Asynchronous Care Guide

Creating efficiency while solving healthcare's biggest challenges.

BONUS: The Largest Case Study on Async

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What is Asynchronous Care?

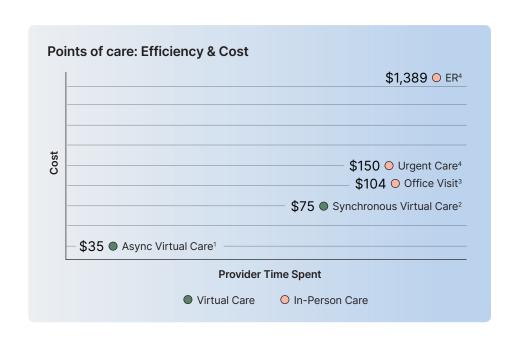
When you hear the word telehealth, what pops into your mind? Most people may imagine a video visit, which is a synchronous form of telehealth – meaning patients and providers are interacting in a live, real-time environment. However, many people don't realize that asynchronous care is actually the original telemedicine.

Asynchronous telemedicine is defined as care delivery that is not simultaneous or concurrent in time. It is used synonymously with the term "store-and-forward." "Tele Medicus" or "healing from a distance" first occurred in the 1900s when Dr. William Einthoven used a string galvanometer to monitor a hospitalized patient's electrical cardiac signals in a lab that was more than a mile away. When Dr. Einthoven monitored a printout of electric cardiac signals to diagnose and treat patients, he pioneered asynchronous telehealth.¹

Async telemedicine is the mode of delivery that can realize the triple-aim of telehealth:

- ✓ Improving the individual experience of care
- ✓ Improving access and the health of populations
- ✓ Reducing the per capita cost of care

This is not to say that synchronous telemedicine does not have its place; however, the benefits will never be realized by transitioning an in-person visit to a video visit. Embracing hybrid care and asynchronous telehealth is critical to solving healthcare's greatest challenges and improving patient satisfaction, access, efficiency, and cost.



Reducing Costs for Patients

There are three common variations of asynchronous care:

- ✓ Intelligent adaptive interviews
- ✓ Remote patient monitoring
- ✓ Consultations including radiology

All three involve collecting information, sending it to a provider, and a provider later reviewing the collected data or images to diagnose and treat a patient. Uniquely, intelligent adaptive interviews can improve remote patient monitoring and consultations by streamlining the collection of patient data and reducing clinical burden.

Intelligent adaptive interviews involve using clinical protocols that mimic the questions that a provider might ask a patient or another provider during a consultation. After each response, the subsequent questions adjust to collect more information on symptoms and aid in diagnosis. The net result:

- A standardized approach to data gathering that is more thorough than a conversation
- Standardized documentation that's easier for a clinician to read
- Time savings by reducing the need for follow-up questions
- A reduction in documentation due to the ability to "stitch together" soap notes and care plans in just a few clicks

Asynchronous intelligent interview doesn't mean "chatbot"

Think of TurboTax. This is smart, adaptive technology built on best practice guidelines. In the case of Fabric, it is also vetted and reviewed by our Clinical Quality Advisory Council made up of 15 healthcare leaders from health systems across the country. The biggest difference from TurboTax is that at the end of the process, a real provider in your local health system reviews your responses and makes the ultimate clinical decisions.

CHATBOT

Hello, what can I help you with today?

USER

I'd like to schedule an appointment.

CHATBOT

I'm sorry, I'm having trouble understanding. Can you reword that?

USER

I'd like to see a doctor

Going to the doctor should be less painful than paying your taxes. Fabric beats TurboTax's consumer NPS score by 21 points!

*f*abric

turbotax.

43

When Does Async Become "Intelligent"?

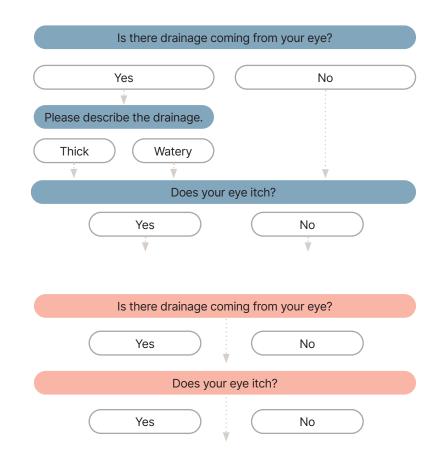
While asynchronous care largely refers to the collection of information at a different time than the provider reviews it, variations in how information is collected can have dramatic effects on how impactful asynchronous telemedicine can be.

Adaptive:

Adaptive interviews use clinical content and conditional logic to adapt the information collected throughout the interview to suggest a diagnosis or prescription to the provider. This mimics the same process a provider goes through when treating a patient in-clinic but removes or reduces the clinical burden of manually collecting the data and inputting it into the EMR. Fabric's asynchronous modality uses intelligent adaptive interviews.

Static:

Static interviews are no different than any standard form you find on the internet or even on paper. The questions do not change based on the patients' responses, and use cases are heavily limited given this restriction. While they can provide some time savings for use in patient intake forms, by design they are not nearly as effective as adaptive interviews.



Streamlined for Efficiency

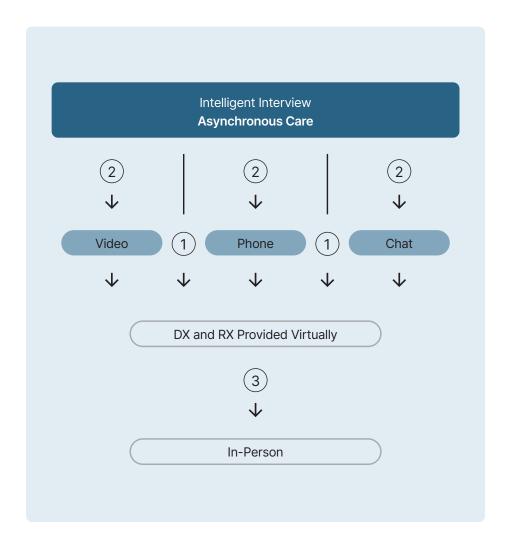
The Fabric asynchronous platform enables providers to use the data to appropriately handle a patient's individual case by:

- 1 Treating completely asynchronously
- Stepping up to other modes of care to gather more informationPhoneChatVideo
- (3) Or triaging and routing a patient to the appropriate point of care

With this approach, patients experience increased convenience, faster treatment, and a higher quality of care. It also decreases provider work time dramatically — to 89 seconds for low acuity cases — and leverages more time-intensive modes of care only when appropriate. Asynchronous care is undoubtedly a powerful arrow in the quiver of modern care delivery. The remainder of this guide will dive into the ways async can solve some of the traditional challenges in healthcare along with some newer issues that developed through the pandemic.

Fabric asynchronous visits are stepped up to phone, video, or chat.





COVID-19: The Largest Case Study on Async

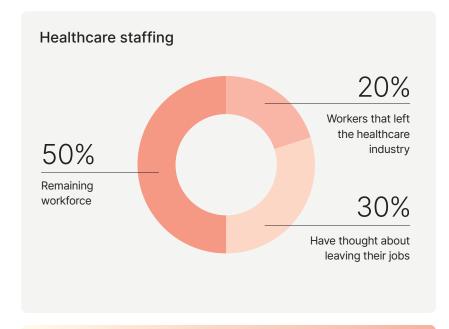
COVID-19: The Largest Case Study on Async

Problem: Health systems are overwhelmed

In the wake of COVID-19, hospitals, health systems, and private practices across the nation are feeling the strain of staffing shortages and provider burnout. While the pandemic is not the sole cause of the staffing crisis, it has significantly accelerated and amplified the situation. In less than two years, nearly half a million U.S. healthcare workers have left their jobs. One in five healthcare workers has left the industry, and another 30% of remaining workers have thought about leaving their jobs.⁶

Unfortunately, the shortage won't be over anytime soon. According to Mercer's 2021 External Healthcare Labor Market Analysis, the U.S. will be more than 3.2 million healthcare workers short in 2026. With more workers projected to permanently leave the industry than workers expected to join, nearly every state will be experiencing a labor shortage.

On top of that, many health systems are dealing with another problem that was brought on by the pandemic: delayed and avoided care. More than a year after the pandemic began, an estimated 41% of U.S. adults have delayed or avoided their own medical care.8 This can have severe consequences, including increased cost of care but more importantly, increased morbidity and mortality.





Solution: Async vs. video visits during COVID-19

These issues bring health systems to a crossroads. How can understaffed health systems keep up with patient demand and reacquire the patients who are avoiding or delaying their visits?

Health organizations that adopted asynchronous care for low acuity cases benefited greatly during the pandemic. Async allowed organizations to:

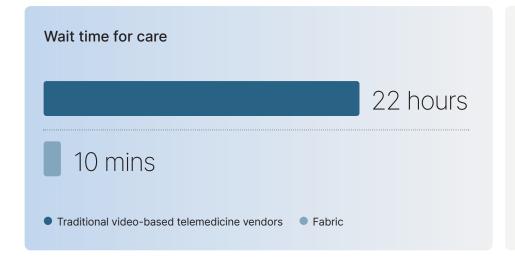
- Divert non-urgent cases away from the emergency department
- Drive suspected Covid positive patients to testing centers
- Offload low acuity cases to async, converting one average in-person visit into 12 async visits

During the peak of the COVID-19 outbreak, we saw utilization increase as much as 3,600% — yet our health system partners and their providers were able to keep up. We saw a single physician use Fabric to complete 1,000 async visits in a week, freeing up 250 hours of provider time for higher acuity patients. Organizations leveraging video for telehealth saw

robust solutions offered by national brands fall over while wait times skyrocketed to 22 hours. Meanwhile, organizations using Fabric saw their average wait time increase by only one to ten minutes.⁹

Even when organizations are not managing an active public health crisis, async is a force multiplier. The on-demand queue-based system offered by Fabric:

- Diverts demand from waiting rooms and administrative staff
- Increases provider efficiency by 10-12 fold
- Removes 99% of administrative burden
- Treats patients in less than 20 minutes 3 minutes to set up an account, 7 minutes to fill out a protocol, 9 minutes to wait on a treatment plan from a provider



Second provider work time per visit

:89

Automation of administrative burden

99%

Let Providers Do What They Do Best: Provide Care.

It's more than the robust virtual triaging and patient navigation capabilities. With async, health systems can improve the experience for patients, reduce provider burnout, and give providers more time in their day to treat patients in-person.

With the clinical decision logic built-in, our asynchronous protocols recognize potential diagnoses for providers that fit the highest standard of evidence-based guidelines, simplifying the workflow for providers — resulting in less time spent on administrative work.

"We have to learn how to use asynchronous, which is really a force multiplier, in order to make sure those who need to be seen get seen."

ERIC WALLACE, MD – MEDICAL DIRECTOR OF TELEHEALTH UNIVERSITY OF ALABAMA AT BIRMINGHAM

unique diagnoses treated through our asynchronous platform

1,000

adherence to clinical quidelines

90%

faster for providers than an in-clinic visit

10x

Driving Efficiency & Reducing Cost

Solving for Delayed & Avoided Care

"Async is efficient, but how does that solve delayed and avoided care?"

That's a question we hear often from healthcare organizations. First of all, delayed care often has two root causes:

- Lack of access
- · Reduced clinical capacity

Later in this guide, we'll talk more about how async solves the problem of access by appealing to consumerism as well as supporting rural and non-English-speaking populations (see page 24). But first, let's address clinical capacity.

Studies conducted prior to the pandemic revealed that patients wait an average of 24 days to get a new patient appointment.10 With ongoing staff and physician shortages, wait times will likely get longer. By leveraging async for low acuity visits, you can shorten the wait time for scheduled visits by 56%, directly improving delayed care by eight days.

Americans delayed or avoided care

41%

reduction in delayed care by shifting in-clinic or video visits to asynchronous care when appropriate

8
day

Driving Efficiency & Reducing Cost

Solving for Delayed & Avoided Care

Async streamlines processes and reduces provider work time, enabling providers to treat more patients. How?

Let's break down a provider's time in a standard 40-hour work week:

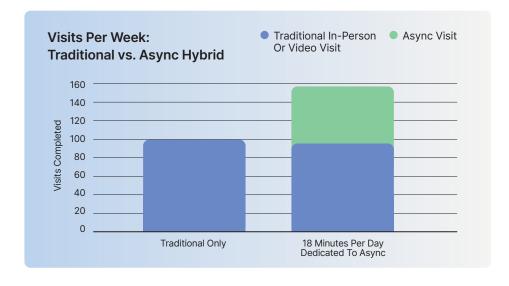
- An average in-person or video visit takes 18.3 minutes of provider work time ¹¹
- This translates to approximately 100 visits per week (less if the schedule includes longer visits for patients with higher acuity conditions)
- In 18 minutes, a provider can treat 12 async visits via Fabric

Async isn't a substitute for all in-person care. Most providers will take a hybrid approach — leveraging async to treat more low acuity patients while freeing up more time to spend in-person with the patients who need it most.

Providers can increase productivity by 56% by dedicating just 18 minutes per day to async. Here's how:

Visits Per Week: Comparing Modes of Care

	Only In-Person	Only Async	Blended In-Person & Async
In-Person/Video	100	0	95
Async	0	1233.70	61.69
Total Visits	100	1233.70	156.69

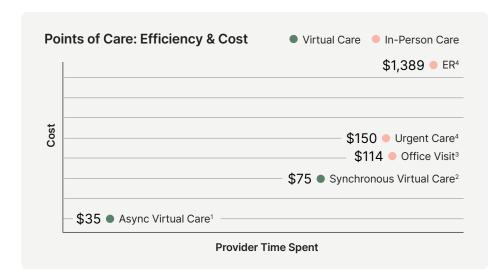


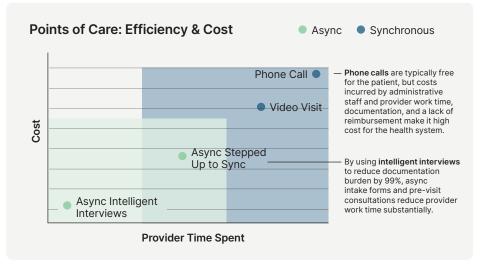
Reducing Costs for Patients

Provider efficiency directly impacts patient costs. Because asynchronous intelligent interviews dramatically reduce the amount of time a provider spends with each patient, async enables patients to receive care at a fraction of the cost of other modes of care. In this section, we'll address how async reduces costs for patients. If you're wondering how async increases revenue for health systems, we'll talk about that on page 18.

As we've mentioned, the average Fabric asynchronous interview only takes 89 seconds of provider work time — but let's dive deeper into the patient's perspective. When a patient uses the Fabric asynchronous platform, it only takes an average of 6:29 minutes for a diagnoses and costs them about \$35. That's a third of the price of a standard office visit.

Of those patients, 4.5% need to be stepped up to a video or phone visit. An escalated visit requires 280 seconds of provider work time and costs \$49, which is still four times more efficient for providers and more than half the price of an in-person visit for patients.





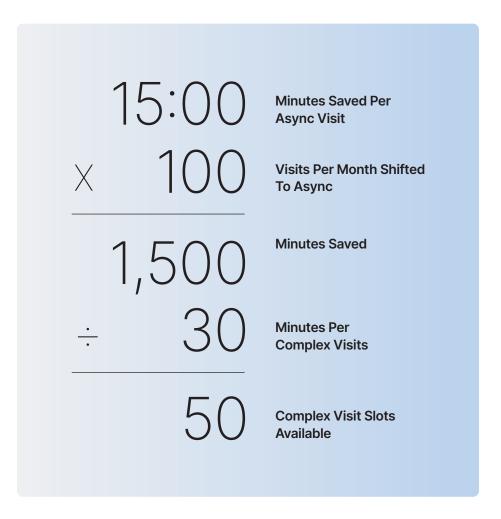
Chronic Disease Management

Increase accessibility and efficiency

75% of healthcare costs are tied to chronic disease,¹² and the majority of a provider's time is spent on these populations. By implementing async into a hybrid care approach for chronic disease patients, providers can use clinical protocols to more frequently check in with patients and collect key biometrics such as glucose levels and blood pressure to monitor chronic disease patients. If the information collected via async falls out of range, a protocol can trigger:

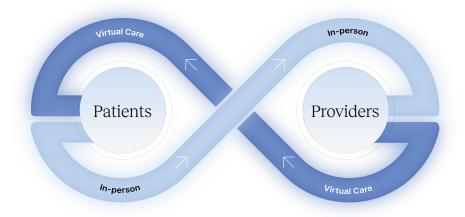
- An on-demand video visit with a care coordinator
- · A scheduled video visit with a provider
- Scheduling for an in-person intervention

With this approach, 15- and 30-minute physician visit blocks are reserved for those who truly need help managing their conditions, improving both care and outcomes.



Virtual Staffing: Leveraging Excess Capacity

Load balancing has become a buzz word in the last few years, especially in urgent care organizations. It even became a critical strategy in managing COVID-19 surges. Some areas of a state would hit peaks before others and experience bed shortages. Arizona instituted statewide approach to manage this process using the "surge line" that enabled patient load balancing across the state to prevent a single hospital from being overwhelmed with COVID patients. The staffing challenges facing healthcare will require a similar approach. Instead of focusing on bed capacity or diverting providers from a low demand location to high demand, we need to divert individual excess capacity to meet patient demand in real-time.



Fabric's Clinical Network

In partnership with the organizations that we serve, we are building a provider network that onloads and offloads patient demand based on provider capacity or organizational goals:

- Gain acute visits and specialty referrals
- Leverage 24/7/365 access to providers across 50 states

Within the Fabric care enablement system, organizations can:

- Outsource low acuity visits to the marketplace
- Leverage internal capacity across your organization to meet internal and external patient demand
- Divert to marketplace providers during high demand or after hours

Patient Acquisition & Revenue

Patient Acquisition

Patient leakage is a growing concern for all health systems, even those in less competitive markets. 76% of patients stated that access to care is more important than human interaction.¹⁴

With the average lifetime value of a patient estimated to be as high as \$1.4 million, a solid digital strategy is a significant competitive advantage – meanwhile, a lack of one poses a threat to organizations.¹⁵ If you aren't embracing a virtual care strategy, your competitors will reap the benefits.

Learn more by downloading the

We mapped out a patient's journey from feeling under the weather to becoming a lifelong patient of yours — or your competitors.

Download now at fabrichealth.com

Patient Acquisition Infographic.

of patients state access to care is more important than human interaction

76%

Estimated lifetime value of a patient

\$1.4MM

The Digital Front Door®

A patient's care experience begins long before they step into the clinic or start a virtual visit. Today, patients are turning to Google as a first step when seeking care. From searching symptoms, booking appointments, to getting care virtually — patients rely on your Digital Front Door® when making decisions. A positive, accessible digital experience is proven to increase patient acquisition, retention, and revenue.

Before we dive into the financial benefits of prioritizing a strong Digital Front Door®, let's take a look at how a digital asynchronous solution attracts new patients and keeps them coming back.

If a health system doesn't provide virtual solutions...

of patients who entered via the Digital Front Door® would seek care elsewhere 16

When given the option...

Of patients prefer async over other forms of virtual or inperson care 17

Because patients are actively looking for convenient care...

of virtual visits are from patients who are new to a health system 16

Those new patients are...

more likely to convert to a health system patient 18

40% 276%

Driving Revenue Through Patient Acquisition

We analyzed the efficacy of virtual care as a patient acquisition vehicle for a leading health system customer of Fabric and Carrot Health. We used health system-collected data to track care received by a cohort of 974 virtual care users new to the health system, with new patients defined by the health system as those not having received care within the previous 24 months.

Of the 974 virtual care users who started a virtual visit, 242 had at least one in-person visit within 12 months of their virtual encounter, producing a conversion rate of 24.8%.¹⁹

Financial Impact on Health System:

On average, the virtual care users who converted to health system patients had three subsequent in-person visits, generating \$2,927 of additional revenue, within 12 months of their online encounter. In total, that translated to more than \$708,000 in incremental annualized revenue.

That's more revenue than you'd expect from a care solution focused on more affordable, efficient care.

As a rule, virtual care users — particularly those who gravitate to asynchronous care — tend to be younger, healthier patients. Because these patients are more likely to convert to long-term health system patients, offering async continues to drive revenue as patients age, bringing greater value to health systems well into the future.

Average first year revenue per new patient

\$2,900

Long-term revenue potential per patient

\$1.4MM

Patient Experience & Loyalty

Fabric enables health organizations with a full suite of protocols and a consumer experience that provides the convenience patients demand.

Net Promoter Score

64

App Store Rating

4.9/5

In one study, our health system partners decided to utilize our Digital Front Door® solution to direct patients seeking treatment for strep throat to virtual care first — versus the traditional in-person visit for diagnosis and testing. This simple addition of a virtual triage led to not only increased patient satisfaction but significantly reduced costs for patients.

Patients in the study paid 50% less for the same care they received virtually than they would have for a traditional office visit and saved up to 80 minutes accessing care. As a result, nearly all patients surveyed preferred the Fabric virtual care option versus an in-person clinic visit.²⁰

Consumerism & Competition

We are in the age of consumerism. From banking to ecommerce, there has been a complete shift in the way individuals consume products and services. Healthcare is playing from behind in this arena and the pandemic pressures that shifted everything to a temporary virtual care experience exacerbated consumer expectations by showing them what was possible.

Before the pandemic, patients started gravitating toward convenience and choosing consumer care brands like Hims & Hers, Roman, and 98Point6. Fragmentation is the inherent problem with these non-traditional points of care. The providers treating patients on these platforms hold multi-state licensures, are likely not in the market of the patients they are serving, and are not able to refer them to an appropriate local point of care when higher risk conditions are identified.

hims hers 98point6 ro

Patient Experience & Loyalty

The numbers don't lie.

Say convenience and access to care are the most important factors in choosing a provider.²¹

51%

Want to use technology more for communicating with providers and managing their conditions.²²

60%

Want to continue using telehealth services for non-urgent consultations after COVID passes.²³

88%

Would consider replacing their primary care providers with qualified physicians on demand via telehealth.²⁴

35%

"I would like to say to whomever is the person who made the app or takes feedback - As a rare disease patient, thank you so so much. I have never seen this sort of care before and I can't tell you how much I appreciate the simple platform and how easy it is to get care and treatment plans within seconds, without scheduling hours out of my already packed day to get something as simple as cream. I can't tell you how grateful I am that someone finally came up with an idea so genuinely thoughtful."

JULIA, NORTH CAROLINA



Telehealth Equity

Virtual care is the path to expanding access for rural and disparate populations, but serving these groups requires modalities that work within their limitations. The conversation has shifted from urban versus rural access and utilization to acknowledging all underserved populations as a whole, regardless of their geographic limitations.

Today, there are populations in both rural and urban areas that don't have access to the tools needed to engage in virtual care.

The Internet Divide

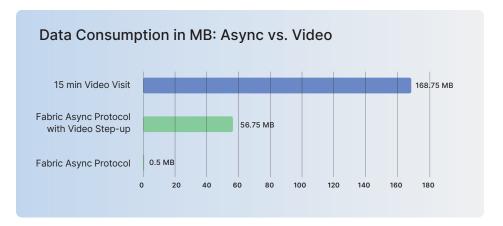
Even within virtual care, there are different levels of accessibility. For example, we know that rural populations often struggle with access in terms of physical distance from care facilities as well as limited bandwidth and cell signal. Rural and low-income populations may have metered internet speeds or limited access to broadband. Async excels in these circumstances because it requires lower bandwidth and can help address patient concerns efficiently before connecting them with a provider via another modality. This allows patients to avoid an unnecessarily expensive and time-consuming drive to a clinic or a data-consuming video visit.

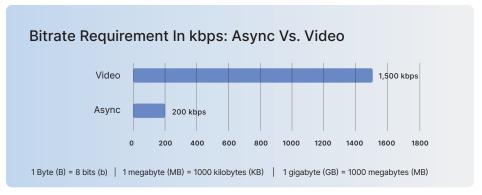
Internet Speed Comparison

Video visits require a stable connection that can support speeds of 1.5 mbps/1,500 kbps for the entirety of a visit. An average 15-minute visit will consume 1,350 megabits or 162.5 megabytes. If your metered internet plan is limited to a gigabyte, that visit consumed 16% of a patient's monthly capacity.

Intelligent adaptive interviews excel even when internet is unstable, requiring 1.2 mbps to load the initial page in one second or 0.4 mbps/400 kbps for a three-second load time. Using a modern single page application architecture, each additional page requires 10 kbps to load in one second. The entire async visit likely consumes less than 1 megabyte of a data plan.

Fun Fact: Remember dial up modems? They topped out at speeds of 56 kbps, but Fabric async adaptive interviews would still be able to run on decades-old technology. **It would take 20 seconds for the initial app to load and then less than a second on the screens that follow.**





Rural Reach & Access

When evaluating health equity in rural markets, it is valuable to reflect on the triple-aim of telemedicine:

- Improving the individual experience of care
- · Improving access and the health of populations
- Reducing the per capita cost of care

The goals of improving individual experience and access for rural populations have some of the highest barriers to success:

- Traveling distance
- Lack of broadband to support video
- · Lack of specialists
- · Closure of rural hospitals

These factors directly impact the ability to decrease the cost of care. Within healthcare leadership, we often consider internal efficiency as the key to drive down cost; however, we have to consider the cost incurred by the patient. If bandwidth is a limiting factor and providers are an hour away, the following exponentially drive up direct and indirect costs for patients:

- Long trips to the clinic result in missed work and lost wages, plus the cost of gas
- · Lack of broadband means video visits aren't an option
- Limited access to primary care, urgent care, hospitals, and specialists

All of the above are key drivers of delayed and avoided care — which ultimately leads to more complex cases and higher healthcare costs.

Often health organizations focus on driving adoption of patient portals and embedded synchronous care applications. However, it is impossible to drive down the per capita cost of care if you only focus on your known populations and existing strategies. An advanced virtual care strategy should factor in a Digital Front Door® solution that accounts for those who do not have an established relationship with the organization.

A successful Digital Front Door® strategy has proven to expand a health system's geographic reach, outside their immediate communities and

into rural populations. For example, in studying virtual visits completed during flu season, one health system found that their Fabric-powered virtual care platform hosted visits from patients in more than 40 counties across Alabama.25 From these visits, the asynchronous protocols identify higher acuity patients — triaging and routing them to a more appropriate point of care. The combination of a Digital Front Door® with async broke down barriers and helped address the issues of delayed and avoided care. With a strong Digital Front Door® strategy, health systems can better reach patients across a broader service area while also improving accessibility.

Geographic reach of the virtual care platform in Alabama > 100 completed virtual visits 26-100 completed virtual visits 6-25 completed virtual visits 1-5 completed virtual visits

Non-English-Speaking Populations

Non-English-speaking populations are often a large segment of rural markets; however, the language barrier can create similar challenges in urban markets. Some common barriers include:

- Lack of fluent administrative staff
- · Even fewer fluent clinical staff
- Longer wait times due to the above or a need to wait on translation services
- Video visits run longer due to waiting on a translator, which drives up data consumption and results in indirect cost increases for patients
- The hassle compounds the risks of delayed and avoided care

Telehealth programs and Digital Front Door® strategies need to account for these issues by starting with the largest segment, Hispanics. They represent 18.7% of the US population, ²⁶ and Spanish is the dominant language for 13% of the United States. ²⁷ Asynchronous care is uniquely suited to serve these populations. The Fabric platform and associated protocols leverage a dynamic content management system that:

- Translates all patient-facing text into Spanish
- Translates patient inputs back into English for providers
- Presents care plans and educational materials to the patient in Spanish

10 states with the highest Hispanic populations ²⁷ 1. New Mexico (48.79%) 6. Florida (25.58%) 2. Texas (39.34%) 7. Colorado (21.53%) 3. California (39.02%) 8. New Jersey (20.21%) 4. Arizona (31.33%) 9. New York (19.01%) 5. Nevada (28.70%) 10. Illinois (17.12%)

Non-English-Speaking Populations

Providing built in translation technology provides relief for clinical and administrative staff. It also creates an exceptional patient experience for Spanish-speaking populations. This is especially true for low acuity cases. However, the improved experience and accessibility also result in identifying, triaging, and routing higher acuity cases to the appropriate point of care.

Number of Speakers	
41,757,391	
3,494,544	
1,763,585	
1,570,526	
1,260,437	
1,171,775	
1,075,247	
941,454	
924,817	
895,309	
	41,757,391 3,494,544 1,763,585 1,570,526 1,260,437 1,171,775 1,075,247 941,454 924,817

fabric

Create capacity to care with Fabric.

Consumers are getting more savvy and impatient with their experiences, including healthcare. In order to be successful, health systems need to meet consumers where they're at and make it easy for patients to get care — whether in-person or virtual.

When it comes to Digital Front Door® solutions, we're the experts (we trademarked the term after all).

We understand the necessity of convenience, speed, and efficiency in healthcare but also the clinical and technical needs to guarantee a patient is getting care when and where they need to.

It's time health systems and the entire healthcare industry begin looking at patients the same way Amazon and Google look at their consumers — let's provide an experience that delights and empowers patients throughout their healthcare journey.

Contact Us

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