, body mass index, and more, used to identify and assess health and risk.
- **Risk scoring and health risk assessments:** risk data based on test and lab results, lifestyle choices, and health history, used to trigger intervention and enrollment in clinical programs and potentially identify high cost claimants in an employee population.
- **Personal data from digital health solutions:** data generated when using a digital health solution or service – e.g., a wellness application telemedicine visit – provides additional health context.
- **Benefits and eligibility data:** provided by employers to help the individual navigate their benefits and care options, search for providers (based on data from the health plan), understand quality and cost, and get the right care at the right time and in the right clinical setting.
- **Notes from interactions with the member:** any information from an individual that is relevant to their health or healthcare needs – such as social, emotional, behavioral, financial or other factors that can present barriers to care. Accolade Health Assistants and Registered Nurses are trained to use every interaction as an opportunity to uncover contextual information and barriers to care – because life impacts health and vice versa.

And because hundreds of data points are brought in every day – from data feeds and human interactions – the Accolade member profile is never stagnant or out of date. This approach is in stark contrast to EHRs or PHRs, which require input from doctors or patients and often go unviewed and untouched between provider visits.

Putting the whole-person profile to work for the employee: high-touch, high-tech advocacy

Unlike the personal health data in a PHR or patient portal, which are often too difficult for a person to understand or to act upon, the whole-person profile created by Accolade is a highly effective tool for delivering personalized healthcare support and better outcomes.

The whole-person health profile created by Accolade for each member is dynamic, inclusive and actionable.

	Accolade Whole-Person Profile	Limitations of Patient Portals and PHRs
Dynamic	The whole-person profile is always growing and evolving, because the Accolade platform pulls in data and information continuously.	Most PHRs or EHRs are only updated during or just following an encounter or visit in the healthcare system.
Inclusive	The Accolade whole-person profile can ingest all kinds of personal health data and relevant information about a person, making it a powerful healthcare tool.	Most PHRs and EHRs are fragmented and limited to storing structured clinical data, which makes up an estimated 20% of health data.
Actionable	With a complete view of a member and their health benefits, Accolade Health Assistants, Registered Nurses, behavioral health specialists and other members of the Accolade clinical team are empowered to answer any health benefit or healthcare question, navigate the individual to the right care at the right time, and prepare individuals to partner more effectively with their providers.	As a fairly static record of clinical data, most PHRs and patient portals do not serve as an action plan for individuals - who also don't typically have the expertise to interpret the data or determine what to do about it.

The whole-person profile is not simply a source of information for high-touch support. The profile also feeds our advanced technology platform, enabling sophisticated targeting down to the individual level. The Maya Intelligence Engine uses all of that data we gather to provide highly personalized recommendations - to Health Assistants, clinical teams and members themselves as they interact with Accolade across the web, phone or mobile app. And with each interaction, Maya learns more about the person, using data science and machine learning to apply everything known and relevant about an individual and their family that affects their health and well-being.

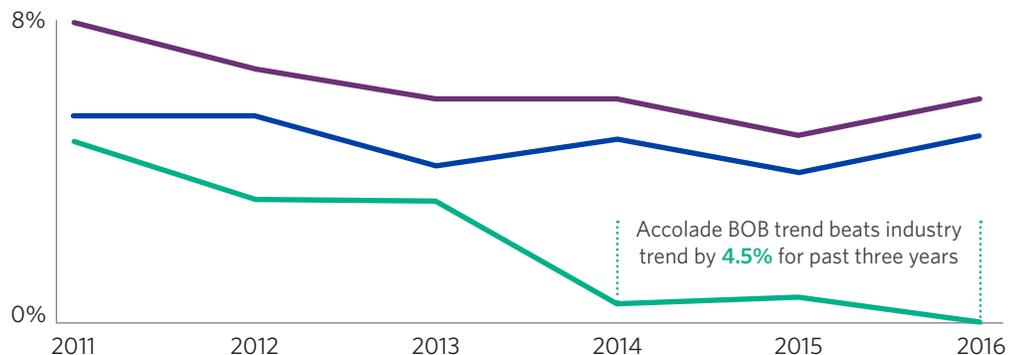
Real results: transforming the experience and costs of healthcare

The whole-person profile is the foundation for high-touch, high-tech advocacy that makes a real impact on the health and well-being of people and the health of employer organizations.

Employers partnering with Accolade and their health plans are transforming the employee experience of healthcare and achieving breakthrough cost savings. By harnessing the power of personal health data, these employers are seeing **98% employee satisfaction** and medical cost trend under 1% - that's **4.5% lower than the industry medical cost trend**. These are the results the healthcare industry has aspired to achieve but isn't incented or positioned to achieve any time soon.

Accolade Book of Business Trend Results versus Trend Survey

- Industry Trend Before Plan Design Changes
- Industry Trend After Plan Design Change
- Accolade Book of Business Trend



What individuals are saying about their Accolade experience:

It's easy to get help by phone, email or the app.

AmeriHealth member

My Accolade advisor assisted with a blood test invoice for which I assumed I was responsible, when it was a billing error.

IBC member

I was really so sick I required transportation to the hospital. Marya stayed on the phone with me - was extremely compassionate - and got me the help I needed. She followed up with me the next day and helped me find a doctor for following up after my visit to the hospital. Accolade is an asset to me - another reason I am so proud to be a Comcast.

Comcast employee

When I broke my ankle the nurse assigned to me would call every few weeks to check on me, and that was wonderful. Now that I am expecting my first child the experience working with Accolade has been just as wonderful. Great customer service! Thanks!

Lowe's employee

I am an employee benefits consultant, and I've been doing benefits for over 30 years. I wish there was a way that we could get Accolade woven into the benefit regime for all people. If there was a way to do that, we would reduce the cost of spending in the U.S. measurably.

Temple University Health System employee

Every time I call Accolade I get my issue resolved and my expectations are not only met but exceeded!

AmeriGas employee

Ashley is the best. She handled my case very professionally and politely solved our problem immediately. We like this program - it helps us a lot. Thank you.

Intuit employee

In year one, we achieved close to 50-percent employee engagement. And because of the use of Accolade services, we saved more than \$2 million dollars in that same time period.

John Lasky, Vice President and CHRO,
Temple University Health System

It's time for U.S. employers to take an active role in advancing the integration, sharing and use of personal health data to benefit individuals their families and their employers.

Better decisions. Better health. Better business.

Sources:

¹ Cosgrove, T., MD. (Nov 25, 2016). <https://consultqd.clevelandclinic.org/2016/11/dealing-healthcares-data-explosion>, Cleveland Clinic, Consult QD.

² Henry, J., Pylypchuk, Y., Searcy, T., Patel, V. (May 2016). <https://dashboard.healthit.gov/evaluations/data-briefs/non-federal-acute-care-hospital-ehr-adoption-2008-2015.php>, ONC Data Brief 35.

³ Haenke Just, B., Marc, D., Munns, M., and Sandefer, R. (Spring 2016). <http://perspectives.ahima.org/why-patient-matching-is-a-challenge-research-on-master-patient-index-mpi-data-discrepancies-in-key-identifying-fields>, Health Information Management.

⁴ Patel, V., Henry, J., Pylypchuk, Y., Searcy, T. (May 2016). <https://dashboard.healthit.gov/evaluations/data-briefs/non-federal-acute-care-hospital-interoperability-2015.php>, ONC Data Brief 36.

⁵ <http://insights.datamark.net/white-papers/unstructured-data-in-electronic-health-record-systems-challenges-and-solutions>. (Oct 2013). Datamark, Healthcare Content Whitepaper.

⁶ Landi, H., (Jan 2016). <https://www.healthcare-informatics.com/article/business-case-increasing-patient-portal-adoption>, Healthcare Informatics.

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