



The State of Technology & AI in Rural and Critical Access Hospitals: 2026

*Findings from a survey
of rural and critical
access hospital leaders*

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I. Executive Summary

Capacity, Continuity and the Requirements for Useful Technology

Choosing health technology for a critical access hospital (CAH) means looking beyond the feature list.

Will a new tool make a difficult task easier, or give someone another screen to check? Will patients understand how to use it?

These are useful starting questions when reading the concerns reported in Calcium's 2026 survey. The goal should be a better care experience, not simply a longer list of digital capabilities.

Let's begin with the people behind those responses rather than the latest product category. Their answers invite us to examine digital health through the lens of daily care. Instead of asking what artificial intelligence can do in theory, we can ask what would make it worth using here, with your staff, your patients and your community. That shift makes the conversation practical and personal.

Where Do Critical Access and Rural Hospital Leaders Feel the Greatest Pressure?

Staffing and finances lead the challenge list. **Staffing shortages drew 31 responses, or 81.6%, while financial pressures and margins drew 30, or 78.9%.** Respondents could select multiple challenges.

Together, these findings suggest that a technology proposal should answer two linked questions: Can we

support the work it requires, and can we justify its total cost?



National research adds context. Chartis reported that **more than 40% of rural hospitals** in its analysis operated at a loss (Topchik et al., 2026). That finding covers a rural hospital population, not Calcium’s respondents or CAHs alone. It also measures financial performance, not leaders’ concerns. We should read the findings alongside each other, not treat them as directly comparable percentages.

The pressure also reaches beyond hospital walls. Twenty-one respondents, or **55.3%, identified after-discharge care among the biggest gaps**. For your

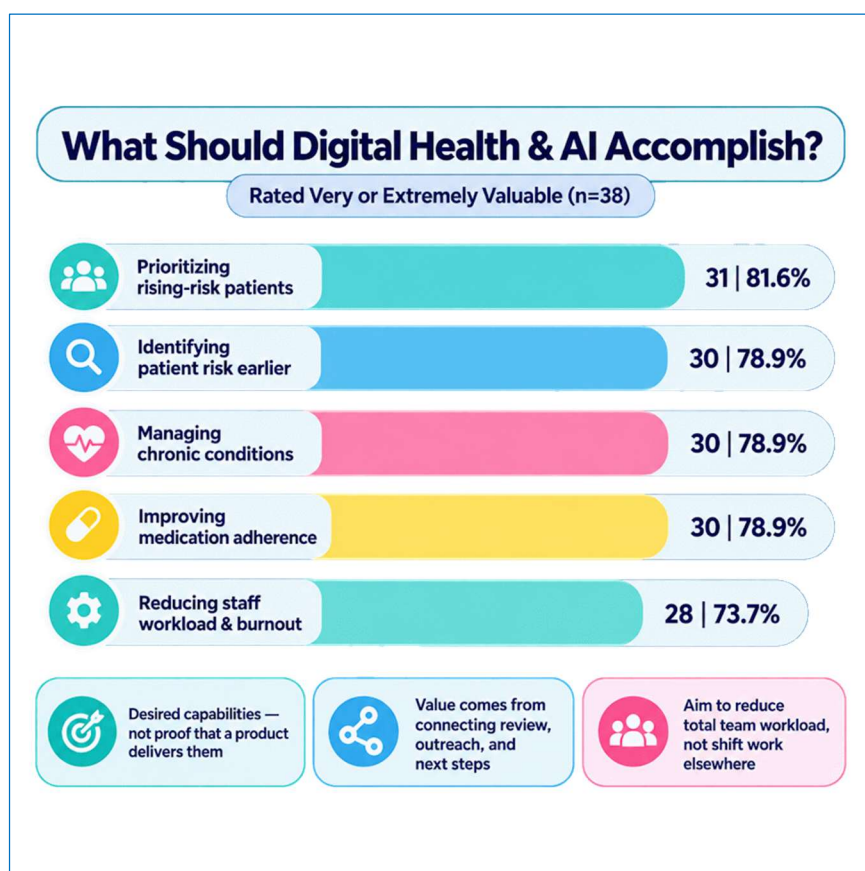
leadership team, that finding offers a place to look more closely. Can staff tell whether patients understand their next steps? Who notices when follow-up stalls? These questions can help you examine the gap without assuming its cause.

Monitoring confidence adds an important distinction. Twenty-four respondents were somewhat confident and 12 were not confident. **Together, they account for 94.7%.** Only two were very confident. Most chose the middle response, so we should not label everyone as lacking confidence. Instead, this finding invites a closer look at what would make post-discharge monitoring more dependable for the teams involved.

Current follow-up practices add another piece to the picture. Twenty-seven respondents, or 71.1%, reported using manual phone calls, while 25, or 65.8%, used care-management teams. These approaches can overlap. The question is not whether to replace personal contact. It is where a digital tool might support that contact without moving more administrative work onto the people already responsible for it.

What Should Digital Health and AI Accomplish?

Respondents placed strong value on knowing where to direct attention. **Thirty-one, or 81.6%, rated prioritizing rising-risk patients as very or extremely valuable.** Earlier risk identification, chronic-condition management and medication adherence each received those ratings from 30 respondents, or 78.9%. These are desired capabilities, not evidence that a particular AI product delivers them. That distinction should guide every discussion with a vendor.

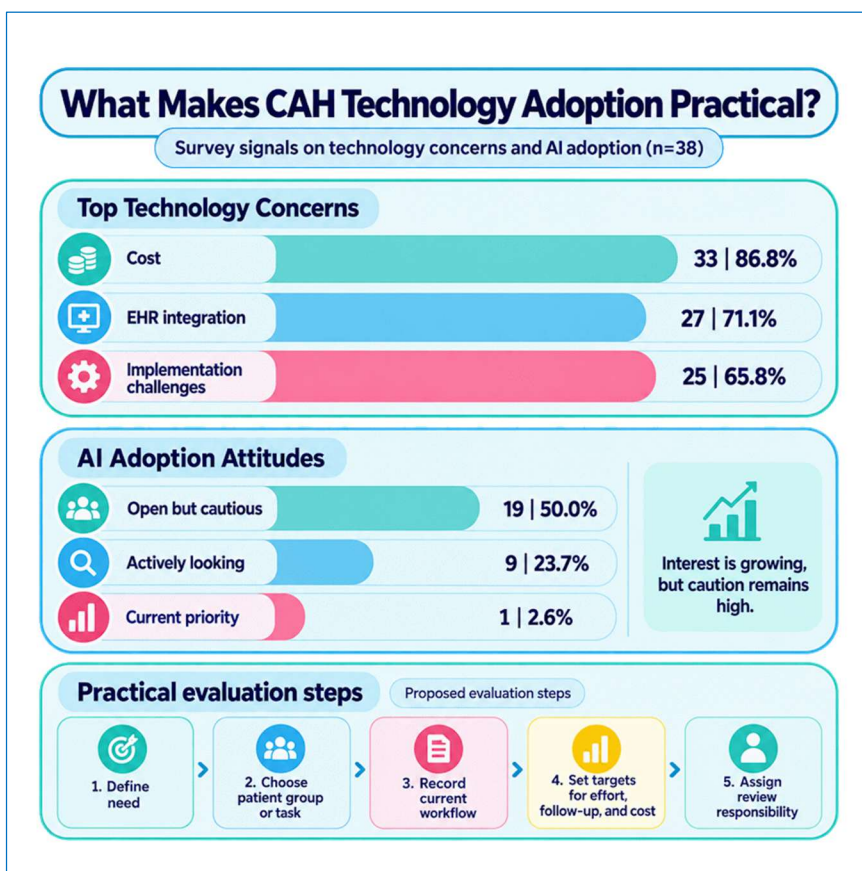


For planning purposes, think about the difference between receiving information and acting on it. A pilot might test whether a care team can identify who needs review, make contact and document the next step. These priorities suggest value in connecting those steps, rather than generating another alert without an agreed action. You would still need to define responsibilities and measure what changes.

Workload deserves the same scrutiny. Twenty-eight respondents, or **73.7%**, **rated technology that reduces staff workload and burnout as very or extremely valuable**. Before adding automation, ask which existing task it would replace. Then check whether reviewing its output creates new work elsewhere. The goal should be less avoidable effort across the team, not simply a faster step in one department.

What Makes CAH Technology Adoption Practical?

The leading technology concern was **cost, selected by 33 respondents, or 86.8%**. Electronic health record (EHR) integration followed at 71.1%, with implementation challenges at 65.8%. These responses suggest that affordability and fit belong at the beginning of the decision, not after a product demonstration. A tool can address a relevant problem yet remain impractical for a hospital's budget or existing systems.



Caution should not be mistaken for rejection. Nineteen respondents, or **50%, described themselves as open but cautious about AI**. Nine were actively looking and one called it a current priority. These answers describe interest, not verified deployment. For teams weighing adoption, they support a measured conversation: identify a specific need first, then examine whether an AI approach deserves a trial.

A practical response to these concerns is to make the evaluation manageable. Choose a defined patient group or task. Record how the work happens today. Set targets for staff effort, follow-up completion and total expense. Decide who will review unexpected results. These are proposed evaluation steps, not tested findings from this survey, and they should fit your hospital's actual resources.

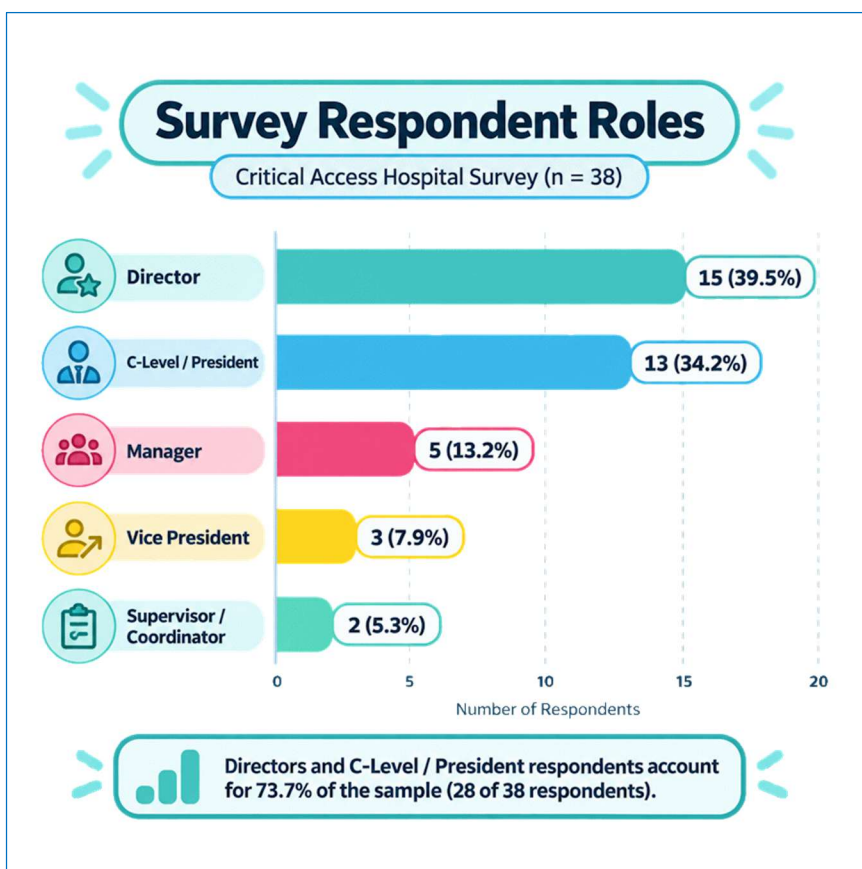
The opportunity is to build useful capacity, not purchase sophistication for its own sake. Calcium's findings identify needs and preferences; **they do not prove that AI improves outcomes or resolves financial distress**. Your decision should rest on demonstrated value in a workable care model. Start with the problem, protect the human role and require evidence before expanding its use.

II. Who Participated

A promising digital health idea can look different when you ask a simple question: Would this work here? Maybe your first concern is how a patient will reach the hospital. Maybe it is whether a video visit will connect. Rural residents face longer travel distances, fewer providers and limited broadband access, according to the U.S. Government Accountability Office (2023b). (Government Accountability Office)

First, though, we need to understand whose perspectives we are hearing and what the survey can reasonably tell us.

Who Responded to the CAH Survey?



The working analysis includes **38 retained survey records**. Of these, 13 identify C-level or president roles and 15 identify director roles. Together, these categories account for **28 records, or 73.7%**. Five identify managers, three vice presidents and two supervisors or coordinators. The profile places leadership perspectives at the center of this critical access and rural hospital survey.

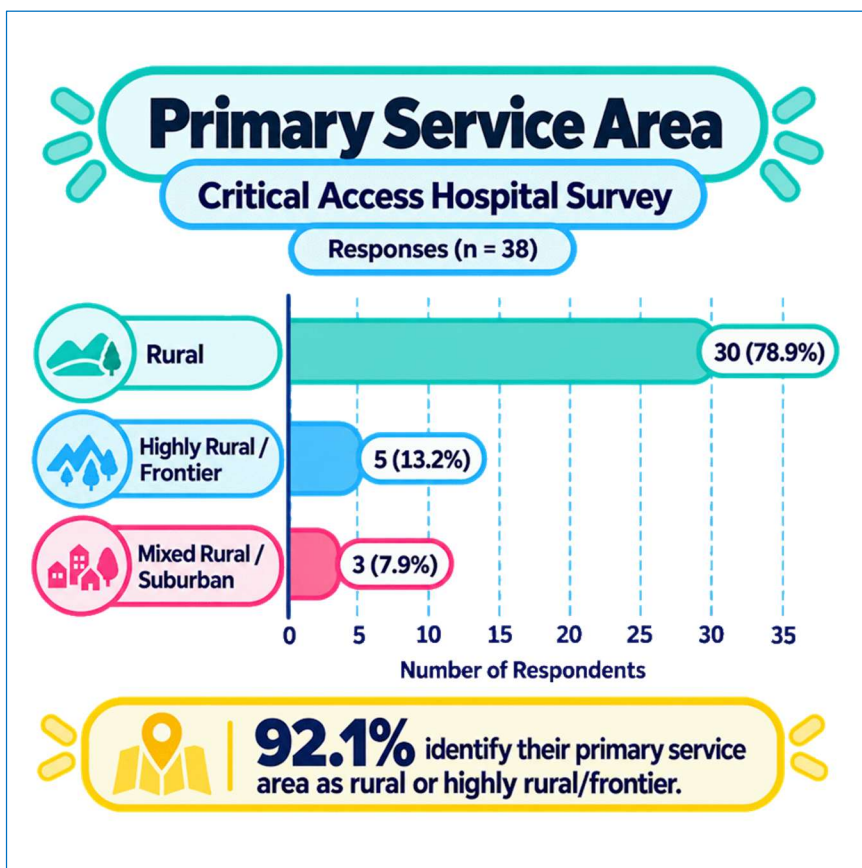
That mix gives you a useful lens for reading later chapters on digital health and AI. These responses describe priorities reported by people in leadership and management roles. They do not establish each participant's purchasing authority or clinical responsibilities. We should not treat them as a separate assessment of how patients or frontline staff experience a particular technology.

Rural Communities, Different Settings

The reported service areas are strongly rural. **Thirty records identify rural communities**, five identify highly rural or frontier communities and three identify mixed rural/suburban communities. These categories represent 78.9%, 13.2% and 7.9% of the sample. They are respondents' descriptions of their primary service areas, not independently verified geographic classifications.

This distinction matters when you consider patient engagement or remote care. GAO's rural-access report identifies transportation and broadband barriers, but it does not tell us which surveyed hospitals face each barrier (U.S. Government Accountability Office, 2023b). Use that research as broader context. Do not assume

every respondent's community has the same infrastructure or access challenges.



What Qualifies as a Critical Access Hospital?

Critical access hospital is a specific Medicare designation, not simply another name for a small hospital. CMS sets requirements covering rural location, emergency services and other operating conditions. Among them, a CAH must maintain no more than 25 inpatient beds for acute inpatient or swing-bed services and provide emergency care around the clock (Centers for Medicare & Medicaid Services, 2026).

There is an important qualification. CMS allows qualifying psychiatric and rehabilitation distinct-part units, with up to 10 beds each, in addition to those 25 beds. **A reported total above 25 therefore does not automatically rule out CAH status.** You need to know which beds the count includes and confirm the facility's certification (Centers for Medicare & Medicaid Services, 2026).

In this survey, **36 records include a bed count.** Thirty report 1–25 beds, four report 26–50 and two report 101–250. Two records leave the question unanswered.

What the Findings Can—and Cannot—Tell You

The workbook does not document the full invitation list, response rate or a nationally representative sampling method. With 38 records, one response also represents about **2.6 percentage points**. Small differences deserve caution. These results describe this sample's reported views; they do not establish national CAH adoption rates or prove that a digital health tool improves outcomes.

Use the findings to start a local conversation: Do these priorities match what your team sees? Where does your experience differ? The value lies in connecting leaders' reported needs with questions your hospital can investigate. Keeping the sample's limits visible helps you make that connection without asking the survey to answer more than it measured.

III. People and Money

The Operating Constraints Behind Technology Decisions

Before you approve a new digital health tool, picture its first week in your hospital. Someone must learn the system. Someone must answer patient questions. Someone must decide what happens when an alert arrives during a busy shift. Even a useful idea needs a workable place in the day. That thought exercise offers a practical way to approach the staffing and financial concerns reported in Calcium's survey.

Now picture the same proposal at a budget meeting. The price may be clear, but what about the people and time needed to make it work?

The point is not to reject new technology. It is to ask whether the proposed benefit justifies the effort. The survey gives critical access and rural hospital leaders a starting point for that conversation.

The CAH Workforce Challenge Extends Beyond Vacancies

Staffing shortages topped the survey's challenge list, selected in 31 of 38 records, or 81.6%. They describe participants' reported concerns, not independently verified hospital vacancy rates. Still, staffing stands out as a central consideration when planning technology investments.

The reported challenges extend beyond filling positions. **Chronic disease management drew 19 selections (50%), rising patient complexity drew 16 (42.1%) and**

care coordination across providers drew 15 (39.5%).
Participants could select multiple answers.



For your team, these findings suggest looking at the work surrounding care, not just the number of people available to provide it.

A federal study supplies a specific CAH example. Officials interviewed at **10 selected critical access hospitals** described difficulties hiring behavioral-health professionals, including psychiatrists and licensed clinical social workers (U.S. Government Accountability Office, 2023a). These interviews reflect selected facilities, not a national shortage estimate. They also underline an important boundary: software should

support qualified professionals, not serve as a presumed replacement for missing clinical expertise.

Financial Pressure Forces Choices About Technology

Financial pressures and margins ranked almost as high as staffing, with **30 selections (78.9%)**. In a separate question, 33 records (86.8%) identified technology cost as a concern. Read together, these responses suggest that a promising clinical application still needs a realistic budget. Your team should consider what the investment would displace, not just what it might deliver.

Chartis provides broader financial context. Its 2026 analysis reported that **41.2% of rural hospitals operated at a loss**, with a national median operating margin of 2.0% (Topchik et al., 2026). These results draw on available Medicare cost-report data. They cover a different rural hospital population, not Calcium's sample, and measure financial performance rather than leaders' perceptions. (Chartis)

Consider a choice between new software, additional staffing and replacing equipment. Our suggested approach is to compare how each option addresses a defined need, including its ongoing commitments. The survey did not rank these alternatives. This exercise makes competing investment priorities visible before a technology project wins approval.

Our recommendation is to **separate patient benefit from hospital savings**. Evaluate a proposed improvement in care on its own merits, then ask finance to assess the financial effect. For a value-based care proposal, examine the actual payment arrangement rather than assume savings reach your hospital. Count

recovered staff time separately from reduced spending unless the budget truly changes.

Implementation Capacity Is Part of the Investment

Implementation challenges concerned 25 respondents (65.8%). That finding raises a practical question: Who will make the project work? Before committing, assign responsibility for training, patient support and daily oversight. Identify the time those tasks require. A proposal that depends on unspecified staff availability has not yet answered the implementation concern these respondents expressed.

Integration with the electronic health record concerned **27 respondents (71.1%).** Test that concern against a real task during evaluation. Can someone complete follow-up within the expected workflow, or must they copy information between systems? This is a proposed test, not a reported survey experience. It helps turn a broad integration promise into something your team can inspect.

Reducing Work Is Not the Same as Moving It

Respondents also reveal a useful tension. **Twenty-eight (73.7%) rated technology that reduces workload and burnout as very or extremely valuable.** Yet 14 (36.8%) selected staff burden as a technology concern. The survey does not explain each person's reasoning. It does make room for a sharper question: Does this tool remove work, or merely move it?

Imagine an automated check-in that saves an administrator several calls but sends every patient response to a nurse for review. The first team's task may shrink while the second team's task grows. This hypothetical example illustrates why we recommend examining the whole process. **A faster step alone does not establish less work overall.**

A small pilot could track time spent across every participating role, including setup and ongoing review. It could also track completed follow-ups and unresolved messages. Compare those measures with the previous process, then assess actual spending separately. These are suggested evaluation steps, not demonstrated survey outcomes. Their purpose is to test whether the proposed support truly helps.

A Practical Capacity Equation for Rural Hospitals

This report proposes a “capacity equation” to connect the survey's care challenges with its staffing and financial concerns. Use it to structure a discussion, not calculate returns or predict a hospital's performance. It is an interpretive framework, not a validated economic model or evidence that technology will solve the imbalance.

IV. Care Beyond the Inpatient Encounter

Where Respondents See Gaps

Picture a patient returning home with a discharge folder and a follow-up appointment. At the kitchen table, a new question comes up: Which instructions apply today, and whom should I call for help?

Imagine yourself at the other end of that question. Your team prepared the plan, but how would you know whether the patient can put it into practice?

This imagined moment gives us a useful way to think about care beyond the hospital. Instead of starting with a screen, an alert or an AI feature, start with the next step a person needs to take. Is that step clear? Is help available? Looking at care from this angle shifts the conversation from finishing an encounter to supporting what happens afterward.

Where Leaders See Gaps in Rural Hospital Care

Calcium's survey asked where respondents saw the biggest gaps in patient care. Because participants could choose multiple answers, the categories overlap and their percentages should not add up to 100%.

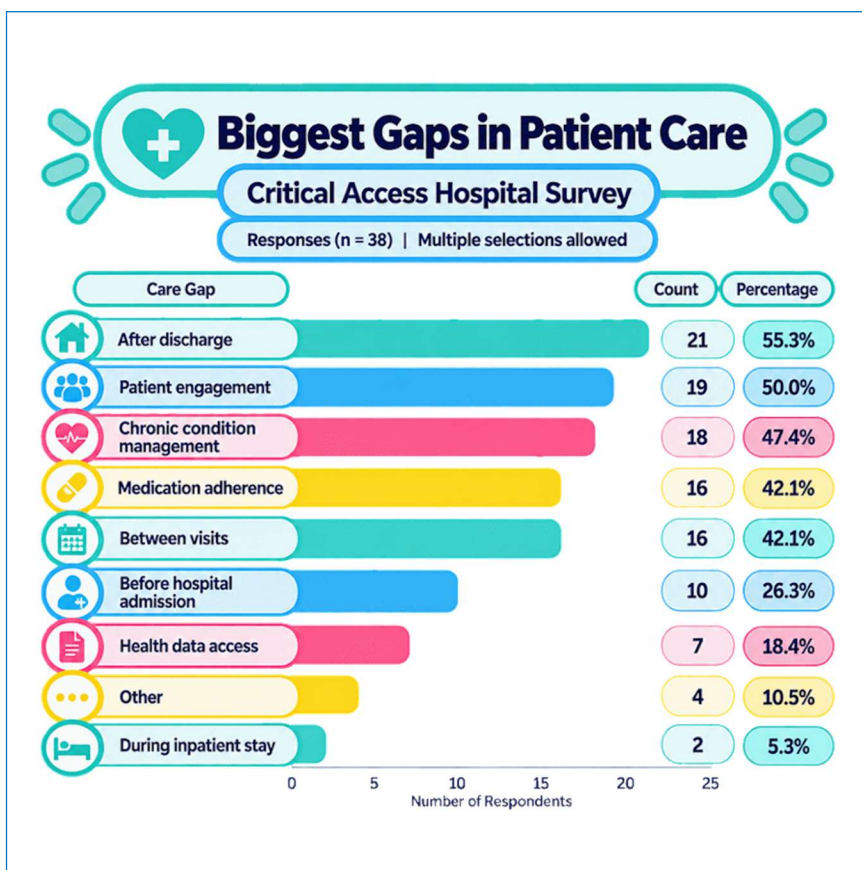
Post-discharge care received the most selections: 21 of 38 records, or 55.3%. Between-visit care received 16 selections, or 42.1%.

These findings point toward periods outside the inpatient encounter. For critical access and rural hospital leaders, they offer a reason to examine what

connects one contact with the next, rather than looking only at individual appointments.

Only **two respondents, or 5.3%, selected the inpatient stay**. That does not show that inpatient care has few quality or safety problems.

The survey asked people to identify their biggest perceived gaps; it did not audit hospital care. A low selection rate cannot establish that a setting is safe or that improvement work there is unnecessary.



Patient Engagement Runs Through the Entire Journey

Patient engagement drew 19 selections, or 50%.

Unlike discharge or an appointment, engagement is not

a single stage on a timeline. Consider it a theme to investigate across the journey. You might ask whether patients understand the next step, can raise questions and receive a response. Those are proposed questions, not explanations established by the survey.

Chronic-condition management received **18 selections, or 47.4%**, while medication adherence received **16, or 42.1%**. These percentages describe leaders selecting concerns. They do not mean that 42.1% of patients missed medications or that a similar share lacked chronic care. Keeping the denominator clear prevents an organizational survey from becoming an unsupported claim about patient behavior.

Imagine a patient who misses a medication refill. A reminder might help, but you would first need to understand what happened. Was the instruction unclear, the prescription unavailable or the cost difficult to manage? This example is hypothetical. The survey identifies medication adherence as a concern without telling us which barriers caused it.

What ROADMAP Adds to Rural Care Transitions

The ROADMAP report offers a patient perspective from western Montana. Its 2014 survey examined transitions from a regional referral hospital to four rural counties served by critical access hospitals. **Patients reported receiving about 55% of transition services applicable to their situations.** The report appeared in 2020; this is historical, local evidence, not a current national service-delivery rate (Seekins et al., 2020).

Patients also described limited local follow-up and weak coordination between the referral hospital and local

providers (Seekins et al., 2020). This supports examining handoffs, but **the two surveys measure different things**. Calcium's 55.3% reflects leaders selecting a concern; ROADMAP's 55% reflects reported service receipt. Neither figure, by itself, measures whether a particular digital intervention improves outcomes. (NCBI)

Turning Perceived Gaps Into Practical Questions

A useful next step is to review one patient journey with your team. Start before admission, then follow discharge and the period before the next visit. In Calcium's survey, ten respondents, or 26.3%, also selected gaps before hospital admission. Use the map to identify questions worth investigating, not to assume that every patient encounters every gap.

Health data access also appeared in seven responses, or 18.4%. That finding adds another question to your review: Does the next clinician have the information needed to continue care? The survey does not identify missing records or specific technical failures, so investigate the local issue first.

For each handoff, ask who takes responsibility and how the receiving person knows what to do. Include patients in that discussion rather than relying only on staff impressions. Our proposed approach connects leaders' concerns with questions about actual experience. It does not treat a completed referral, sent message or scheduled appointment as proof that the next step happened.

Then consider where digital health might fit. A proposed check-in could ask whether a patient completed a step

and needs help. Before testing it, decide who reviews responses and handles unanswered messages. These are design questions prompted by the survey, not demonstrated benefits of automation or AI. **The tool should serve the handoff rather than become the goal.**

Keep Perceptions, Experiences and Outcomes Separate

Build your evaluation around three separate questions: What do leaders believe needs attention? What do patients say they received? What actually changes after an intervention? Calcium's survey answers the first question. It cannot establish improvements in readmissions, safety or costs. Those outcomes require their own measures and evidence, rather than an assumption that stronger digital engagement produces them.

For critical access hospital care coordination, the practical message is to look beyond the completed encounter. The survey highlights where leaders want a closer look, not where every hospital fails. Start with a specific handoff, listen to patients and define what better support would mean. Then test whether your approach closes that gap in your own community.

V. Post-Discharge Monitoring

Limited Confidence and Labor-Intensive Follow-Up

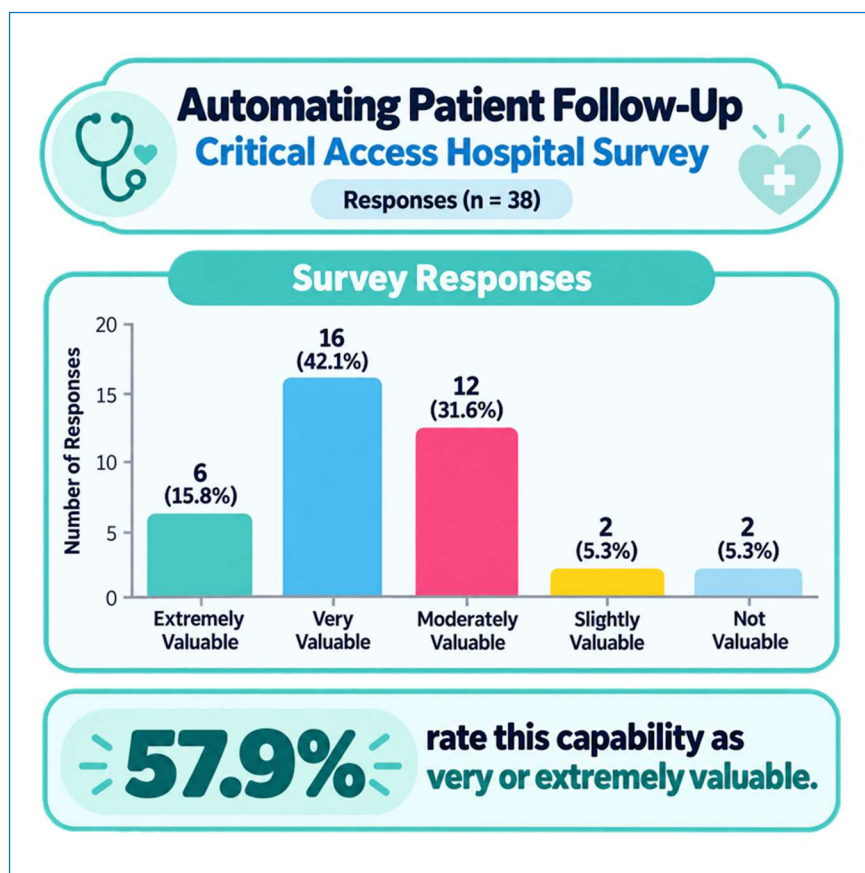
Suppose your team calls a patient after discharge and hears, “I’m doing fine.” The conversation ends politely, but imagine that the patient never mentions a question about the care plan. Did the call provide reassurance, or did it leave something important unresolved? This hypothetical exchange gives us a starting point for thinking about what useful follow-up should accomplish.

For your hospital, the question is not simply whether someone made contact. It is whether that contact helped your team understand what the patient needed next. Calcium’s survey invites us to examine the process behind that understanding. Before choosing another digital health tool, we need to look at how people gather information and turn it into an appropriate response.

What Does Limited Monitoring Confidence Mean?

Only **two respondents, or 5.3%, were very confident** in post-discharge monitoring. Twenty-four, or **63.2%, were somewhat confident**, while 12, or **31.6%, were not confident**.

The middle category matters: most respondents expressed some confidence, rather than none. Together, the somewhat confident and not confident groups account for **94.7% of responses**.

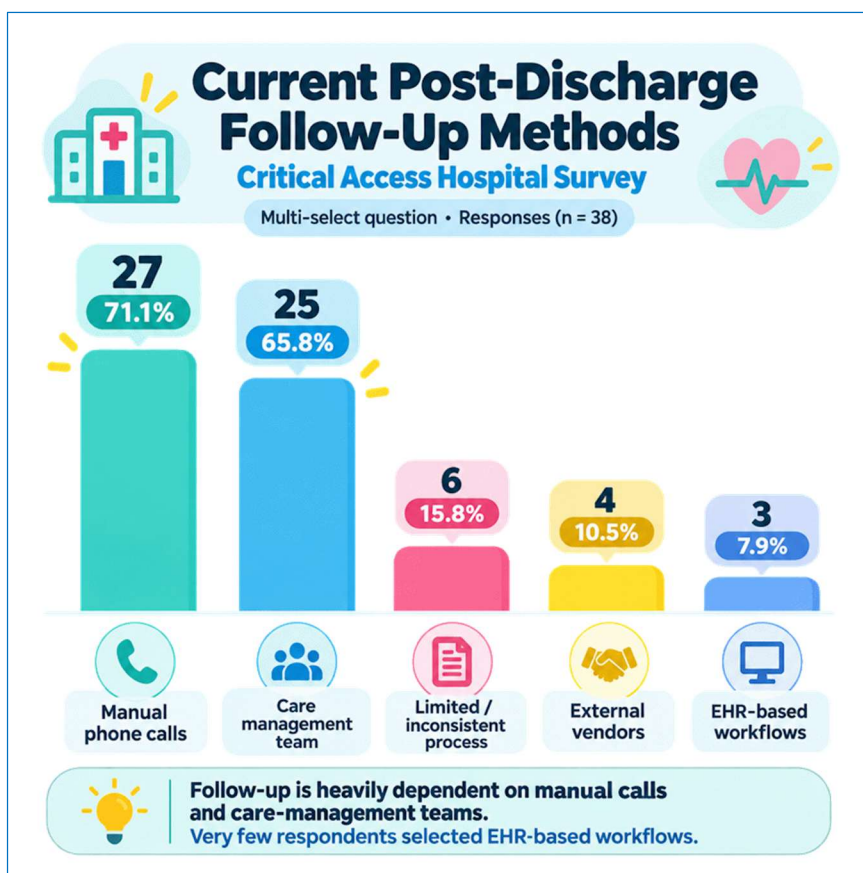


That combined figure should not become a claim that almost every respondent lacked confidence. Nor does a confidence rating establish whether care was safe or effective. For your team, a useful question is what “somewhat confident” means locally. Which part of follow-up feels dependable, and which part needs closer attention?

You can also ask patients where the process leaves them uncertain. Their experiences may help you understand what the survey cannot explain: why a leader feels only somewhat confident about the hospital’s current monitoring approach.

Post-Discharge Follow-Up Still Depends on People

Manual phone calls appeared in 27 responses, or 71.1%, while care-management teams appeared in 25, or 65.8%. These methods overlap: 14 records selected both. A care manager may use phone calls, so the percentages do not describe competing models. They show that respondents commonly named people and direct contact as parts of their follow-up approach.

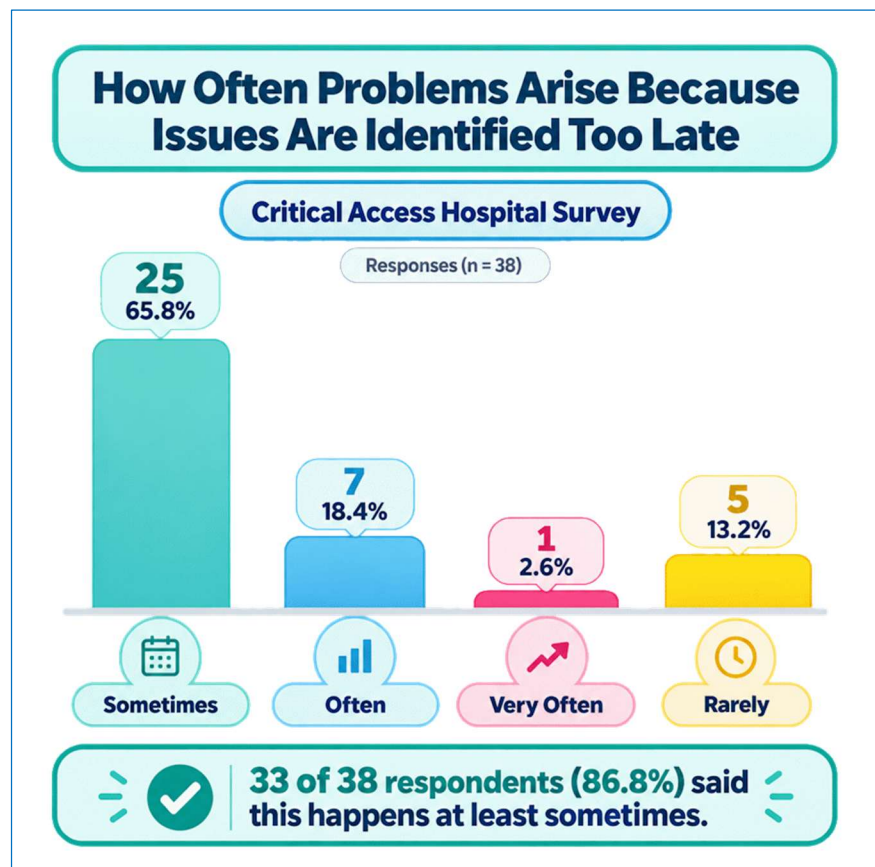


Those answers suggest a useful place to examine workload, but they do not measure staff hours. Before calling a process inefficient, map the work involved. Who identifies patients for contact? Who makes another

attempt after an unanswered call? Who records the conversation? This proposed review can help distinguish necessary clinical contact from avoidable administrative effort.

Just **three respondents, or 7.9%, selected EHR-based workflows**. That means few selected this particular follow-up method—not that they lack electronic health records. The survey also does not show how thoroughly each hospital uses its system. Investigate what information moves into the care team’s routine workflow before deciding that another platform is needed.

Late Identification Is a Signal, Not a Readmission Rate



Thirty-three respondents, or 86.8%, said issues arise because problems are identified too late at least sometimes.

The full breakdown was 25 selecting sometimes, seven often, one very often and five rarely. These answers make earlier identification worth examining, but they describe reported frequency categories rather than a measured number of clinical events.

Importantly, **this question addressed care generally, not post-discharge problems alone.** We cannot attribute those responses specifically to follow-up calls or monitoring practices. Nor can we conclude that late identification caused readmissions. Use the result as a prompt to investigate where delays occur, then gather evidence about the process you intend to improve.

What Rural Remote Monitoring Research Shows

Sulieman et al. (2024) describe a remote patient monitoring program at West Tennessee Healthcare for patients discharged with COVID-19. Their retrospective review examined **1,351 patients from October through December 2020** across unmonitored, standard-monitoring and 24-hour monitoring groups. The study offers a rural health system example from a specific pandemic setting, not evidence drawn from a confirmed CAH-only population. ([PubMed](#))

The 24-hour monitoring group had the lowest reported all-cause readmission rate, 4.96%, but **the comparison was not statistically significant** ($p = .37$). The finding does not establish that monitoring reduced readmissions (Sulieman et al., 2024). **Remote monitoring is one approach to evaluate within a**

defined follow-up model—not a guaranteed outcome or proof that AI improves post-discharge care. ([DOI](#))

Build a Follow-Up Model Your Team Can Run

For a local pilot, start by defining who the program serves and what staff should do with patient responses. Identify who reviews incoming information, when reviews occur and how concerns reach the responsible clinician. Decide how to handle missed responses too. These are proposed planning steps, not practices whose effectiveness the survey tested.

Make the service clear to patients too. For a pilot, explain when someone will review their information and how they should seek help outside that service. Avoid suggesting that an app provides continuous observation unless the program actually does. Establishing these expectations belongs in the proposed care model, not just the instructions for using a device.

Then **measure more than completed contacts**. Your evaluation could track time spent on follow-up, unresolved concerns and whether agreed next steps actually happened. Keep those process measures separate from readmissions and costs. A higher response rate might show stronger participation, but your team would still need evidence that patients received better care.

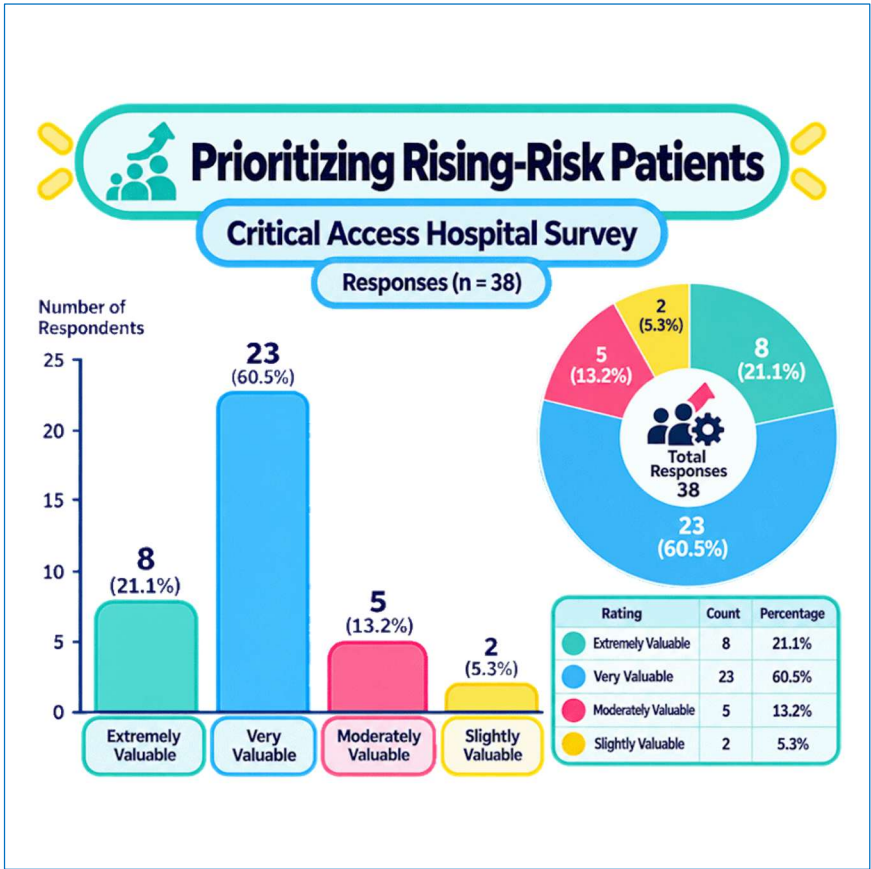
Post-discharge monitoring deserves more than a choice between phone calls and technology. The survey highlights limited confidence and frequent reliance on staff-led follow-up, without identifying the single best solution.

VI. What Leaders Value

Earlier Identification, Prioritization, and Clinical Support

Imagine watching a technology demonstration that makes a workday look simple. A screen sorts your patient list and highlights someone who might need help.

Now place that screen in your hospital. Who checks it? What information supports its suggestion? What happens next? These questions bring the discussion back to the people expected to use the tool and the patients it should serve.



For your team, a useful conversation may begin before anyone opens a product brochure. Ask what a better day would look like for a clinician or patient. Then consider what would need to change to make that possible. Calcium's survey offers a starting point for that discussion, without choosing a technology or promising a result.

Earlier Identification and Patient Prioritization

Prioritizing rising-risk patients received the highest combined rating: 31 of 38 responses, or 81.6%, answered it as either very or extremely valuable.

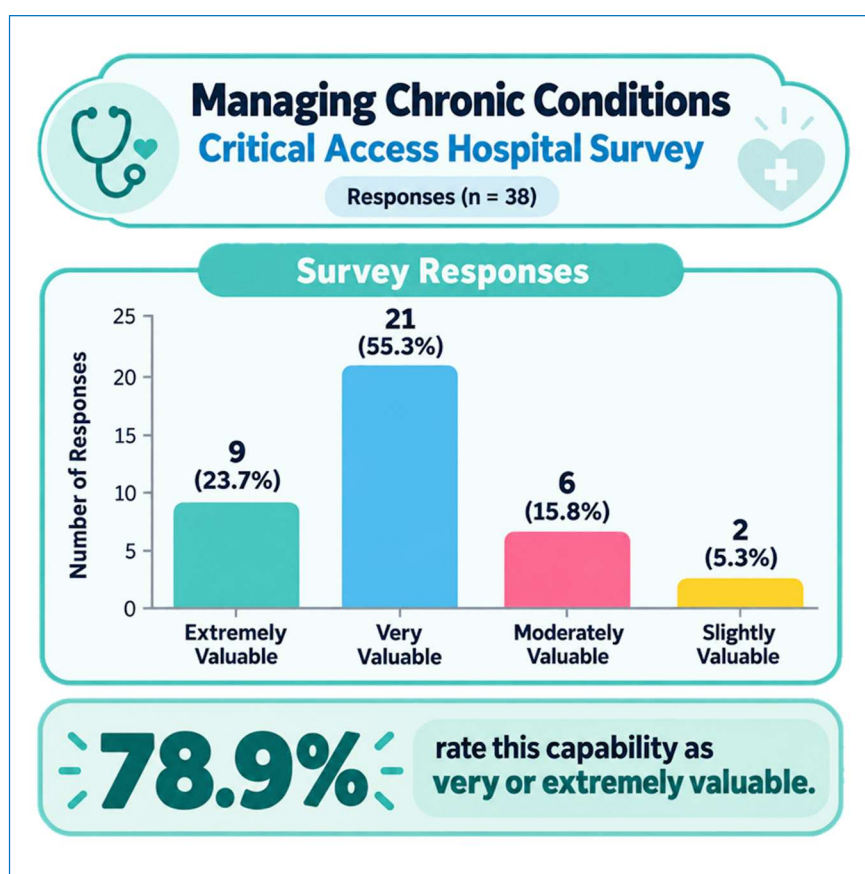
Identifying patient risk earlier followed at 30 responses, or **78.9%**. These related capabilities suggest a practical question for your hospital: Can a proposed tool help the team recognize a concern and decide which patient needs attention next?

The difference is just **one response**. It does not establish a statistically significant preference for prioritization over earlier identification. Treat the ordering as a description of this sample, not a purchasing instruction. Both capabilities attracted strong ratings, but your local needs should determine which problem deserves attention first.

Consider a hypothetical patient list that flags a change in someone's condition. The flag alone does not define the response. Your team still needs to review the information and decide what to do. This illustrates a workflow, not one tested by the survey. The desired value lies in supporting a decision, rather than simply displaying a score.

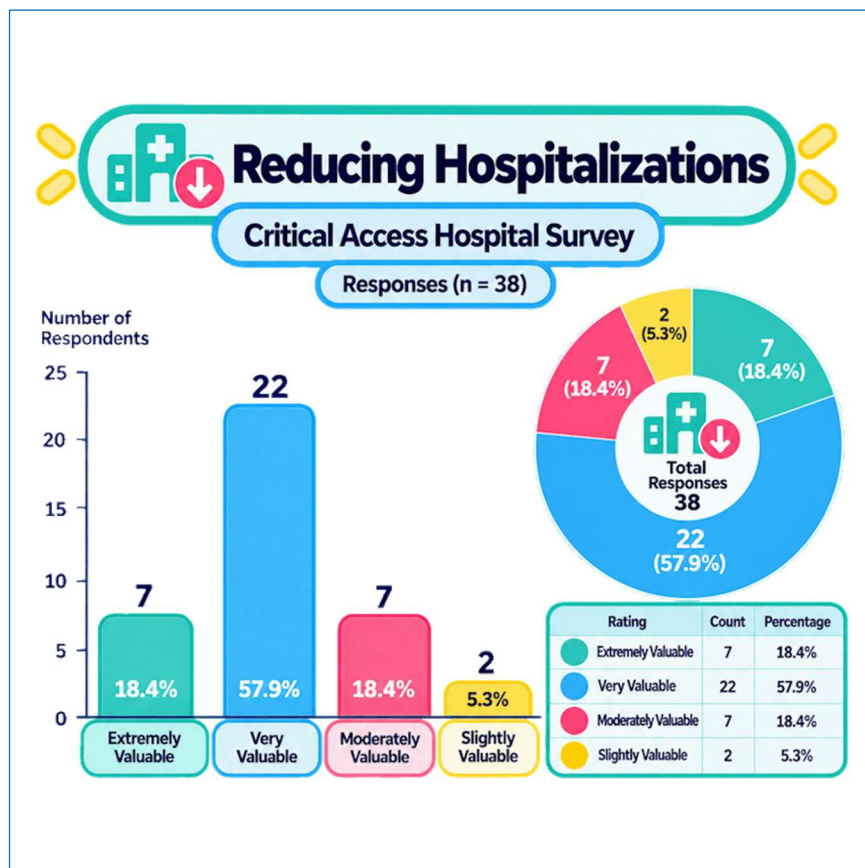
Clinical Support and Staff Capacity

Managing chronic conditions and improving medication adherence each received high ratings from 30 respondents, or 78.9%. These results support examining how technology might help with ongoing care. They do not identify a preferred product or establish that reminders, monitoring devices or AI are the right approach for every patient.



Reducing hospitalizations drew **29 high ratings, or 76.3%**. That is an outcome respondents value, not a documented reduction in admissions. When evaluating a proposal, ask which hospitalizations it aims to prevent and how the team would assess that result. A high

survey rating cannot replace evidence that a particular care model works.

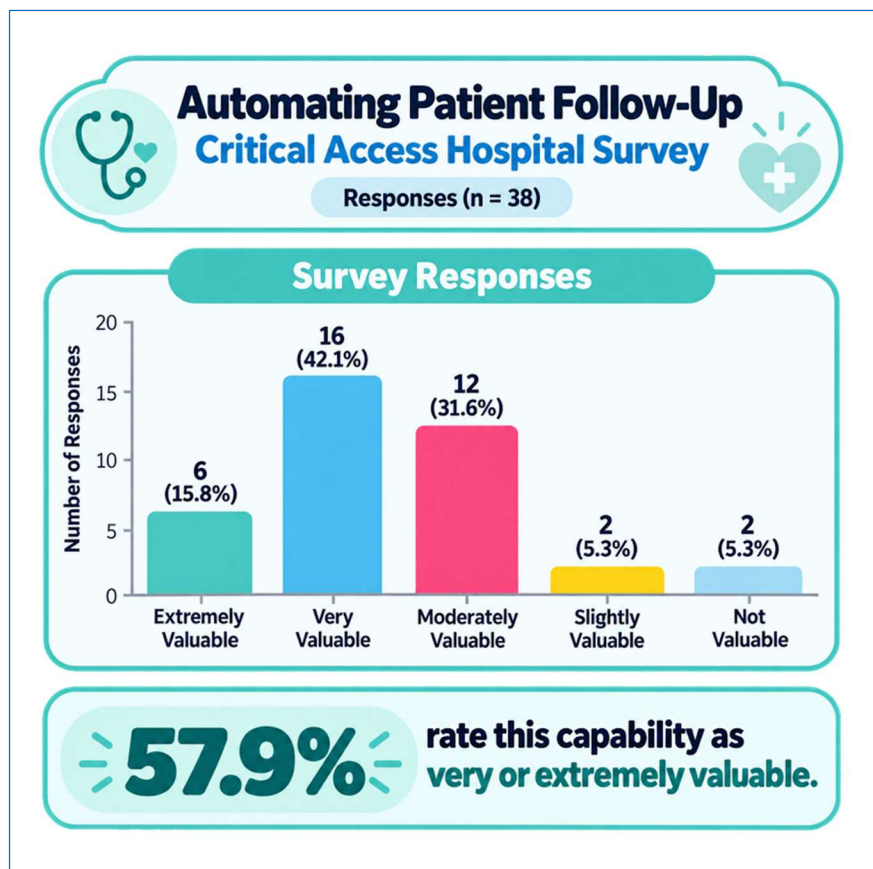


Reducing staff workload and burnout received **28 high ratings, or 73.7%**.

This adds an important test: Does the technology make the overall job more manageable? Count time spent reviewing information and correcting output, not just time saved on the original task. That is a proposed evaluation approach, rather than a benefit demonstrated by these responses.

Why Lower Rankings Do Not Mean Rejection

Automating patient follow-up received high ratings from **22 respondents, or 57.9%**. Monitoring patients remotely received **18, or 47.4%**. Those figures sit below the other capabilities, but **a lower relative position does not mean opposition**. The survey asks about value, not whether leaders would approve or reject a specific monitoring program.



The complete distribution makes that distinction clearer. Another **14 respondents rated remote monitoring moderately valuable**, while five chose slightly valuable and one chose not valuable.

For automated follow-up, 12 selected moderately valuable. Reporting only the highest ratings would hide these views. The appendix preserves every response category so readers can examine the full picture.

Central Montana: A Focused CAH AI Example

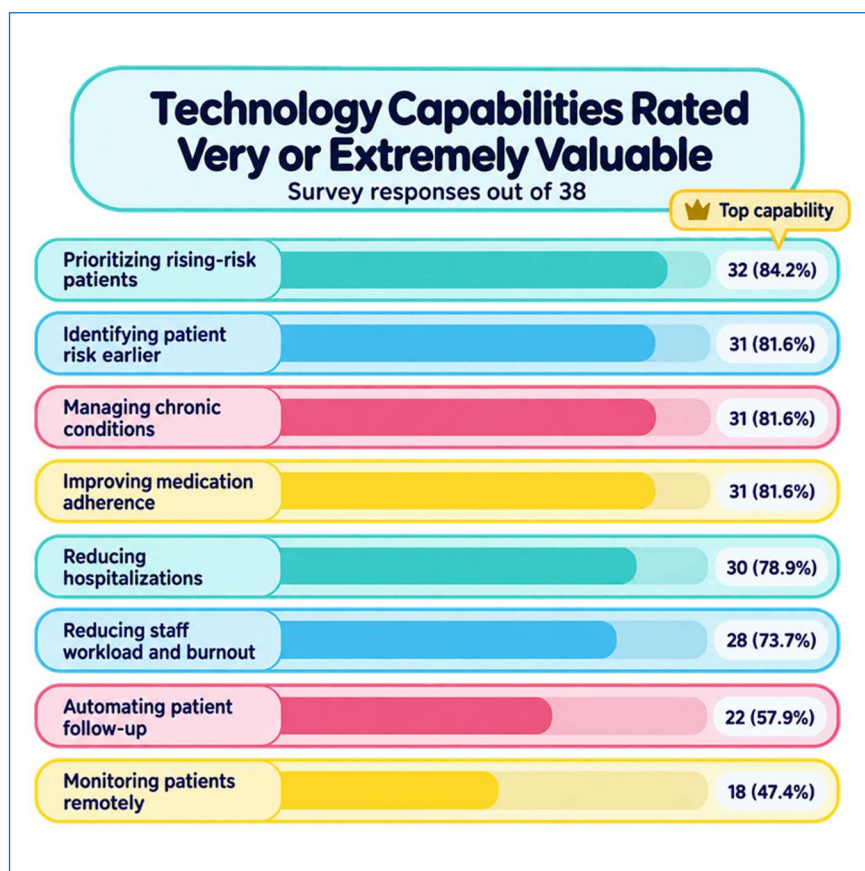
The American Hospital Association (2026c) describes **Central Montana Medical Center, a 25-bed critical access hospital**, using AI-supported documentation to address clinician burden. Its case account focuses on a defined task: turning conversations during visits into clinical notes. The hospital emphasized usability and clinician trust rather than beginning with a broad replacement of clinical decision-making. ([American Hospital Association](#))

According to the account, physicians reported better focus during visits and less after-hours documentation. The report also describes involving frontline users and seeking patients' permission before using the tool (American Hospital Association, 2026c). These details illustrate how one organization approached adoption. They do not establish what another hospital should expect from the same technology.

The distinction matters because this is an **organizational account within a sponsored report, not a controlled productivity study** (American Hospital Association, 2026c). It offers implementation lessons, not an independently measured estimate of time savings. Documentation support also differs from predicting patient deterioration; success reported in one application does not validate the other.

From Desired Value to Demonstrated Results

For your own evaluation, begin with one desired improvement and specify how you will recognize it. A prioritization pilot might track whether staff review flagged patients promptly and complete appropriate follow-up. A documentation pilot might assess note quality alongside staff time. These are suggested measures, not outcomes established by Calcium's survey.



Include the people who will use the tool in that assessment. Ask whether it fits their work and helps them respond to patients.

Keep patient outcomes separate from user satisfaction and technical performance. Those measures can inform the same decision, but none should silently stand in for the others.

The strongest message is not that rural hospitals should buy whichever capability ranks first. It is that leaders value help with decisions and daily care. Use these findings to frame a focused evaluation, then require evidence from the service. Useful technology earns its place by supporting people, not merely collecting information.

VII. The Technology Priority Stack

Financial Sustainability, Engagement, and Prevention

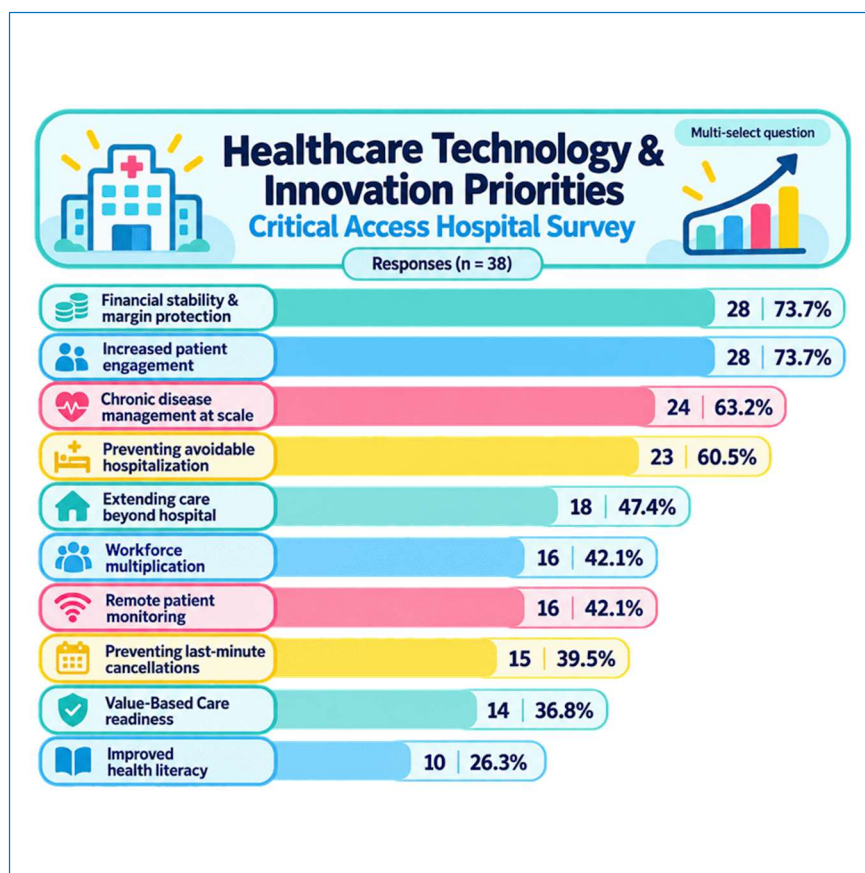
Put a finance leader, a nurse manager and a patient at the same table, then ask what better technology should accomplish. In this imagined conversation, each person might describe a different kind of progress. One wants a service the hospital can afford to maintain. Another wants fewer unfinished tasks. The patient wants to understand what happens next.

None of those goals need to compete with the others. But a shared purchase does not guarantee a shared benefit.

Before your hospital reviews another proposal, ask everyone to finish this sentence: “We will know this is working when...” Calcium’s survey provides a starting point for that discussion. The challenge is turning a collection of priorities into specific improvements you can evaluate.

What the Technology Priority Stack Shows

Financial stability and margin protection and increased patient engagement tied for the leading position, with 28 selections each (73.7%)



These results describe this group of critical access and rural hospital leaders, not national adoption rates.

Respondents could select multiple priorities; they did not rank them against each other. There is no difference between the two leading choices. Think of this “priority stack” as a way to organize the findings, not evidence that finance always takes precedence over patients or that hospitals should buy tools in this order.

Separate Financial, Patient and Workforce Benefits

A financial sustainability goal needs a financial test. For a proposed digital health service, your team could compare ongoing expenses with actual revenue and

changes in spending. Include implementation and staff support in that review. These are suggested evaluation steps, not financial results reported in the survey.

Keep patient benefit separate. A patient might better understand a care plan without the hospital spending less. Likewise, time freed for a nurse does not automatically appear as cash savings. In your evaluation, record improved understanding, recovered staff time and changes in the budget as different results. The survey does not establish how those benefits relate.

This distinction matters for prevention. Rather than promise that fewer hospitalizations will improve your hospital's margin, ask finance to evaluate the actual payment arrangements and costs. You can pursue a meaningful care goal while remaining honest about its financial implications. Neither the survey selections nor the proposed framework establishes a return on investment.

Connect Engagement With Chronic Care and Prevention

Chronic disease management at scale received 24 selections, or 63.2%, while preventing avoidable hospitalization received 23, or 60.5%. Alongside engagement, these priorities suggest evaluating how ongoing care works between encounters. They do not show that a particular platform prevents admissions or that every hospitalization should be avoided.

Make engagement concrete before measuring it. For a proposed program, count eligible patients who complete an agreed care step, not just people who open a message. Ask patients whether the interaction answered their questions. These proposed measures

help distinguish activity in an app from useful participation in their own care.

For a hypothetical chronic-care pilot, define a patient group and the follow-up it needs. Then assess participation separately from clinical progress.

Completing a digital check-in might show that someone responded, but it does not by itself establish better health. Ask what further evidence would demonstrate that the care plan helped.

Extending care beyond the hospital drew **18 selections, or 47.4%**. Improved health literacy drew **10, or 26.3%**. You might connect these priorities by testing whether patients can explain their next steps and obtain help between visits. That is a proposed application, not proof that digital education improves outcomes or that lower selection means literacy matters less.

Give Supporting Priorities a Clear Job

Remote patient monitoring and “workforce multiplication” each received 16 selections, or 42.1%. For planning, interpret workforce support as helping staff complete appropriate work with available resources, not a promise to eliminate positions. A monitoring pilot should examine review demands alongside the information it provides. More readings alone would not demonstrate added capacity.

Preventing last-minute cancellations drew **15 selections, or 39.5%**, while readiness for value-based care (VBC) drew 14. These are distinct goals. One possible cancellation measure is the share of scheduled procedures canceled late for a clearly defined reason. For readiness, assess whether your team can report the measures required by a specific agreement, rather than assume selection signals current participation.

Look Beyond the Vendor Purchase

HRSA's rural hospital programs place improvement in a broader setting. The **Medicare Rural Hospital Flexibility Program** funds states to support CAHs with healthcare quality, financial health and hospital operations, among other needs (Health Resources and Services Administration [HRSA], n.d.). This offers context for considering technical assistance alongside a technology purchase. (HRSA)

HRSA also describes the **Rural Healthcare Provider Transition Project**, which helps small rural hospitals and rural health clinics provide value-based care. State Offices of Rural Health connect communities with resources (HRSA, n.d.). Explore which assistance fits your organization; the program listing does not guarantee that a particular purchase qualifies for funding. (HRSA)

Turn Priorities Into Decisions You Can Test

The decision matrix below links each survey priority to an intended outcome and a proposed measure. Treat it as a planning tool, not a validated scorecard. Before launch, define the patient group, measurement period and starting performance. Assign responsibility for reviewing results so that a promising number leads to a considered decision.

A useful rural hospital technology strategy starts with the improvement you need, not the feature that attracts attention. Use the survey to guide that conversation, then **evaluate patient benefit, workforce benefit and financial benefit separately**. Expand a service when evidence supports its value for your hospital and

community—not simply because several priorities appear in its sales presentation.

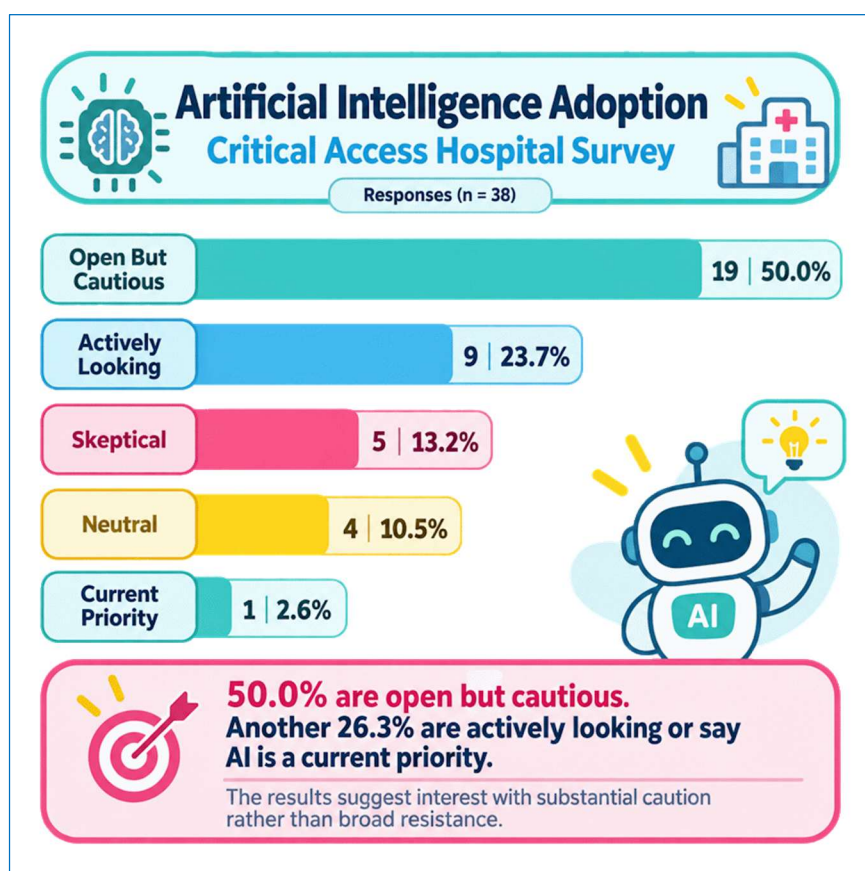
 Survey Priorities Decision Matrix Selections out of 38 • Intended outcomes • Proposed measurements			
Survey priority	Selections out of 38	Intended outcome	Proposed measurement
 Financial stability & margin protection	28 • 73.7%	A financially sustainable service	Actual program revenue minus implementation and ongoing costs, including staff support
 Increased patient engagement	28 • 73.7%	Patients participate in agreed care activities	% of eligible patients completing a specified care step
 Chronic disease management at scale	24 • 63.2%	Consistent care for a defined patient group	% completing recommended follow-up; assess clinical results separately
 Preventing avoidable hospitalization	23 • 60.5%	Fewer potentially avoidable admissions	Admission rate using predefined avoidability criteria and a suitable comparison
 Extending care beyond the hospital	18 • 47.4%	Reliable support between encounters	% of eligible patients receiving follow-up within an agreed period
 Remote patient monitoring	16 • 42.1%	Timely review of information that may require action	% of alerts reviewed within an agreed response window
 Workforce multiplication	16 • 42.1%	Less avoidable effort across the care team	Total staff minutes per completed care task across roles
 Preventing last-minute cancellations	15 • 39.5%	Fewer late cancellations for targeted reasons	Relevant late cancellations ÷ scheduled procedures, with "late" defined
 Value-based care readiness	14 • 36.8%	Reliable reporting for a specific agreement	% of required measures supported by complete, validated data
 Improved health literacy	10 • 26.3%	Patients understand their next care steps	% able to explain agreed instructions using a consistent assessment

VIII. AI Readiness

Interest, Caution, and an Uneven Adoption Landscape

The most useful word in an AI planning meeting may be “which.” Which task are we trying to improve? Which patients will it serve? Which decisions will stay with clinicians? These questions turn a broad discussion about artificial intelligence into something your hospital can examine.

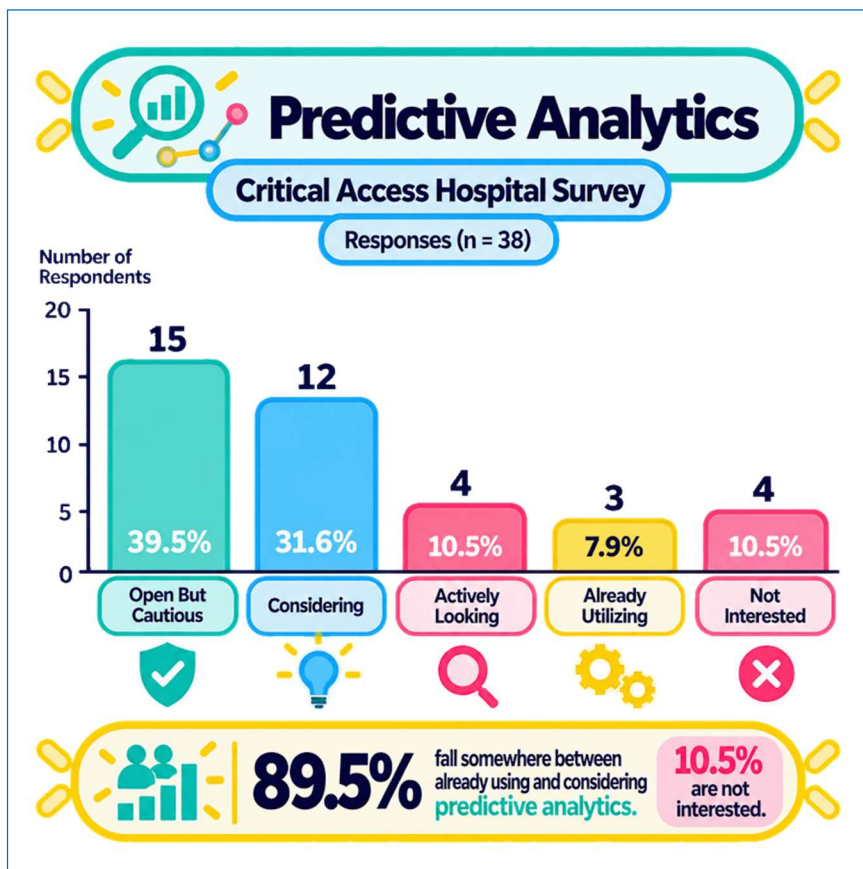
As we explore AI readiness, keep that distinction in mind. Interest opens a conversation; it does not tell us what a hospital has installed or whether a tool helps patients.



Caution Is Not the Same as Rejection

The largest group was **open but cautious: 19 respondents, or 50%**. Nine, or **23.7%**, were **actively looking**, while one, or **2.6%**, **called AI a current priority**. These answers show different levels of interest. They do not establish how many organizations have deployed AI or how widely their staff use it.

Four respondents were neutral, or 10.5%, and five were skeptical, accounting for **13.2%**.



Keep those positions separate. Neutrality is not rejection, and caution is not the same as skepticism.

Combining them into a single “resistant” group would erase distinctions the survey captured and present a less accurate picture of rural hospital AI readiness.

Nor should we assume why someone chose a category. “Open but cautious” might invite a discussion about evidence, implementation effort or clinical oversight, but the response alone does not identify the reason. For your team, the useful follow-up question is: **What would you need to know before taking the next step?**

Predictive Analytics Reveals a Different Mix

Predictive analytics produced a different distribution.

Three respondents, or 7.9%, reported already using it. Four, or **10.5%, were actively looking** and 12, or **31.6%, were considering it.** These categories describe reported use and interest within this sample.

“Considering” should not become “implementing” when we summarize the findings.

Another **15 respondents, or 39.5%, were open but cautious** about predictive analytics. Four, or **10.5%, were not interested.** The question does not tell us whether those positions apply to every predictive application. Someone’s answer also does not establish whether a specific model is active within the hospital’s electronic health record.

What the National CAH AI Benchmark Measures

The national benchmark asks a narrower question.

Chang et al. (2025) reported that **50% of CAHs and**

80% of non-CAHs used EHR-integrated predictive AI in 2024. Their federal analysis drew on the American Hospital Association's IT Supplement. These are reported-use figures from a different population, not measures of enthusiasm for AI. ([NCBI](#))

The study's definition includes statistical and machine-learning tools that classify people or produce risk scores. Examples include predicting readmission risk or missed appointments. It covers predictive models embedded in or launched through an EHR, rather than a general willingness to adopt new technology (Chang et al., 2025). ([NCBI](#))

Do not read the federal 50% and Calcium's 7.9% as evidence that CAH adoption fell. They come from different years, populations and questions, with different definitions and respondents. Calcium's mixed CAH/rural sample is also not the federal CAH subgroup. A combined trend line would imply a change this comparison cannot establish. ([NCBI](#))

Awareness may also affect how someone answers. A respondent might think of predictive analytics as a separate program while a technical colleague recognizes predictive functions already inside the EHR. That is a possible explanation to investigate, not a finding established by either source. We cannot use it to reconcile the numbers.

The explanation above is an interpretive possibility, not a measured survey finding.

Make AI Readiness a Local Question

Begin your local review with an inventory, not a shopping list. Ask your clinical and IT teams to identify the predictive tools already available, confirm which are

active and describe how staff use their outputs. This proposed starting point separates a feature listed in a contract from a function that supports daily care.

Then choose one problem worth testing. For example, a hypothetical follow-up tool might help staff decide whom to contact first. Before evaluating it, agree on who reviews its suggestions and what happens when information is wrong or incomplete. That discussion gives “readiness” a practical meaning without assuming that more automation is always better.

Invite cautious and skeptical colleagues into the review. Ask them to identify concerns that can be checked, rather than treating their position as something to overcome. Their participation could help shape questions about patient fit or staff responsibilities. This is an editorial recommendation, not evidence that skepticism predicts better or worse implementation.

Finally, **distinguish a successful test from a popular demonstration**. Your proposed evaluation could track appropriate follow-up, review time and errors requiring correction. Establish the starting process so you can assess what changes. Neither an expression of interest nor the presence of software proves that care improved or staff workload decreased.

For critical access hospitals, AI readiness should become a conversation about evidence and responsibility, not a race to match another organization’s percentage. Calcium’s responses show interest alongside caution. The next step is to translate that interest into a defined question, a manageable evaluation and a clear decision about whether the tool earns its place.

IX. Adoption Barriers

Cost, Integration, and Implementation Work

A digital health platform can look simple during a product demonstration. A few clicks connect data, send a patient message or highlight someone who may need attention. What you rarely see in that demonstration is everything happening behind the screen. Someone has to configure the system, connect it with existing technology, train staff, answer questions and keep the new workflow running after launch.

For a critical access or rural hospital, those hidden requirements can matter as much as the software itself. Your hospital may like the problem a technology promises to solve while still questioning whether the organization has the money, people or technical resources to implement it well. Calcium's survey shows that respondents are thinking about these practical barriers, not simply evaluating features.

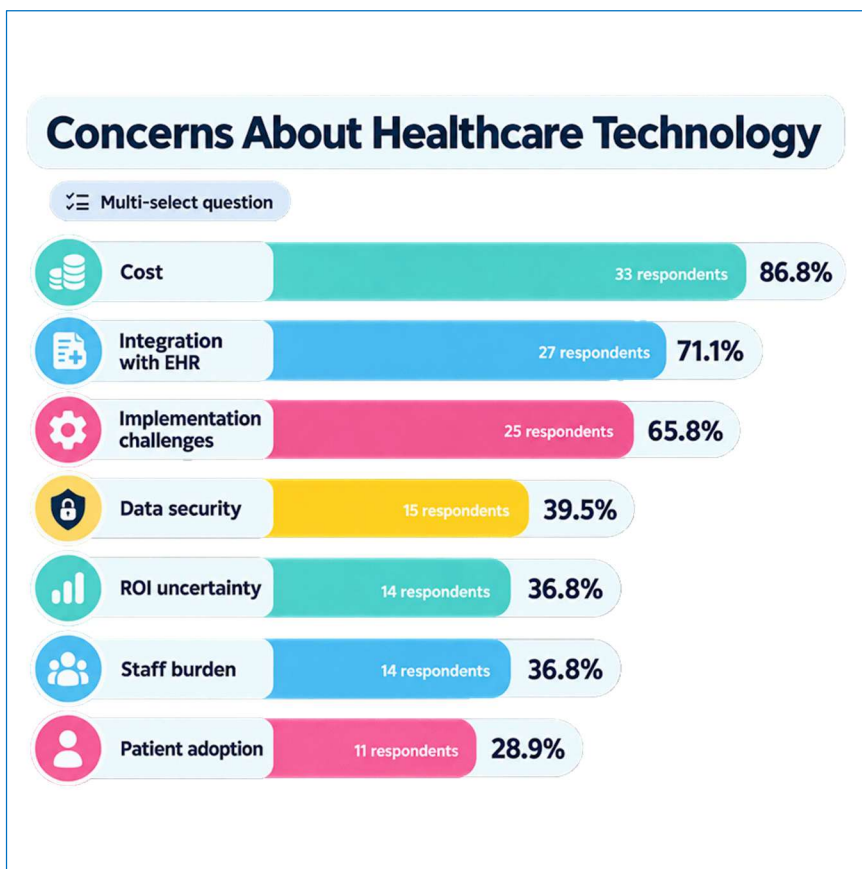
Cost Leads Technology Concerns

Cost was the most frequently selected technology concern, appearing in 33 records, or 86.8%.

Respondents could select multiple concerns, so this figure describes how often cost appeared rather than its importance relative to every other consideration.

That finding suggests that the purchase price is only the beginning of the conversation. A useful financial review should consider what the hospital must spend to get the technology working and what it will cost to keep it working. Those expenses may include staff time,

technical interfaces, training and ongoing support. These are proposed cost categories, not amounts measured by the survey.



ROI uncertainty was selected by 14 respondents, or 36.8%. The survey does not tell us how those leaders calculate return on investment or which results they expect.

For your organization, define ROI before implementation. A financial return, recovered staff time, and a better patient experience may all have value, but they are not interchangeable outcomes.

Integration and Implementation Can Determine Whether a Tool Fits

EHR integration concerned 27 respondents, or 71.1%, while implementation challenges concerned 25, or 65.8%. These findings place operational fit near the top of the adoption discussion. They do not mean every respondent had experienced an integration failure. They show that these issues were important enough to select when considering technology adoption.

A useful implementation review should begin with a real workflow. Follow one task from the moment information enters the hospital to the point where someone acts on it. If staff must sign into another system, copy information manually or remember to check an additional queue, document those steps. This is a proposed assessment approach, not a workflow reported in the survey.

Integration also means more than moving data between systems. Your team needs to know whether information arrives in a place where the right person can see it at the right time. A technically successful interface may still create an awkward clinical process. That is why IT staff and frontline users should evaluate workflow fit together before a larger rollout.

A Historical CAH Technology Project Offers a Useful Warning

An Agency for Healthcare Research and Quality project provides historical context. From **2005 through 2009**, the Critical Access Hospital Partnership Health Information Technology Implementation project worked

with rural hospitals in Michigan to develop health information exchange infrastructure. The project encountered technical, workflow and organizational challenges as participating hospitals tried to connect different systems (Agency for Healthcare Research and Quality [AHRQ], n.d.; Wheeler, 2009).

The final report described challenges involving interfaces, software compatibility, data standards, privacy requirements, communication and clinician participation. Training and changes in existing work processes also played important roles (Wheeler, 2009). These experiences make the project useful as an implementation case, even though its technical environment predates today's cloud platforms, APIs and modern interoperability standards.

The project also did not reach full implementation during the grant period, which limited its ability to evaluate outcomes (Wheeler, 2009). That limitation matters. We should not describe the project as proof that a particular technology model succeeded or failed. Instead, it reminds us that implementation work can determine whether an organization ever reaches the point where outcomes can be measured.

Staff Burden Can Appear in Unexpected Places

Staff burden appeared as a concern in 14 survey records, or 36.8%. That finding deserves attention because the same survey shows strong interest in technology that reduces workload. A system can automate one task yet create another. Your evaluation should therefore track the whole process rather than the step that looks faster during a demonstration.

Imagine that a digital follow-up system automatically collects patient responses. If a nurse now spends an hour reviewing low-priority alerts, part of the workload has simply moved. This is a hypothetical example, not a survey finding. It illustrates why hospitals should measure staff time across all participating roles before deciding that automation has increased capacity.

Clinical ownership matters too. Before launch, identify who is accountable for reviewing information, acting on concerns and resolving exceptions. A tool without a clear owner can generate new queues that everyone assumes someone else is monitoring. This recommendation follows from the implementation questions raised by the survey, but the survey did not measure ownership practices.

Security, Training and Patient Adoption Belong in the Plan

Data security concerned 15 respondents, or 39.5%, while patient adoption concerned 11, or 28.9%.

These findings identify considerations, not documented security incidents or patient refusal rates. A hospital should assess each vendor's data practices separately and evaluate whether the proposed workflow fits the patients who will actually use it.

Training should also cover more than where to click. Staff need to understand what the technology does, what it does not do and when they should use another process. For patient-facing tools, your team may also need a plan for enrollment and troubleshooting. These are proposed implementation requirements, not evidence that every surveyed hospital currently lacks them.

Ongoing maintenance deserves its own budget. Interfaces change, users join the organization and workflows evolve. Someone needs to monitor whether the system continues to work as intended. A pilot that succeeds only because a small implementation team provides unusually intense support may not perform the same way when expanded.

Calculate the Total Work of Adoption

The survey suggests that critical access and rural hospital leaders evaluate technology through a practical lens. Cost matters, but so do integration, implementation effort and the people required to keep the service working. **The relevant question is not simply “What does the software cost?” but “What does this capability require from our organization?”**

That question does not argue against innovation. It improves the chances that innovation survives beyond launch. Start with a defined problem, map the work involved and measure the resources required. Then determine whether the clinical, workforce or financial value justifies the full implementation effort for your hospital.

X. Extending Care

Requires Both Hospital Readiness and Patient Access

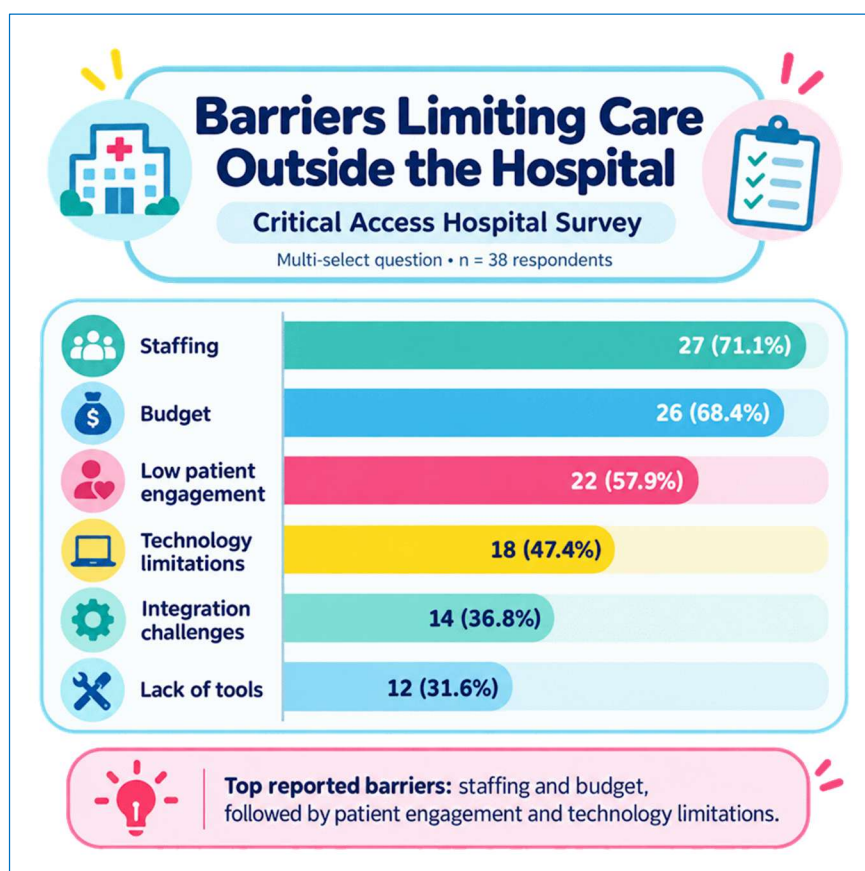
A digital care program can work perfectly on a hospital computer and still struggle once a patient goes home. The patient may have unreliable internet service. A family member may help with technology, but only in the evening. Instructions may be available in English when another language would work better. Even a well-designed app may be difficult for someone with limited vision or little experience using smartphones.

At the same time, the hospital has its own side of the equation. Someone must enroll patients, connect data, review information and respond when help is needed. That is why extending care beyond a critical access hospital requires more than a device or app. You need both **organizational readiness and realistic conditions for patient participation.**

What Limits Care Beyond the Hospital?

When respondents identified barriers to extending care beyond the hospital, **staffing led the list at 27 selections, or 71.1%.** Budget followed closely at **26 selections, or 68.4%.**

Those findings reinforce a basic implementation question: Does your hospital have the people and resources to operate the service after launch? Buying a remote care platform does not answer that question. Your team still needs to decide who enrolls patients, reviews incoming information, handles exceptions and maintains the workflow.



Low patient engagement appeared in 22 responses, or 57.9%. That figure deserves careful wording. The survey does not explain why respondents perceived engagement as low. It does not show that patients reject technology or lack interest in their health. Practical barriers such as connectivity, usability, trust, language or support could matter, but the survey did not measure which factors apply.

Technology limitations appeared in **18 responses, or 47.4%**, while integration challenges appeared in **14, or 36.8%**, and lack of tools appeared in **12, or 31.6%**. Respondents could choose multiple barriers. These categories may overlap in practice, so they should not be treated as separate groups of hospitals.

Hospital Readiness Is Only Half of the Equation

A hospital may have funding for remote patient monitoring, but funding alone does not create a workable service. Your team needs clear clinical ownership, technical support and a plan for responding to information. If the program produces more alerts than staff can reasonably review, the technology may increase workload instead of extending capacity.

Integration also shapes readiness. Ask where incoming information appears. Does it enter the electronic health record or another application? Can clinicians find it during normal work, or must they remember to open a separate dashboard? These are proposed implementation questions, not problems documented at every surveyed hospital.

A federal analysis provides useful national context. Gabriel et al. (2025) found that lower-resourced hospitals, including small, rural and Critical Access Hospitals, lagged in some app-based patient-access capabilities. In 2024, **72% of CAHs reported app access compared with 85% of non-CAHs**, while 64% of CAHs reported FHIR-enabled app access compared with 72% of non-CAHs.

That study measures whether hospitals **provide digital capabilities**, not whether patients use them regularly or benefit clinically from them. A hospital can offer app access without every patient adopting it. This distinction matters because technology availability and meaningful patient participation are different measures.

Patient Access Starts With More Than Connectivity

When a patient does not complete a digital task, it can be tempting to call the problem “engagement.” A better approach is to ask what stood between the person and the task. Could they connect? Did they understand the instructions? Was the technology accessible? Did they know who would respond after they submitted information?

Remote patient monitoring research also suggests that community conditions can influence adoption. Najarian et al. (2023) analyzed **4,206 hospitals using 2018 data**, including 1,681 rural hospitals. Rural hospitals serving areas in a lower-middle socioeconomic quartile had lower odds of adopting RPM for chronic care than rural hospitals serving the highest socioeconomic quartile.

That association should not become a claim that socioeconomic status caused lower adoption. The study was cross-sectional and used historical 2018 data. It also examined hospital adoption, not whether individual patients successfully used monitoring devices. Its value here is narrower: community context deserves attention when hospitals design digital services.

Design for the Patient Who Will Actually Use the Service

Before launching a digital program, talk with patients who resemble the people you intend to enroll. Ask what devices they already use, how comfortable they feel with the process and where they expect difficulty. Include caregivers when appropriate. This is a proposed

design practice, not an intervention evaluated by Calcium's survey.

Language also belongs in the planning conversation. Translating instructions can help, but usability goes beyond translation. A patient still needs to understand what action to take and what happens afterward. If the service depends on a smartphone, consider what support exists for someone who has limited experience using one.

Connectivity should also be tested rather than assumed. A program that works well on hospital Wi-Fi may behave differently in a patient's home. For a pilot, document failed connections, incomplete transmissions and support requests. These process measures can reveal barriers before your team interprets low participation as a lack of interest.

Measure Readiness on Both Sides

A useful rural digital health program needs a workable match between what the hospital can support and what patients can realistically use. The survey identifies staffing, budget and engagement as major perceived barriers. The outside research adds evidence that digital capabilities and RPM adoption vary across hospital and community settings.

Two-Sided Readiness Checklist for Extending Care Beyond the Hospital

Practical planning checklist

Hospital Capacity

Patient Participation Conditions

- ☒ Is adequate staff time available to operate the service?
- ☒ Has ongoing funding been identified?
- ☒ Who owns enrollment, monitoring and escalation?
- ☒ Does the technology fit existing clinical workflows?
- ☒ Can required information move between systems reliably?
- ☒ Is technical support available after implementation?
- ☒ Have alert volume and staff workload been tested?
- ☒ Are success measures defined before launch?

- ☒ Does the patient have workable connectivity where the service will be used?
- ☒ Does the patient have access to the required device?
- ☒ Can the patient understand the instructions in an appropriate language?
- ☒ Is the interface usable with the patient's abilities and experience?
- ☒ Is support available when the patient encounters a problem?
- ☒ Does the patient know who reviews submitted information and when?
- ☒ Have caregivers been included when appropriate and authorized?
- ☒ Is nonparticipation investigated before being labeled "low engagement"?

The practical lesson is simple: **do not judge patient engagement until you have examined the conditions required for participation.** And do not judge hospital readiness by whether a platform has been purchased. Test whether both sides of the care relationship can make the service work in everyday life.

XI. Practical Use Cases

What the Evidence Actually Demonstrates

Artificial intelligence can mean very different things inside a critical access hospital. One system may predict which patients face greater risk. Another may draft a clinical note. A third may simply send a reminder when a patient misses a task.

Calling all three “AI” can make a technology discussion sound more advanced while making it harder to understand what the tool actually does.

A more useful approach starts with the problem. What decision needs better information? What repetitive task consumes staff time? Where does a patient need support between visits? Then ask what type of technology fits that problem and what evidence supports its use. Calcium’s survey helps identify several areas that critical access and rural hospital leaders value. The outside research helps us understand what has actually been demonstrated—and where important questions remain unanswered.

Start by Defining the Technology

Before evaluating a use case, make sure everyone at the table is talking about the same kind of technology. Predictive AI, generative AI and basic automation can support different jobs. Ordinary digital communication may provide value without using artificial intelligence at all. Keeping those categories separate makes it easier to evaluate evidence and avoid giving AI credit for functions that do not require it.

- **Predictive AI** uses existing information to estimate the likelihood of a future event or classify risk. A model might help identify patients at greater risk of readmission or deterioration.
- **Generative AI** creates new content, such as a draft clinical note or patient instruction. Neither category should be confused with simple rules that trigger an action when a predefined condition occurs.
- **Rules-based automation** follows instructions established in advance. For example, a system could send a medication reminder when a scheduled task remains incomplete.
- **Digital communication** may include secure messages, text reminders or portal outreach. These tools can support care without predicting an outcome or generating original content.

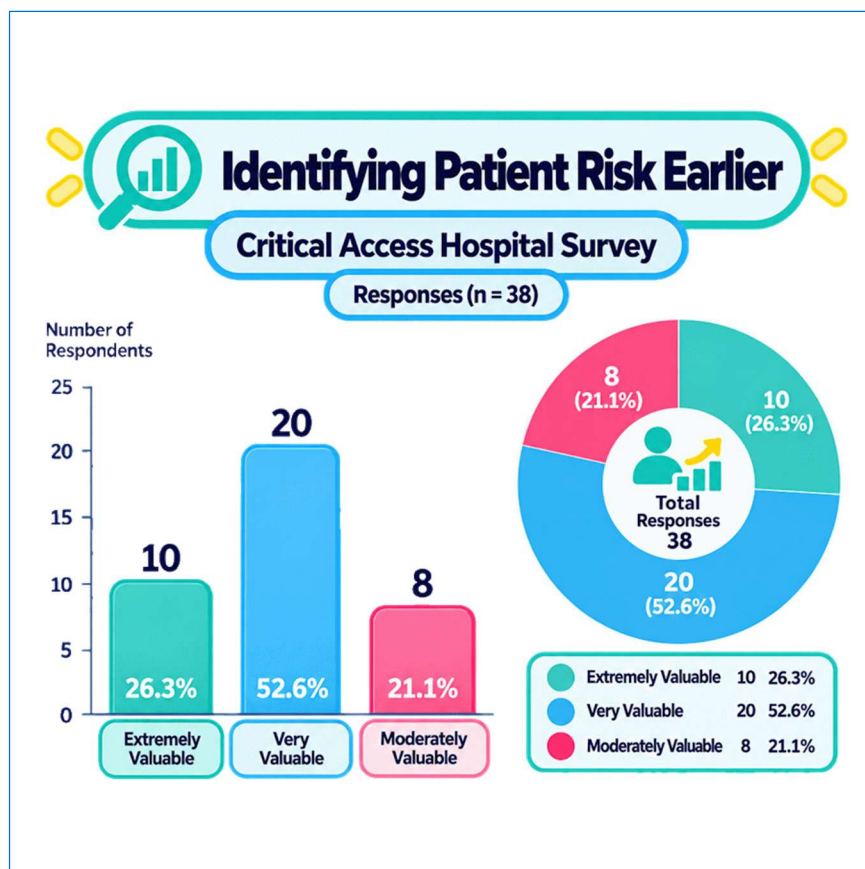
Risk Identification and Prioritization

Risk-related applications align closely with the survey findings. **Thirty-one of 38 respondents, or 81.6%, rated prioritizing rising-risk patients as very or extremely valuable.**

Thirty, or **78.9%, gave the same ratings to identifying patient risk earlier.** These responses show strong perceived value, but they do not prove that any predictive model accurately identifies the right patients.

Patel et al. (2023) provide adjacent evidence about what additional data might contribute to prediction. Their study examined remotely collected patient activity after hospital discharge and found that activity patterns could improve prediction of 30-day readmission or death

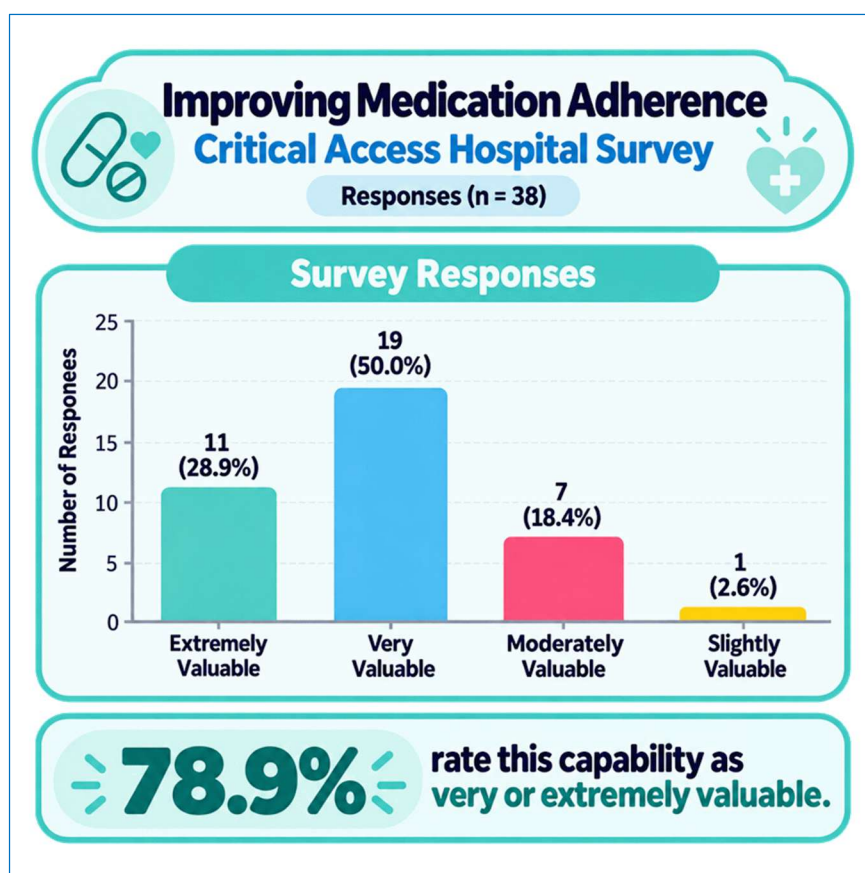
beyond information available before discharge. The research was not conducted in critical access hospitals and did not test whether acting on those predictions reduced readmissions.



That distinction matters. Better prediction does not automatically produce better care. Your hospital would still need to determine who reviews the signal, what threshold deserves action and what clinicians should do next. A predictive model becomes useful only when it fits inside a defined care process.

Chronic Care Coordination and Medication Support

Managing chronic conditions and improving medication adherence each received very or extremely valuable ratings from 30 respondents, or 78.9%. Those results make chronic care a logical area for evaluation. They do not tell us whether respondents prefer remote monitoring, care-management teams, medication reminders or another approach.



Tanumihardjo et al. (2023) offer directly relevant CAH evidence. Their quality-improvement study followed **1,764 patients with diabetes** in a frontier Idaho health system built around two critical access hospitals. The

population-health team combined diabetes education, chronic-care management, behavioral-health support, nutrition services and community health worker navigation. Patients receiving greater population-health-team involvement showed improved A1c levels over time.

The important lesson is not that AI improved diabetes care. **This was not an AI intervention.** The study supports coordinated medical and social care in a rural CAH setting. If technology is added to a similar model, it should help the team deliver that care rather than become a substitute for the education, clinical judgment and community support that formed the intervention.

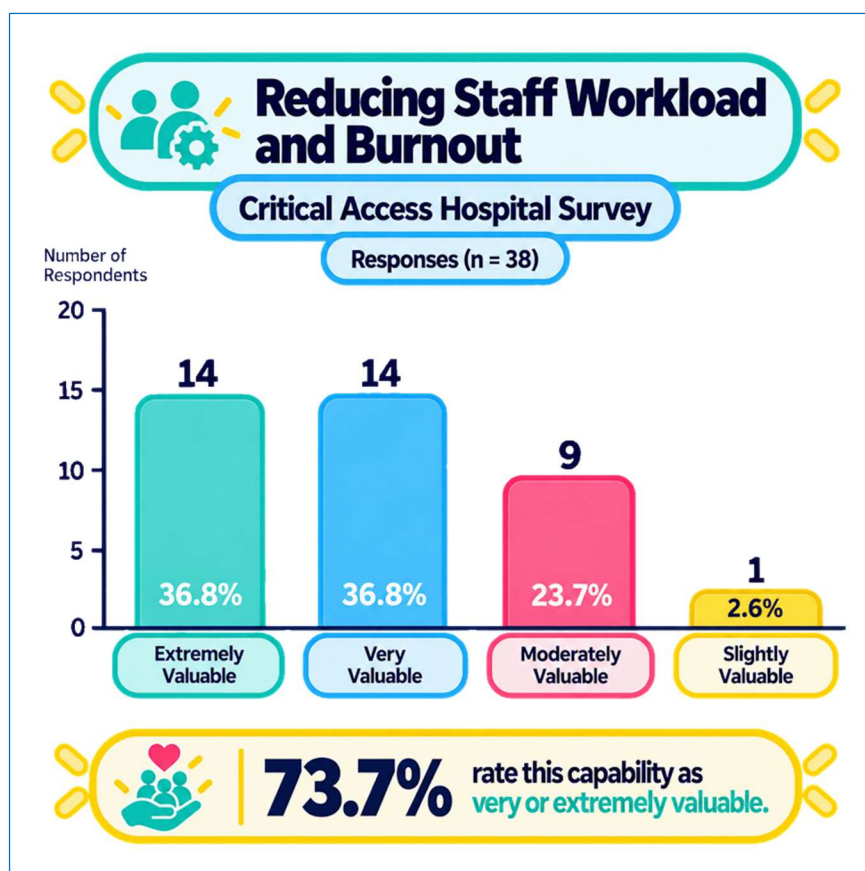
Remote Monitoring and Rural Digital Care

The ACTIVATE project offers another useful distinction. Kim et al. (2023) developed a remote patient monitoring program with a rural community health center for adults with uncontrolled diabetes or hypertension. The program included community co-design, connected monitoring devices and attention to digital access. Fifty participants transmitted more than 10,000 glucose and blood-pressure measurements during six months.

Participants experienced improvements in A1c and blood pressure, but ACTIVATE was a **small pilot without a randomized control group**. It also took place through a community health center rather than a critical access hospital and was not an AI intervention. Its strongest lesson for this whitepaper may be implementation: rural digital care may require connectivity support, community input and workflow design alongside the monitoring technology.

Follow-Up and Administrative Support

Twenty-two respondents, or 57.9%, rated automated patient follow-up as very or extremely valuable. That creates room to evaluate simple automation before assuming AI is required.



Documentation offers another possible use case, especially because **73.7% valued reducing staff workload and burnout**, while staffing shortages were selected as a major challenge by 81.6%. However, the survey did not ask respondents specifically about AI documentation. Documentation should therefore appear

as a potential operational application, not as a survey-identified priority.

Match the Evidence to the Claim

The practical lesson is to ask exactly what has been demonstrated. CAH population-health research supports coordinated chronic-care teams. ACTIVATE demonstrates a rural digital-health implementation model. Patel and colleagues show that remotely collected activity data may improve prediction. **None of these studies proves that a single AI platform will reproduce those results in your critical access hospital.**

That does not make the technologies unworthy of evaluation. It gives your team a better starting point. Define the care problem, identify the technology actually being proposed and ask what evidence applies to that exact use. Then test the remaining assumptions locally. For rural digital health and AI, precision about the evidence can be just as valuable as innovation itself.

XII. From Dashboards to Accountable Clinical Action

A dashboard can tell you that something has changed. It can highlight a blood pressure reading, show a missed task or place a patient at the top of a risk list. But a dashboard cannot, by itself, decide what your hospital should do next.

Someone still needs to review the information, understand the patient's situation and choose an appropriate response. That is where digital health moves from information to care.

For critical access hospitals, that distinction matters because staff time is limited. More data may help, but only if the organization has a clear way to turn it into action. Calcium's survey suggests that leaders value technologies that help identify and prioritize patients. The next question is operational: **What happens after the system says someone may need attention?**

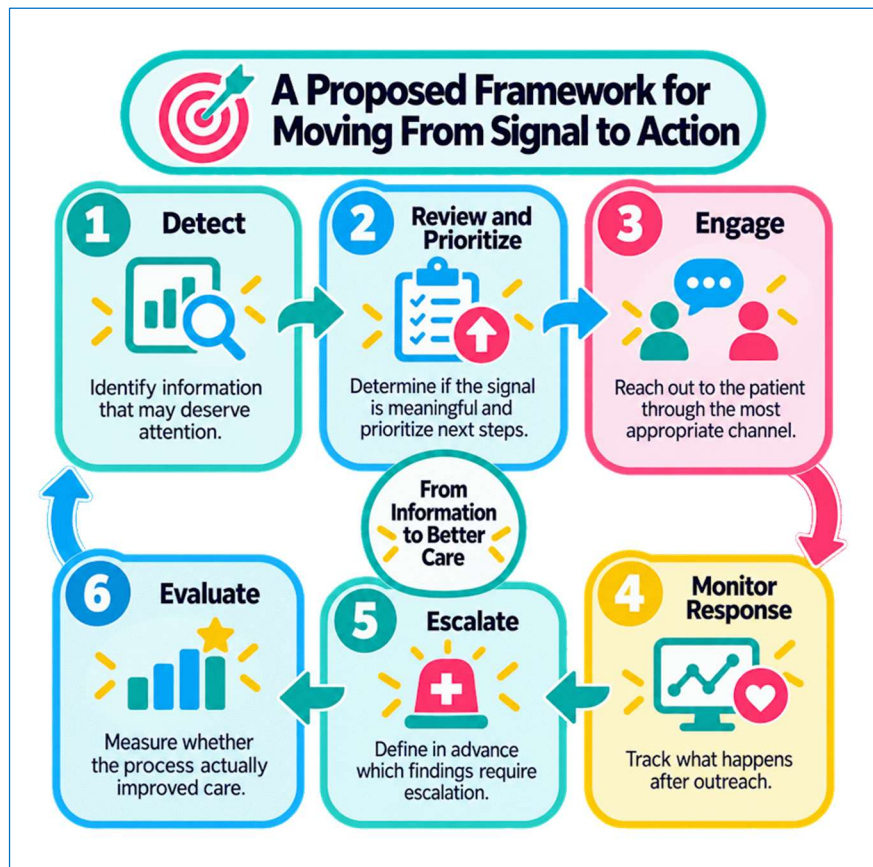
Prioritization Only Matters if Someone Can Act

The survey shows strong interest in technology that helps teams focus attention. **Thirty-one of 38 respondents, or 81.6%, rated prioritizing rising-risk patients as very or extremely valuable.** Thirty, or **78.9%, gave the same rating to identifying patient risk earlier.** These findings describe perceived value, not measured improvements in care.

That difference is important. A risk score may help your team notice a patient sooner, but it does not establish

why the patient is at risk or what intervention is appropriate. Your hospital still needs clinical judgment, reliable information and a defined workflow for reviewing the signal before anyone acts.

The survey also found that **33 respondents, or 86.8%, said problems caused by identifying issues too late occur at least sometimes**. That result makes timeliness worth examining, but it does not tell us where those delays occur or whether an alert would solve them. A good workflow should investigate the full path from detection to response.



A Proposed Framework for Moving From Signal to Action

To help organize that path, this report proposes a six-step editorial framework:

Detect → Review and prioritize → Engage → Monitor response → Escalate → Evaluate

This is not a validated clinical model. It is a practical way to ask who does what after new information enters the system.

Detect

Detection begins when a system identifies information that may deserve attention. That signal might come from a connected device, a patient response, a missed medication task or a predictive model. Before launch, define what the system is designed to detect and what it cannot reliably identify.

Review and Prioritize

A trained person should determine whether the signal is meaningful in context. Your hospital needs to decide who performs that review and how quickly. Technology may sort or prioritize information, but the organization still needs rules for handling false positives, incomplete data and competing patient needs.

Engage

Once the team decides action is appropriate, the next step may be a phone call, secure message, digital

questionnaire or clinical visit. The method should fit the patient and the level of concern. Automation can support routine outreach, but the survey does not establish that automated engagement is appropriate for every situation.

Monitor Response

After outreach, the hospital needs to know what happened. Did the patient respond? Was the instruction understood? Did the concern improve? Monitoring should follow the clinical purpose of the intervention rather than simply counting whether a message was opened.

Escalate

Some situations need direct clinical intervention. Define in advance which findings require a nurse, physician or emergency response. Not every escalation should be automated. Your hospital should determine where human review is required based on the patient population and the risk involved.

Evaluate

The final step asks whether the process actually improved care. Measure more than alert volume. Consider response times, completed follow-up, staff workload and relevant clinical outcomes. A workflow that produces many alerts but little useful action may create activity without creating value.

Coordinated Care Requires More Than Data

The Idaho CAH diabetes study offers a useful real-world example. Tanumihardjo et al. (2023) studied population-health teams serving patients with diabetes in a frontier health system built around two rural critical access hospitals. The program combined clinical care with diabetes education, behavioral-health support, nutrition services and community health worker navigation.

The study reported improvements in diabetes control among patients receiving greater population-health-team involvement. It did **not** test an AI dashboard or automated escalation model. Its value here is more basic: coordinated care required people with different roles who could respond to clinical and social needs rather than simply collect information (Tanumihardjo et al., 2023).

For your hospital, that finding should temper any assumption that a dashboard replaces coordinated care. Technology may help the team see a need sooner or organize information more efficiently. It still requires an operating model with enough staffing, clear ownership and access to appropriate services.

Design the Response Before the Alert

Before activating a new alert, ask what should happen after it fires. If the answer is unclear, the workflow is not ready. Define who reviews the information, when review should occur and what options are available when the patient does not respond. These decisions belong in implementation planning, not after the first alert appears.

This matters in a workforce-constrained environment. **Twenty-eight survey respondents, or 73.7%, rated**

reducing workload and burnout as very or extremely valuable. A system that generates large numbers of low-value alerts could work against that goal. Measure the time required to review and act on information as part of your evaluation.

Patient nonresponse also needs a plan. A missed digital check-in might mean the patient is busy, confused, disconnected or clinically worse. The survey does not tell us which explanation applies. Your workflow should define when another contact attempt is appropriate and when staff should use another channel.

The Goal Is Accountable Action, Not More Alerts

Dashboards can be valuable. They can organize information, display trends and help teams see patterns that would otherwise be difficult to notice. The goal is not to replace them. It is to make sure that the information they provide enters a care process with clear responsibility.

For critical access hospitals, the most useful digital health system may be one that helps the team decide where attention is needed while preserving human judgment about what happens next. **Detecting a problem earlier matters only when the organization can review it, engage the patient and respond appropriately.**

XIII. A Proposed CAH AI Readiness Roadmap

Artificial intelligence does not require every critical access hospital to follow the same path. One organization may need to improve basic data flow before testing a predictive model. Another may already use AI-assisted documentation but still lack a clear process for monitoring model performance. A third may decide that a rules-based workflow solves its problem better than AI.

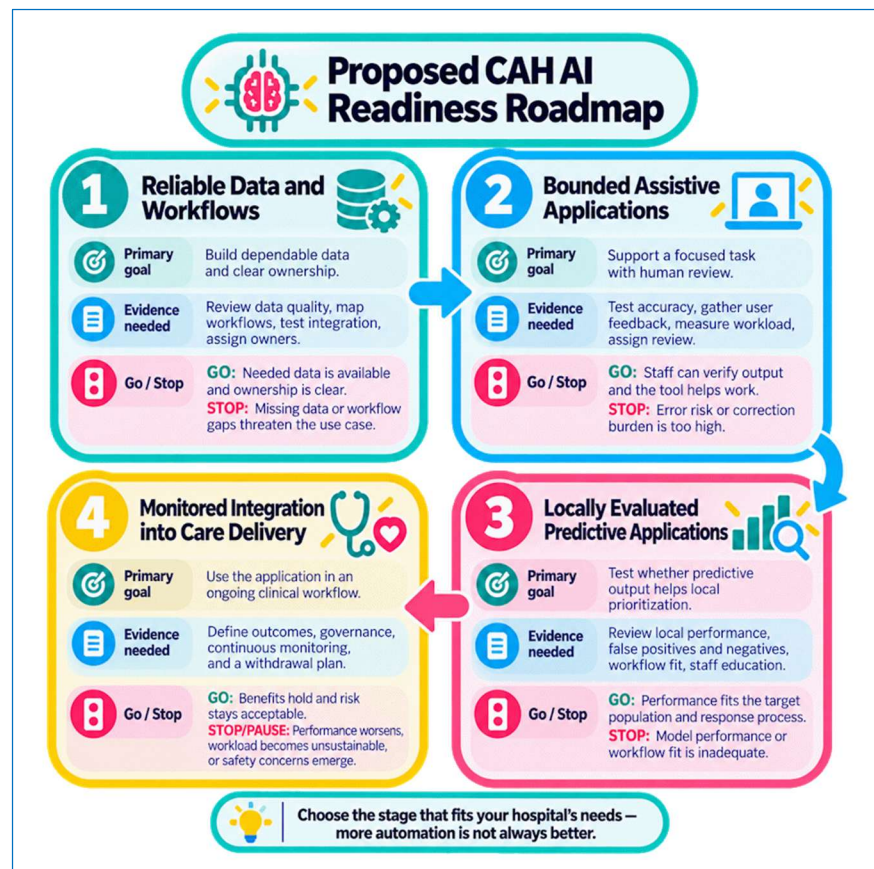
That is why an AI roadmap should help your hospital make better decisions, not push it toward more automation. Readiness means having the data, workflows, people and oversight needed for a specific use case. It does not mean reaching the most advanced stage as quickly as possible. Calcium's survey supports a cautious approach because respondents show meaningful interest in AI while also identifying cost, integration and implementation barriers.

Why a CAH AI Roadmap Needs to Be Practical

The survey shows an audience that is interested but careful. **Nineteen of 38 respondents, or 50%, described themselves as open but cautious about AI.** Another nine, or 23.7%, said they were actively looking, while one called AI a current priority. These responses describe attitudes rather than implementation readiness.

The same leaders also reported practical barriers. **Cost concerned 86.8%, EHR integration 71.1% and implementation challenges 65.8%.** Those findings suggest that any AI roadmap for critical access hospitals should address organizational capacity before assuming that a more sophisticated model is automatically a better choice.

The roadmap below is therefore a **proposed planning framework**, not a validated AI maturity model. A hospital may remain at one stage for a particular use case while moving further with another. Progress should depend on evidence, risk and organizational fit rather than a desire to reach the final stage.



Stage 1: Reliable Data and Workflows

The first stage focuses on the foundation. Before your hospital depends on AI, confirm that the underlying data and work processes are dependable. A predictive system cannot compensate for missing information, unclear responsibilities or workflows that staff cannot sustain.

This stage should examine data quality, EHR integration, user access and ownership of key processes. It should also establish who is responsible when information is incomplete. These steps matter because **71.1% of survey respondents identified EHR integration as a technology concern.**

NIST's Artificial Intelligence Risk Management Framework supports this kind of foundation by encouraging organizations to identify context, risks and responsibilities before and during AI use. The framework is voluntary and cross-sector, so it does not provide a CAH-specific implementation sequence (Tabassi, 2023). (nist.gov)

Stage 2: Bounded Assistive Applications

Once the foundation is stable, a hospital may consider limited applications that support a defined task without independently directing clinical care. Examples might include documentation assistance, summarization or administrative support.

A bounded use case should have a narrow purpose and a clear human reviewer. For example, an AI-generated draft note may save time, but a clinician should still verify accuracy before it becomes part of the medical record. The technology assists the work rather than taking ownership of the decision.

This stage aligns with the survey's workforce concerns. **Twenty-eight respondents, or 73.7%, rated technology that reduces staff workload and burnout as very or extremely valuable.** That does not prove that assistive AI reduces workload. It makes workload reduction a reasonable outcome to measure during a pilot.

Stage 3: Locally Evaluated Predictive Applications

Predictive applications require a different level of scrutiny because they influence how teams interpret patient risk. Calcium's survey found that **81.6% rated prioritizing rising-risk patients as very or extremely valuable**, while **78.9% gave the same rating to identifying risk earlier.**

At this stage, do not rely only on vendor validation. Test whether the model performs adequately in the population your hospital serves. Examine false positives, false negatives and whether staff understand how to use the output. Define what happens when the model identifies risk before the pilot begins.

The American Hospital Association's rural AI governance discussion emphasizes issues such as model fit, governance, staff education and vendor evaluation for rural organizations (American Hospital Association, 2026a). This source provides expert guidance rather than clinical evidence that a specific governance structure improves outcomes. ([aha.org](https://www.aha.org/))

Stage 4: Monitored Integration Into Care Delivery

The fourth stage involves using an AI-supported process within ongoing care. Reaching this stage should not mean turning off human oversight. It should mean that the hospital has enough evidence, workflow clarity and monitoring to use the application within a defined care process.

For example, a predictive tool might help prioritize patients for review, while clinicians decide what intervention is appropriate. The hospital should continue monitoring model performance, staff workload and patient outcomes after deployment. Changes in the patient population or data environment can affect how a model behaves over time.

This stage should also include a way to pause or modify the system. If performance worsens, staff burden increases or new risks appear, the hospital needs a clear response. Continuing deployment simply because implementation has already occurred would undermine the purpose of ongoing governance.

Governance Starts at Stage 1

Governance should not wait until AI reaches clinical decision support. Even a low-risk assistive tool can introduce privacy, accuracy or workflow concerns. NIST's framework treats AI risk management as an ongoing process rather than a one-time review (Tabassi, 2023).

For a critical access hospital, governance does not have to mean creating a large new committee. Your organization can assign clear responsibility for vendor

review, data use, clinical oversight and periodic evaluation within existing leadership structures. The appropriate structure will depend on hospital size and the risk of the use case.

Move Forward Only When the Evidence Supports It

The purpose of this roadmap is not to encourage every hospital to reach Stage 4. For some problems, a simpler digital workflow may work better. For others, an assistive AI application may provide enough value without predictive modeling. **More automation should never become the definition of greater readiness.**

A useful CAH AI strategy should match the technology to a defined need, the evidence to the level of risk and the implementation to the hospital's available resources. Move forward when the results support that decision. Pause when they do not. That is a stronger sign of readiness than adopting AI simply because it is available.

XIV. The Checklist

A CAH Technology Buyer's Evidence and Implementation Checklist

A technology purchase can look convincing long before anyone knows whether it will work in your hospital.

The demonstration runs smoothly. The dashboard is polished. The vendor describes better outcomes, less staff work and faster decisions. But those promises often combine several different questions that your team should examine separately.

Does the technology work technically? Does it fit your workflow? Can patients use it? Does it improve the outcome you care about? And does the financial result justify the full cost of implementation?

For critical access hospitals, these questions are especially important because failed implementation consumes resources that are already limited. Calcium's survey shows that leaders are concerned about cost, integration and staff burden while also valuing earlier identification, patient prioritization and workload reduction. A strong purchasing process should connect those needs with evidence before the organization commits to a larger deployment.

Start With the Problem, Not the Product

The survey provides a clear reason to begin with the problem. **Cost was selected by 33 of 38 respondents, or 86.8%, while EHR integration concerned 71.1% and implementation challenges concerned 65.8%.**

These are not side issues. They are part of whether a technology can create value in a rural hospital setting.

Before comparing vendors, define the patient population and the specific improvement you want. A tool designed for a large academic medical center may not perform the same way in a 25-bed critical access hospital. Ask whether the vendor's evidence includes patients, workflows and staffing conditions that resemble your own.

Study design matters too. A case report may show that implementation is possible. An observational study can identify associations. A randomized trial can provide stronger evidence about whether an intervention caused a particular outcome. None of these designs answer every question, so your team should match the strength of the evidence to the claim being made.

A Plausible Technology Still Needs Outcome Evaluation

The BEAT-HF randomized clinical trial offers a useful caution. Ong et al. (2016) enrolled **1,437 patients hospitalized for heart failure at six academic medical centers in California**. The intervention combined remote monitoring with health-coaching telephone calls from nurses and followed participants for 180 days.

The trial did **not significantly reduce its primary outcome of 180-day all-cause readmission**.

Readmission occurred in 50.8% of the intervention group and 49.2% of the usual-care group, with an adjusted hazard ratio of 1.03 and a *P* value of .74 (Ong et al., 2016).

That result does not mean remote monitoring lacks value. BEAT-HF tested a specific intervention, during an

earlier technology era, in academic medical centers rather than CAHs. Its lesson for a buyer is narrower: **a clinically reasonable technology still needs to demonstrate the outcome you expect from it.** Remote monitoring is an approach to evaluate, not a guaranteed readmission strategy.

Calculate the Full Implementation Burden

Price should include more than a licensing fee. **ROI uncertainty concerned 36.8% of survey respondents, similar to staff burden concerned at 36.8%.** A useful cost analysis should therefore include both direct spending and the organizational effort required to operate the technology.

Include interface development, workflow redesign, staff training, cybersecurity review, patient onboarding and ongoing technical support. Also estimate the time clinicians spend reviewing alerts or correcting generated content. These are proposed planning categories, not costs measured in the Calcium survey.

Do not automatically convert saved minutes into financial savings. A nurse spending less time on one task may create valuable capacity without reducing payroll expense. Track workforce benefit and financial benefit separately so that an improvement in one category does not become an unsupported claim in another.



Test the Workflow Before Scaling the Technology

Integration deserves a live test. Rather than asking whether the product “integrates with the EHR,” ask the vendor to demonstrate how a real task moves through your systems. Identify where staff sign in, where information appears and who must act on it.

Clinical ownership should be equally clear. If an algorithm flags a patient, who reviews the result? If the patient does not respond to outreach, who decides what happens next? If a generated note contains an error, who corrects it before the information enters the medical record? These responsibilities should be assigned before implementation.

Patient access belongs in the pilot as well. **Patient adoption concerned 28.9% of respondents**, but the survey does not tell us why adoption may be difficult. Test connectivity, device access, language needs and usability with the people expected to use the service. Do not interpret low participation as unwillingness before investigating practical barriers.

Evaluate Technical, Clinical and Financial Results Separately

A pilot should define success before the first patient enrolls. Technical performance might include data completeness and system uptime. Workflow measures might include staff minutes per patient or alert-review time. Patient outcomes should match the intended clinical problem. Financial measures should include actual implementation and operating costs.

A hospital might choose a **six- or twelve-month evaluation period** because it fits the use case, patient volume or budgeting cycle. That period is a planning choice, not a promised return-on-investment timeline. Some outcomes may need longer observation while operational problems may become visible much sooner.

Post-deployment monitoring matters because performance can change. Patient populations shift, interfaces change and staff develop new workflows. For predictive models, monitor accuracy and unexpected performance differences. For generative tools, continue reviewing output quality. For any system, keep tracking workload, patient experience and outcomes after the pilot ends.

The best purchasing decision is not necessarily the most advanced technology. It is the one supported by appropriate evidence, realistic implementation

requirements and results your hospital can measure.

Buy for a defined problem, pilot under real conditions and expand only when the evidence supports expansion.

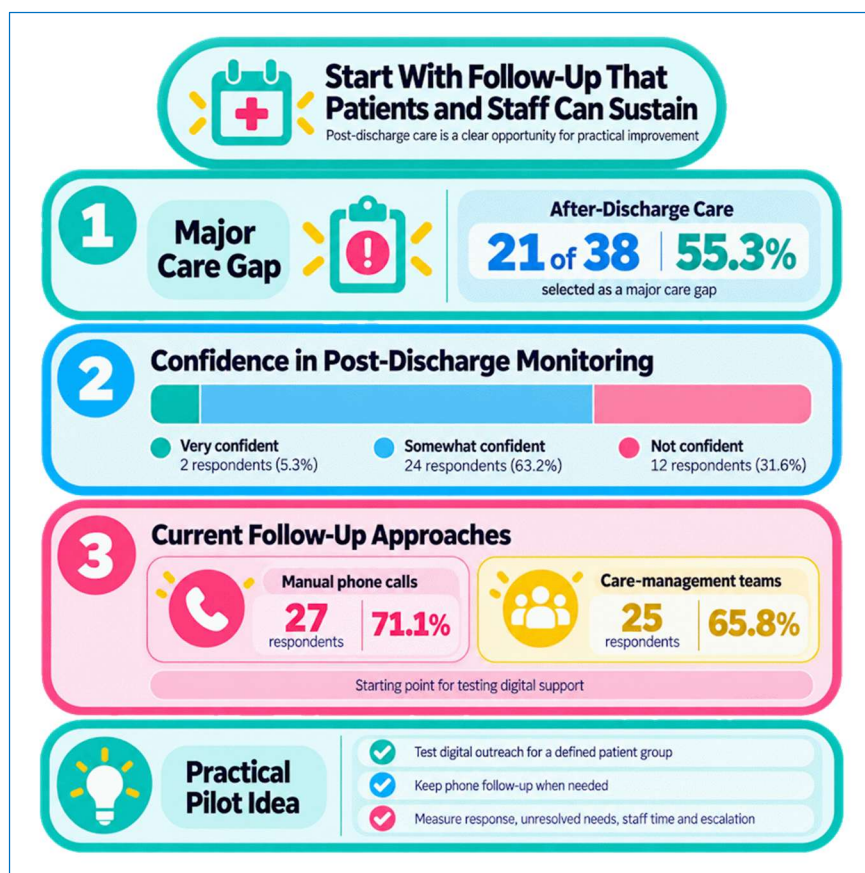
XV. The Next Steps for Rural Digital Health

The next phase of rural digital health does not have to begin with artificial intelligence, continuous monitoring or another large technology purchase. For many critical access hospitals, a better starting point may be much more practical: identify one care gap, decide what improvement would look like and test whether a manageable change helps. That approach may feel less dramatic than a sweeping digital transformation, but it fits the realities described by hospital leaders in Calcium's survey.

Rural hospitals are balancing patient needs with staffing shortages, financial pressure and limited implementation capacity. At the same time, respondents see value in earlier risk identification, better patient prioritization and stronger chronic-care support. The opportunity is not to predict which technology will dominate rural healthcare. It is to create a disciplined way to evaluate approaches, learn from them and expand only when the evidence supports doing so.

Start With Follow-Up That Patients and Staff Can Sustain

Post-discharge care remains an obvious place to investigate. **Twenty-one in 38 survey respondents, or 55.3%, selected after-discharge care as a major gap.** Only 5.3% reported being very confident in their hospital's post-discharge monitoring, while 60.5% were somewhat confident and 34.2% were not confident.



Improvement does not have to begin with remote monitoring. A hospital might first examine which patients receive follow-up, how quickly contact occurs and what happens when someone cannot be reached. Manual calls were reported by **71.1% of respondents**, while 65.8% selected care-management teams. These existing processes offer a starting point for testing where digital support could help.

A limited pilot could add structured digital outreach for a defined patient group while preserving phone contact when needed. Measure response rates, unresolved needs, staff time and appropriate escalation separately. If the process creates more work than it removes, modify it before expanding. This is a proposed evaluation approach rather than a survey finding.

Build Shared Technical Expertise Instead of Isolated Tools

Technology limitations were selected as a barrier to extending care by **47.4% of respondents**, while integration challenges appeared in 36.8% of responses, and lack of tools appeared in 31.6%. These findings suggest that rural digital health planning should include technical capacity, not just individual products.

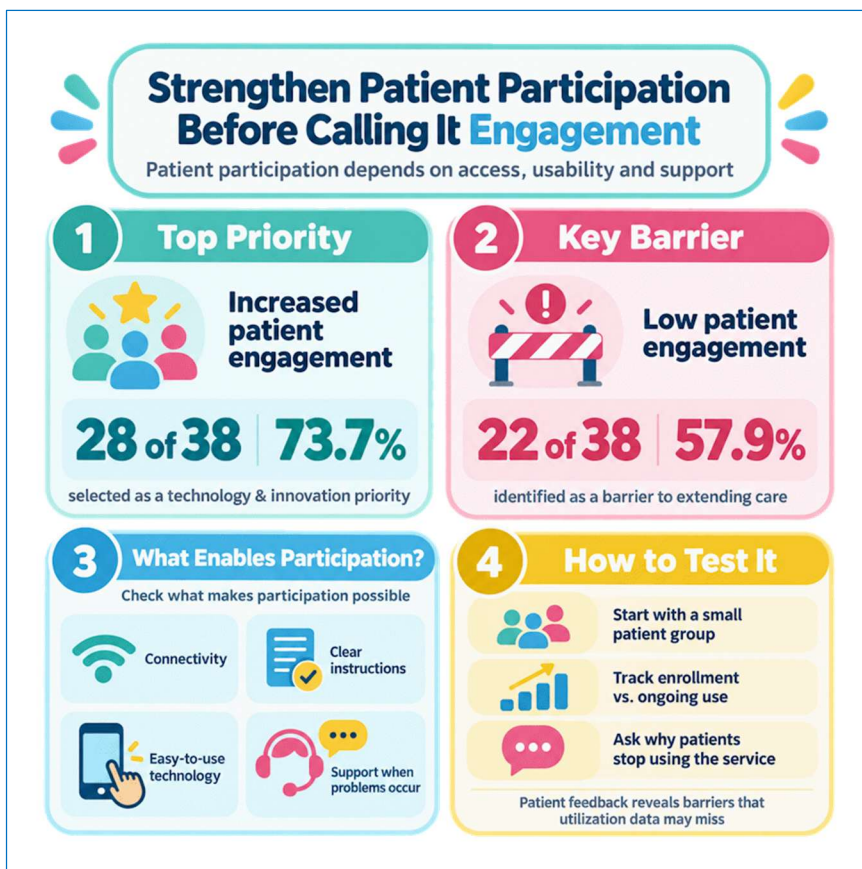
One approach to evaluate is shared expertise. Smaller hospitals may benefit from regional health-system partnerships, outside technical assistance or shared specialists who can support cybersecurity, integration, telehealth and data management. The appropriate model will differ by community. The goal is to make expertise available without assuming every critical access hospital can maintain every technical specialty internally.

The American Hospital Association describes several rural organizations using partnerships and technology-enabled care in this way. For example, UAB Medicine provides tele-ICU, tele-stroke, tele-neurology and virtual nursing support to 41 rural hospitals in Alabama.

Winona Health in Minnesota has used tele-neurology, tele-rheumatology and tele-behavioral health to extend specialty access (American Hospital Association [AHA], 2026b).

These examples show approaches that rural organizations are pursuing. They do **not** establish that every critical access hospital should adopt the same services or that technology produced a particular financial or clinical result. The AHA article is also based

on selected examples and is presented in a report sponsored by Howden.



Strengthen Patient Participation Before Calling It Engagement

Patient engagement is ranked among the survey's leading priorities. **Twenty-eight respondents, or 73.7%, selected increased patient engagement as a technology and innovation priority.** At the same time, 57.9% identified low patient engagement as a barrier to extending care outside the hospital.

Those findings should not lead us to assume patients are unwilling to participate. A useful rural digital health

strategy should examine what makes participation possible. Does the patient have connectivity? Can the person understand the instructions? Is the technology easy to use? Does someone provide support when the process breaks down?

Your hospital could test these questions with a small patient group before scaling a program. Track enrollment separately from sustained participation. Ask patients why they stop using a service rather than labeling nonuse as resistance. Patient feedback can identify problems that hospital utilization data alone will not explain.

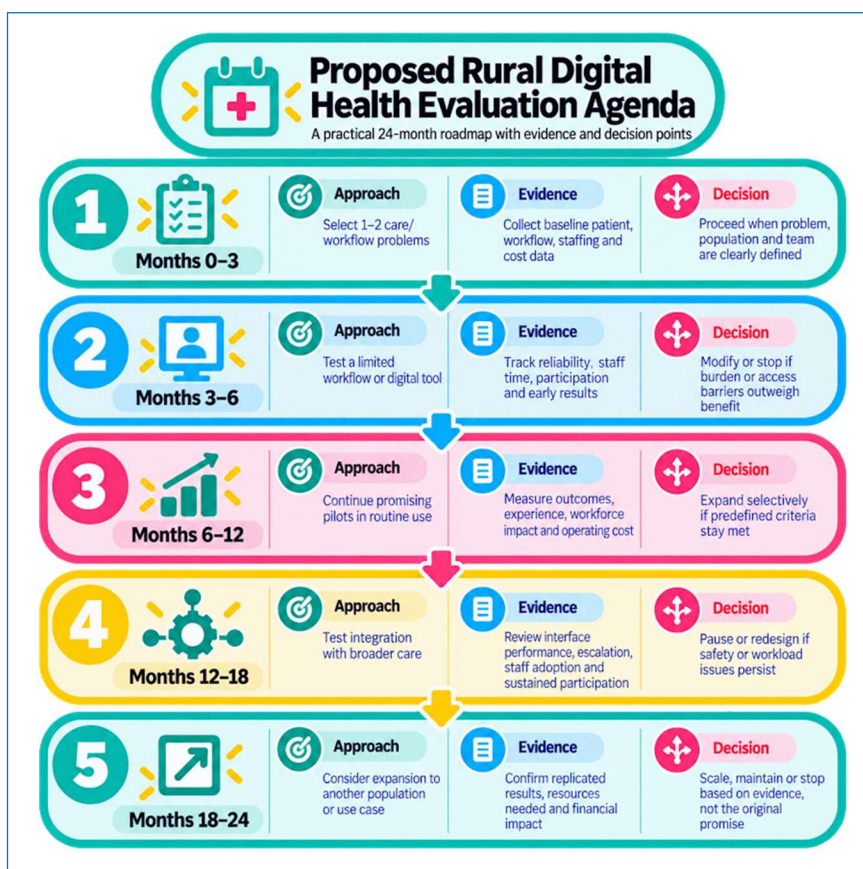
Test Limited Applications Before Scaling

The survey provides several reasonable places to begin small. **Prioritizing rising-risk patients was rated very or extremely valuable by 81.6% of respondents. Identifying risk earlier, managing chronic conditions and improving medication adherence each received 78.9%.** These ratings identify areas of interest, not proven AI use cases.

A hospital might test one application with one patient population and one accountable team. Define what the technology should accomplish before implementation. Then measure technical performance, staff workload, patient participation and the relevant clinical result. A promising demonstration should not become an enterprise deployment until it performs under routine conditions.

This measured approach is especially important because **86.8% of respondents identified cost as a technology concern**, while 65.8% selected implementation challenges. Scaling too early can turn

an uncertain pilot into a larger financial and operational commitment before the hospital understands its real value.



Treat Workforce Innovation as Part of Digital Strategy

Technology planning should also connect with workforce planning. **Staffing shortages were selected by 81.6% of respondents**, making workforce capacity the most common organizational challenge in the survey. Digital tools may support staff, but technology cannot simply be assumed to replace missing clinical professionals.

The AHA describes rural organizations experimenting with workforce development alongside care redesign. York General, a critical access hospital in Nebraska, partnered with local public schools to introduce students to healthcare careers. The example illustrates that rural workforce strategy can include long-term pipeline development as well as technology-enabled support (AHA, 2026b).

Make Scaling a Decision, Not an Assumption

For the next 12 to 24 months, the most useful goal may be to build a repeatable evaluation process. Hospitals can choose a small number of priorities, establish starting measures and create decision points before spending grows. Twelve or 24 months are proposed planning horizons, not evidence-based timelines for clinical improvement or return on investment.

A successful rural digital health strategy does not require your organization to become more predictive, automated or continuously monitored each year. It requires you to understand what your community needs, test appropriate approaches and keep what works. **The next step should be determined by evidence from the last one.**

XVI. Conclusion

More Useful Capacity, With Evidence and Accountability

A rural hospital does not need technology for technology's sake. It needs enough capacity to notice when a patient needs help, coordinate an appropriate response and keep essential services working with the people and resources available. Sometimes technology can strengthen that capacity. Sometimes a better workflow, stronger partnership or additional clinical support may matter more. The important decision is not whether your hospital appears technologically advanced. It is whether a particular approach helps your team solve a clearly defined problem.

That is the central theme running through this whitepaper. The critical access and rural hospital leaders represented in Calcium's survey expressed strong interest in earlier identification, patient prioritization and better support for chronic care. Yet they also described staffing shortages, financial pressure, implementation barriers and uncertainty about post-discharge monitoring. Those findings point toward a practical standard for rural digital health: **use technology where it creates useful capacity that your organization can operate, evaluate and sustain.**

Start With the Capacity Problem

Staffing shortages were the most frequently selected organizational challenge, appearing in **31 of 38 responses, or 81.6%**. Financial pressure followed closely at **78.9%**. These findings remind us that

technology decisions occur inside organizations already balancing workforce and financial constraints.

At the same time, leaders reported clear areas where additional support could matter. **Prioritizing rising-risk patients was rated very or extremely valuable by 81.6% of respondents. Identifying risk earlier, managing chronic conditions and improving medication adherence each reached 78.9%.** These ratings identify needs worth exploring. They do not establish which technology will meet those needs.

This distinction should shape every digital health conversation. Instead of asking whether your hospital “needs AI,” ask whether staff need better information, more reliable follow-up or help prioritizing work. Once the problem is specific, your organization can compare AI with simpler technologies and nontechnology approaches.

Extend Care Without Creating an Unsustainable Workload

The survey repeatedly points beyond the inpatient encounter. **After-discharge care was selected as a major gap by 55.3% of respondents,** while 47.4% selected patient engagement and 44.7% selected care between visits. Those perceptions make continuity of care an important area for local evaluation.

Yet extending care requires capacity. Staffing was selected by **71.1%** as a barrier to care outside the hospital, while budget was selected by **68.4%**. Low patient engagement appeared in 57.9% of responses, although the survey does not establish why respondents perceived engagement as low.

A useful digital service therefore needs two things at once: a workable process for hospital staff and realistic participation conditions for patients. A remote monitoring program that overwhelms nurses does not solve a workforce problem. A patient application that assumes reliable connectivity, strong digital skills or immediate access to technical help may not fit every community.



Technology Should Earn Its Place

Cost emerged as the leading technology concern, selected by **86.8% of respondents**. EHR integration concerned 71.1%, while implementation challenges concerned 65.8%. These numbers argue for looking

beyond software licensing when evaluating a new digital health platform.

Calculate the effort required to configure interfaces, redesign workflows, train staff, support patients and monitor performance after deployment. Then separate the outcomes you measure. A patient benefit does not automatically become a financial benefit. A reduction in staff time may create useful capacity without reducing spending. Better prediction does not necessarily mean better outcomes unless an effective response follows.

This is especially important for artificial intelligence. Almost half of respondents, **50%, described themselves as open but cautious about AI**, while 23.7% were actively looking. That combination supports careful experimentation more than either uncritical adoption or blanket rejection.

Rural Hospital Improvement Is Bigger Than a Technology Purchase

Federal rural hospital programs provide useful context for this broader view. HRSA's Medicare Rural Hospital Flexibility Program supports Critical Access Hospitals through state programs focused on quality, financial health, operations, emergency medical services and population health. HRSA also provides technical assistance and other programs addressing financial performance, workforce development and value-based care.

That broader support environment matters because technology is rarely a complete rural hospital strategy. A digital tool may fit alongside quality improvement, workforce development, financial planning and regional partnerships. HRSA's programs illustrate that sustaining

rural care involves multiple operational and clinical needs rather than a single technology intervention.

Keep Accountability With the Technology

AI also requires continuing oversight after implementation. NIST's AI Risk Management Framework is voluntary, cross-sector guidance designed to help organizations manage risks when designing, developing, deploying and using AI systems. Its core approach treats governance and risk management as continuing activities throughout the AI lifecycle rather than a one-time approval step (Tabassi, 2023).

For a rural hospital, that principle can translate into practical questions. Who reviews the output? How will your team recognize an error? Does performance remain acceptable for the patients you serve? What happens when staff workload increases or a workflow changes? A technology should remain accountable to the care model in which it operates.

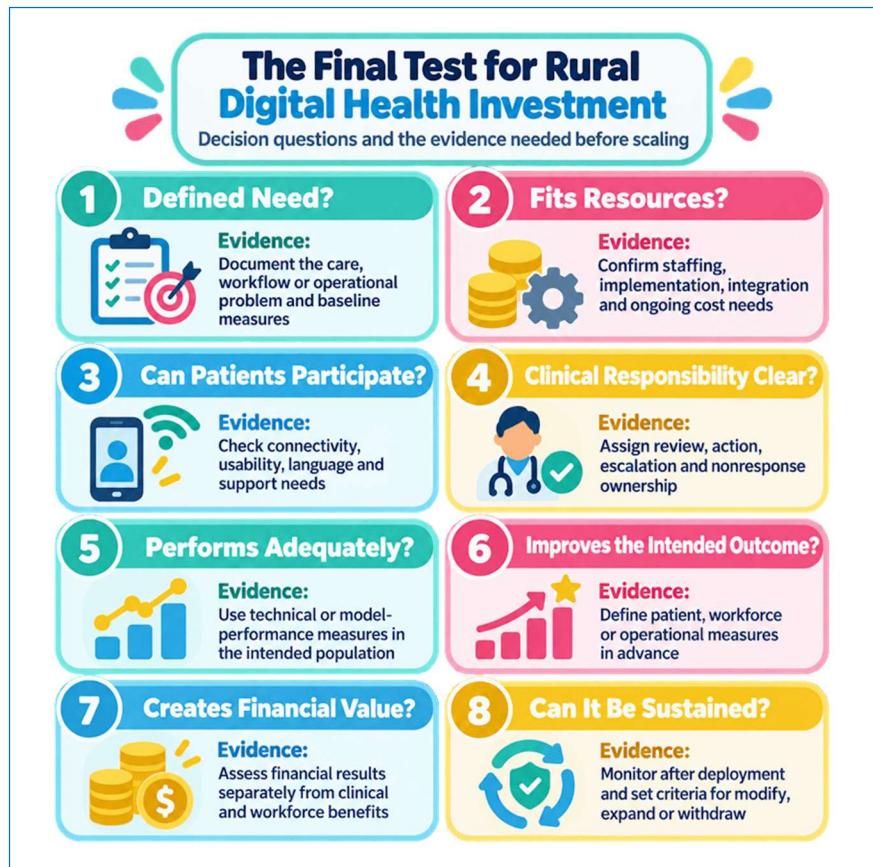
Measure Value Before You Scale

The survey does not tell critical access hospitals to adopt AI, remote monitoring or another specific platform. It does identify problems leaders want help solving. That distinction provides a useful path forward: choose a defined need, establish baseline measures, test an appropriate intervention and decide whether expansion is justified by the results.

Some technologies will deserve a larger role. Others may perform well only for a particular population or workflow. Some pilots may reveal that a simpler solution

works better. A decision not to scale can be a successful outcome when evaluation prevents the hospital from investing further in something that does not meet its needs.

The goal, then, is not maximum automation. It is **more useful capacity with evidence and accountability**. Rural hospitals can consider predictive tools, generative AI, remote monitoring and digital engagement without assuming that sophistication equals value. The measure that matters is whether the technology contributes to a care process your organization can support and whether the resulting improvement can be demonstrated.



The central question is not whether a rural hospital can acquire more sophisticated technology. It is whether a particular technology, embedded in a workable care model, helps that hospital serve its community more effectively—and whether that improvement can be demonstrated.

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Survey Results

1. Role

Role | Count | %

Director | 15 | 39.5%

C-Level / President | 13 | 34.2%

Manager | 5 | 13.2%

Vice President | 3 | 7.9%

Supervisor / Coordinator | 2 | 5.3%

2. Hospital Beds

Beds | Count | % of respondents answering

1–25 | 30 | 83.3%

26–50 | 4 | 11.1%

101–250 | 2 | 5.6%

Two respondents did not provide a bed count, so percentages above use **n=36**.

3. Primary Service Area

Service area | Count | %

Rural | 30 | 78.9%

Highly Rural / Frontier | 5 | 13.2%

Mixed Rural / Suburban | 3 | 7.9%

Hospital Challenges and Care Gaps

4. Top Challenges Facing the Hospital

This was a **multi-select question**.

Challenge | Count | %

Staffing shortages | 31 | 81.6%

Financial pressures / margins | 30 | 78.9%

Chronic disease management | 19 | 50.0%
Rising patient complexity | 16 | 42.1%
Care coordination across providers | 15 | 39.5%
Technology limitations | 14 | 36.8%
Patient adherence | 10 | 26.3%
Readmissions | 7 | 18.4%
Post-discharge follow-up | 7 | 18.4%
Other | 2 | 5.3%

5. “Other” Hospital Challenges

Three respondents entered free-text comments:

- Lack of transportation
- Decreased inpatient volumes
- Difficulty quickly finding an accepting hospital for needed transfers

6. Biggest Gaps in Patient Care

This was also a **multi-select question**.

Care gap | Count | %

After discharge | 21 | 55.3%
Patient engagement | 19 | 50.0%
Chronic condition management | 18 | 47.4%
Medication adherence | 16 | 42.1%
Between visits | 16 | 42.1%
Before hospital admission | 10 | 26.3%
Health data access | 7 | 18.4%
Other | 4 | 10.5%
During inpatient stay | 2 | 5.3%

7. How Often Problems Arise Because Issues Are Identified Too Late

Response | Count | %

Sometimes | 25 | 65.8%

Often | 7 | 18.4%

Very Often | 1 | 2.6%

Rarely | 5 | 13.2%

Value Assigned to Technology Capabilities

8. Identifying Patient Risk Earlier

Rating | Count | %

Extremely Valuable | 10 | 26.3%

Very Valuable | 20 | 52.6%

Moderately Valuable | 8 | 21.1%

Very/Extremely Valuable combined: 78.9%.

9. Prioritizing Rising-Risk Patients

Rating | Count | %

Extremely Valuable | 8 | 21.1%

Very Valuable | 23 | 60.5%

Moderately Valuable | 5 | 13.2%

Slightly Valuable | 2 | 5.3%

Very/Extremely Valuable combined: 81.6%.

10. Reducing Hospitalizations

Rating | Count | %

Extremely Valuable | 7 | 18.4%

Very Valuable | 22 | 57.9%

Moderately Valuable | 7 | 18.4%

Slightly Valuable | 2 | 5.3%
Very/Extremely Valuable combined: 76.3%

11. Managing Chronic Conditions

Rating | Count | %
Extremely Valuable | 9 | 23.7%
Very Valuable | 21 | 55.3%
Moderately Valuable | 6 | 15.8%
Slightly Valuable | 2 | 5.3%
Very/Extremely Valuable combined: 78.9%.

12. Automating Patient Follow-Up

Rating | Count | %
Extremely Valuable | 6 | 15.8%
Very Valuable | 16 | 42.1%
Moderately Valuable | 12 | 31.6%
Slightly Valuable | 2 | 5.3%
Not Valuable | 2 | 5.3%
Very/Extremely Valuable combined: 57.9%.

13. Improving Medication Adherence

Rating | Count | %
Extremely Valuable | 11 | 28.9%
Very Valuable | 19 | 50.0%
Moderately Valuable | 7 | 18.4%
Slightly Valuable | 1 | 2.6%
Very/Extremely Valuable combined: 78.9%.

14. Reducing Staff Workload and Burnout

Rating | Count | %
Extremely Valuable | 14 | 36.8%

Very Valuable | 14 | 36.8%
Moderately Valuable | 9 | 23.7%
Slightly Valuable | 1 | 2.6%
Very/Extremely Valuable combined: 73.7%.

15. Monitoring Patients Remotely

Rating | Count | %

Extremely Valuable | 5 | 13.2%
Very Valuable | 13 | 34.2%
Moderately Valuable | 14 | 36.8%
Slightly Valuable | 5 | 13.2%
Not Valuable | 1 | 2.6%
Very/Extremely Valuable combined: 47.4%

Post-Discharge Care

16. Current Post-Discharge Follow-Up Methods

Respondents could select multiple approaches.

Method | Count | %

Manual phone calls | 27 | 71.1%
Care management team | 25 | 65.8%
Limited / inconsistent process | 6 | 15.8%
External vendors | 4 | 10.5%
EHR-based workflows | 3 | 7.9%

17. Confidence in Post-Discharge Monitoring

Confidence | Count | %

Very Confident | 2 | 5.3%
Somewhat Confident | 24 | 63.2%
Not Confident | 12 | 31.6%

18. Barriers Limiting Care Outside the Hospital

This was a multi-select question.

Barrier | Count | %

Staffing | 27 | 71.1%

Budget | 26 | 68.4%

Low patient engagement | 22 | 57.9%

Technology limitations | 18 | 47.4%

Integration challenges | 14 | 36.8%

Lack of tools | 12 | 31.6%

Technology and AI Readiness

19. Predictive Analytics

Position | Count | %

Open But Cautious | 15 | 39.5%

Considering | 12 | 31.6%

Actively Looking | 4 | 10.5%

Already Utilizing | 3 | 7.9%

Not Interested | 4 | 10.5%

20. Concerns About Healthcare Technology

This was a multi-select question.

Concern | Count | %

Cost | 33 | 86.8%

Integration with EHR | 27 | 71.1%

Implementation challenges | 25 | 65.8%

Data security | 15 | 39.5%

ROI uncertainty | 14 | 36.8%

Staff burden | 14 | 36.8%

Patient adoption | 11 | 28.9%

21. General Technology Adoption Style

Adoption style | Count | %

Only After Widespread Adoption | 21 | 55.3%

Early Adopters | 14 | 36.8%

Last to Adopt | 3 | 7.9%

22. Artificial Intelligence Adoption

AI position | Count | %

Open But Cautious | 19 | 50.0%

Actively Looking | 9 | 23.7%

Skeptical | 5 | 13.2%

Neutral | 4 | 10.5%

Current Priority | 1 | 2.6%

Technology and Innovation Priorities

23. Healthcare Technology and Innovation Priorities

Respondents could select multiple priorities.

Priority | Count | %

Financial stability & margin protection | 28 | 73.7%

Increased patient engagement | 28 | 73.7%

Chronic disease management at scale | 24 | 63.2%

Preventing avoidable hospitalization | 23 | 60.5%

Extending care beyond hospital | 18 | 47.4%

Workforce multiplication | 16 | 42.1%

Remote patient monitoring | 16 | 42.1%

Preventing last-minute cancellations | 15 | 39.5%

Value-Based Care readiness | 14 | 36.8%

Improved health literacy | 10 | 26.3%



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About Calcium LLC

Calcium is a digital health company helping healthcare organizations extend care beyond individual encounters while making better use of limited clinical and operational resources.

The Calcium digital health platform brings together patient information, digital care pathways, patient engagement and risk-based insights to help care teams recognize needs earlier, prioritize attention and coordinate action across the care journey.

For rural and critical access hospitals, Calcium can support more structured post-discharge care, chronic disease management, patient prioritization and ongoing engagement between visits—without assuming every patient requires the same level of manual staff attention.

If your organization is exploring ways to strengthen post-discharge care, chronic disease management, patient prioritization or responsible AI use, we would welcome the opportunity to learn more.

See how Calcium can support rural and critical access hospital care.

Learn more or schedule a conversation:

<https://www.calciumhealth.com/for-providers-2/>