OmniLife HEALTH | BECKER'S HEALTHCARE

INAUGURAL CLINICAL WORKFLOW AUTOMATION BENCHMARK SURVEY FOR COMPLEX CARE

CLINICAL AUTOMATION SOFTWARE ADOPTION WILL MORE THAN DOUBLE FROM 2022 – 2024



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EXECUTIVE SUMMARY

Transplant and other complex care scenarios often remain bastions for manual and paper-based workflows, with much of the communication and documentation taking place outside of the electronic health record (EHR). Clinical workflow automation software is available to streamline and error-proof many of these processes, but awareness and understanding of this software category are inconsistent, even as some organizations are pursuing digital transformation.

To gain insight from U.S. hospital, health system and transplant executives on the current clinical workflow automation landscape around complex care, in Q4 2022 OmniLife Health and Becker's Healthcare conducted a benchmark survey of hospitals, health systems and transplant centers to measure the current state of clinical workflow automation software awareness and utilization for transplant and other complex procedures.

KEY SURVEY FINDINGS INCLUDE:

- Clinical workflow automation software has significant adoption momentum. Implementations among hospitals, health systems and transplant centers will more than double from 2022 to 2024, from 30% to 61%. Many of the organizations that currently use workflow automation software to support transplant processes are planning to expand its use to additional clinical areas, including cardiology.
- Clinical workflow automation software is mainly viewed as a resource for improving efficiency and saving staff time, rather than for improving patient outcomes.
- Many current and prospective users are not aware of clinical workflow automation software can improve revenue capture by providing the documentation needed for reimbursement.



Other data and insight into the state of clinical workflow automation at respondents' facilities, plus future plans, motivations, obstacles and goals, are presented in this report.

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ABOUT THE REPORT

In collaboration with Becker's Healthcare, in the second half of 2022, OmniLife Health conducted its inaugural clinical workflow automation benchmark survey for complex care which elicited responses from 99 respondents, the majority of which were executives and transplant directors/managers (see Figure 1) at hospitals and health systems, with almost all other respondents representing transplant centers or organ procurement organizations (Figure 2).

Respondents Profile

Figure 1: Respondents by Title

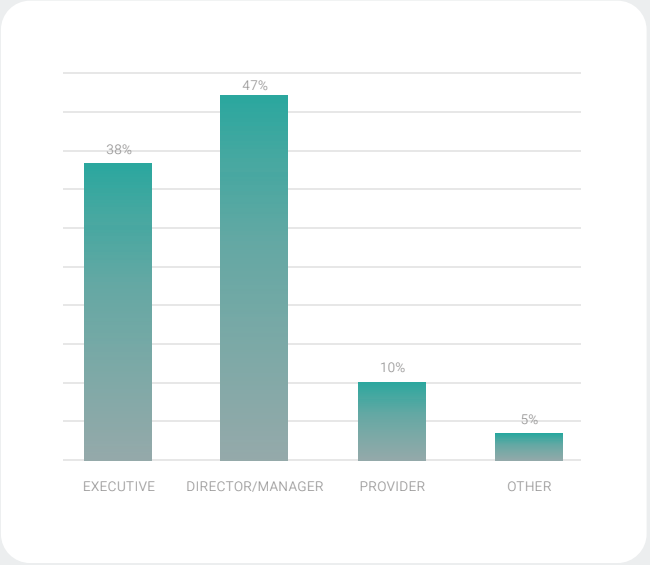
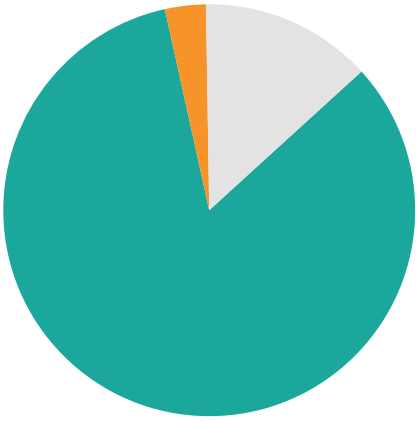


Figure 2: Respondents by Organization Type



1%
INTERPRETATION SERVICES

13%
TRANSPLANT ORGANIZATIONS

86%
HOSPITALS & HEALTH SYSTEMS

Figure 3: Respondents by Region

REGION	% OF RESPONDENTS
EAST	34%
MIDWEST	35%
WEST	20%
MULTI-STATE	7%
INTERNATIONAL	4%

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INTRODUCTION

Interest and implementations for clinical workflow automation software are surging, despite some lack of awareness of the software category and the functionality it provides, how the software can augment the EHR and why it is not redundant, and the ways it can provide value. In 2023-24, the percentage of hospitals, health systems and transplant centers that plan to begin using clinical workflow automation software (31%) will exceed those that are already using it (30%). This will result in a doubling of adoption during the period, resulting in approximately three in five organizations having modern workflow software in place to automate information requests and exchanges, communications, and other documentation related to transplant procedures and other clinical activities. Of the of organizations that currently use clinical workflow automation software, 17% implemented it in 2022, which further highlights the strength of current adoption momentum.



It is worth noting that the newfound interest and adoption of clinical workflow automation follows a period where COVID forced many hospitals to reduce or suspend elective and non-essential procedures. That exacerbated margin pressure at a time when providers were struggling with unprecedented staffing shortages. As hospitals and health systems reconsidered every aspect of how they operate, many developed an appreciation for how clinical workflow automation could increase efficiency for coordinators, clinicians, and administrators, reduce revenue leakage resulting from lack of documentation, while also providing built-in checklists, task reminders and other quality checks that can improve outcomes. The appreciation for what clinical workflow automation software can do is growing – 48% of organizations that already have systems are expanding their use. Current and prospective workflow automation software users primarily see it as a resource to save time for staff and set their goals accordingly and may be overlooking its ability to improve outcomes and increase reimbursement. The remainder of this report provides more data and insight into how, why, and when these changes in clinical workflow automation adoption and use are occurring.

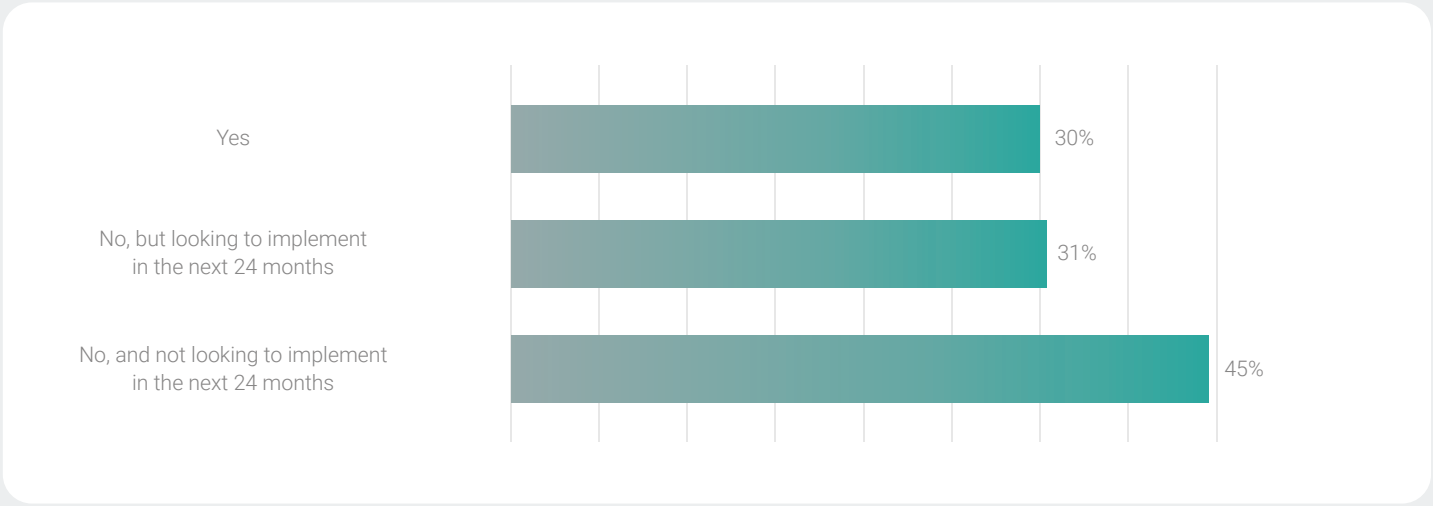
Definition:
Clinical workflow automation software digitizes, centralizes and automates communications and documentation for healthcare care teams to collaborate. It provides a single platform to consolidate communications and information exchange in a secure environment to standardize and streamline redundant and fragmented processes to ensure that all staff is meeting the same best practices defined by the healthcare organization.

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CURRENT STATE OF CLINICAL WORKFLOW AUTOMATION SOFTWARE USE

At the start of 2023, most hospitals were not using clinical workflow automation software to facilitate transplants, but that was poised to change, as shown in Figure 4. In 2023 – 2024, 31% of organizations planned to implement clinical workflow automation software – which is nearly equal to the percentage of those that are already using it (30%). That means adoption will effectively double. Utilization will increase even more, because many organizations that currently use the software reported they are planning to extend it to additional use cases. For example, clinical workflow automation software is often initially implemented to support transplants, then modified to support other workflows. Nearly half (48%) of the organizations that have clinical workflow automation software in place were planning to expand its use in 2023, compared to 28% that described themselves in maintenance mode.

Figure 4: Current Utilization and Adoption Intentions

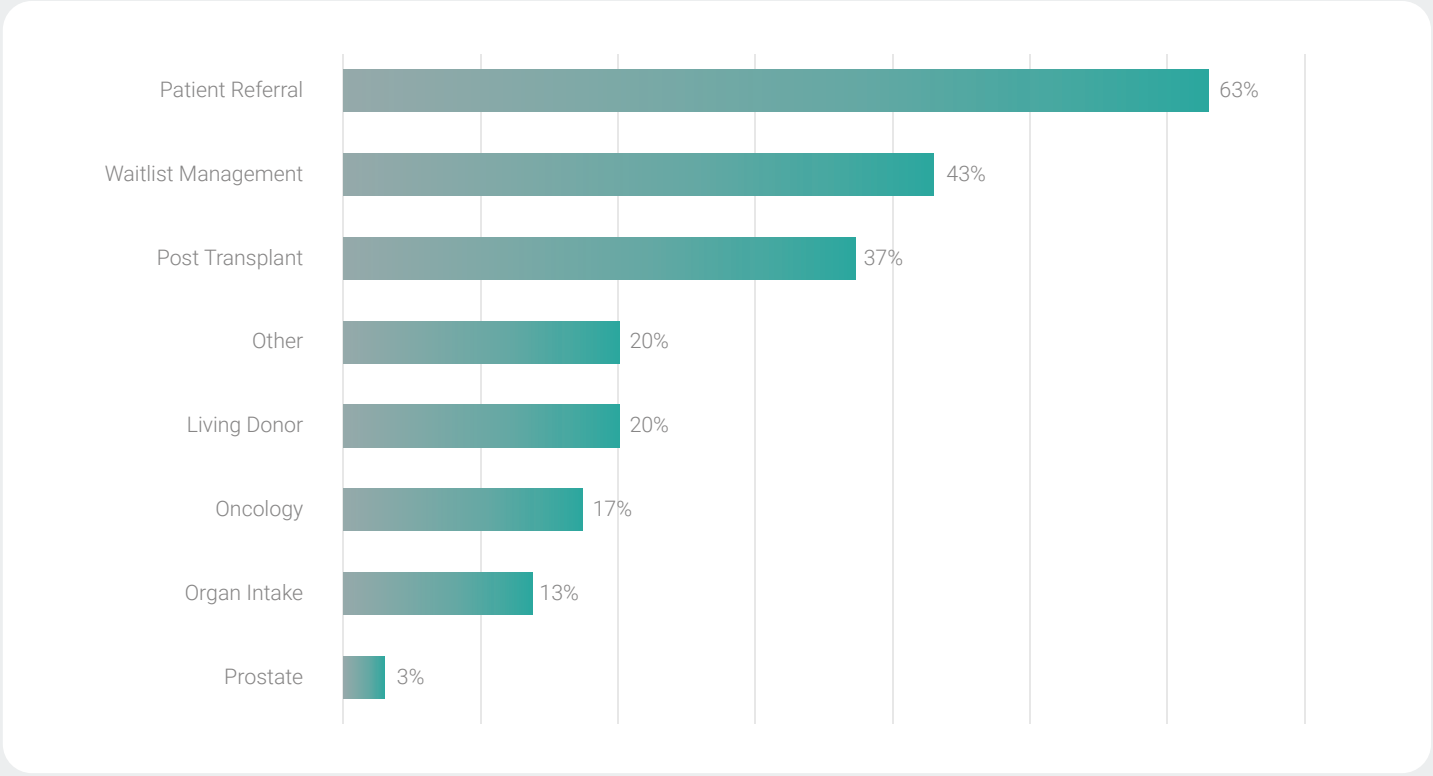


In a separate question, all but one user organization said it had integrated its clinical workflow software with its EHR. Bidirectional data exchange is the most common form of integration and is considered the highest level of integration, but only 46% of respondents are at that level. That indicates opportunity for deeper integration, which could enable the software to return more value.

Many organizations are already using workflow automation for multiple tasks, as shown in Figure 5, with patient referral and waitlist management being the leading use cases. A 2022 report by the National Academies of Science, Engineering and Medicine (NASEM) suggests the focus on clinical workflow automation, and more importantly on digitizing organ intake processes, is likely to become increasingly important as regulatory bodies evaluate and request additional documentation on protocols and more adherence to protocols around organ offer management and organ intake. Their goals are to reduce patient risk and maximize the number of transplant opportunities a patient has.

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Figure 5: Current Use Cases for Clinical Workflow Automation Software

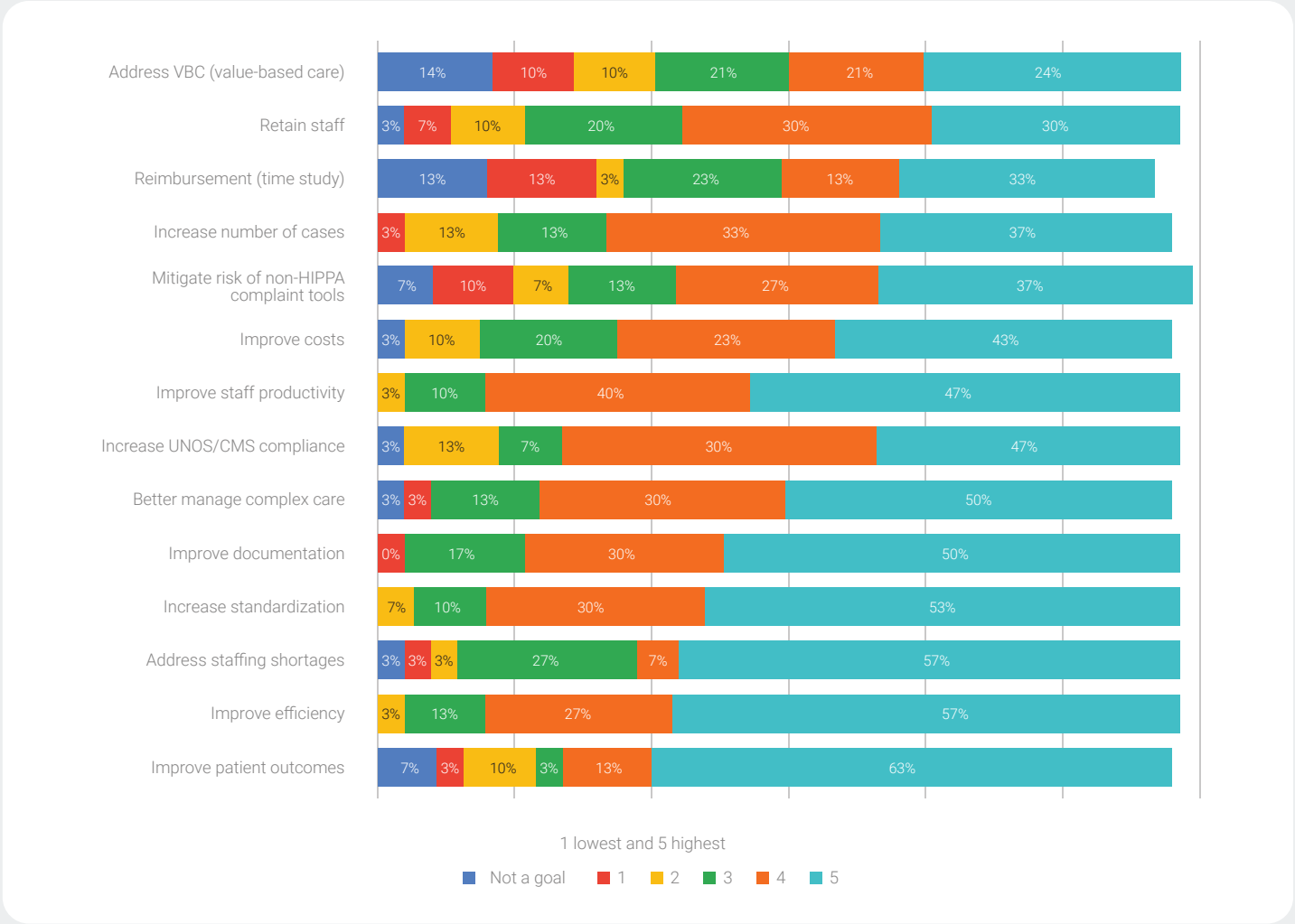


While transplant accounts for the leading use cases, 20 percent of respondents are using workflow software for clinical areas other than those listed in Figure 5. Cardiology, pulmonary, hepatology/GI and nephrology processes are among the areas users are targeting to extend workflow automation (the data and analysis are presented in the Future Directions section).

Organizations that use workflow automation software view it as more of an administrative resource than a clinical one. Their goals related to efficiency and productivity rank ahead of those for care coordination and outcomes, as shown in Figure 6, which presents respondents' goals in rank order. For example, 84% of user organizations cited "improve efficiency" as a goal for using the software (by ranking it either 4 or 5 on a 5-point scale), including 57% that rated it a top-level goal. Improving outcomes got the most top-level ratings (5 on a 5-point scale), but its overall ranking was offset by the 10% of respondents that do not consider outcome improvement a significant goal for clinical automation software use.

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Figure 6: Goals for Using Clinical Workflow Automation Software, Ranked



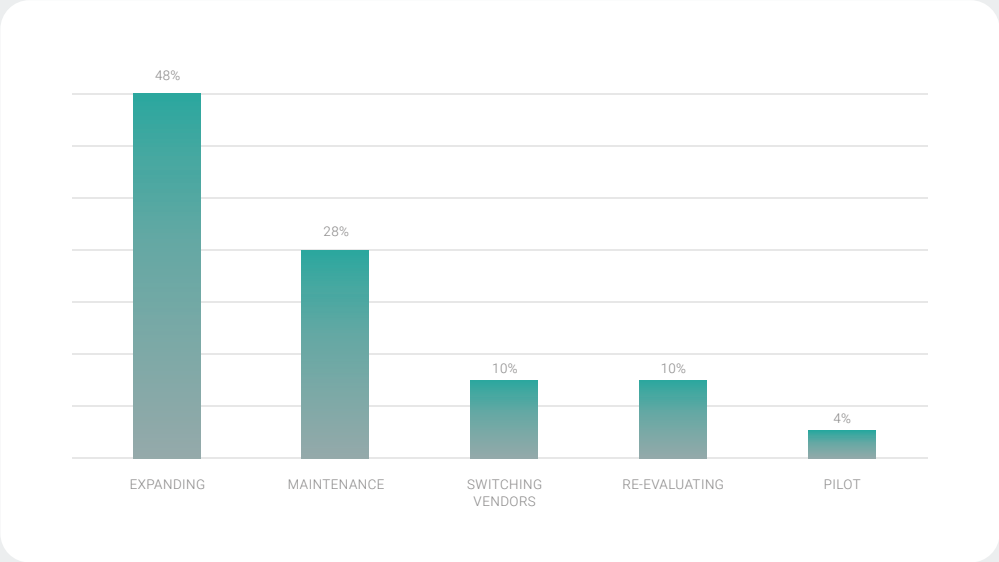
With most of the leading goals for using workflow automation software being related to improving efficiency, consistency, and documentation, it is not surprising that the leading lesson learned cited by the software users is “Have a vendor with a designated team to implement the software and train staff.” Workflow automation software necessitates process changes, so the user interface, ease of use, training, and staff acceptance are all very important for utilization, time-to-value and overall effectiveness. Clinical workflow automation software provides a single platform to consolidate communications and information exchange in a secure environment and provides the ability to monitor and measure documentation and billing. Ideally, the software solution will provide APIs (application program interfaces) to integrate into EHRs and other software tools. It should also have functionality to produce insights from the collected data. Organizations tend to focus heavily on reporting capabilities when evaluating and purchasing clinical workflow software. The lessons learned from the data highlight that software ease of use and available vendor support should also receive close attention.

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FUTURE DIRECTIONS

As clinical workflow automation software grows from something used by a minority of hospitals, health systems and transplant centers in 2022 to a majority by 2024, users will take the software in new directions. Approximately half of current users plan to expand utilization to new areas (Figure 7), which is significantly more than describe themselves in maintenance mode (48% are expanding, 28% are maintaining). Respondents that are planning new implementations somewhat differ from current users in the functionality they value most and their intended use cases for the software.

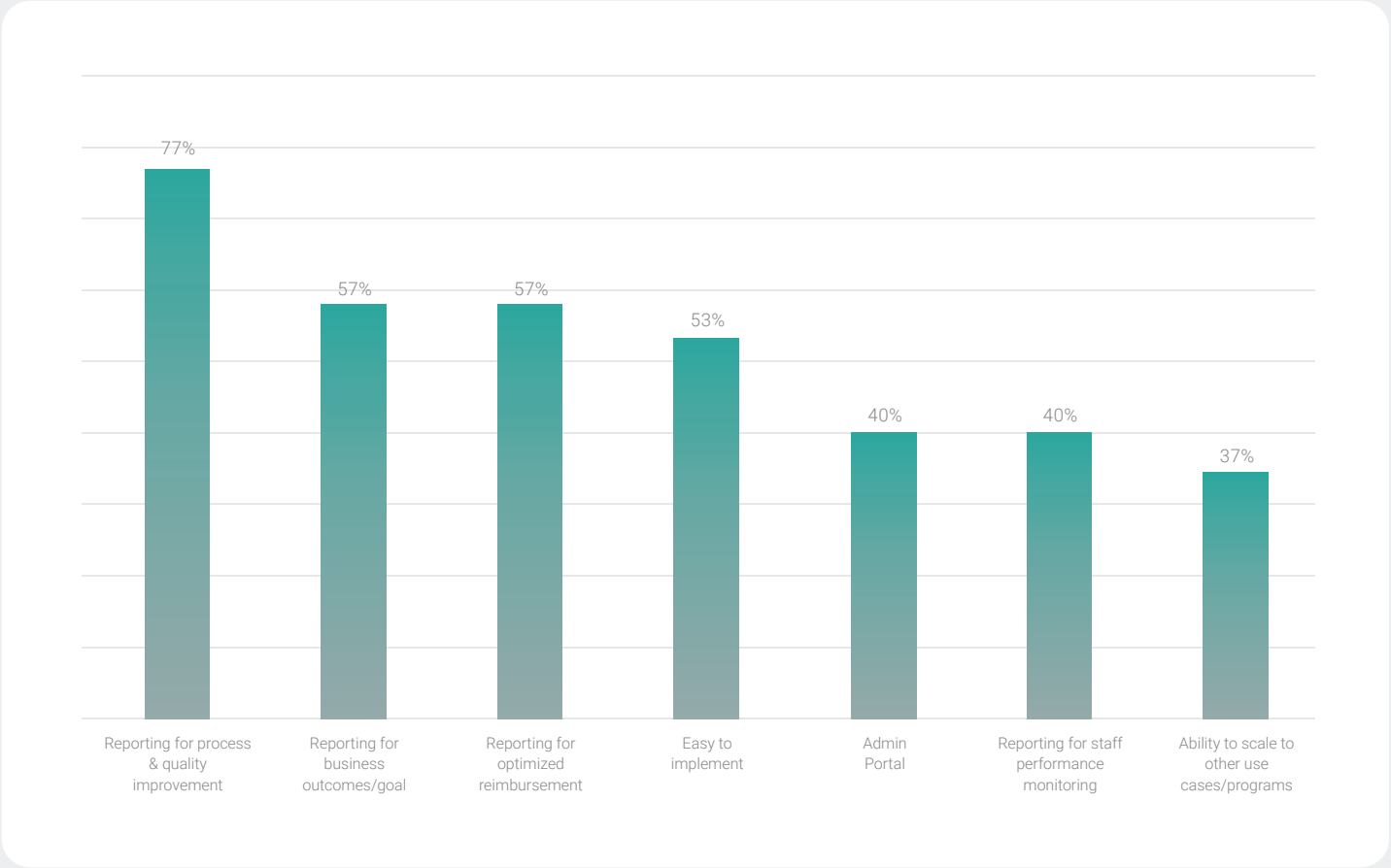
Figure 7: Current Utilization Status Among Current Clinical Workflow Automation Software Users



Among the 31% of respondents that plan to implement clinical workflow automation software in 2023 and 2024, reporting capabilities were the most-desired functionality (Figure 8). They value reporting to support process and quality improvement more highly than current users, and also appear more likely to use the software to prompt users to capture data that can be used to support reimbursement. Only 37% of respondents say the ability to scale is a required feature of their new software. That suggests they may not realize some solutions can support multiple clinical areas, or that they are planning specific implementations and that the software won't be used across the enterprise. That is inconsistent with current users, who tend to use the software for multiple process areas.

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Figure 8: Top Software Functionality Requirements Among Respondents Planning to Implement

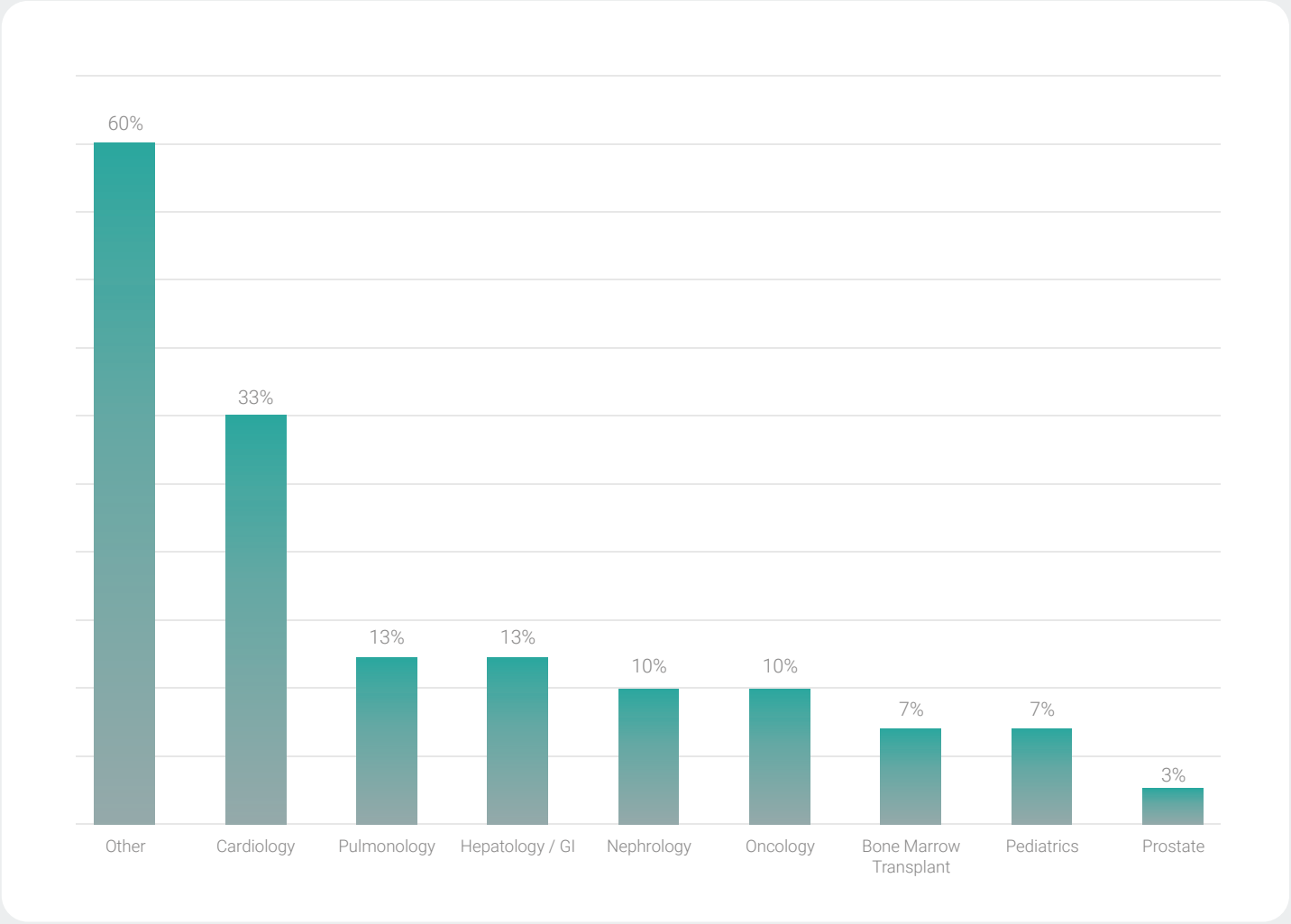


Future users also plan to make narrower, less end-to-end use of automation software than current ones. For example, 37% of current users apply their software to processes involving living donors, while only 10% of future software users plan to do so; 6% of future implementers plan on using the software for post-transplant processes, compared to 37% of organizations that currently extend their software automation to post-transplant.

Organizations that expect to implement clinical workflow software soon are mostly targeting patient referral and waitlist management. To see how clinical workflow automation use may evolve, it is more instructive to look at future use case plans among current users (Figure 9). Except for cardiology, there is little consensus or clear direction on where organizations will expand their workflow automation use – "other" was by far the leading response option. A third of current respondents plan to expand their workflow software to include cardiology patient processes, and no other clinical practice area was cited by more than 13% of respondents.

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Figure 9: Future Use Cases for Current Clinical Workflow Automation Software Users



Examining user goals also provides insight into future direction. Organizations that are planning to implement workflow software are more vague about their goals than current users and appear uncertain as to how goals should be prioritized. For example, none of the options presented was rated a top-level goal by a majority of future clinical workflow software users, but six goals got top-level rankings from a majority of current users. Improving efficiency, documentation and standardization were among the widely shared goals between current and future users. Organizations that are planning to implement clinical workflow automation software are more likely to set cost reduction as a goal, it was cited by 81% of future users, compared to 67% of current ones. Despite the shared focus on documentation, future users are much less likely than current ones to use the software to improve UNOS or CMS compliance – that is a goal for 45% of planned implementations but 77% of current ones. This may reflect an expectation that CMS will soon impose new transplant documentation requirements, and potential penalties to drive compliance.

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OBSERVATIONS ON REVENUE CAPTURE

Transplant-related communications during organ offer reviews, organ recovery, patient referral evaluation and waitlist management are reimbursable by CMS, yet many go unreimbursed. Faculty underreport their time spent reviewing organ offers and procurement services. Clinical workflow automation software can close that gap, and may be an underused resource for improving reimbursement. A research paper, scheduled to be presented at the 2023 American Society of Transplant Cutting Edge of Transplantation conference documents how one health system measured an 11.4% improvement in reimbursable time capture after implementing clinical workflow automation.



Most respondents do not know how or if their organizations capture time for CMS reimbursement, and this survey found little or no consensus on method among those that do. Manual methods are over three times more commonly used by organizations without clinical workflow automation software than by those that have it (42% vs. 13%). However, most organizations with workflow automation software do not use it to capture time for the CMS Cost Report Time Study. No non-manual method was reported in use by more than 17% of respondents.

Clinical workflow automation software can automatically capture and prompt users to provide the documentation needed for transplant reimbursement. Most organizations seem to be unaware of this opportunity and the potential added value workflow software can provide. For example, reimbursement was the lowest-rated goal among current clinical workflow automation software users and ranked second-to-last among desired functionality. If users were aware that software could automatically capture and report reimbursable time, they presumably would seek and use that functionality in the software.

Awareness about clinical workflow automation software's role in reimbursement may be changing. Among organizations that are not using the software now but plan to, "reporting optimized for reimbursement" tied as the second-most leading requirement for their software selection; 57% cited it as a requirement. Future users also rated improved reimbursement as a goal for their software implementation more highly than do current users.

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CONCLUSION

Clinical workflow automation software is on a fast track to becoming mainstream to support transplant and other complex care scenarios. Usage plans reported by hospitals, health systems, as a way to save time, improve efficiency and reduce data errors. They are awakening to its potential to mitigate revenue leakage by capturing the documentation needed for reimbursement. As clinical workflow automation is spreading more broadly across the healthcare system, its use is going deeper within organizations, expanding beyond transplant. The influx of new users and new use cases will ensure that the field of clinical workflow automation remains dynamic.



OmniLife Health has been leading efforts to improve communication, decision making, and care coordination among all stakeholders in the organ failure care continuum, with an integrated end-to-end organ intake and patient management solution to more efficiently secure the right organ for the right patient at the right time. OmniLife's FlowHawk™ software provides a single source of truth for complex care teams, bringing internal data and external systems together at the point of care for more informed decision making.

ABOUT OMNILIFE HEALTH

OmniLife Health is setting a new standard in clinical workflow automation.

FlowHawk™ is purpose-built to streamline clinical workflows for organ transplantation with the ability to scale across your enterprise for purposeful collaboration in a variety of complex care environments. Leverage digital tools to standardize processes and empower care teams with access to data and insights that help improve productivity, mitigate the impact of staffing shortages, and optimize billing.

We enable organizations to accelerate organ transplantations and other complex care journeys for optimal health outcomes. Learn more how OmniLife Health is leading the way in clinical workflow automation at **OmniLife.Health.**

OmniLife HEALTH

AHA Associate
2022-2023

The American Hospital Association (AHA) Associate Program connects the business community with AHA members, encouraging the exchange of ideas and exploration of new solutions. AHA Associates have a shared commitment to the AHA's mission of advancing care in America.

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