Digital health's next big transformation: The shift to healthcare, anywhere

Orion Health Whitepaper
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ORION HEALTH

Improving consumers' healthcare experience

Healthcare has a customer experience problem. Typically, to access healthcare services, individuals must make an appointment with their doctor, wait some time for that appointment then wait again for any referrals to other healthcare providers. The process is fragmented, slow, opaque, and fraught with risk of errors.

In an emergency, walk-in clinics are the best-case scenario from a patient perspective. Frequently patients spend hours waiting in an emergency department and in some cases, emergency services can be located a great distance away and are difficult to access.

Patients who wish to access their information and share it with others frequently find that their access is fragmented and incomplete and, often, Google searches of test results or recent diagnosis do not provide reliable information. This long-standing reality is ripe for disruption by innovative technology. Digital health front door solutions are a valuable tool in the journey to radically improving healthcare's consumer experience.

Urgently addressing the challenge

This challenge has become more urgent as health systems of all types are struggling with increased patient demand and more complex clinical needs in a budget-constrained reality. Healthcare providers and systems face multiple simultaneous pressures with the global COVID-19 pandemic, an opioid crisis, rising mental health issues, an aging demographic, and rise in the incidence and burden on systems from multiple chronic diseases. To address these issues effectively, healthcare needs to consider and address issues including social determinants of health and health system inequity.

As the ability of healthcare organizations to offer the services their patients need and want is stretched to beyond breaking point, now is the time to put a strategy and tools in place to support better access to healthcare services and meaningful ways for patients and their families to participate in their own healthcare.

For patients to participate in their healthcare, systems must be more conveniently accessible, and patients must be informed. Fortunately, technology can have a significant positive impact on these issues.

Meet Rachel

Since the birth of her daughter Lily three years ago, Rachel has been interacting with the healthcare system more than ever before. Rachel is a woman in her early 40s who does not have any serious pre-existing health conditions though, since Lily's birth, she has taken anti-depressants to help manage a diagnosis of postpartum depression.

While she considers herself to be healthy, Rachel does occasionally feel anxious about her health and that of her young daughter. Rachel sometimes finds it difficult coping with her child alone and could benefit from some community support. Her finances are limited by the need to pay for childcare while working full time and she needs to manage her health on a schedule that fits this reality.

Where can Rachel get help?

Like many of us, Rachel looks to Google searches when she is experiencing health concerns that she does not know how to manage. Recently, she had an unusual rash that developed on her elbows that was eventually diagnosed as psoriasis, after she waited a week to see her primary care physician. Rachel sometimes uses a range of other services including the various local hospital emergency departments and walk-in clinics.

Like many parents will have experienced, Rachel once spent five hours waiting in the emergency room in the middle of the night because Lily was crying unconsolably from what was diagnosed as a middle ear infection. In an ideal world she would visit her primary care physician; however, as she works during the day, she finds it difficult to get a convenient appointment within a reasonable time. Rachel was also unsure of the urgency of Lily's condition.

How can Rachel navigate the healthcare system?

In the past, Rachel has tried to access information on her primary care physician's website and has booked medical appointments using the physician's patient portal. Rachel once tried to use her primary care physician's patient portal to book an appointment with the therapist she sees to help manage her postpartum depression.

Unfortunately, the therapist does not have a patient portal or appointment booking system and requires that Rachel call during working hours, leave a message, and wait for a return call to make an appointment. Rachel wonders if there are other services to help her manage her depression, but she does not know where to look or how to access them.

How can Rachel manage her health needs on her schedule?

When Rachel last ran very low on her anti-depressant medication, she struggled to get a repeat prescription as her primary care physician was on holiday for a week. The covering physician was reluctant to continue the prescription without seeing her in person.

After some time had passed, Rachel decided to visit her local pharmacy for help. The pharmacist offered to fax her physician for the repeat prescription; however, after three attempts over several days during which she ran out of anti-depressants, Rachel and the pharmacist realised they had been faxing the wrong physician.

Rachel needs a healthcare system that works for her

Rachel feels strongly that she needs to find a better way to manage her health and wellbeing for her own sake and that of Lily. Specifically, Rachel would like to connect with other parents who are taking care of young children and dealing with postpartum depression.

She has been feeling overwhelmed lately, does not want to stay on anti-depressants forever, and knows she would benefit from being able to share her experiences with people who are in a similar situation. She tried joining a postpartum support group on Facebook but was uncomfortable sharing this type of personal information on social media.

What if technology could change this?

There must be a better way. What if technology could help guide Rachel to the most appropriate care and support for her given her specific circumstances? Not just in this instance, but in an ongoing model of virtual care delivery that engages and empowers her to work with appropriate providers in a continual trusted partnership.

What if the technology could predict and support Rachel's next healthcare need? By alerting her of her next prescription renewal due date and when Lily's next immunisations are due. By making trusted community groups and services available to her.

What if she had a trusted way to consult locally approved health information, check on the importance of her symptoms, and consult with healthcare providers well matched to her unique needs? Together with access to her complete medical history, all from the comfort of her own home 24 hours a day, 7 days a week.

What if Rachel and Lily could consistently receive the right care for them, at the right place and at the right time?

Future-proofing healthcare organizations

The healthcare digital front door puts patients at the center of healthcare delivery, a goal that has long been discussed yet rarely achieved. A digital front door enables a truly personalised healthcare experience and helps to simplify the challenge of navigating disjointed, complex health systems.

It is a comprehensive technology solution empowering people like Rachel to interact with the health system effectively and efficiently at a time and place convenient to them. The digital front door promises to be even more transformative to healthcare than online and mobile banking were to the finance industry.

Improved engagement linked to improved outcomes

Studies[1] have shown that patients who have access to patient engagement technologies see measurable improvements in the management and outcomes of their chronic conditions.

A healthcare digital front door takes this many steps further, by empowering individuals with access to a suite of enhanced tools and technologies, available from their first point of contact and throughout every subsequent interaction they have with the healthcare system.

Leveraging existing technology

A digital front door strategy must allow for integration with existing patient engagement technologies within the healthcare ecosystem. It should not be a monolithic solution that demands replacement of many existing tools.

A digital front door works best when it is an integrated suite of tools which allows organizations to use systems already in place and adopted, such as existing e-referral, virtual care, and appointment booking

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[1] Kruse, C. S., Bolton, K., & Freriks, G. (2015). The effect of patient portals on quality outcomes and its implications to meaningful use: a systematic review. Journal of medical Internet research, 17(2), e44. Retrieved September 11, 2020, from https://doi.org/10.2196/jmir.3171

systems. Bringing everything into a single, easy-to-comprehend digital channel can only happen if providers are working together for the greater good of the population, in a place-based model of care[2].

Leveraging these existing successes and then integrating, extending, and adding services provides a holistic digital front door that is adopted and used more quickly, and minimizes the need for re-investment.

What does a digital front door look like?

Tools include a chatbot with automated and digital human communication functions to assist with access, a symptom checker that triages patients to the right advice or care, natural language processing (NLP) powered search, and telehealth capability so that people can choose how they would like to interact with services and providers.

A digital front door also includes online prescription ordering and payment options, healthcare resources and support services that use machine learning to personalise information based on the user's preferences
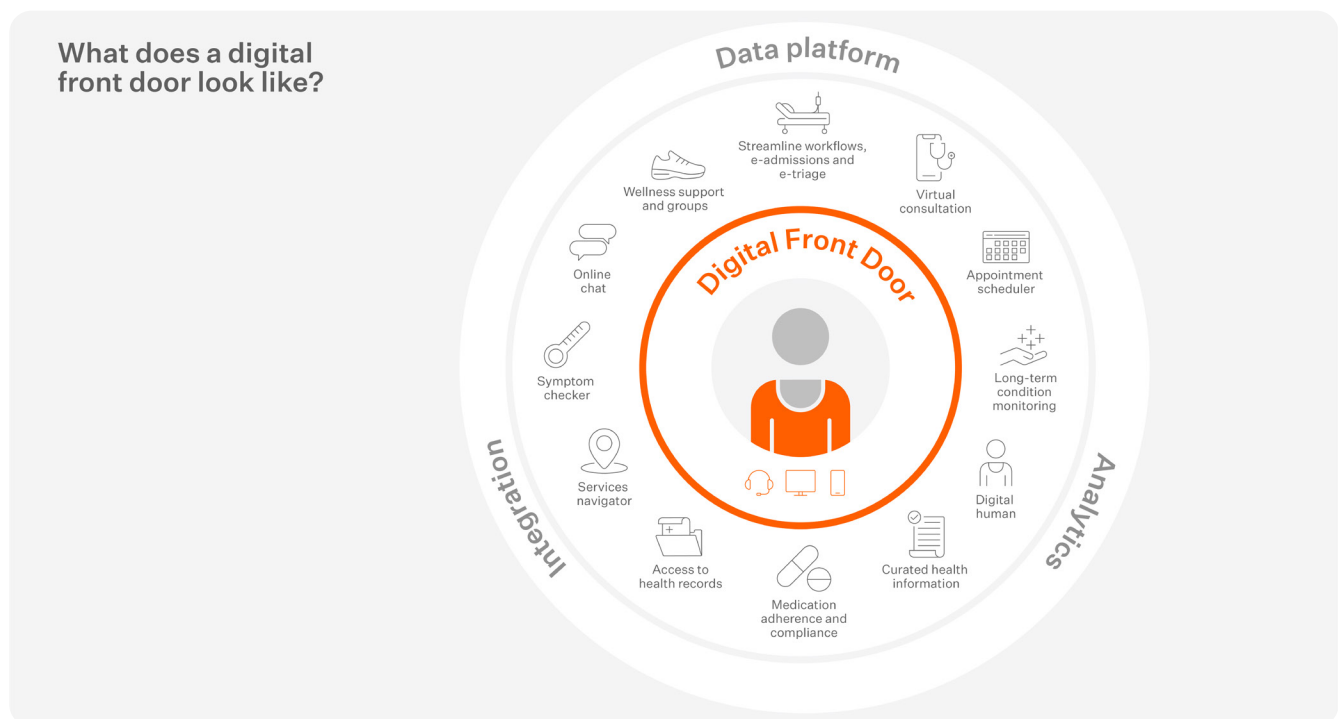
and search history, and user-recognition tools that can pre-fill forms and learn the most effective way to engage with users.

Virtual care and remote monitoring solutions provide support for higher need patients like those recently discharged from hospital. A single access to their health information, such as test results combined with easy access to reference material, educates and empowers citizens to better participate in their own healthcare and wellness.

Empowering Rachel

Enabling Rachel to access all these tools via a central location, through a digital front door, would alleviate the stress of her worrying about the best place to turn when she needs care or support, or when her prescriptions are low.

Rachel would be empowered with everything she needs to manage her and Lily's health and wellbeing, and seamlessly guide them through their health journey. A digital front door would ensure Rachel and Lily are receiving the right care, at the right time and in the right place for them.

What does a digital front door look like?

Data platform

Digital Front Door

Streamline workflows, e-admissions and e-triage
Wellness support and groups
Virtual consultation
Online chat
Appointment scheduler
Symptom checker
Long-term condition monitoring
Services navigator
Digital human
Access to health records
Curated health information
Medication adherence and compliance

Integration

Analytics

[2] Ham, C., & Alderwick, H. (2015). 5-10. Place-based systems of care – A way forward for the NHS in England; https://www.kingsfund.org.uk/publications/place-based-systems-care

A strategy with a vision to support consumers

The digital front door is best approached as a strategy, with a vision for a complete ecosystem that supports consumers across all their healthcare interactions.

Digital front doors span a wide variety of functions and are best regarded as a strategic project with several individual initiatives. Each initiative should provide value to the organization, be aligned with strategic priorities, and, most importantly, provide better access to empower consumers.

Examples of this in practice:

- **A large state-wide, regional or provincial health system with a goal of reducing inappropriate emergency department (ED) visits.** Implementing several digital front door components, such as a symptom checker, combined with system navigation capability and easy access to trusted information about many health conditions, allows citizens to identify and find appropriate services more easily. This will replace unnecessary trips to an ED and support citizens virtually in their homes.

- **A municipal government whose priority is assisting their citizens with maintaining wellness.** Deploying a digital front door, which includes wellness-focused support such as smoking cessation and community forums to seek advice on other challenges like increasing daily exercise, will empower citizens to better manage their own wellness.

- **A large employer who wishes to support the mental health and addiction services needs of their employees, partnering with a healthcare provider to achieve that.** This could be achieved by implementing an integrated digital front door centered around support for mental health and addictions treatment specifically targeting suicide reduction.

- **A private healthcare provider and payer whose goal is to offer a top-notch service to customers and potential customers.** Leveraging a digital front door integrated into a broad virtual care offering will provide 24/7 seamless access to healthcare services and triage, and radically change the way their customers experience healthcare.

- **An aboriginal healthcare provider whose goal is to better integrate traditional healing and wellness approaches** into the planning and provision of care to their citizens.

The next evolution of healthcare

Healthcare organizations have invested heavily over the last two decades in digitizing medical records and providing technology support for clinician decision making. The goals have been to reduce healthcare systems' dependency on paper and provide more complete information to healthcare providers to support more efficient and accurate clinical decision-making. The next evolution will be about empowering their patients.

Putting consumers first

A digital front door strategy focuses not on organizations first, but on consumers first.

Rachel represents an increasing proportion of individuals who are interested in their health and interested in being much more active participants in their own and their family's healthcare.[3]

Healthcare consumers have an expectation - based on the way they use digital services like banking - that they can have reliable access to information, community support, and real-time access to their healthcare providers.

Healthcare organizations will need to look to technologies like the digital front door to help them transition to the future of healthcare delivery, or risk not being able to provide the care we have all long desired.

The time to act is now

COVID-19 has injected energy into streamlining healthcare processes, making it more accessible to individuals and aligning organizational policies to support this goal. As a result, healthcare organizations are making a quick shift to managing patients remotely and providing them with access to virtual healthcare services.

Whilst transformation of healthcare systems is long overdue, the global pandemic has emphasised the need for investment in technology to help keep people healthy and happy in their own homes, and ensure secondary care and resources are reserved for those who need them most.

Now is the best time to plan a digital front door strategy. Leveraging existing technologies, integrating them, and leading with a cohesive strategy will put healthcare organizations firmly in tune with engaging and empowering consumers now and in the future, and finally deliver the healthcare we all desire.
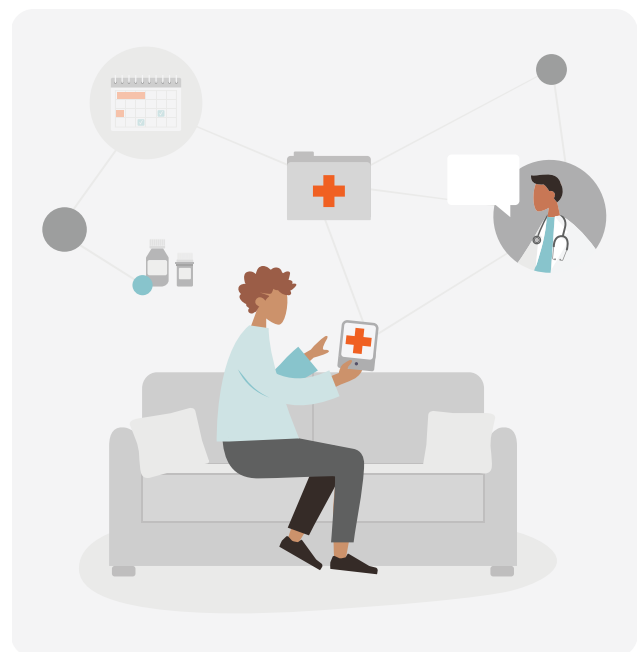
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[3] Coulter, A., & Oldham, J. (2016). Person-centred care: what is it and how do we get there? Future hospital journal, 3(2), 114–116. https://doi.org/10.7861/future-hosp.3-2-114

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1. Kruse, C. S., Bolton, K., & Freriks, G. (2015). The effect of patient portals on quality outcomes and its implications to meaningful use: a systematic review. Journal of medical Internet research, 17(2), e44. Retrieved September 11, 2020, from https://doi.org/10.2196/jmir.3171

2. Ham, C., & Alderwick, H. (2015). 5-10. Place-based systems of care – A way forward for the NHS in England; https://www.kingsfund.org.uk/publications/place-based-systems-care

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