

How Ballad Health Reduces ED Utilization by Nearly 25% and Saves \$68.80 PMPM

Background

[Ballad Health](#) is an integrated community health improvement organization serving Northeast Tennessee, Southwest Virginia, and parts of North Carolina and Kentucky. Built “with community effort” and “designed to meet local needs,” Ballad Health operates 20 hospitals, along with post-acute care, behavioral health services, and a multi-specialty group of physician practices.

In 2020, the [Virginia Department of Health \(VDH\)](#) invested in the creation of the [Unite Virginia](#) network - a statewide referral network launched in partnership with the [Virginia Hospital & Healthcare Association \(VHHA\)](#) and powered by Unite Us’ closed-loop referral technology. Unite Virginia was designed to connect government, provider, and community partners across the Commonwealth—and since its inception, the network has connected over 63,800 Virginians to vital community services.

Key Results

8.5%

reduction in the number of patients visiting the ED.

59%

of these patients having been insured by Medicaid.

16.2%

average decrease in ED visits for patients in the six months following a referral.

24.8%

average decrease in ED visits.*

*FOR PATIENTS ENGAGED BY BALLAD HEALTH CHWS IN THE SIX MONTHS FOLLOWING A REFERRAL.

\$825K

in estimated annualized cost savings per 1,000 patients.

\$68.80

per patient per month in estimated savings.*

*BASED ON REDUCED ED UTILIZATION.

“Bridging the gaps between health and community care is critical to ensuring health and safety for all Virginians. Through use of this framework, many local partners have provided essential services to Virginians in need, which is helping to reimagine how whole-person care can be delivered across the Commonwealth.”



REISA SLOCE, DISTRICT DIRECTOR, VIRGINIA DEPARTMENT OF HEALTH, LENOWISCO AND CUMBERLAND PLATEAU HEALTH DISTRICTS



Evaluation Partners



The Virginia Department of Health (VDH) is dedicated to protecting and promoting the health of Virginians. The VDH is made up of a statewide Central Office in Richmond and 35 local health districts.

VDH.VIRGINIA.GOV



Ballad Health is an integrated community health improvement organization serving 29 counties of the Appalachian Highlands in Northeast Tennessee, Southwest Virginia, Northwest North Carolina, and Southeast Kentucky.

BALLADHEALTH.ORG



The Virginia Hospital & Healthcare Association (VHHA) is an alliance of 111 hospitals and 26 health delivery systems that develops and advocates for sound health care policy in the Commonwealth. Its mission is to achieve excellence in both healthcare & health.

VHHA.COM



This work was supported in part by the Institute for Public Health Innovation (IPHI) CHWs for a Healthy VA Initiative, funded by the Centers for Disease Control and Prevention. IPHI is a nonprofit that adds capacity to the public health system in the District of Columbia, Maryland, and Virginia.

INSTITUTEPHI.ORG

Challenge

In Virginia, many patients visiting Ballad Health’s emergency department (ED) faced significant health-related social needs (HRSNs) and other non-medical challenges—such as food insecurity, housing instability, and lack of transportation—that contributed to frequent hospital visits and ED utilization.

However, without a centralized platform for care coordination, connecting these patients to appropriate community resources can often be a time-consuming, fragmented process, making it difficult for Community Health Workers (CHWs) to track referrals and follow-up on patient outcomes.

Ballad Health was one of many healthcare systems in Virginia that needed a scalable solution to streamline referrals to community-based organizations, strengthen collaboration with community partners, and measure the impact of these efforts on ED utilization.



At least one study has shown that patients with high social needs are

up to 50%	80%
more likely to have any ED use	more likely to have high-frequency ED use. ¹

1 MAYES KD, CASH RE, SCHIAVONI KH, ET AL. SOCIAL RISK, SOCIAL NEED, AND USE OF THE EMERGENCY DEPARTMENT. JAMA NETW OPEN. 2024;7(1):E2352365. DOI:10.1001/JAMANETWORKOPEN.2023.52365



Solution

The creation and implementation of the Unite Virginia network gave Ballad Health and other Virginia-based healthcare providers the solution they were looking for.

Ballad Health, equipped a team of their community health workers (CHWs) with the Unite Us [closed-loop referral system](#) to facilitate referrals among their patient population. They aimed to reduce unnecessary ED visits and improve patient outcomes by helping patients receive the social support they needed. By integrating referral data from Unite Us' platform with ED utilization data, Ballad Health sought to determine if connecting patients to community resources such as benefits navigation, food, and housing could reduce ED visits and improve health outcomes.

Using the Unite Us platform, Ballad Health CHWs (& other partners in the Unite Virginia network) can:

- Conduct **standardized screenings** to assess patient needs.
- Share a list of **best-fit resources** with patients based on their needs.
- Send secure electronic **referrals** to accountable community-based organizations (CBOs) in the network.
- **Track outcomes** to confirm that patients receive services.
- **Analyze data** on social needs trends and healthcare utilization patterns.



Impact

Adopting Unite Us as the infrastructure behind Ballad Health’s CHW-led social care program has led to significant improvements in patient outcomes and healthcare utilization. Most significantly, the analysis shows a 16.2% reduction in overall ED utilization over six months.²

Key Results

8.5% reduction in the number of patients visiting the ED, with **59% of these patients having been insured by Medicaid.**

24.8% average decrease in ED visits for patients engaged by Ballad Health CHWs in the six months following a referral.

16.2% average decrease in ED visits for patients in the six months following a referral.

\$825,000 in estimated annualized cost savings per 1,000 patients, or an estimated \$68.8 PMPM savings, based on reduced ED utilization.

² FROM 129.63 VISITS PER PATIENT-MONTHS* IN THE SIX MONTHS PRECEDING UNITE US TO 108.63 VISITS PER 1,000 PATIENT-MONTHS IN THE SIX MONTHS FOLLOWING. PATIENT-MONTHS ARE A TYPE OF MEASUREMENT USED IN RESEARCH STUDIES TO ACCOUNT FOR BOTH THE NUMBER OF PEOPLE IN THE STUDY AND THE AMOUNT OF TIME EACH PERSON SPENDS IN THE STUDY

Top Case Types



32%
Benefits
Navigation



23%
Food
Assistance



19%
Housing &
Shelter



14%
Physical
Health

These results highlight the power of closed-loop referrals in reducing ED utilization, decreasing costs on the healthcare system, and improving patient health outcomes at scale.

“Unite Us’ closed-loop referral technology enables us to go far beyond making referrals—we can securely track whether services were delivered and measure the impact in real-time. That visibility is critical. It allows our teams to close the loop on care, target interventions more effectively, and ultimately improve outcomes while reducing unnecessary ED utilization. We’re not just coordinating services—we’re creating accountability, efficiency, and measurable change across our communities.”



PAULA MASTERS, DRPH, MPH, VP, CHIEF HEALTH DISPARITIES OFFICER, BALLAD HEALTH



Lessons Learned

Ballad Health—leveraging Unite Us’ technology and the robust Unite Virginia network of community-based organizations— offers valuable insights for healthcare organizations looking to effectively integrate closed-loop referrals into their daily workflows:

Data Integration and Cross-Sector Collaboration are Key to Impact Assessment:

Integrating non-clinical data with clinical data enables health systems to measure the impact of community-based interventions on health outcomes. Unite Us facilitates the real-time collection of information on community referrals and their outcomes. The collaborative efforts of community partners in care coordination generate community-driven data and inform decision-making and future strategies.

Community Health Workers are Essential:

CHWs play a critical role in bridging the gap between clinical care and community based services. They provide personalized assistance, follow up with patients to confirm services are received, and help patients navigate complex healthcare and community care systems. Investing in CHWs strengthens the connection between health systems and communities—so reducing burnout by implementing scalable systems is key.

Closed-Loop Referrals Drive Better Outcomes:

Tracking what happens after a referral is sent and measuring patient outcomes is crucial for success. This transparency helps address gaps in care so that needs are effectively met.

Efficient Infrastructure Reduces the Cost of Care without Reducing Services:

Reducing ED visits through technology not only improves patient health but also generates significant cost savings for health systems. By centralizing and streamlining care coordination, healthcare systems can prevent avoidable hospitalizations, lower overall healthcare costs, increase capacity, and improve patient outcomes—all without reducing program or service availability.

Ballad Health’s experience demonstrates that investing in technology can lead to measurable improvements in patient outcomes and cost efficiency.

[Learn more about Unite Virginia.](#)

