



Unlocking the Digital Front Door in Healthcare

A white paper on how to take the digital front door from strategy to execution.

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INTRODUCTION

Times have changed and healthcare providers know it. Between the crunch of COVID-19, the changing expectations of consumers, and skilled workforce shortages, digitalisation in healthcare is accepted as essential.

Look at any health provider’s digital strategy and patient experience will be high on the agenda. But often the challenge lies not in what to do, but how to do it and where to start.

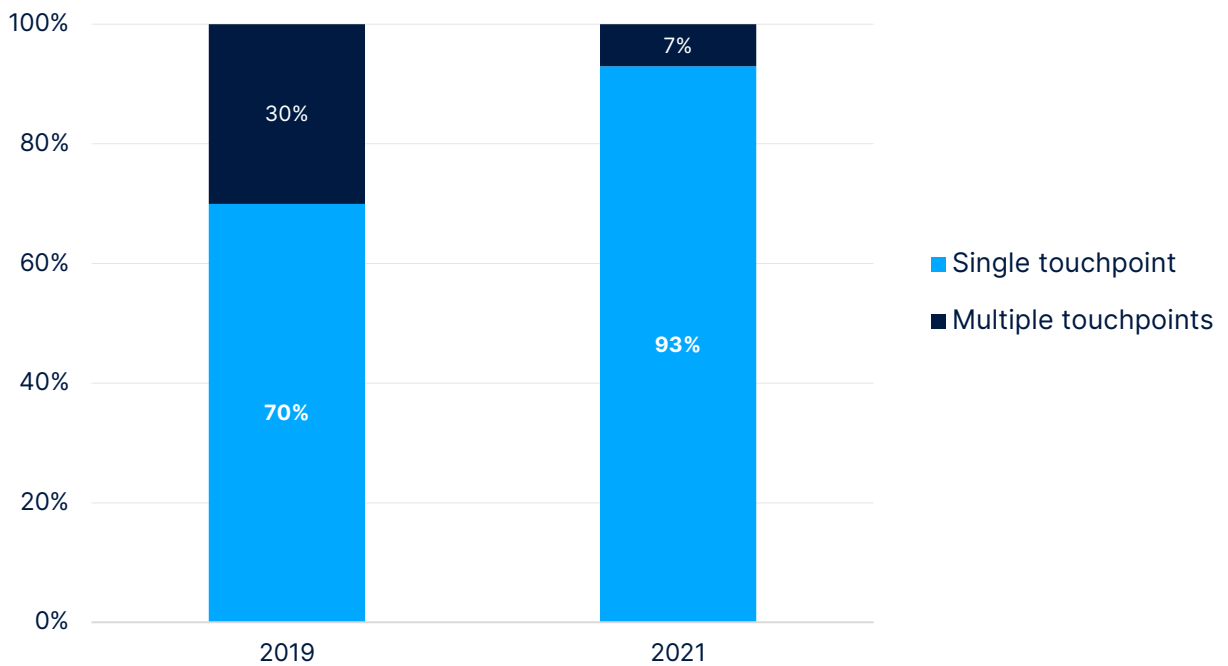
The hospital and healthcare sector still has a long way to go. In many cases, patients are still being sent physical letters, required to queue for long periods and wait in crowded rooms, complete paper forms, and more.

In this white paper, we will examine the operational, or non-clinical, side of patient experience and explore the concept of a ‘digital front door’ for health.

“More than 90% of consumers say they’d prefer a single touchpoint to manage their healthcare, compared to only 70% two years ago.”

– Bain & Company¹

Patients want a single touchpoint to coordinate their healthcare needs

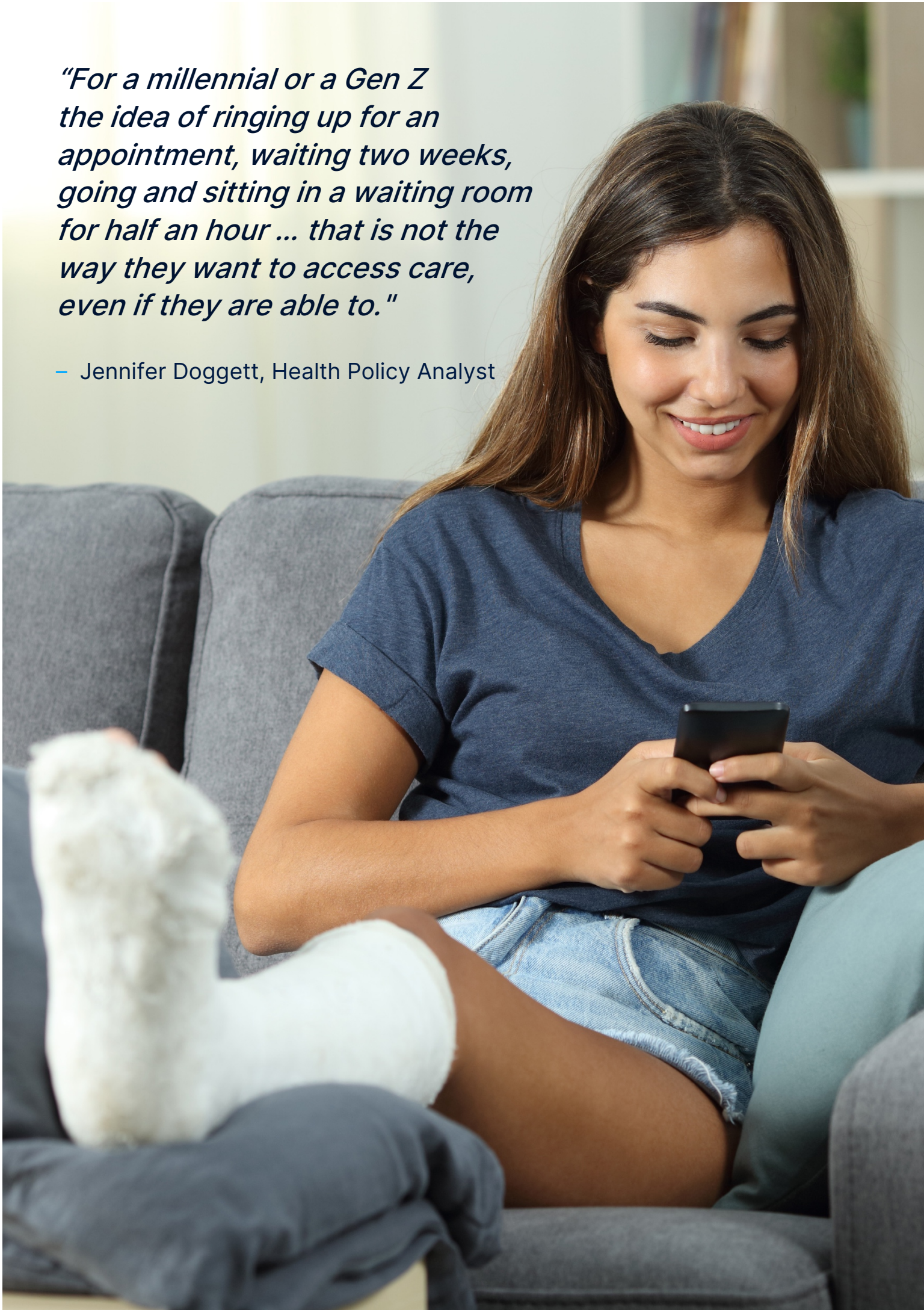


Source: Bain Front Line of Healthcare Asia-Pacific Survey, 2021 (n=1,750), 2019 (n=1,521)

¹ <https://www.bain.com/insights/asia-pacific-front-line-of-healthcare-report-2022/>

"For a millennial or a Gen Z the idea of ringing up for an appointment, waiting two weeks, going and sitting in a waiting room for half an hour ... that is not the way they want to access care, even if they are able to."

– Jennifer Doggett, Health Policy Analyst



“COVID-19 was the greatest digitisation test... especially in healthcare.”
 – Steven Van Belleghem²

THROUGH PATIENTS’ EYES

When a consumer can order a pizza at the tap of an app or choose their seat and check in on their mobile for a flight, they expect the same from all providers, including those in healthcare.

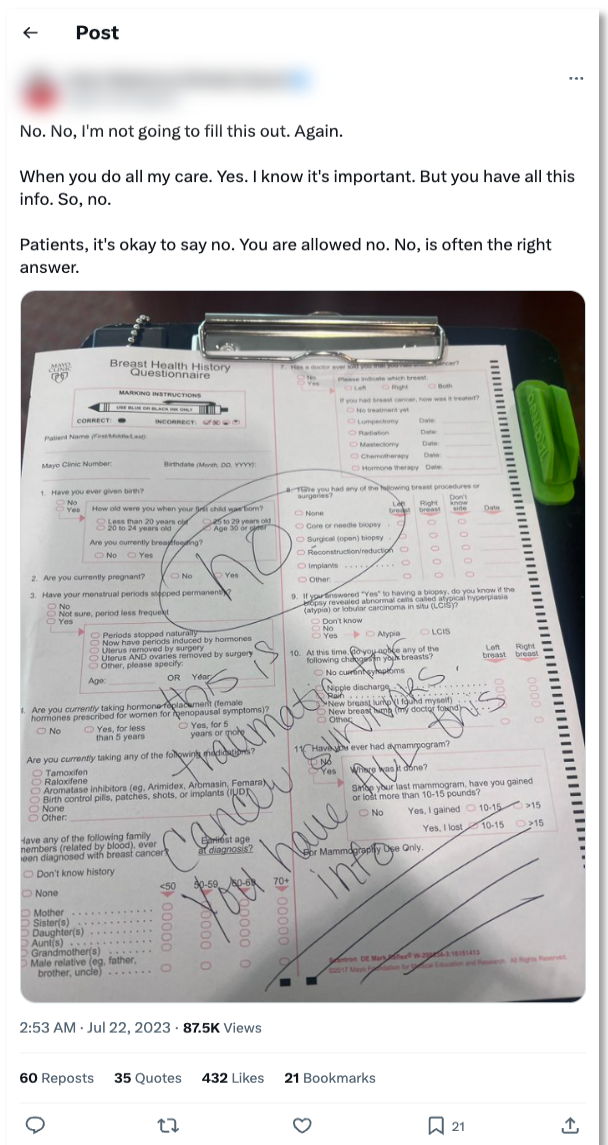
They do not see nor understand the complexity and challenges that healthcare providers face – the complex processes, the disparate silos, and the legacy technology that form roadblocks to seamless digital experiences.

As expectations change, so do frustrations and behaviours.



One-star patient review of a specialist clinic

“One wonders if just making an appointment is so difficult what their more complex operations are like.”



² <https://customerthink.com/how-customer-experience-is-changing-the-healthcare-industry/>

What is the digital front door?

As Kate McDonald states in Pulse+IT, "... the concept [digital front door] has well and truly arrived in Australia and New Zealand."

So, what is it?

We think of it as a digital gateway for patients to access healthcare.

It's about reshaping the patient experience to access healthcare services and resources, embracing modern technology across multiple touchpoints.

According to CIOTech Asia:

*"The objective is to create a unified, seamless, consumer-centric patient experience that fosters behaviour change while providing better healthcare access, equity, efficiency, quality, outcomes and improved patient and staff satisfaction. The digital front door can also increase brand awareness, reputation, and revenue."*³

There's also an emphasis on the initial interactions a patient has with their healthcare service – such as confirming or changing an appointment and filling in digital forms.

However, the digital front door can be extended to guide the patient across the whole journey.

It helps to keep this in mind when you're looking at the digital front door – even if you start with the first touchpoints a patient has with your health service, leave room to continue the journey easily to areas like patient feedback and providing follow-up information and resources.

³ <https://ciotechasia.com/growing-impact-of-the-digital-front-door-on-healthcare/>

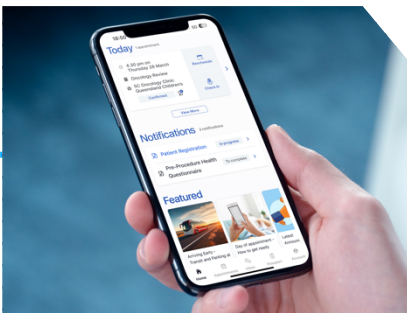
WHAT DOES THE DIGITAL FRONT DOOR NEED TO DO?

At a high level, the digital front door should provide patients with a ‘hub’ where everything they need is in one place and can be securely accessed at any time. This experience should be consistent across models of care, departments, and geographic locations.

In short, the patient should have the same experience across the entirety of the health service.

To achieve this, technology must be highly flexible and adaptable to the needs of different care models and other variables. It simply won’t work to force everyone into prescriptive workflows.

Most health providers look at their digital front door from the perspective of their patient journey, and what touchpoints need to happen prior to, during and post-visit. Here’s an outpatient example:



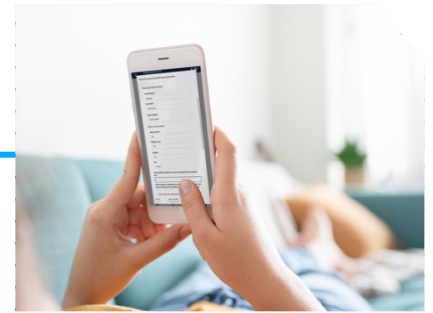
Pre-visit

- Confirming receipt of referral and progression through a waitlist
- Viewing and changing appointments (including telehealth)
- Sending appointment reminders
- Providing pre-appointment resources and tasks
- Using secure messaging between patient and clinic
- Sending digital forms such as registration and patient history



Day of visit

- Navigating to the facility and clinic location
- Check-in (mobile, kiosk and/or assisted)
- Wait experience including SMS updates and digital calling displays
- Digital forms



Post-visit

- Sending feedback and surveys
- Sending care information and resources
- Notifying of follow up appointments



Tip: When mapping out this process, it’s important to improve the patient experience, not just replicate what is done currently. Patient journey mapping typically includes first-hand research with both patients and employees to find friction points in the journey and uncover how they could be improved.

CROSSING THE DIGITAL DIVIDE

CATERING TO EVERY PATIENT

One of the biggest pushbacks to digital health solutions is the ‘what about older patients’ argument. Or it might be low digital literacy or vulnerable groups such as culturally and linguistically diverse (CALD) cohorts.

The digital divide is an important consideration.

You will never force all patients down a digital path. The key is to offer choice and cater to all. Solutions should accommodate a multi-lingual patient interface and meet accessibility requirements as a baseline.

Here’s an example of how you could use personas to provide pathways that accommodate different digital preferences:

MOBILE-FIRST

- Preference for digital communication and workflow

HYBRID

- Will use digital communication via a ‘push’ process, such as being sent links
- Prefers to view and complete information on a laptop or PC.
- May prefer kiosk check-in over mobile-first

ASSISTED

- Requires assistance to check-in and review information due to literacy, language, age, or disability
- May be averse to or suspicious of technology
- Prefers human connection throughout the journey
- Relies on loved ones and needs to grant them profile access

WHAT ABOUT WALK-IN PATIENTS?



Increasingly, walk-in health services such as emergency are also looking to digital front door solutions. Without the predictability of appointment bookings, and increasing pressure on staffing, a digital front door even at a basic level can help to alleviate pressure. It may include:

- ‘Triage for triage’ or patient screening forms on entry that identify high-risk patients such as those with chest pain or breathing difficulty
- Digital queue management, that can be coupled with calling displays or SMS updates if phone numbers are captured
- Digital forms for intake and discharge
- Post care resources and health information

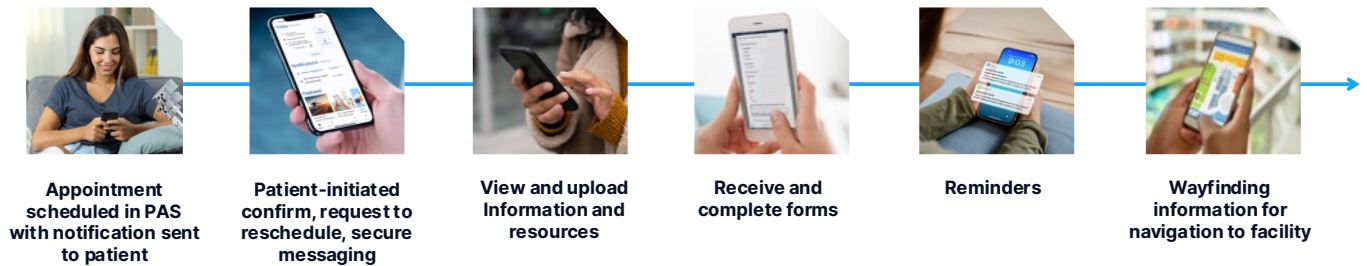
Emergency departments are also implementing virtual emergency care for the general public and aged care residents to reduce walk-ins.

KEY TOUCHPOINTS: APPOINTMENTS, QUEUES AND FORMS

APPOINTMENT MANAGEMENT

A digital front door typically doesn't replace your existing appointment systems (such as PAS, eMR or scheduling solution). What it does is integrate to them and provide an interface that gives patients more control and communication options.

Here's an example of a **pre-appointment patient workflow**. It's a mobile-first approach and you may need alternative workflows for hybrid or assisted patients.

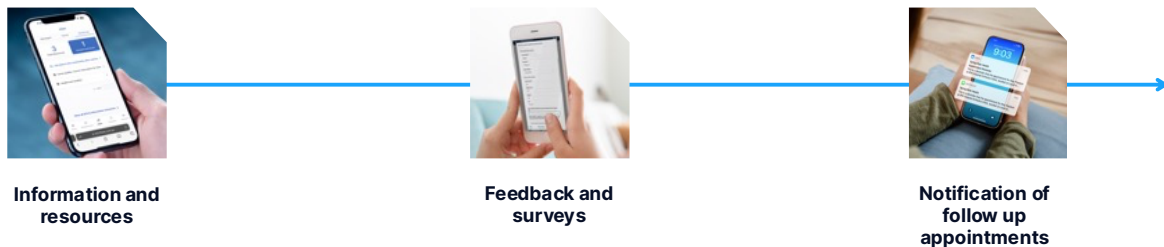


We're using the example here of a specialist outpatient clinic. With complex scheduling requirements, it's still up to the healthcare provider to initiate the appointment date and time – but the patient is notified electronically and can request to reschedule or use secure messaging to contact the clinic.

Staff should have a view of the status of each patient and outliers such as those who haven't confirmed appointments or completed forms. They should gain a view of appointments, times, consult rooms and high-level patient details. They should also have the capability to message (text or email) individual patients and groups of patients – about updates such as delays and wait times.

This workflow is all about getting the patient ready for their appointment and minimising late arrivals and no-shows. You can send the patients resources on how to prepare for the appointment, pre-appointment forms and issue reminders and navigation information.

And here's what a **post-appointment**, mobile-first workflow might look like.



The cost of no-shows

No-shows, Did Not Attend, Fail to Attend... the names are different but the concept is the same.

Patients who don't show up to their appointment.

This is a major cost to healthcare providers and reducing this rate should be a key metric for a digital front door system.

In the United Kingdom, the NHS put some fascinating figures together about no shows for their outpatient clinics. For 2021/22⁴:



95M

Outpatients



7.8M

No-shows (8%)

A 25% reduction in no-shows would release almost 2 million appointments, potentially enough to clear the backlog.



Tip: Studies have shown that simple text reminders have a significant impact on reducing health appointment no-shows⁵.

⁴ <https://gettingitrightfirsttime.co.uk/wp-content/uploads/2023/04/ClinicallyLedSpecialtyOutpatientGuideApr23FINAL-V1-1.pdf>
⁵ [Behavioural insights case study: specialist clinic attendance | vic.gov.au \(www.vic.gov.au\)](https://www.vic.gov.au/behavioural-insights-case-study-specialist-clinic-attendance)

QUEUE MANAGEMENT

The point of queue management is that patients don't have to queue to queue. Sometimes called patient flow or ambulatory care flow, it's about modernising both the queue and wait experience on the day of the patient's visit or appointment.

Check-in

Rather than lining up in a queue to check-in at a counter, a queue management solution typically provides multiple check-in options, including:

- **Mobile check-in** using geofencing can ensure that patients can't check in early unless they're at the location of the appointment
- **Kiosk check-in** via scanning a Patient Passport, QR code scanning or touch screen kiosk
- **Assisted check-in** where patients approach a counter and staff check them in manually via an admin interface

Wait experience

Hospitals may choose to let patients wait where they want, using SMS reminders to call patients back when it's nearly their turn. This reduces crowding in waiting rooms and provides a more pleasant experience for both patients and staff.

Alternatively, waiting rooms can be enhanced with digital signage that shows both calling displays for the queue and other messages relevant to that clinic or area of the hospital.

Patients may be asked to fill in digital forms while waiting. These can be integrated with source systems – pre-filled with data the hospital already has and pushing new data directly back to these source systems.



Full visibility for staff

Staff gain full visibility of clinic and patient status. Once the patient arrives and checks in, the appointment status changes. For patients with multiple same-day appointments, clinic staff can see where patients are and understand any potential delays to subsequent appointments. Staff also should have the ability to change patient status as they progress through their patient journey, such as being called to a consultation.

Typically, our queue management customers are seeing a reduction in wait times (up to 76%), increases in patient satisfaction, and importantly it has positive impacts on the employee experience. At Sydney Local Health District, the CIO said:

“Our staff are happier... It's a much calmer environment. So, when our patients are coming in, they're not in big lineups that go out the door which just creates anxiety and frustration for our patients and our staff.”

[Learn more about Five Faces' Queue Management solution](#)

DIGITAL FORMS

Many health providers still use paper forms. There are many reasons for this, but typically it's a question of complexity and resources. A smart forms solution should aim to remove these roadblocks. The key here is that the form builder should enable the health provider to be fully autonomous with *zero* reliance on the vendor or technical resources to create, modify and send forms. The vendor should set up any integrations required and provide training, but beyond that, forms should be self-service. Key capabilities include:

- The ability to **create workflows** so forms can be sent automatically based on the appointment type, specialty, clinician, and location – or manually at staff discretion.

- A **drag-and-drop form creation interface** with a full suite of field types that allow the ability to use forms for different use cases, such as data collection, surveys and more.
- Easy **translation** to support multi-lingual patients and adherence to accessibility standards such as WCAG 2.1AA guidelines.
- **Integration** with source systems to push and pull information where it's needed. Where possible, forms should be pre-populated with information the health service already has.

[Learn more about Five Faces' Smart Forms solution](#)



Create automated workflows



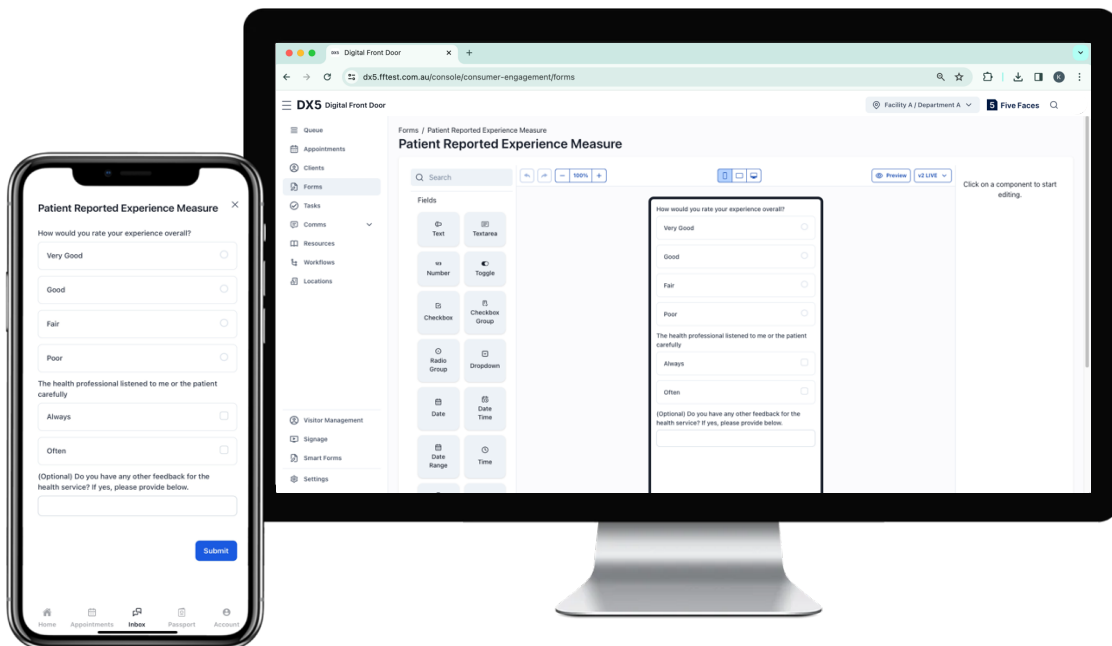
Drag-and-drop form builder



Multi-lingual translation



Integration with source systems



THE DIGITAL HEALTH LEADER’S DILEMMA

“We need a digital front door.”

When a digital health leader hears this from a clinic, they will have many thoughts and questions.

- What are the capabilities needed?
- What are the integrations needed?
- How do we ensure patient and information security?
- What about the patients in other clinics and other hospitals? How can we create a solution that can scale?

The health leader might consider several options:

Technology decisions	Pros	Cons
Look to existing enterprise system providers	It’s familiar tech, deeply embedded in the organisation	Providers are slow to improve CX and solutions are often unsatisfactory. Limits scalability across the enterprise where different systems are used (such as a different eMR)
Build a solution	You’re in control	Slow, resource-intensive, and prone to problems when employees move on
Find specialist or point solutions	Work with specialist CX providers with deep expertise	You end up stitching together multiple solutions and <i>still</i> don’t provide a uniform consumer experience
Make a platform play	You gain a broad set of CX capabilities that can scale across the enterprise and provide a seamless experience. Cost-effective and fast to deploy	Need to choose the vendor carefully to reduce risks

THE PLATFORM PLAY

One of the key roles of digital health is to break down the silos that currently exist in the system. The ones that mean that a patient can have a very different experience from one hospital to the next, one clinic to the next, and even one touchpoint to the next.

We need digital health technology to act as a seamless pane of glass over the technical tangle of legacy systems, giving patients one digital 'home' they can turn to that's consistent.

That's the aim of making a platform play. So, what does it actually mean when it comes to patient experience? It means choosing a technology provider that:

- **Offers a broad range of patient experience capabilities** – not just the ones you need now, but ones you might need in the future as your digital health capability matures.
- **Can integrate with *all* your source systems** – has the capability to become enterprise-wide, even if you are creating a digital front door initially for one part of the organisation. It will need to conform to industry standards and best practices such as use of the OpenAPI Specification (OAS) and bi-directional HL7 and FHIR.
- **Has interoperable solutions** – that are based on the same technology, administered in one place, and work seamlessly with each other. That means no solutions that were acquired or use legacy technology.
- **Can adapt easily to new use cases and scale across the enterprise** – if there's one thing that's certain about digital, it's change. It's important to choose technology where change management is easy and adaptable – and not reliant on the vendor making code changes. Look for technology that uses configuration that you as the client can control.
- **Meets enterprise security requirements** to ensure patient and information security are protected.
- **Offers pricing benefits and flexibility** – The pricing structure of a platform play should ensure you receive discounts when you scale to additional solutions. Ideally, you should also not be locked into a single pricing tier – you should be able to add a new solution at a lower (or higher) tier. Additionally, there should be cost savings associated with managing fewer vendors.



[Learn more about Five Faces' DX5 Framework that underpins all our solutions](#)

"There is a big shift, wherein most of the healthcare providers are now looking towards more migration from point solutions to more of a platform and integrated solutions... moving from data silos to have more of a patient experience and digital front door service to their patients."

– Dr. Rishi Pathak
Global Director of Healthcare and Life Sciences
at Frost & Sullivan

WE LOVE DEVELOPERS... BUT

As a software company, we love software developers. They're super-smart, have a particular fascination with food and sandwich presses, and create beautiful software.

BUT.

Enterprise technology has come a long way in the last few years.

As a customer, today's technology reduces your reliance on developers (and therefore the vendor) and provides autonomy and control over enterprise software. This enables your digital health teams to lead how the product works and the resulting workflows, based on what suits your organisation and your patients.

The trick to this is **configuration** and **flexibility**.

Once, tailoring enterprise software to a customer's needs required a formal process of requirements gathering, then getting developers to change the code, then releasing it for testing and deployment (this could take months and in many cases years). Often, the requirements had changed by the time the software was ready.

Modern technology is configurable. By the client. So, adapting the software to suit workflows for different models of care, different clinics, or departments, or hospitals – can be done by the health provider or their local support team – without developers, or the vendor's involvement.

There's no better illustration of this than what one of our clients achieved in rolling out a digital front door solution to 100+ outpatient clinics.

CASE STUDY

Outpatient Clinic Digital Front Door Rollout

We supported our client to digitise two outpatient clinics – automating workflows such as appointment notifications and check-in.

After that, they rolled out **another 111 clinics** – that all had different workflows – without our technical support.

This self-sufficiency and change management is unheard of in enterprise software.



60%

Reduction in Did Not Attend rate for appointments



76%

Reduction in wait times



93%

Reduction in consumable costs (paper & postage) by digitising



90%

Digital check-ins



55%

Portal uptake (industry average is 30%)

CONCLUSION

Digital health leaders must take a scalable, strategic approach to introducing digital front door technology. Research by Bain suggests that 63% of healthcare providers are looking to reduce the number of vendors in their health tech stacks. They also cite a lack of cross-solution interoperability and poor eMR integration with existing tech stacks as some of their top pain points. Key areas for investment are patient intake and flow (a key component of the digital front door), along with telehealth.⁶

What are the key takeaways from this white paper?

- Select a digital front door provider with a **broad range of capabilities** to allow for reduced vendor management and futureproofing.
- **Think big!** Use the digital front door to strategically break down existing silos. Ultimately aim for a consistent patient experience across your whole organisation. Think of the digital front door as a seamless pane of glass that protects patients from the underlying tangle of technology. Therefore, separate the digital front door from underlying existing systems – don't rely on a provider that only services part of your patient cohort.
- Choose a provider that prioritises **integration, interoperability, and accessibility**, with bi-directional HL7/FHIR and adherence to WCAG 2.1AA guidelines.
- Make sure **technology is low-code and configurable** to speed up rollouts and reduce the cost of ongoing change management.

And finally, putting the patient at the centre of care is a given. But we need to make sure that our perception of patients is in line with how they see themselves:



“An important change would be to stop viewing patients as needy and docile but rather as empowered, critical and tech savvy consumers that need to be wooed with flawless experiences.”⁷

⁶ <https://www.bain.com/insights/2022-healthcare-provider-it-report-post-pandemic-investment-priorities/>

⁷ <https://customerthink.com/how-customer-experience-is-changing-the-healthcare-industry/>

APPENDIX 1: DIGITAL FRONT DOOR USE CASES

Once you have flexible digital front door capability in place, you will find many new use cases. Here are just a few possibilities:

<p>We need to improve patient readiness and engagement</p>	<p>We need to elevate the patient experience for digital hospitals and new builds</p>	<p>We need to streamline and improve the emergency experience</p>	<p>We need to reduce queues and improve the wait experience</p>
<p>Create a digital front door across outpatients and inpatients for self-service appointment change requests, patient information hub, queue management, forms, and comms.</p>	<p>Create 'phygital' experiences that bring digital touchpoints to hospitals: signage, directories, wayfinding, check-in, queue management.</p>	<p>Use digital check-in and queue management, intake forms before triage and resource sharing via a central hub.</p>	<p>Use digital check-in and queue management to let patients wait where they like and enhance waiting rooms with digital signage and calling displays.</p>
<p>We need to reduce long waits for outpatients</p>	<p>We need to streamline patient discharge</p>	<p>We need to prepare for unexpected/ emergency situations</p>	<p>We need to prepare for future pandemics</p>
<p>Automate waitlist auditing workflows and allow patients to request to remove themselves from a list.</p>	<p>Ensure faster, more effective discharge with digital forms, tasks, educational resources and medication reconciliation.</p>	<p>Broadcast messages on all digital signage and send instant comms to all checked-in patients onsite.</p>	<p>Deploy rapid digital workflows for vaccination and telehealth appointments, visitor management, pathology, and contactless queue management.</p>
<p>We need to digitise how we recruit and engage patients for clinical trials</p>	<p>We need to reduce ED presentation from aged care/Hospital in The Home</p>	<p>We need to engage family, community and loved ones</p>	
<p>Digitise and automate processes for recruitment, onboarding, appointments, forms, and resource sharing/education.</p>	<p>Enable RACF and HITH patients to access clinical support via telehealth based on Teams or other existing tech.</p>	<p>Make loved ones part of the patient care plan with a loved ones portal and automated telehealth appointment workflows that cater to loved ones.</p>	

We make complex **simple.**

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