

FORRESTER®

The Total Economic Impact™ Of CareStack

Cost Savings And Business Benefits
Enabled By CareStack

OCTOBER 2023

Table Of Contents

*Consulting Team: Sanny Mok
Ana Botelho*

Executive Summary..... 1

The CareStack Customer Journey 5

 Business And Operational Priorities 5

 Key Challenges 5

 Investment Objectives 5

 Composite Organization..... 6

Analysis Of Benefits 9

 Increased Profit From Fuller Schedules 9

 Improved Revenue Cycle Management 12

 Systems Consolidation..... 14

 Unquantified Benefits 15

 Flexibility..... 15

Analysis Of Costs 17

 CareStack Subscription Cost 17

 Deployment And Training Costs 18

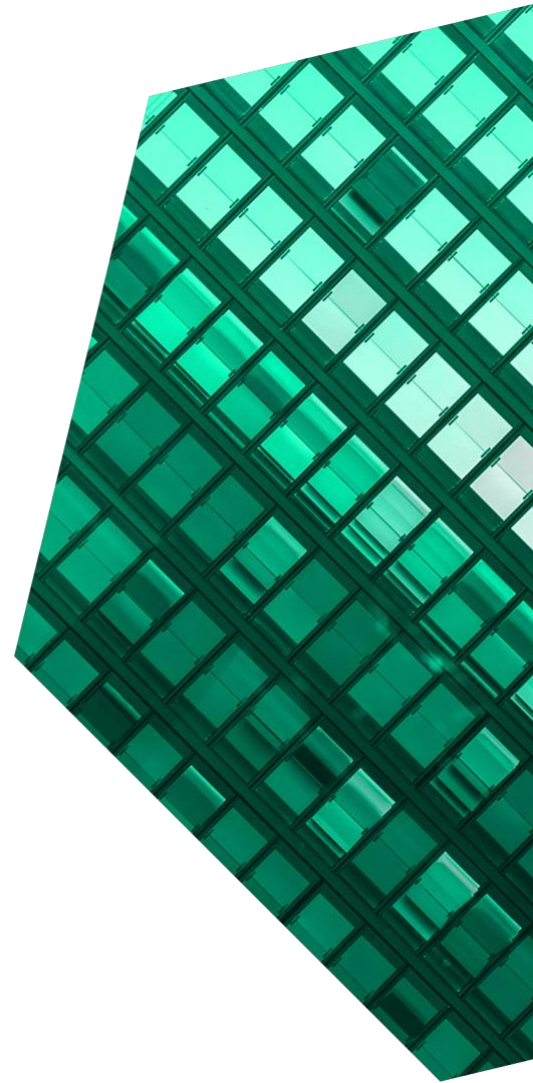
Financial Summary 20

Appendix A: Total Economic Impact..... 21

Appendix B: Interview And Survey Demographics
..... 22

Appendix C: Supplemental Information 23

Appendix D: Endnotes 23



ABOUT FORRESTER CONSULTING

Forrester provides independent and objective research-based consulting to help leaders deliver key outcomes. Fueled by our customer-obsessed research, Forrester’s seasoned consultants partner with leaders to execute their specific priorities using a unique engagement model that ensures lasting impact. For more information, visit forrester.com/consulting.

© Forrester Research, Inc. All rights reserved. Unauthorized reproduction is strictly prohibited. Information is based on best available resources. Opinions reflect judgment at the time and are subject to change. Forrester®, Technographics®, Forrester Wave, and Total Economic Impact are trademarks of Forrester Research, Inc. All other trademarks are the property of their respective companies. [O-00098257]

Executive Summary

Dental organizations face increasing pressure to ensure high patient satisfaction due to growing industry competition.¹ Forrester's research shows that customer-obsessed organizations achieve the highest revenue growth, profitability, and customer retention.² A centralized cloud-based practice management solution provides dental practices the foundation to modernize and streamline operations, empower employees, deliver exceptional service, and enhance the patient experience.

CareStack is a cloud-based dental practice management solution. It enables dental organizations to streamline workflows, improve operational efficiency, and enhance patient experience.

Straumann commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) dental practices may realize by deploying CareStack.³ The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of CareStack on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed five decision-makers from four organizations with experience using CareStack and surveyed 52 respondents in the dental industry. For the purpose of this study, Forrester aggregated the experiences of the interviewees and survey respondents and illustrated the results from the perspective of a **composite organization**. The composite organization is a multisite dental organization that operates in 10 locations, employs a total of 115 staff, and generates \$20 million in annual revenue.

44%

of surveyed dental leaders cited improving patient experience as a top business priority.



KEY STATISTICS



Return on investment (ROI)
307%



Net present value (NPV)
\$1.28M

Prior to using CareStack, these interviewees noted how their organizations' siloed systems and data limited growth and restricted their ability to react to patient needs quickly. Processes such as onboarding, scheduling, and revenue cycle management (RCM) were inefficient, and leaders struggled with management oversight.

After the investment in CareStack, the interviewees increased production, streamlined RCM efficiency, and shortened revenue cycles. As CareStack is a cloud solution, interviewees minimized IT complexity and reduced the associated costs with their previous on-premises solution. Their organizations also improved analytics reporting and enhanced patient experience.

KEY FINDINGS

Quantified benefits. The composite organization experiences the following quantified benefits. Benefit values are modeled over a three-year period, adjusted for risk, and discounted into present value (PV):

- **Increased profit from fuller schedules.** Multiple functionalities of CareStack enable the composite to progressively increase production by 20% to 40% over the three years. Multiple factors drive the increase in production, including more efficient scheduling processes, higher acceptance of treatment plan, and optimized customer feedback collection for marketing purposes. Leveraging CareStack’s analytical capabilities, the composite organization’s locations collaborate more closely to tackle challenges, dentists receive tailored coaching to make the best clinical decisions for patients, and leaders leverage analytics better to optimize operations. This yields a three-year, risk-adjusted benefit worth \$1.3 million for the composite.
- **Improved revenue cycle management (RCM).** The composite standardizes processes using CareStack to reduce day sales outstanding. Day sales outstanding lowers by 20% in Year 1 with a further reduction to 35% by Year 3. Process improvements yield time savings for the RCM team, and the composite establishes a centralized RCM function in Year 2 to further increase efficiency. The benefit value associated is \$162,000.
- **Avoided costs with systems consolidation.** The composite saves \$282,000 on licensing and maintenance costs from sunsetting the legacy practice management solution and replacing additional third-party solutions with CareStack.

Unquantified benefits. Benefits that provide value for the composite organization but are not quantified for this study include:

- **Enhanced patient experience.** CareStack streamlines workflows, affording front-of-house employees the time and focus to better serve patients. Other features contribute to an enhanced patient experience: online forms enable the composite to provide patients with a smoother onboarding experience, the online

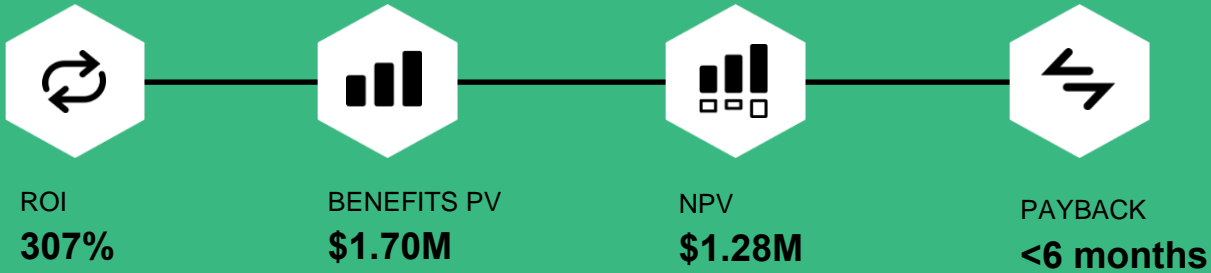
portal offers patients convenience as they’re able to self-service, and itemized treatment plans help practices earn patient trust with transparent pricing.

- **Improved analytics visibility.** Consolidating data from all locations into one system improves ease of management oversight. Employees at different practices can access performance data of other locations, allowing them to benchmark and improve their own performance.
- **Increased forecast accuracy.** Actual levels of production align closer to forecasts after using CareStack, enabling employees to act swiftly and accordingly.

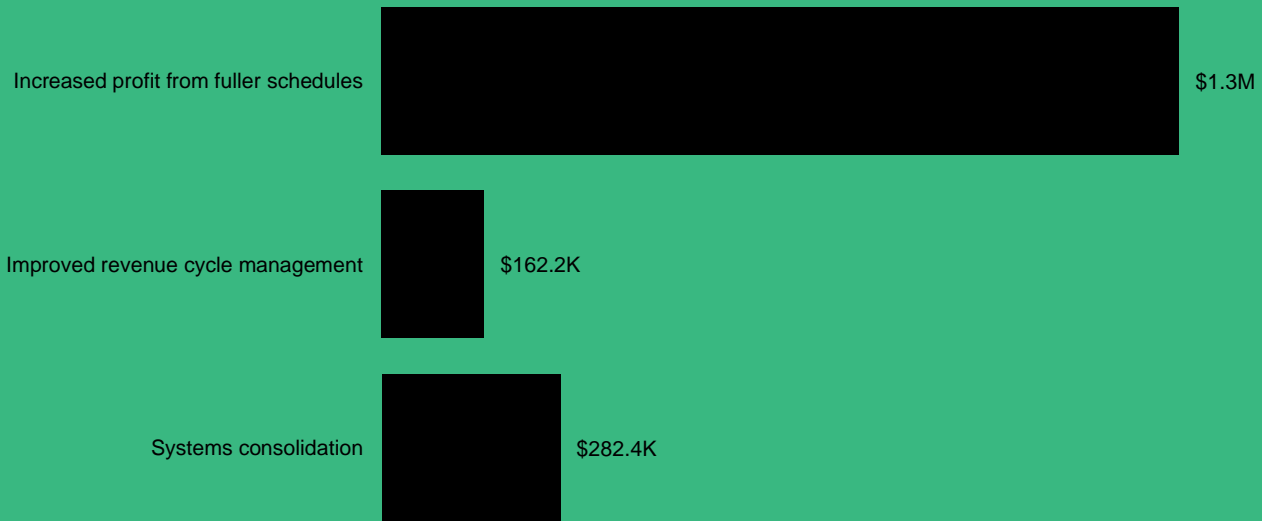
Costs. Cost values are modeled over a three-year period, adjusted for risk, and discounted into PV. Costs for the composite organization include:

- **CareStack subscription cost.** For the composite, this amounts to \$219,000.
- **Deployment and training costs.** This cost includes an implementation fee, internal deployment and change management efforts of two employees, and user training time. This amounts to \$200,000.

The financial analysis, which is based on the interviews, found that a composite organization experiences benefits of \$1.70 million over three years versus costs of \$419,000, adding up to a net present value (NPV) of \$1.28 million and an ROI of 307%.



Benefits (Three-Year)



“CareStack has more functions than our previous solution. We have a centralized system, support, extras — everything in one unit.”

— Regional manager, DPO

TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews and survey, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in CareStack.

The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Forrester took a multistep approach to evaluate the impact that CareStack can have on an organization.

See Appendix A for a glossary of the components in the financial model and the key metrics used.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Straumann and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.

Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the study to determine the appropriateness of an investment in CareStack.

Straumann reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.

Straumann provided the customer names for the interviews but did not participate in the interviews.

Forrester fielded the double-blind survey using a third-party survey partner.



DUE DILIGENCE

Interviewed Straumann and CareStack stakeholders and Forrester analysts to gather data relative to CareStack.



INTERVIEWS AND SURVEY

Interviewed five representatives and surveyed 52 respondents at organizations using CareStack to obtain data with respect to costs, benefits, and risks.



COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics of the interviewees.



FINANCIAL MODEL FRAMEWORK

Constructed a financial model representative of the interviews and survey using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewees and survey respondents.



CASE STUDY

Employed four fundamental elements of TEI in modeling the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

The CareStack Customer Journey

■ Drivers leading to the CareStack investment

Forrester interviewed five representatives from four dental organizations using CareStack and surveyed 52 respondents in the dental industry. For more details on these individuals and the organizations they represent, see [Appendix B](#).

BUSINESS AND OPERATIONAL PRIORITIES

Improving patient experience emerged top of mind among surveyed dental organization leaders, with the largest group of survey respondents citing it as a top business priority and a key operational initiative (see Figure 1). In addition, two out of four surveyed leaders noted their organizations' top business priorities are accelerating response to business and market changes and increasing brand reach and influence.

Enhancing demand generation topped the chart for operational initiatives, along with improving patient experience. Optimizing workload management for dentists and enabling coordinated care and collaboration across locations closely followed.

KEY CHALLENGES

While there was consensus that patient experience, agility, and revenue are critical, surveyed dental leaders noted their organizations are not equipped to function at the level they desire (see Figure 2). Prior to adopting CareStack, the interviewees' organizations were limited by poor data visibility and inefficiency stemming from siloed systems across locations and across end-to-end processes. Common challenges included:

- **Poor management oversight with siloed systems.** Interviewees managed multiple offices that ran on separate legacy practice management systems. The regional manager at a DPO reflected: "When you don't have a global system to see all offices, you literally have blinders on. There's only so much you can see in

the 2 hours you're in an office." The founder of a DSO described: "The legacy solution was not robust. It was very clunky moving across practices and as we added more locations, and it was very difficult to export data for analytics."

- **Inefficient, error-prone processes due to manual workarounds.** The director of operations at a private practice said: "We gathered and curated data manually from each office to track KPIs, extrapolating data out of the legacy system and then keying it into [a spreadsheet]. There was a high risk of human error." The interviewee added: "We used bolt-on solutions for appointment confirmations and insurance verifications. You had to create your own workflows ... there were a lot of errors."
- **Slow to reaction times.** Disparate systems and inefficient processes impacted the interviewees' organizations' agility. The RCM director at a DPO provided an example, noting, "If a scheduled appointment bombed out, we had no great way of knowing the changes or the attempts that somebody took in order to fill it."

INVESTMENT OBJECTIVES

Empowering staff to achieve clinical excellence propelled most survey respondents' dental organizations to invest in a practice management solution, with 42% acknowledging it as a driver to adopt or switch to one. Improving patient experience (38%) was also a common objective propelling the investment (see Figure 3).

The interviewees' organizations searched for an integrated solution that supported processes across the operation and across locations. The director of operations at a private practice provided: "We wanted a shared system across locations, data analysis within one platform, reduced bolt on services — so

many things that we felt CareStack would deliver. Now, we have the visibility that we didn't have before."

COMPOSITE ORGANIZATION

Based on the interviews and survey, Forrester constructed a TEI framework, a composite company, and an ROI analysis that illustrates the areas financially affected. The composite organization is representative of the five interviewees and the 52 survey respondents, and it is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics:

Description of composite. The composite is a multisite dental organization operating 10 practices. Each of the practices generates \$2 million in revenue per year, totaling \$20 million across the organization. On average, the practices comprise of 10 employees on site, with an even split between clinical and nonclinical staff. The composite has an additional central team of 15 employees.

Deployment characteristics. The composite previously adopted an on-premises (i.e., server-based) practice management system and additional third-party solutions to manage its operations. The deployment sees its 10 practices migrating to CareStack and onboarding all employees as users, including front-desk and administrative employees, clinical staff, back-office teams, and leadership. It leverages CareStack to improve scheduling, revenue cycle management, analytics, and reporting, and enhance scalability with a cloud solution.

Key Assumptions

- **Multisite dental organization with 10 practices**
- **\$20 million revenue**
- **10 users per practice**
- **15 central team employees**

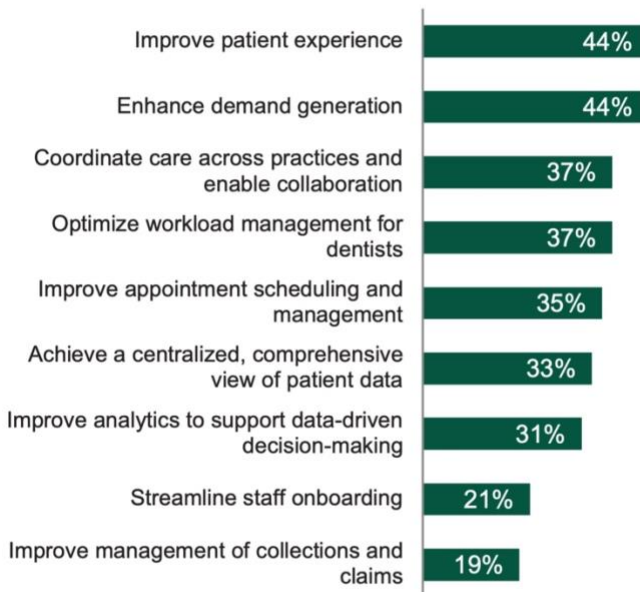
Figure 1

Improving Patient Experience Considered Top Business And Operational Priority

Top Business Initiatives



Top Operational Initiatives



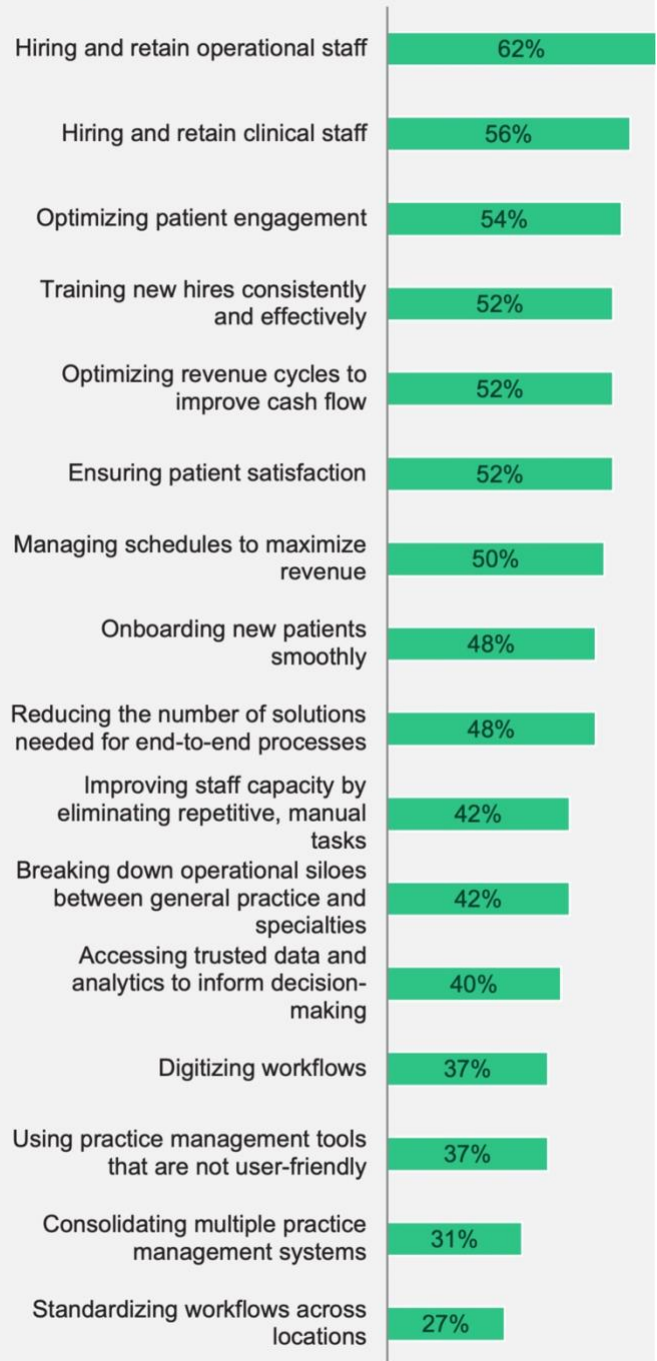
Base: 52 decision-makers for practice management at US multisite dental organizations

Source: A commissioned study conducted by Forrester Consulting on behalf of Straumann, July 2023

Figure 2

Dental Practices Struggle To Hire And Retain Operational Staff

Top Barriers Dental Practices Face



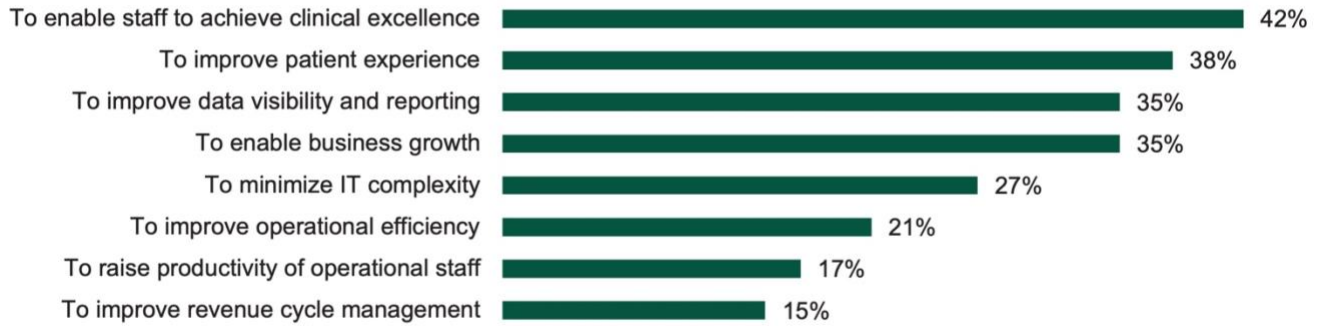
Base: 52 decision-makers for practice management at US multisite dental organizations

Source: A commissioned study conducted by Forrester Consulting on behalf of Straumann, July 2023

Figure 3

Practice Management Solutions Help Dental Practices Achieve Clinical Excellence And Enhance Patient Experiences

Top Drivers For Practice Management Solution Investment



Base: 52 decision-makers for practice management at US multisite dental organizations

Note: Showing top 8 responses

Source: A commissioned study conducted by Forrester Consulting on behalf of Straumann, July 2023

Analysis Of Benefits

■ Quantified benefit data as applied to the composite

Total Benefits						
Ref.	Benefit	Year 1	Year 2	Year 3	Total	Present Value
Atr	Increased profit from fuller schedules	\$344,760	\$517,140	\$689,520	\$1,551,420	\$1,258,853
Btr	Improved revenue cycle management	\$32,859	\$74,129	\$94,620	\$201,608	\$162,225
Ctr	Systems consolidation	\$113,560	\$113,560	\$113,560	\$340,680	\$282,407
	Total benefits (risk-adjusted)	\$491,179	\$704,829	\$897,700	\$2,093,708	\$1,703,485

INCREASED PROFIT FROM FULLER SCHEDULES

Evidence and data. Multiple CareStack features enabled the interviewees' organizations to increase production, leading to higher profits. For example, one interviewee at a DPO noted their organization increased production levels by 30% to 40% since adopting CareStack. Interviewees described how CareStack contributed to fuller schedules at their practices and noted other benefits, including the following:

- Improved scheduling efficiency.** Interviewees noted that scheduling and rescheduling cancelled appointments became more efficient with CareStack's automated reminders, online scheduling, and priority patient lists. Interviewees' organizations reduced cancellation and no-show rates and filled cancelled appointments quicker. One interviewee's organization reduced the time to fill a cancelled appointment from 30 to 45 minutes down to 10 minutes with the establishment of a centralized call center. The RCM director at the DPO said, "Some offices that utilize the short call list within CareStack can fill a cancelled appointment a lot easier." The founder at the DSO noted they benefited from better visibility of schedules across multiple locations, stating, "Jumping between locations from a scheduling standpoint is much smoother."
- Increased treatment plan acceptance.** CareStack's itemized treatment plans improved the interviewees' organizations' treatment acceptance rates. The detailed presentation helped patients understand what they discussed with the clinician, the amount covered by their insurance, and the portion that would be self-funded. The director of operations at a DSO said: "It's clear enough for them to be able to make a decision. It presents treatment plans in a way that patients can understand the cost components and what they are."
- Optimized customer feedback collection.** Interviewees noted that CareStack enabled employees to regularly invite patients to leave reviews post-visit using its patient engagement function, improving reputation and organically growing the practices. The RCM director at a DPO said: "We're consistently getting good reviews and improving our rankings. That's how we're getting most of our patients, we don't have to spend much in marketing dollars."
- Improved cross-location best practice sharing.** Interviewees noted that employees at each location have visibility of analytics beyond their own practice. This encouraged them to collaborate and learn from the more advanced practices. The director of operations at a private

practice added: “CareStack enabled practices to interact better by seeing each other’s data, pushing, and leaning on each other. One practice contacted another to say, ‘My doctors are frustrated because our appointment times are always behind, how are you staying ahead?’”

- **Tailored coaching.** Interviewees could review and compare production analytics to identify growth opportunities for individual dentists, such as enhancing technical competency for procedures they felt less confident performing, improving chairside manner, or assessing capacity management to avoid burnout. The RCM director at a DPO explained: “We want to make sure they’re utilizing their time properly. We’re able to pull different amounts of data for our newer dentists to coach them and to increase their production per hour, helping them to make the best clinically informed decisions. We monitor whether they want to do crazy tons of treatments too.” This interviewee’s organization recorded anecdotal examples of dentists raising individual production by 10% to 25%.
- **Leveraged initiatives powered by CareStack analytics.** Interviewed leaders leveraged their organizations’ global data visibility to optimize operations and increase production. Initiatives included raising hygienist reappointment rates and prioritizing which patients to target. The director of operations at a private practice explained how their organization prioritized patients based on their visit behaviors, stating, “We tracked the cancellations or no shows and we look at how many times patients were calling to reschedule their appointment and assigned them on the scale of one to 10.”

Modeling and assumptions. For the composite, Forrester makes the following assumptions:

- Daily production across 10 practices in the composite is calculated based on each practice having three hygienists attending 10

“Because we can see everything, we are more aware when we need to schedule more appointments. I’d say schedules are 30% to 40% fuller.”

Regional manager, DPO

appointments each at a rate of \$100 per appointment, and two dentists completing 12 appointments each at a rate of \$200 per appointment.

- Production increases by 20% in Year 1. The impact of some of the factors described above is immediate, while others take time to implement and realize value. As a result, the composite sees further improvements in subsequent years, increasing to 40% in Year 3. The composite forms a centralized scheduling team in Year 2 and continues to improve its processes to achieve these further improvements.
- The operating profit margin for healthcare facilities is assumed to be 20%.
- Half of the profit uplift is attributed to CareStack.

Risks. Risks estimate the possibility that an investment may not result in the expected outcomes. TEI risk factors include uncertainty in model inputs, variability in the audience, and real-world business factors that can affect the actual financial impact of an investment. Risks that could impact the realization of this benefit are:

- The existing skill level of employees.
- The previous management of practices, including governance, processes, and systems used.
- The effort organizations dedicate to optimize processes using CareStack functionalities.

- Other factors impacting revenue, e.g., changes to fee agreements with insurers.

Results. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year total of \$1.3 million that is risk-adjusted and discounted into present value at 10% interest rate.

Increased Profit From Fuller Schedules					
Ref.	Metric	Source	Year 1	Year 2	Year 3
A1	Daily production scheduled pre-CareStack	Composite	\$78,000	\$78,000	\$78,000
A2	Increased production	Interviews	20%	30%	40%
A3	Annual revenue uplift	A1*A2*260 working days	\$4,056,000	\$6,084,000	\$8,112,000
A4	Operating margin	TEI standard	20%	20%	20%
A5	Attribution to CareStack	Interviews	50%	50%	50%
At	Increased profit from fuller schedules	A3*A4*A5	\$405,600	\$608,400	\$811,200
	Risk adjustment	↓15%			
Atr	Increased profit from fuller schedules (risk-adjusted)		\$344,760	\$517,140	\$689,520
Three-year total: \$1,551,420			Three-year present value: \$1,258,853		

IMPROVED REVENUE CYCLE MANAGEMENT

Evidence and data. Interviewees noted that their organizations streamlined RCM processes and collected payments sooner. Employee efficiency improved with standardized and easy-to-navigate fee schedules and better visibility of claims submission status. RCM effectiveness and efficiency further improved as the interviewees' organizations set up centralized RCM teams.

- Before CareStack, the interviewees' organizations experienced longer Day sales outstanding of 20 to 40 days. They reported reductions in the range of 30% and even up to 50%. The regional manager at a DPO recalled CareStack lowering the number of rejected claims due to human error: "Now we have 5% — minimal number of claims rejected currently. We used to have 30 pages of rejected claims."
- Interviewees described how CareStack improved insurance claims management. The RCM director at a DPO described, "Within one software, you're able to see it from start to finish, submit the claims, see if anything gets easily rejected by your clearing house, fix those, send them out, and have an easy way to track your days sales outstanding."
- The same interviewee elaborated that creating a centralized team has enabled them to further improve efficiency, both for the team members and the managers: "We're able to use our centralized billing department as a training ground for people who don't have dental experience. It's a lot easier to manage it from a centralized perspective, I can pop in there three times a week and see how things are going rather than having one person at each location."

Modeling and assumptions. For the composite, Forrester makes the following assumptions:

FIGURE 4

52%

of respondents noted their dental organizations faced challenges with optimizing revenue cycles to improve cash flow.

Base: 52 decision-makers for practice management at US multisite dental organizations
Source: A commissioned study conducted by Forrester Consulting on behalf of Straumann, July 2023

- The annual revenue is the sum of the \$20 million before CareStack, and the additional revenue as calculated in A3.
- Day sales outstanding before CareStack is 30 days, improving by 20% in Year 1. Centralizing the RCM function combined with continuous process improvements and training yielded further reductions of 30% in Year 2 and 35% in Year 3.
- Receiving payments sooner means the same amount is worth more in present value. The interest earned is calculated based on a 10% annual rate of return.
- Before CareStack, each location spent 20 hours per week managing claims and collections, totaling 10,400 hours across the organization annually.
- Efficiency improved along with day sales outstanding by 20% in Year 1, increasing to 50% in Year 3.
- Forrester uses the fully burdened hourly rate when calculating salaries. This is 1.35 times of the base salary to account for additional costs to

the employers, such as benefits, desk space, technology and equipment, and taxes.

- Forrester assumes that 60% of the employee time savings is recaptured and applied to productive work in Year 1. Employees reinvest their time into patient care on-site, scheduling, and other responsibilities. Following centralization in Year 2, productivity recapture rises to 90% with the team specializing in RCM activities.
- Fifty percent of the RCM improvement is attributed to CareStack.

Risks. The value of this benefit is contingent on RCM processes and systems before CareStack, skills and capacity of employees, and effort organizations make to optimize and redesign RCM processes.

Results. To account for these risks, Forrester adjusted the benefit value downward by 10%. The three-year, risk-adjusted total PV for this benefit is \$162,000.

Improved Revenue Cycle Management					
Ref.	Metric	Source	Year 1	Year 2	Year 3
B1	Annual revenue	\$20 million + A3	\$24,056,000	\$26,084,000	\$28,112,000
B2	Day sales outstanding before CareStack	Interviews	30	30	30
B3	Faster collection	Interviews	20%	30%	35%
B4	Reduction in day sales outstanding	B2*B3	6	9	11
B5	Subtotal: Interest gained from faster collection	$B1 * (1 + 10\% / 365)^{B4} - B1$	\$39,571	\$64,387	\$84,837
B6	Hours spent managing claims and collections before CareStack	Interviews	10,400	10,400	10,400
B7	Efficiency improvement	Interviews	20%	40%	50%
B8	Productivity recapture	TEI standard	60%	90%	90%
B9	Revenue cycle management employee average fully burdened hourly rate	TEI standard	\$27	\$27	\$27
B10	Subtotal: Improved RCM efficiency	$B6 * B7 * B8 * B9$	\$33,448	\$100,344	\$125,431
B11	Attribution to CareStack	Interviews	50%	50%	50%
Bt	Improved revenue cycle management	$(B5 + B10) * B11$	\$36,510	\$82,366	\$105,134
	Risk adjustment	↓10%			
Btr	Improved revenue cycle management (risk-adjusted)		\$32,859	\$74,129	\$94,620
Three-year total: \$201,608			Three-year present value: \$162,225		

SYSTEMS CONSOLIDATION

Evidence and data. Minimizing IT complexity was a driver to adopt or switch to a new practice management solution for 27% of the survey respondents. Interviewees described how migrating to CareStack enabled them to consolidate systems:

- Interviewees estimated that the cost of their organizations' CareStack subscription was comparable to the annual licensing fees of their legacy solution, and in some cases, \$200 to \$300 cheaper per month than the legacy solution.
- Before CareStack, the interviewees' organizations used additional solutions to manage processes including patient engagement, RCM, and analytics. Interviewees reported annual savings in the range of \$30,000 for one subscription to over \$50,000 for four subscriptions.
- Switching to CareStack's cloud platform reduced server maintenance costs that the interviewees' organizations previously incurred from operating an on-premises practice management solution.
- Interviewees noted reduced vendor management costs from consolidating multiple solutions into CareStack. The director of operations at a private practice commented, "Reduced bolt-on services

that were causing additional payroll dollars, all of those are vendor relationships you have to manage."

Modeling and assumptions. For the composite, Forrester makes the following assumptions:

- The avoided cost for legacy solution licensing is \$650 per location per month, totaling \$78,000 per year for the composite organization.
- The avoided subscription cost of additional solutions is \$40,000 per year for the composite.
- The maintenance cost of on-premises solutions is estimated at 20% of the solution's licensing cost.

Risks. The value of this benefit varies depending on:

- The pricing structure of legacy solutions.
- The number of solutions previously adopted to manage operations.
- The complexity of the organization's tech stack.
- The timeline of decommissioning systems.

Results. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year risk-adjusted total PV of \$282,000.

Systems Consolidation

Ref.	Metric	Source	Year 1	Year 2	Year 3
C1	Avoided licensing cost of legacy practice management solution	Interviews	\$78,000	\$78,000	\$78,000
C2	Avoided subscription cost of additional solutions	Interviews	\$40,000	\$40,000	\$40,000
C3	Reduced maintenance cost of on-premises solutions	Composite	\$15,600	\$15,600	\$15,600
Ct	Systems consolidation	C1+C2+C3	\$133,600	\$133,600	\$133,600
	Risk adjustment	↓15%			
Ctr	Systems consolidation (risk-adjusted)		\$113,560	\$113,560	\$113,560
Three-year total: \$340,680			Three-year present value: \$282,407		

UNQUANTIFIED BENEFITS

Interviewees mentioned the following additional benefits that their organizations experienced but were not able to quantify:

- **Enhanced patient experience.** Describing the ideal patient experience that their organization strived to provide, the RCM director at a DPO said, “When a patient comes in, they should have the entire attention of the staff in front of them.” CareStack enabled interviewees’ organizations to deliver the following:
 - **Smoother patient onboarding.** New patients could fill in forms online prior to their appointments, saving time for both the patient and the front desk and reducing the risk of delay in care. According to the director of operations at a DSO, “New patients don’t have to come in 30 to 45 minutes before the appointment — they get everything done before they come in.”
 - **Convenience with online self-service.** The director of operations at a private practice said: “Our patients like having a patient portal. They’re maximizing their time. The 15-minute intake time that we had [before an appointment] now becomes a two-to-three-minute check-in.”
 - **Secured patient trust with transparent treatment costs.** The director of operations at a private practice said: “If you don’t have patient balances after the claim cycle, you have happier patients ... they can trust that whatever you say they owe you at the time of appointment, it’s the only thing you’re going to ask from them and that’s why they keep coming back.”
- **Improved analytics visibility.** A DPO’s regional manager illustrated that having access to all

locations in one system improved ease of oversight, noting, “I have global access, I can go through schedules of all practices in maybe less than a half an hour.” It also empowered managers with data to optimize operations. The RCM director at another DPO pointed out: “I have easy access to tons of data. I can pull a report on basically anything I want. We can’t fix what we can’t see.”

- **Increased forecast accuracy.** Forecasts become closer to actual levels of production with CareStack. The regional manager at a DPO explained how it enabled their organization to plan and act on the figures, stating, “Now you have an actual production number that you can go by, to guide you in your collections.”

“The more efficient you are with patient care, the more satisfied the patient is.”

Regional manager, DPO

FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement CareStack and later realize additional uses and business opportunities, including:

- **Greater agility powered by cloud solutions.** Moving to CareStack’s cloud practice management system not only reduced hosting and maintenance costs, but also provided much needed robust systems for them to scale the organization. The founder of a DSO said: “That’s the primary benefit of what we’re trying to achieve and that’s been fantastic. It has made accessibility at remote locations, after hours, at home much simpler. It minimized the need for the

number of robust servers that we needed for the on-premises system.”

- **Ability to scale with confidence in data security.** The director of operations at a private practice recognized that having a global instance of a practice management system improved data security: “It gives us a sense of security with public health information. Before, being on different servers, you had to share that information via email, and we all know emails are not as secure as they could be.”
- **Roll out of CareStack in newly acquired practices.** The interviewees’ companies grew significantly, both organically and through acquisitions. The RCM director at a DPO said: “We are in the business of acquisitions, usually one acquisition every two months. ... In most of them, we go live with CareStack within three to six months of acquiring.”

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in [Appendix A](#)).

Analysis Of Costs

■ Quantified cost data as applied to the composite

Total Costs							
Ref.	Cost	Initial	Year 1	Year 2	Year 3	Total	Present Value
Dtr	CareStack subscription cost	\$0	\$88,200	\$88,200	\$88,200	\$264,600	\$219,340
Etr	Deployment and training costs	\$199,523	\$0	\$0	\$0	\$196,863	\$199,523
	Total costs (risk-adjusted)	\$199,523	\$88,200	\$88,200	\$88,200	\$461,463	\$418,863

CARESTACK SUBSCRIPTION COST

Evidence and data. The interviewees noted their organizations subscribed to CareStack on a per practice basis with no restrictions on the number of users. The subscription provided access to CareStack’s core functionalities. Furthermore, one interviewee mentioned their organization subscribed to additional CareStack functionalities and services outside of its core platform.

Modeling and assumptions. The composite incurs a CareStack subscription cost of \$700 per month per location, amounting to \$84,000 annually.

Risks. The cost may vary depending on:

- The number of practices using CareStack.
- Any additional CareStack functionalities and services an organization adopts.

- Any potential price increases.

Results. To account for these risks, Forrester adjusted this cost upward by 5%. The three-year, risk-adjusted total PV (discounted at 10%) is \$219,000.

CareStack Subscription Cost						
Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
D1	CareStack subscription cost	Composite		\$84,000	\$84,000	\$84,000
Dt	CareStack subscription cost	D1	\$0	\$84,000	\$84,000	\$84,000
	Risk adjustment	↑5%				
Dtr	CareStack subscription cost (risk-adjusted)		\$0	\$88,200	\$88,200	\$88,200
Three-year total: \$264,600			Three-year present value: \$219,340			

DEPLOYMENT AND TRAINING COSTS

Evidence and data. Interviewees collaborated with the CareStack team to deploy and roll out the solution in their locations. Interviewees described the costs and effort this process entails as follows:

- The go-live timeline for a conversion from a legacy system ranged from three weeks on average for one interviewee’s organization, to up to three to four months for another. In the more complex cases, the timeline was extended to up to six months. One interviewee also provided that they went live with a greenfield (i.e., de novo) implementation as fast as 2 hours.
- Prior to go-live, the interviewees noted their tasks included preparing and cleaning data in the legacy system, selecting data fields to convert, and testing the conversion in the sandbox.
- Interviewees emphasized that active change management and adoption support were critical in the initial weeks post go-live. The director of operations at a private practice recalled: “We knew that there were going to be some challenges. We identified best practices for what works in training and what doesn’t. ... We asked a lot of questions around feelings and culture, ‘Are you bought into this as much as we are? How is it working? What needs to be fixed?’ and then took that information back to CareStack.”
- CareStack’s customer success managers (CSM) provided interviewees with consistent support beyond the initial go-live phase. The interviewees trusted them when they needed a sound board. The regional manager at a DPO said: “Their team of CSMs helped me put the ideas together. They want CareStack to grow, and they work with us as their partners, so we grow too.”
- Interviewees noted that self-paced learning at CareStack University served as a foundation for users to familiarize themselves with CareStack’s functionalities.

Modeling and assumptions. For the composite, Forrester makes the following assumptions:

- The implementation fee paid to CareStack is \$1,200 per location.
- Deployment and change management efforts are calculated on a per location basis.
- For each location, two employees dedicate a total of 120 hours preparing for go-live over a period of one month. The team comprises of a senior operations leader and a junior employee.
- A six-week change management period takes place where a manager attends each location on site, full-time in the first week and 30% of their time in the subsequent weeks.
- Around go-live, each user spends 8 hours undergoing training on using CareStack.

Risks. This cost may vary depending on:

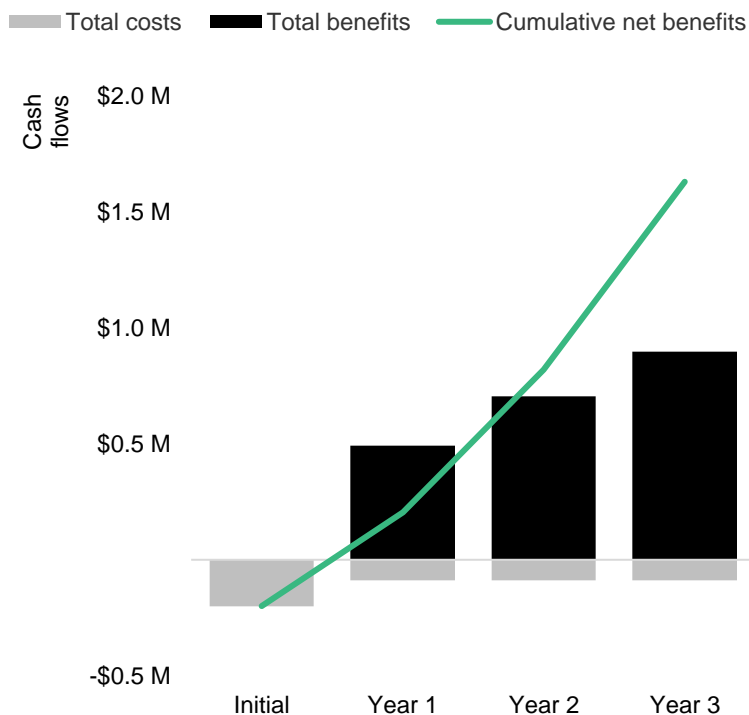
- Deployment approach (e.g., conversion, greenfield implementation, etc.).
- Complexity of the deployment (e.g., existing tech stack, existing processes, volume of data, etc.).
- Level of support, training, and change management required, often influenced by digital maturity of employees and flexibility to adapt new to processes.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of \$200,000.

Deployment And Training Costs						
Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
E1	Number of locations	Composite	10			
E2	Implementation fee per location	Interviews	\$1,200			
E3	Number of person hours per location for deployment	Interviews	120			
E4	Deployment team fully burdened average hourly rate	TEI standard	\$46			
E5	Manager's change management effort per location (hours)	Interviews	100			
E6	Manager fully burdened hourly rate	TEI standard	\$62			
E7	Training time per user before go-live	Interviews	8			
E8	Number of users	Composite	115			
E9	Average user (clinical and nonclinical) fully burdened hourly rate	TEI standard	\$57			
Et	Deployment and training costs	$E1+E2*(E3*E4+E5*E6)+E7*E8*E9$	\$181,385	\$0	\$0	\$0
	Risk adjustment	↑10%				
Etr	Deployment and training costs (risk-adjusted)		\$199,523	\$0	\$0	\$0
Three-year total: \$199,523			Three-year present value: \$199,523			

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

Cash Flow Chart (Risk-Adjusted)



The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

These risk-adjusted ROI, NPV, and payback period values are determined by applying risk-adjustment factors to the unadjusted results in each Benefit and Cost section.

Cash Flow Analysis (Risk-Adjusted Estimates)

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	(\$199,523)	(\$88,200)	(\$88,200)	(\$88,200)	(\$464,123)	(\$418,863)
Total benefits	\$0	\$491,179	\$704,829	\$897,700	\$2,093,708	\$1,703,485
Net benefits	(\$199,523)	\$402,979	\$616,629	\$809,500	\$1,629,585	\$1,284,622
ROI						307%
Payback						<6 months

Appendix A: Total Economic Impact

Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

TOTAL ECONOMIC IMPACT APPROACH

Benefits represent the value delivered to the business by the product. The TEI methodology places equal weight on the measure of benefits and the measure of costs, allowing for a full examination of the effect of the technology on the entire organization.

Costs consider all expenses necessary to deliver the proposed value, or benefits, of the product. The cost category within TEI captures incremental costs over the existing environment for ongoing costs associated with the solution.

Flexibility represents the strategic value that can be obtained for some future additional investment building on top of the initial investment already made. Having the ability to capture that benefit has a PV that can be estimated.

Risks measure the uncertainty of benefit and cost estimates given: 1) the likelihood that estimates will meet original projections and 2) the likelihood that estimates will be tracked over time. TEI risk factors are based on "triangular distribution."

The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1 that are not discounted. All other cash flows are discounted using the discount rate at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations in the summary tables are the sum of the initial investment and the discounted cash flows in each year. Sums and present value calculations of the Total Benefits, Total Costs, and Cash Flow tables may not exactly add up, as some rounding may occur.



PRESENT VALUE (PV)

The present or current value of (discounted) cost and benefit estimates given at an interest rate (the discount rate). The PV of costs and benefits feed into the total NPV of cash flows.



NET PRESENT VALUE (NPV)

The present or current value of (discounted) future net cash flows given an interest rate (the discount rate). A positive project NPV normally indicates that the investment should be made, unless other projects have higher NPVs.



RETURN ON INVESTMENT (ROI)

A project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits less costs) by costs.



DISCOUNT RATE

The interest rate used in cash flow analysis to consider the time value of money. Organizations typically use discount rates between 8% and 16%.



PAYBACK PERIOD

The breakeven point for an investment. This is the point in time at which net benefits (benefits minus costs) equal initial investment or cost.

Appendix B: Interview And Survey Demographics

Interviews			
Role	Business Model	Markets	Number Of Practices Using Care Stack
RCM director	Dental partnership organization (DPO)	US	25
<ul style="list-style-type: none"> • Director of operations • Founder 	Dental service organization (DSO)	US	10
Regional manager	Dental partnership organization (DPO)	US	20
Director of operations	Private practice	US	5

Survey Demographics		
Geography	Business Model	Number Of Practices
United States (100%)	Private practice (35%)	5 to 14 (65%)
	Dental partnership organization (33%)	15 or above (35%)
	Dental support/service organization (33%)	

Role	Seniority	Practice Management Responsibility
Clinical/medical (38%)	C-level executive (15%)	Final decision-maker (25%)
Operations (27%)	Vice president (29%)	Part of team making decisions (75%)
Finance (15%)	Director (40%)	
Owner/founder (12%)	Manager (15%)	
IT/innovation (8%)		

Note: Percentages may not total 100 due to rounding.

Appendix C: Supplemental Information

Related Forrester Research

[“Why CX For Healthcare: Proof That Investing In Experience Improves Revenue, Cost, And Resilience,”](#) Forrester Research, Inc., August 8, 2023.

Appendix D: Endnotes

¹ Base: 52 decision-makers for practice management at US multisite dental organizations; Source: A commissioned study conducted by Forrester Consulting on behalf of Straumann (see Figure 1).

² Source: [“The State Of Customer Obsession, 2022,”](#) Forrester Research, Inc., Sep 12, 2022.

³ Total Economic Impact is a methodology developed by Forrester Research that enhances a company’s technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

FORRESTER®