AmplifyMD®

WHITE PAPER

From Data to Decisions:

How a New Class of Virtual Care Platforms Uses Data Orchestration to Drive Performance

Executive Summary

Moving beyond connectivity

Virtual care has historically expanded access by connecting providers to patients across distance. Most programs, however, still focus primarily on the connection itself, often overlooking the opportunity to use clinical and operational data to optimize care delivery.

A virtual care model is emerging—one where the virtual care platform serves as an orchestration layer for clinical and operational data. By bringing EHR, imaging, and other key information directly into the consult workflow, health systems can improve how work is distributed, how decisions are made, and how performance is managed.

Key takeaways

Modern virtual care platforms can leverage real-time demand signals and complex logic to automate and optimize case assignment and distribution.

The result of this evolution is virtual coverage models that are faster, more consistent, and more financially sustainable.

Data-driven assignment and distribution reduce manual care coordination (i.e., call centers), improve provider utilization, and reduce the FTE hours needed to operate a program at scale.

Surfacing and contextualizing relevant information from the EHR and other data sources into a clinical dossier within a virtual care platform can reduce friction and accelerate decision-making.

When a virtual care platform captures robust consult data across every encounter, it can deliver new operational insights for continuous improvement.

Introduction

Virtual care was originally designed to solve a fundamental access challenge: connecting patients and providers across distance. To date, most telehealth programs have been built and evaluated around the video visit itself, with success tracked by the sheer number of encounters rather than the meaningful exchange of clinical and operational data.[1]

At the same time, the volume of data available to inform these encounters is exploding. Recent analyses from the World Economic Forum estimate that a typical hospital now generates on the order of 50 petabytes of data each year—spanning clinical documentation, lab results, imaging, and device feeds—yet only a small fraction (roughly 3%) is routinely analyzed or used to guide care.[2]

In most virtual workflows, data is still not organized to actively support care delivery.[3] Even onsite clinicians frequently navigate multiple EHR modules and ancillary systems to locate critical results, underscoring how fragmented information remains within the very tools used to deliver care.[4] This gap affects more than the individual encounter; it limits how effectively work is assigned, how quickly decisions are reached, and how consistently programs are managed across sites.

Using clinical and operational data to drive decisions

The EHR and its surrounding clinical systems represent one of healthcare's most significant and costly investments. In 2024 alone, U.S. spending on electronic health records approached $20 billion, with hospitals accounting for nearly $10 billion of that investment.5

This investment has the potential to play a much more dynamic role in virtual care when relevant clinical data is surfaced directly within the consult workflow—reducing manual effort and helping clinicians move more quickly from information to action.

1. **Data-driven assignment and distribution**
   Consults are dynamically routed based on real-time demand, provider availability, and patient acuity—optimizing utilization and reducing operating costs.

2. **Faster clinical decisions during the encounter**
   Key patient data is preorganized and surfaced within the workflow, enabling specialists to assess, diagnose, and communicate more quickly

3. **Turning consult data into operational insights**
   Clinical and operational data are captured and translated into structured metrics, providing leaders with real-time visibility into performance, variation, and opportunities.

Impact #1

Data-driven assignment and distribution

In many programs, provider coverage remains constrained by fixed schedules and site-based assignments. These "one-to-one" silos make it difficult to adjust when consult demand shifts across hospitals. The orchestration layer moves beyond these constraints, dynamically distributing consults across a shared pool of providers. By continuously evaluating demand, patient acuity, and provider availability, the platform determines the most appropriate clinician for each case.

Instead of staffing each site independently, health systems can deliver fractional, "many-to-many" coverage by allocating provider time exactly where it is needed across multiple hospitals. This allows capacity to expand or contract in response to real-time demand without requiring a linear increase in full-time staffing.

Assignment and distribution decisions are continuously optimized during a shift, utilizing real-time data to maximize utilization and reduce program operating costs.

In practice, this model enables:

Shared coverage across hospitals
A pod of providers covers multiple facilities simultaneously, with consults routed based on real-time demand and workload.

Fractional support throughout the shift
Provider time is distributed across sites as demand fluctuations occur, rather than being tied to rigid coverage blocks.

Continuity through smart reassignment
Patients are routed back to the same provider when follow-up or escalation is required.

Balanced workload distribution
Consults are distributed across the team to prevent burnout and ensure consistency.

CASE STUDY

High-efficiency TeleHospitalist staffing

The Problem

A national physician practice struggled to manage TeleHospitalist programs across multiple health systems. Legacy systems required manual case assignment across three time zones, resulting in significant coordination delays and a reliance on a high-touch call center to manage provider traffic.

The Solution

The organization replaced its legacy system with a modern platform, to automate case assignment and distribution and improve productivity.

The Impact

100%

Automated assignment

Fully eliminated manual coordination and the need for a central call center.

22%

Reduction in physician hours

Maintained nationwide coverage with significantly fewer total provider hours.

2x

Productivity increase

Streamlined workflows and reduced documentation burden allowed clinicians to handle twice the average cross-cover encounters per shift.

Impact #2

Faster clinical decisions during the encounter

In many models, remote specialists spend valuable time gathering clinical context and must reconstruct a complex clinical picture from a fragmented record.

Consider an Infectious Disease (ID) consult for suspected sepsis. These decisions are highly time-sensitive,[7,8] and require the rapid synthesis of culture results, antibiotic history, lab trends, and imaging. In traditional programs, specialists manually navigate the EHR to find these pieces.

An integrated virtual care workflow solves this by pulling relevant information from the EHR and assembling it into a comprehensive, consult-ready patient dossier. With this context pre-organized, the specialist can focus immediately on identifying the source of infection and selecting therapy.

Clinical decisions are reached more efficiently when the platform organizes and surfaces key patient data before the consult begins.

ILLUSTRATIVE MODEL

Infectious disease clinical dossier

By acting as an intelligent orchestration layer, a modern virtual care platform can transform virtual infectious disease consults by pulling relevant data points into a single, specialty-specific clinical dossier in real-time:

Visual trend analysis
Examples include automatically generating hour-by-hour temperature graphs and white blood cell (WBC) trajectories, allowing doctors to visualize the patient's clinical direction at a glance.

Automated data synthesis
Pulls together current microbiology cultures, sensitivity results, and full medication histories without requiring the physician to leave the consult workflow.

Reduction in manual chart navigation
By presenting a pre-organized clinical story, this model reduces the need for manual navigation across the EHR, saving critical minutes per encounter.

Informed stewardship
Real-time access to the complete clinical picture allows for faster therapy adjustments and de-escalation of broad-spectrum antibiotics.

Impact #3

Turning consult data into operational insights

Most legacy telehealth tools lack the native capability to capture the nuances of the full consult workflow or to unify EHR data with platform activity into a meaningful operational view. An orchestration layer changes this by integrating clinical data with the deep operational data captured at the consult, provider, patient, and site levels—transforming raw activity into measurable operational signals that can be acted on in real time.

Leadership can track critical indicators in one place, including:

- **Consult volume and capacity**
  Understanding true demand vs. available provider bandwidth across the network.
- **Response and turnaround times**
  Identifying bottlenecks in the consultation-to-treatment pipeline at specific sites.
- **Clinical and operational variation**
  Ensuring a consistent standard of care and performance across all facilities..
- **Workflow efficiency**
  Measuring how platform-driven process changes impact overall provider productivity.

Operational decisions improve when the virtual care platform translates clinical and operational data into clear, actionable metrics that leadership can use to manage performance across the enterprise.

CASE STUDY

Operational excellence in TeleStroke [9]

The Problem

A leading health system operating TeleStroke programs across 30+ hospitals had limited visibility into where time was being lost during the stroke workflow. While door-to-needle time was tracked, leadership could not see what steps in the process were causing delays.

The Solution

The system replaced legacy programs with a TeleStroke platform that captured data at every point in the stroke consult, and turned that data into actionable insights.

The Impact

The platform not only automated activation, assignment, and communication processes, it also time stamped every step of the TeleStroke workflow (e.g., door time, activation, acknowledgement, call back start, call back end, CT, video start, thrombolytic decision) helping the system pinpoint and address bottlenecks in the workflow to improve door-to-needle times.

Heat map data, identified downtime for the stroke panel, enabling the health system to improve their staffing model while ensuring a rapid response to every stroke case.

52% **Operational cost savings**

Insights driven by automation and data orchestration reduced the need for call center routing, saved the care team 30+ minutes per encounter, and improved panel staffing efficiency.

Conclusion
From access to advantage

Virtual care began as a way to connect clinicians across distance. Today, that capability is baseline. **The next phase of virtual care will be defined by how fast and effectively it enables health systems to make better clinical and operational decisions in real time.**

In a modern virtual care model, clinical and operational data are brought directly into the workflow to drive decisions—during the consult, across the shift, and across the enterprise. This transitions virtual care from a simple connection tool into a robust operational system that helps health systems manage capacity and improve consistency.

Health systems that invest in solutions that turn data into decisions will benefit from virtual care delivery at scale with greater control and clinical precision.

Why AmplifyMD

AmplifyMD is the AI-enabled virtual care orchestration platform trusted by leading health systems for EHR-integrated virtual care at scale.

400+
active programs

220K+
annual consults

15+
specialties covered

Supports ED, inpatient, async, outpatient, and direct to patient

Frictionless integrations

AmplifyMD seamlessly integrating into any existing healthcare technology ecosystem, saving hospitals valuable time, money, and IT resources.

"We put AmplifyMD through the wringer in the beginning to ensure they could deliver—and they did, and then some. This isn't a typical vendor relationship; it is a truly integrated, agile partnership. The platform has been so successful in acute care that we are now expanding it into other use cases across our organization."

— National Director, Clinical Transformation, Top-10 Health System

To learn how AmplifyMD can improve virtual care orchestration and outcomes across your organization, visit www.amplifymd.com or schedule a discovery call: info@amplifymd.com.

Citations

1. Finney Rutten LJ, Blake KD, Greenberg-Worisek AJ, et al. Characterizing telehealth use in the United States: Analysis of the 2022 Health Information National Trends Survey. Am J Manag Care. 2024;30(2):e57-e65

2., 3. Dias Guichot Y. How to harness the power of health data to improve patient outcomes. World Economic Forum. January 4, 2024.

4. Ghassemi H, Khairat S, Hultman G, et al. Usability challenges in electronic health records: Impact on clinician workflow and patient safety. JAMIA Open. 2025;8(2):ooae123.

5. Hospital EHR spending projected to reach $9.9B by 2024. Healthcare IT News. 2025. https://www.healthcareitnews.com/news/hospital-ehr-spending-projected-reach-99b-2024

6. Smart TeleHospitalist Staffing Through Real-Time Data and Automation. AmplifyMD. Available at: https://amplifymd.com/smart-telehospitalist-staffing-through-real-time-data-and-automation/.

7. Sterling NW, Zadravecz F, Hou PC, et al. Time to treatment and mortality for clinical sepsis subtypes. Crit Care Med. 2023;51(7):1070-1081.

8. Burnham JP, Olsen MA, Stwalley D, et al. Early infectious diseases consultation is associated with lower mortality in patients with severe sepsis or septic shock who complete the 3-hour sepsis treatment bundle. Open Forum Infect Dis. 2019;6(10):ofz408

9. How a Leading Health System Transformed Stroke Care Across 30+ Locations. AmplifyMD. Available at: https://amplifymd.com/transforming-telestroke-care/.