CareClix

Staff Load Balancing

Evenly distributing patients across networks and providers

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Recap and Introduction

In our last whitepaper, we examined the concept of Remote Patient Monitoring (RPM) and demonstrated how incorporating RPM into your system provides better access and higher quality care to patients. In previous papers, we have delved into how to incorporate telemedicine programs in your existing facility, how telemedicine can enhance chronic care management, and how virtual triaging can improve outcomes and efficiencies in urgent care centers.

In our newest whitepaper, we explore how staff load balancing can be attained with virtual health and how better balancing the workload virtually can rapidly help with coverage shortage and load imbalances.

This paper examines how CareClix incorporates staff load balancing into its system to realize key benefits for patients and providers, including but not limited to:

Shortened patient wait-times

Better provider utilization

Reduced physician burnout

Increased cost savings

What is Staff Load Balancing?

Staff load balancing is the process of efficiently distributing staff across a provider network to promote optimal staffing and enhanced provider capacity. A 2017 survey from the American Medical Association found that physician burnout is on the rise, with nearly 60% of physicians saying that they feel overworked, specifically in the emergency department (ED).[1] Hospital administrators are often aware of that some staff are very busy and others have capacity, yet it is difficult to find a long-term solution of balance.

An enterprise telehealth network allows for both geographic and time-based load balancing, which in turn provides an efficient utilization of providers across the region and country. Telemedicine enables primary and specialty care physicians to be virtually distributed through the health system for on-demand consults with both on and off site patients. In fact, leading telehealth providers regularly achieve an average response time of less than three minutes.

If a medical facility is overloaded, a telemedicine load balance model alerts underutilized physicians to start seeing patients, often times virtually. This addresses both coverage shortage and patient load imbalances.

Staff load balancing is present in different areas of telemedicine, such as ER triaging and specialty care, to improve efficiency of care and reduce patient wait times. For ER triaging, doctors can see more patients in a shorter amount of time and can reduce the number of staff members needed on-site. Online exam rooms allow nurses to facilitate video conferences between on-site patients and off-site doctors. From this virtual assessment, doctors can decide if the condition needs to be escalated to a physician or specialist.

Primary Care Physician → Online Exam Room → On-site patient / Off-site patient
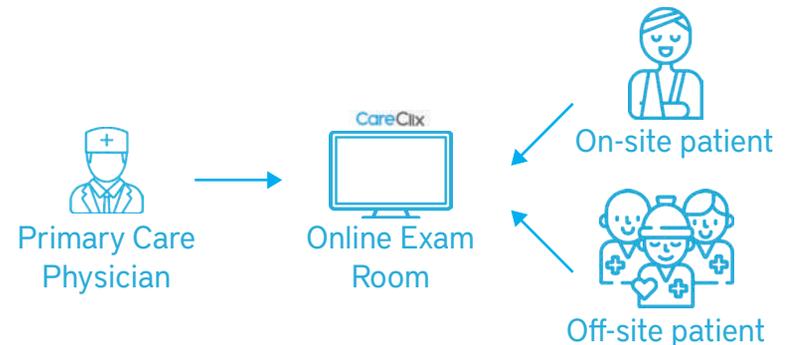
For the purposes of this whitepaper, we will focus on load balancing as it relates to specialists and intensive care units (ICUs). Specialists are often more expensive to hire and keep on-site. The next sections explore how telemedicine can help connect specialists to patients remotely to increase access to care and reduce costs.

Staff Load Balancing Real World Applications

Overcrowded and understaffed facilities are an important healthcare issue facing increasing public and regulatory scrutiny around the world. Additionally, many health systems struggle to staff their locations with medical specialists due to the high cost and lack of available personnel. The need for hospital systems to adopt a staff load balancing model is becoming more apparent and many hospitals and healthcare providers are turning to telemedicine.

Improved access to care, better resourcing, fewer coverage gaps, and greater cost savings are just a few reasons why hospitals and healthcare providers are relying on telemedicine to help them better balance their staff.

Telemedicine is particularly beneficial to help hospitals contract specialty services. We will discuss a few examples, specifically looking at teleneurology, telepsychiatry, and intensive care units (ICUs).

Teleneurology

Teleneurology is an evolving branch of telemedicine, offering patients opportunities to remotely connect with a doctor for a neurological consult. Teleneurology can improve speed of care, which is crucial when it comes to patients facing neurological conditions since they are typically time-sensitive, and connecting to a doctor quickly is crucial. Through regular monitoring and reporting, neurologists can better diagnose and treat neurovascular diseases, like arteriovenous malformations (AVMs) and brain aneurysms.

Teleneurology is especially notable in stroke patients. The Jefferson Hospital for Neuroscience (JHN), in Philadelphia, established the Jefferson Neuroscience Network (JNN) to help connect patients and doctors at regional hospitals with Jefferson specialists who can quickly diagnose time-sensitive neurological disorders. Currently, the network spans hospitals across Pennsylvania, New Jersey, and Delaware.

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Staff Load Balancing Real World Applications

Teleneurology

Hospitals in this network also have access to Jefferson Expert Teleconsulting (JET). JET is the region's first university-based high-tech mobile robotic teleconsulting system, allowing neuroscience specialists to evaluate time-sensitive diseases, like a stroke, in real time and quickly act.

Jefferson neurovascular specialists can connect via a robot placed in the network hospital emergency department. After consulting the patient, the physician can then determine the best treatment option for the patient. The goal is to keep the patient at the community hospital unless the prescribed treatment is unavailable, in which case the provider may transfer the patient to Jefferson or another facility with the proper resources.

JET provides 24/7 remote access to patients and neurological specialists, helping address cases where every minute makes a critical difference.[2]

Teleconsulting Process

1 Physician in Emergency Department **reviews patient condition**

2 Patients are **diagnosed** with a neurovascular disease
Examples include:
- Brain Aneurysm
- AVM
- Stroke

3 Physician **teleconsults neurovascular specialist**

4 Specialists provides patient with **treatment options**

Staff Load Balancing Real World Applications

Telepsychiatry

While face-to-face encounters are still at the core of psychiatry, cost, time, and location barriers may prevent many patients from getting the care they need. Telemedicine helps address this and plays a crucial role in integrating care while allowing people to pass this initial hurdle of making an appointment and keeping it. Telepsychiatry utilizes telecommunications technology to provide psychiatric assessment and care to patients.

Telepsychiatry is used in a variety of different settings,

Private practice

Correctional facilities

Outpatient clinics

Nursing homes

Schools

Hospitals

Military facilities

Provider shortages and an increasing number of mental health patients has created a gap in the delivery of psychiatric care. In South Carolina, with funding from the Duke Endowment, psychiatrists have been "deployed" to underserved, rural areas via telecommunication technology. There have been about 21,900 total consultations since the program started in 2009, averaging about 400 visits per month. While South Carolina is a leader in the nation's adoption of telepsychiatry, regulatory and insurance reimbursement issues have held other states back from adopting telepsychiatry.[3]

With many patients still lacking access to adequate mental healthcare, many patients revert to Emergency Departments. An estimated one in eight emergency room visits involves a mental health and/or substance use condition.[4] Behavioral health patients in emergency departments are expensive, and most ERs do not have the resources to treat mental health problems. Telepsychiatry can help lower admissions, reduce patient transfers, and allow for patients in need of emergency physicians to be treated faster.

Staff Load Balancing Real World Applications

Intensive Care Units (ICUs)

While caring for a patient in the ICU, a physician may be unaware of a second patient's change in status. Real-time surveillance and support are key issues in an ICU environment, and telemedicine can be the second set of eyes to prevent distractions, alarms, and interruptions from occurring as frequently. Tele-ICUs allow for a centralized or remotely based critical care team to connect with a bedside ICU team and patient via telecommunication technology. Tele-ICUs allow teams to watch for trends and early signs of clinical deterioration in a patient's status.[5] With this technology, expert knowledge can more easily be shared, and better communication can help improve the overall level of care to the patient.

For ICU patients, hospitals are setting up office spaces where they have doctors and nurses staffed to monitor and connect via video conference with patients in the hospitals. Cleveland Clinic created a command center where doctors can keep an eye on a larger number of patients in a shorter amount of time and react faster. With telehealth services, physicians can track the sickest patients in the hospital (as well as smaller regional hospitals with fewer resources) and remotely connect with patients. The remote telemetry monitoring program helps Cleveland Clinic doctors have a much better sense of the number of high-risk patients in the hospital, which in turn helps limit the number of unplanned ICU transfers.

As these examples show, telemedicine can greatly reduce the number of specialists on site. This decreases the cost for hospitals by eliminating the need to hire specialists on staff and provides patients with the care they need much faster. As telemedicine continues to grow and new services are implemented, patients can expect to receive better care and lower costs, while seeing a positive change in their overall health.

ICU Physician → Remotely based critical care team → ICU Patient

CareClix Staff Load Balancing

To effectively accomplish load balancing, a comprehensive plan outlining your treatment routing decisions and protocols must be developed. CareClix's platform includes load balancing capabilities that help monitor current usage and re-direct physicians to where they are needed.

In addition, CareClix's platform includes support for all major telemedicine carts for over 200+ associated peripherals. This enables you to leverage the telemedicine equipment you may have already purchased and put it to work to help load-balance your staff. If you currently do not have telemedicine carts at your organization, CareClix provides a variety of carts, kiosks, and mobile cases.

Another key benefit of using CareClix is our white-labeled provider network. For small and large health systems, we can help augment your staff by providing on-demand care for various specialties if you need help dealing with a surge in patient demand.

Primary Care Physician

CareClix
Provider Network

Cardiologist

Dermatologist

Neurologist

ENT
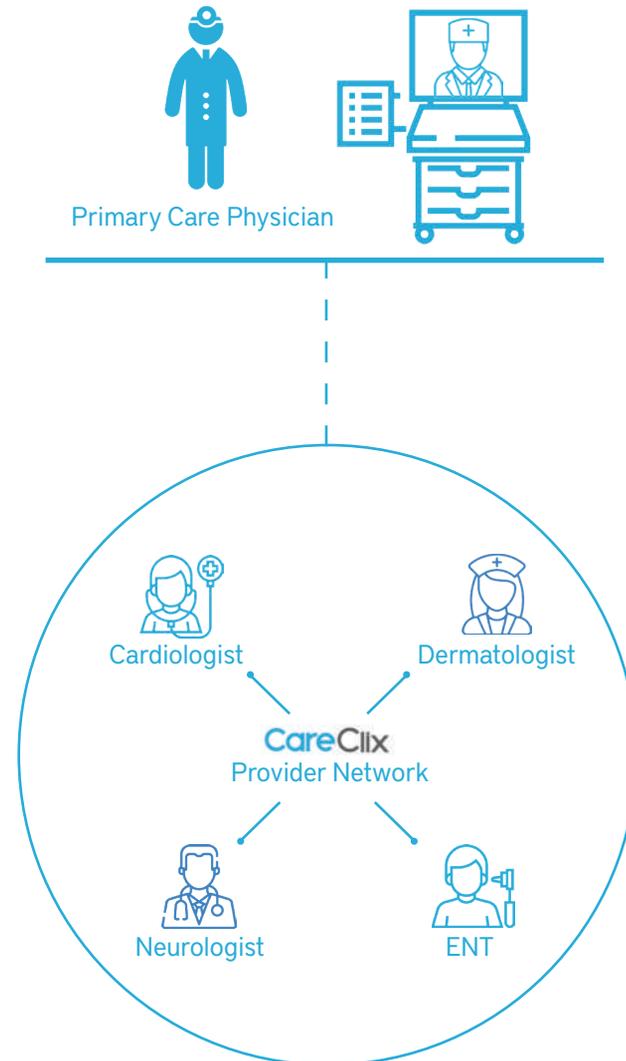
Conclusions and Next Steps

Staff load balancing uses telemedicine to help hospitals better distribute their workload so that patients can connect with providers 24/7. The goal is to educate hospital systems and patients on how these devices can prevent coverage shortages or load imbalances that can occur in a non-virtual setting, saving them both time and money.

As your office or facility plans an entry or expansion of telemedicine capabilities, keep our strategic healthcare and business concepts in mind. Know your market, work with your providers, and cater to patient demand for convenience and quality care delivery.

When CareClix partners with health systems, we offer a solution that is branded to our partner organization and geared to your targeted population of patients and providers. After reading this guide, please feel free to contact us anytime if you would like to learn more about any of the concepts featured in this whitepaper or if you'd like to learn more about how CareClix can help your organization. We can be reached by phone anytime at 1 (855) CARECLX, or by email at info@careclix.com.

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About CareClix

CareClix provides comprehensive, integrated telehealth applications, technology, and services that health systems can self-brand. As the only open telemedicine platform, CareClix provides out-of-the-box support for the most popular telemedicine carts, EHRs, and over 200+ medical devices. Healthline ranks CareClix as the #1 telemedicine company because we offer a seamless solution with advanced technical features and a dedicated team who helps tailor solutions to each of our clients. We've used this platform to help our customers implement telemedicine programs impacting over 4 million patients a year and counting.

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Sources

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