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Canada Health Infoway

doctors of bc

Evaluation of the Impact of AI Scribes on Primary Care and Community-Based Speciality Care

Doctors of BC Burdens Pilot

Conducted by: Amplify Care

April 2025

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Acknowledgements

Appreciation is extended the partners in this project: to Doctors of BC for their leadership in project coordination, participant recruitment, and change management support. Their efforts in identification and ongoing engagement with participants was invaluable. Amplify Care (formerly the eHealth Centre of Excellence) is acknowledged for their planning and execution of the evaluation and reporting on behalf of Canada Health Infoway and Doctors of BC.

The partners wish to acknowledge the funding support provided by Canada Health Infoway, which made the evaluation of this pilot project possible. Gratitude is expressed to all the physicians involved who shared their experiences with AI scribes, and for those who dedicated time to completing the detailed data collection tools. The authors further acknowledge the physicians involved in the review of data collection materials and survey questions for their thoughtful feedback and input, which greatly enriched the pilot. The authors also recognize the contributions of the vendors for their provision of project support and vendor metrics.

Land Acknowledgement

Doctors of BC humbly acknowledges the traditional territories of First Nations within British Columbia and that our offices are situated on the unceded territories of the xʷməθkʷəy̓əm (Musqueam), Sḵwx̱wú7mesh (Squamish), and Sə́lílwətaʔ (Tsleil-Waututh) Nations. For Doctors of BC, acknowledging the traditional territories is an expression of cultural humility that involves recognizing our commitment to support the provision of culturally safe care to First Nations, Inuit, and Métis people in BC.

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We acknowledge that the Amplify Care office in Kitchener, Ontario, is located on the traditional land of the Anishinaabe and Haudenosaunee peoples.We also recognize the contributions of the Attawandaron, Métis, Inuit, and other Indigenous peoples have made, both in shaping and strengthening this community, in particular, and our province and country as a whole.

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Executive Summary

Background

Artificial Intelligence (AI) scribes are AI-driven systems designed to assist healthcare providers by automatically generating clinical documentation during patient encounters. These tools utilize technologies such as speech recognition and natural language processing to transcribe and summarize conversations between clinicians and patients, aiming to reduce administrative burdens and enhance the quality of patient care. The adoption of AI scribes in Canada is increasing in popularity, with ongoing discussions and projects regarding their potential benefits and challenges. AI scribes represent a promising development in healthcare, offering the potential to reduce administrative workloads and enhance patient care. However, careful consideration of their limitations, particularly concerning accuracy and privacy, is essential to support informed adoption and employment of emerging tools. Ongoing research and adherence to practice standards will be crucial in guiding the effective and ethical implementation of AI Scribe technology in Canada.

The AI Scribe Burdens Pilot explored implementing AI Scribes to mitigate physicians' administrative burdens. As physicians seek solutions for the unsustainable workload brought by increasing administrative demands, there is a need to ensure that new tools bring demonstrable benefits to physician experience and patient experience. This pilot explored physician experiences of using an AI Scribe, with a focus on the potential for time savings and reduction of administrative and cognitive burden for physicians.

Evaluation Goals

The evaluation of this pilot had three main goals:

1. Explore the Impact of the AI Scribes on administrative burden and physician burnout
2. Investigate the technical performance of the AI Scribes, and
3. Capture the patient perspective of using AI Scribes during their physician encounters

Methods

The pilot project took place from October 2024 to January 2025, during which physicians from British Columbia received licenses to trial one of three AI Scribes for a period of 6 weeks in their different practice settings. Doctors of BC directly engaged participants, with a focus on obtaining diversity in multiple areas including demographics and practice characteristics. Participants included family physicians and specialists working in community.

Data Sources

Participants completed a series of data collection tools, including:

1. **Intake Survey:** To assess participants' perception and knowledge of AI Scribes prior to implementation

2. **Closing Survey:** To assess participants' perception and experience with AI Scribe implementation and use in their practice
3. **Time Tracking Study:** A measure of appointment length with and without the use the AI Scribe, exploring different types of appointments and patient complexity
4. **Pilot Participant and Expert Focus Groups**: A deep dive into the lived experience with AI Scribe use, building on findings from the previous data collection tools

Patients were given the opportunity to provide feedback on their experience with the AI Scribe through:

5. **Patient Experience Survey:** To gain insights into patient experience and comfort using AI Scribes for their physician encounters

Finally, vendor metrics were provided by each of the AI Scribe vendors

6. **AI Scribe Vendor Metrics:** To further explore the technical uses of AI Scribes within practices, e.g., template usage and frequency of use

Key Findings

Reductions in Administrative Burden and Physician Burnout

- Family physicians indicated a reduction in after-appointment documentation time of an average of **3.4 minutes per appointment**, per physician with the use of the AI Scribe.
    - When further investigated for appointment type, documentation time reductions were seen for simple and complex appointments, with greater reductions for complex appointments. Reductions also were applicable to both intake and virtual appointments, indicating the **versatility of AI Scribe use, and the potential for frequent use and maximized time-savings**.
    - Use of **EMR-Integrated AI Scribes** has the potential to further increase time savings for family physicians. Physicians who used EMR-integrated AI Scribes had larger reductions in documentation times than those who used non-integrated AI Scribes
- Self-perceived reduction in total administrative time was calculated as an average of **2.7 hours per week** for family physicians, with **2.1 hours per week** being reduced for after-hours documentation.
- Reduction in time-tracked documentation time was **not seen for community-based specialist physicians**, although they did indicate other benefits to AI Scribe use such as decreased time on their computer and more time focused on patients.

"This is practice changing. It brings the joy back into practice ...now we can just be doctors" (Focus Group Participant).

Technical Performance of AI Scribes

- Physicians in this pilot used the AI Scribes for over **7,000 appointments**, with an average of **270 appointments per physician**.

- Majority of physicians reported the AI Scribe's documentation to be accurate overall, but many participants indicated errors (i.e., hallucinations) that could result in inaccurate documentation without the physician correcting it. Similarly, there was a proportion of physicians who indicated these errors were not minimal and could have an impact on their note accuracy.
- Participants in this pilot trialed multiple AI Scribe features. The most popular feature was the use of templates, specifically SOAP and SOAP templates for multiple issues. The Scribes were also used for their other AI functions, such as "Ask AI" for summaries and the creation of documents.
- Physicians noted the **importance of reliability** in the software and a hesitation to stop taking their own notes. Technical challenges and glitches can reduce efficiencies and could also lead to a loss of information.

"I think it would be very dangerous to relax because I have to correct something... [frequently]" (Focus Group Participant).

"Sometimes [AI Scribes] writes the note so well that on a couple times I've sent it to my patients to help them kind of think about what we talked about in the session." (Focus Group Participant).

Change Management

- Participants indicated that the AI Scribes were easy to use and a **smooth adoption and learning process.**
- Participants spent **3.5 hours, on average, learning how to use the AI Scribe,** and an additional 3.4 hours adjusting the AI scribe to suit their needs. This investment in time could be quickly accounted for with the reduction in administrative burden highlighted in other data measures within this pilot.
- The technical support and orientation package was sufficient to provide participants with what they needed to successfully implement the AI Scribe into their practice. This included video demos, information documentation, and one-on-one support.
- **Peer support** was flagged as one of the most useful factors in learning, indicating the need for clinician champions to assist in learning for AI Scribes.
- **More time** (longer than 4-6 weeks) to use AI Scribes could further increase efficiencies and benefits.

"I feel more time and discussion and collaboration with colleague(s) using (the) same scribe would be important" (Closing Survey).

Patient Experience

- **98%** of patients agreed that they felt comfortable with their doctor using the AI Scribe during their visit.
- **78%** of patients indicated that their doctor was able to pay more attention to them during their visit.
- **73%** of patients indicated that their doctor was able to spend less time on their computer during their visit.
- Physician perceptions indicated an overall positive response to AI Scribes from their patients.

“My patients were incredibly supportive” (Closing Survey).

Conclusion

Physicians provided insights into the adoption process, the impact on workflow and administrative burdens, and the technical performance of the AI Scribe. Key findings revealed that AI Scribes can effectively reduce administrative workloads for family physicians and be applied across various appointment types and documentation methods. The study also emphasized the importance of change management and offered practical recommendations for successful implementation. Additionally, the pilot captured patient perspectives, noting that most patients were comfortable with AI Scribe use and that the technology has the potential to improve the quality of their visits. Looking ahead, future evaluations will focus on the long-term benefits of reduced administrative workload for physicians and explore how continuous enhancements to AI Scribe features could further improve patient care by enhancing data quality and reducing physician burdens.

1. Background

1.1 Introduction

Artificial Intelligence (AI) Scribes, also known as ambient scribes or digital scribes, are AI-driven systems designed to assist healthcare providers by automatically generating clinical documentation during patient encounters. These tools utilize technologies such as speech recognition and natural language processing to transcribe and summarize conversations between clinicians and patients, aiming to reduce administrative burdens and enhance the quality of patient care.

AI Scribes operate by listening to real-time interactions during clinical visits and producing corresponding documentation for the electronic medical record (EMR). This automation allows healthcare providers to concentrate more on patient engagement rather than on notetaking. Studies have indicated that AI Scribes can decrease documentation time, alleviate physician burnout, and improve the quality of medical notes by ensuring they are timelier and more comprehensive (Agarwal, Lall, & Girdhari, 2024).

Despite their advantages, AI Scribes are not without challenges. The accuracy of the generated documentation can vary, with potential errors such as "hallucinations" (documenting events that did not occur) or omissions of critical information. Clinicians must meticulously review and edit AI-generated notes to ensure their accuracy and completeness, with particular focus on identifying hallucinations. (Agarwal, Lall, & Girdhari, 2024). Privacy and data security are also significant concerns, especially regarding how patient information is stored, accessed, and utilized by AI Scribe systems. In Canada, healthcare providers must ensure that any AI Scribe technology complies with local privacy regulations, including the Personal Information Protection and Electronic Documents Act (PIPEDA). The Canadian Medical Protective Association advises physicians to understand the legal implications of AI use, emphasizing the importance of data security and patient confidentiality (The Canadian Medical Protective Association, 2023).

The adoption of AI Scribes in Canada is increasing in popularity, with ongoing discussions and projects exploring their potential benefits and challenges. AI Scribes represent a promising development in healthcare, offering the potential to reduce administrative workloads and enhance patient care. However, careful consideration of their limitations, particularly concerning accuracy and privacy, is essential.

Ongoing research and adherence to regulatory standards will be crucial in guiding the effective and ethical implementation of AI Scribe technology in Canada.

1.2 AI Scribes Burden Pilot

As physicians grapple with unsustainable workloads and administrative burden that detracts from patient care, AI Scribes are one of the newer technologies explored as a potential solution. The objective of this pilot is to better understand community physician experiences with AI Scribes in practice, with a particular focus on understanding the potential impact on administrative burdens, daily documentation demand and patient care.

Learnings around AI Scribes impact in practice are being shared collaboratively and supported at a national level by Canada Health Infoway, reflective of their mandate to deliver connected care across Canada through the interoperability roadmap. Success will require innovation to enable clinicians to efficiently and effectively capture and structure patient health information. Amplify Care has supported Canada Health Infoway by working closely with Doctors of BC to lead an evaluation of the impact of AI Scribes on physician and patient experiences.

The AI Scribe Burdens Pilot explored the possibility of implementing AI Scribes to mitigate physicians' administrative burdens. As physicians seek solutions for the unsustainable workload brought by increasing administrative demands, there is a need to ensure that new tools bring demonstrable benefits to the physician experience, the patient experience, and do not bring their own layers of challenge and burden to the practice setting.

This pilot explored physician experiences of using an AI Scribe, with a focus on the potential for time savings and reduction of administrative and cognitive burden for physicians. Pilot participants included family physicians and community-based specialists, with some participants completely new to AI Scribes and others already in active exploration or regular use in practice. This pilot was developed with consideration of insights from the 2024 Doctors of BC Community-Based Specialist Pilot, as well as prior work with AI Scribes in Ontario (Elevate Consulting, 2024; Women's College Hospital, 2024). It aimed to provide both qualitative and quantitative data on physician experiences using AI scribes across diverse clinical practice settings in BC. A variety of AI Scribe tools were utilized by participants, including those integrated with EMR integrated and stand-alone EMR use.

Better understanding community-based physician experiences with AI Scribes in a range of clinical contexts in BC opens the door to a host of opportunities, including identifying and developing support pathways and resources for physicians and practices. In addition, this data can enable strategic alignment with jurisdictional approaches to ensure maximum efficiency and enable efforts to leverage and spread learnings to benefit and further clinician knowledge and skills around tools that work effective to address administrative burden and empower physicians to focus on patient care.

2. Evaluation Goals and Activities

The overall goals of the Pilot Project were to:

Monitor adoption and use of AI Scribes and explore the realized organizational (workflow efficiency) and clinical (patient and provider) experience. The three main components were user experience and impact of the AI Scribes on physician burnout, technical performance of the AI Scribes, and the patient perspective of AI Scribe use during their physician encounters.

Evaluation Activities:	
1	**Intake Survey:** To assess participants' perception and knowledge of AI Scribes prior to implementation
2	**Time Tracking Study:** A measure of appointment length with and without the use the AI Scribe, exploring different types of appointments and patient complexity
3	**Closing Survey:** To assess participants' perception and experience with AI Scribe implementation and use in their practice
4	**Pilot Participant and Expert Focus Groups**: A deep dive into the lived experience with AI Scribe use, building on findings from the previous data collection tools
5	**Patient Experience Survey**: To gain insights into patient experience and comfort using AI Scribes for their physician encounters
6	**AI Scribe Vendor Metrics:** To further explore the technical uses of AI Scribes within practices, e.g., template usage and frequency of use

3. Data Analysis

3.1 Methods

The pilot project took place from October 2024 to January 2025 and explored community physician experiences with AI Scribes, with a focus on understanding the potential impact on administrative burdens. Family physicians and community-based specialists across British Columbia received licences to use one of three AI Scribes for a period of 6 weeks in their different practice settings. Participants were

engaged directly through Doctors of BC, with a focus on obtaining diversity across a range of criteria when possible, including practice type, geographic location (health authorities; rural vs. urban), gender, languages spoken, EMR used in practice, past experience with AI Scribes, technical expertise, and years in practice. Participants included family physicians and specialists working in community, with varying ranges of experience with AI Scribes - from brand new to advanced users. Participants reported on their experiences and perceptions through a variety of methods, including surveys, time tracking logs, and focus groups. Participants were compensated for their time spent on data collection. Patient perception was also sought to complement the understanding of the impact of AI Scribes on patient experience. To prepare for this pilot, participants were provided with comprehensive data collection tools, instructions, and a detailed pilot process document. Learnings from these previous initiatives (Elevate Consulting, 2024; Women's College Hospital, 2024) informed both our methodological framework and the development of data collection tools to support evaluation across varied clinical practice settings in BC. This document outlined all required tasks, activities, and relevant information, as well as key contact details for addressing any questions or concerns.

3.1.1 Intake and Closing Physician Surveys

This study included an intake and closing survey designed to evaluate changes in participants' knowledge, attitudes, and perceptions following use of an AI Scribe, as well as measures of time spent on specific tasks, such as administrative work and patient care. The survey consisted of multiple-choice, 5-point Likert scale items, and open-ended questions. Data were collected via Forms survey platform and compiled into a Microsoft Excel file for further analysis in SAS™(SAS) and NVIVO™ (NVIVO). Each survey is available in Appendix A.

The datasets for the intake and closing surveys were imported into SAS software for analysis. This analysis only included the intake and closing surveys for participants who submitted all data collection tools (n=32: intake survey, closing survey and time tracking). Survey items included paired responses from the intake and closing survey, For Likert and multiple-choice questions descriptive statistics were created to look at the frequency of responses for all questions and participants, and then cross tabulations were performed to examine specialists and family physicians separately. If available in both the intake and closing reports, answer frequencies were compared for differences. For self-reported numbers, mean comparisons were performed to evaluate the differences in self-report time at intake and closing across all participants,

separated for family physicians and specialists, and separated for EMR integrated or non-integrated scribe.

The intake and closing surveys included questions with free-text responses. The qualitative response analysis was conducted with NVIVO Software. Before importing the data into NVIVO, responses were reviewed and cleaned to ensure accuracy and relevance. Cleaning involved removing irrelevant or incomplete responses and standardizing the format of entries where necessary (e.g., correcting typos or abbreviations for consistency). NVIVO was selected for its ability to analyze free-text survey responses in a structured, systematic, and grounded approach in both data and theory, providing rich insights to inform this pilot's discussion. An initial set of codes was developed based on a combination of predefined themes (deductive coding) and emergent patterns observed in the data (inductive coding). Predefined themes were informed by the survey objectives. Emergent themes were identified through an iterative review of the data. Responses were reviewed and assigned to relevant codes. NVIVO's text search functionality was used to identify specific keywords or phrases related to the research questions. Word frequency queries provided insights into commonly used terms, which helped identify key themes. Finally, thematic relationships were explored by examining how codes grouped together and overlapped. To bring all this information together, matrix coding queries were employed to compare themes across contextual variables (such as the difference between specialist and family physician themes), revealing potential differences in response patterns.

3.1.2 Participant and Expert Focus Groups

There were four semi-structured focus groups conducted with participants (n=14), selected with the help of Doctors of BC. The participants represented novice, experienced, family physicians and community-based specialist users to ensure a diverse range of perspectives. Each group interview lasted approximately one hour, and consent was obtained for both audio recording and transcription of the sessions. Audio recordings of the interviews were captured using Microsoft Teams™ recording software. These recordings were transcribed automatically using the platform's transcription feature and then reviewed manually by the research team to ensure accuracy. Any identifying information in the transcripts was anonymized to maintain participant confidentiality. The focus groups were facilitated by the same moderator to ensure consistency in data collection. The data obtained from the focus groups were analyzed by a single analyst, independent of the facilitator, to maintain consistency and reliability in the

analysis process. The analysis followed thematic analysis, and this method was chosen for its suitability in capturing nuanced insights from textual data. The research team reviewed the transcripts and notes to immerse themselves in the data (Braun & Clarke, 2006). The data was uploaded, and a systematic coding process was applied using NVIVO software. Codes were developed inductively (emerging from the data) and deductively (based on pre-existing frameworks or research questions). Codes were organized into broader themes that captured patterns and relationships within the data.

3.1.3 Time Tracking Study

Participant data (n = 33) was collected as part of a time study measuring patient visit and documentation time without an AI Scribe (pre) and while using an AI Scribe (post). Each participant was asked to complete 15 appointments with and without the AI Scribe, and the time taken to complete each appointment was recorded. Because of varying numbers of responses from physicians, an average time for appointments with and without the AI Scribe was calculated for each physician, to allow for a paired sample analysis, and to ensure each physician contributed equal weight in the statistical analysis of responses. These data were imported from Excel into SAS. A Wilcoxon Rank-Sum Test was conducted to determine if the change in documentation time between appointments with and without the AI Scribe was statistically significant. This test was chosen after running a Shapiro-Wilk test for normality, which showed the data were non-normally distributed. This analysis was completed for three groups: all participants, family physicians and community-based specialist groups.

3.1.4 Patient Satisfaction Survey

Patient satisfaction data was anonymously collected online via a survey on Microsoft Forms™ using a QR code provided to patients from their physician office, or through a paper survey completed in office after their appointment. The dataset (n=108), which included single choice (Check boxes) and Likert-scale items, was imported from Excel into SAS. Descriptive statistics were computed for the both the Likert scale and single-choice questions, which provided frequency distributions and cumulative agreement/disagreement per response option. The patient surveys were not connected to the participating physicians to ensure unbiased data from patients.

3.1.5 Vendor Metrics

Finally, AI Scribe user data was collected from each AI Scribe vendor for eligible pilot participants (n=26) from October 1, 2024, to January 17, 2025. The metrics reported by each scribe vendor exhibited

variability, reflecting differences in their software outputs. To promote alignment in reporting, the evaluation team provided vendors with a standardized list of potential metrics at the outset of the pilot, and Vendors tried to align their usage data with the evaluation goals These datasets included categories such as notes created, number of encounters, and type of template used.

4. Results

This section is a summary of analysis across all data collection methods: Intake Survey and Closing Surveys, Without AI Scribe Time Tracking Sheet, with AI-Scribe Time Tracking Sheet, Key Informant Focus Groups, Vendor Metrics provided by each of the AI Scribe vendors, and the Patient Experience Survey. The results highlight key findings from each of the data collection efforts and are not exhaustive of all data collected for this pilot. All data can be found in the supplemental material provided to privileged parties. This section aims to showcase numerical and qualitative data that is important for the evaluation goals of this pilot. Interpretations of key findings are in the discussion section of this report.

Table 4.1 represents the number of physicians who returned each of the data collection tools by January 20th, 2025. For this report, only physicians who submitted data from all four data collection tools (Intake Survey, Without AI Scribe Time Tracking Sheet, Closing Survey, With AI-Scribe Time Tracking Sheet) were included in analysis. This was done to ensure a full data story across the pilot project and to allow for direct physician matching for areas of interest that are to be compared with and without the use of AI Scribe. All returned data is available for review in the supplemental material. Thirty-Two participants submitted all four data sources and will therefore make up the sample used for this report **(Table 4.1).**

Table 4.1: Summary of Returned Data Collection Tools by Physicians

Data Collection Tool	Number Completed & Returned
Survey Collection	
Intake Surveys	52
Closing Surveys	36
Time Tracking Sheets	
Completed Without AI Scribe	33
Completed with AI Scribe	33
Participants who Submitted all Data Tracking	
	32

4.1 Intake and Closing Survey Key Findings

The following section highlights key findings from two data collection methods: Intake Survey & Closing Survey. Where appropriate, the analysis has been separated by family physician and community-based specialist, to observe differences and similarities across the different roles within this pilot.

4.1.1 Characteristics of Participants

Within the intake survey (n=32), participants were asked questions about their practice and practice environment. Out of the physicians who returned all of their data collection tools, 23 (71.9%) were family physicians and 9 (28.1%) were community-based specialists. Most participants were in a group-based practice (n=25; 78.1%) and worked the equivalent of full-time hours (n=28; 87.5%). Four physicians identified their practice location to be rural (n=4; 12.9%) **(Table 4.2)**. The large majority of participants (n=31; 96.8%) offered virtual care, and all clinics were appointment based in some capacity. Thirteen participants (41.9%) offered care in languages other than English **(Table 4.2)**.

Table 4.2 Summary of Participant and Practice Characteristics

Characteristic	**Frequency of Responses (%)** (n=32)
Physician Type	
Family Physician	23 (71.9)
Community-Based Specialist	9 (28.1)
Practice Type	
Group	25 (78.1)
Solo	6 (18.8)
Other	1 (3.1)
Physician Working Hours	
Full-time (30+ hours per week)	28 (87.5)
Part-time (Less than 30 hours per week)	4 (12.5)
Practice Location	
Urban	28 (87.5)
Rural	4 (12.5)
Use of Virtual Care Appointments	
Not at this time	1 (3.2)
Yes (over 35% of visits)	14 (45.2)
Yes (under 35% of visits)	16 (51.6)
Appointment Structure	
Appointment based	27 (84.4)
Appointment, on call	4 (12.5)
Walk in Clinic, appointment based, on call	1 (3.1)
Provide Care in Languages other than English	
Yes	13 (41.9)
No	18 (58.1)
Missing	1

4.1.2 Scribe Use Prior to Pilot Implementation

In the Intake Survey, participants were asked questions about their previous scribe use. Almost half (n=15; 46.9%) of participants had previously used an AI Scribe in their practice **(Table 4.3)**. Of those who had had previous experience with AI Scribes, most selected that they would consider themselves at an Intermediate (n=8; 47.1%), or Novice (n=7; 41.2) level of skill when using AI Scribes **(Table 4.4)**.

Table 4.3 Participant responses to "*Are you a current or previous user of AI Scribes?*" (N=32)

Responses	Frequency of Responses n(%)
No, I have not used an AI Scribe in my Practice	15 (46.9)
Yes, currently using or testing AI Scribe (aside from this pilot)	12 (37.5)
Yes, but not using one at time of survey	4 (12.5)
Other	1 (3.1)

Table 4.4 Self-Perceived skill level with AI Scribes Responses to *"Please indicate your current level of competency with AI Scribes to support delivery of care:"* (N=17)*

Responses	Frequency of Responses n(%)
Expert	1 (5.8)
Intermediate	8 (47.1)
Novice	7 (41.2)
Prefer not to answer	1 (5.8)

**Only those who had used an AI Scribe before this pilot were asked this question*

4.1.3 AI Scribe Implementation and Use During Pilot

Participants were assigned one of three AI Scribes for this Pilot. One Scribe had EMR integration functionalities (n=12; 37.5%), where the other two did not (n=20; 62.5%) **(Table 4.5)**. When asked on the Closing Survey most participants either strongly agreed (n=12; 37.5%) or agreed (n=13; 40.6%) that their clinic had the necessary infrastructure to support scribe use **(Table 4.6)**.

Table 4.5 Users Assigned to each Scribe Vendor for Pilot Participation(N=32)

Scribe Vendor	EMR Integration	Frequency of Responses n(%)
Scribe 1	Yes	12 (37.5)
Scribe 2	No	11 (34.4)
Scribe 3	No	9 (28.1)

Table 4.6 Participant Responses to: *"I believe that my clinic had the necessary infrastructure to support the use of AI Scribes"* All Participants, Closing Survey Only (N=32)

Question Responses	Frequency of Responses n(%)
Strongly Agree	12 (37.5)
Agree	13 (40.6)
Neutral	5 (15.6)
Disagree	2 (6.3)
Strongly Disagree	0(0)

This pilot study had a rolling onboarding; therefore, participants used the AI Scribe for a different amount of time before completing their Closing Survey. Most participants (n=24; 75.0%) were able to use the AI Scribe for at least four weeks before the end of the pilot study **(Figure 4.1).** During their time using the AI Scribe, most participants stated that they used the AI Scribe "Very Frequently – Multiple Times a Day" (n=24; 75%). The most popular responses for "what proportion of appointments did participants use the AI Scribe" were 81-100% of appointments (n=11; 34.4%) and 21-20% of appointments (n=7; 21.9%) **(Table 4.7).**

Figure 4.1 Number of weeks participants used the scribe at the time of Closing Survey, All participants (N=32)

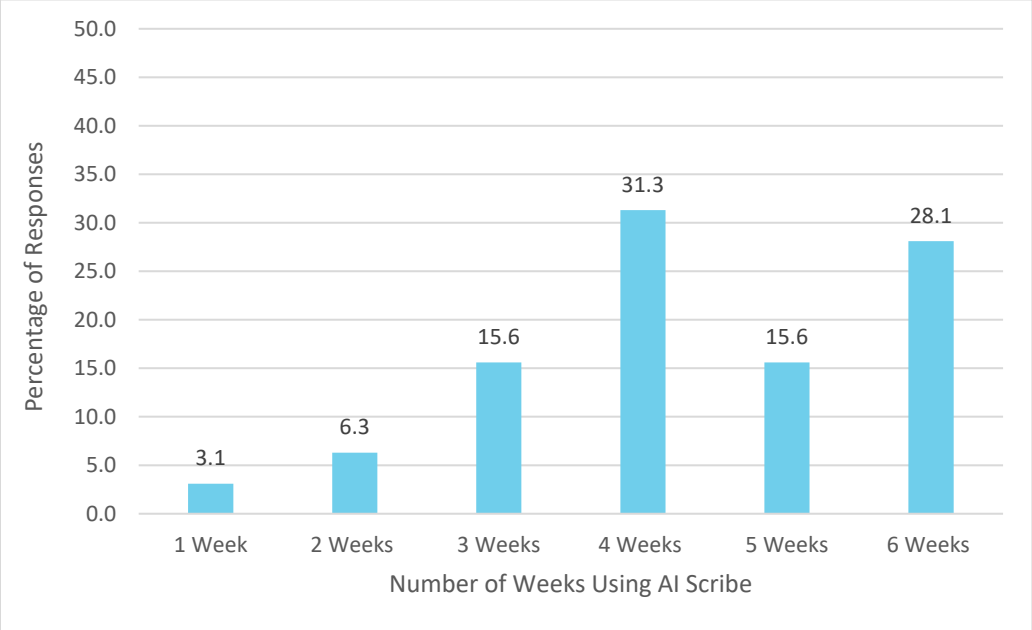


Table 4.7 Self-Perceived Frequency of Scribe Use During Pilot (N=32)

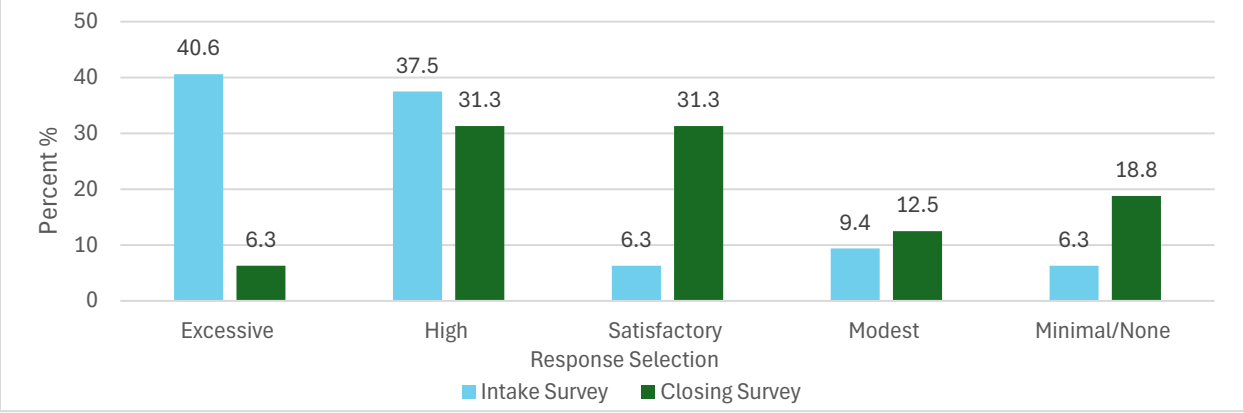
Question and Response	Frequency of Responses n(%)
"How frequently have you used the AI Scribe in your practice?" *	
Very Frequently – Multiple Times a Day	24 (75.0)
Intermittently – Several Times a Week	6 (18.8)
Less than once a week	1 (3.1)
Other – [one day a week for referred consultations]	1 (3.1)
Estimate of Percentage of Appointments using the AI Scribe	
0-20% of appointments	4 (12.5)
21-40% of appointments	7 (21.9)
41-60% of appointments	5 (15.6)
61-80% of appointments	5 (15.6)
81-100% of appointments	11 (34.4)

**Available answers not selected included: once a day, once a week, never, do not know, and prefer not to answer*

4.1.4 Impact of AI Scribes on Administrative Burden

Participants were asked a series of questions related to administrative burden on both the Intake Survey and the Closing Survey. These responses were compared between surveys. Participants were more likely to consider the amount of time the spent on the EMR after hours as excessive at the start of the project (n=13; 40.6%), when compared to after the implementation of the AI Scribe (n=2; 6.3%). Complimentary to these findings, participants were more likely to consider this amount of time as satisfactory at the close of the pilot (n=10; 31.3%) when compared to the Intake survey (n=2; 6.3%) **(Figure 4.2)**.

Figure 4.2 Participant responses to *"The amount of time I spend on the electronic medical record after hours is:"* All participants, comparison of Intake and closing surveys (N=32)



A larger proportion of family physicians would have considered their time on the EMR after hours to be excessive at the start of the pilot (n=11; 47.8) when compared to community-based specialists (n=2; 22.2%). Both family physicians and community-based specialists reported more acceptable responses on the Closing Survey when compared to the Intake Survey. This included a 34.3% decrease at closing in participants reporting excessive time spent compared to the intake survey **(Table 4.8)**.

Table 4.8 Participant responses to *"The amount of time I spend on the electronic medical record after hours before/during the pilot is:"* by Family Physician and Community-based specialist, Comparison of Intake and Closing Surveys

N=32	**Participant Responses n(row %)**					
Physician Type	Excessive	High	Satisfactory	Modest	Minimal/ None	Total
All Participants						
Intake	13 (40.6)	12 (37.5)	2 (6.3)	3 (9.4)	2 (6.3)	32 (100)
Closing	2 (6.3)	10 (31.3)	10 (31.3)	4 (12.5)	6 (18.8)	32 (100)
Family Physician						
Intake	11 (47.8)	7 (30.4)	2 (8.7)	2 (8.7)	1 (4.4)	23 (100)
Closing	1 (4.4)	8 (34.8)	9 (39.2)	2 (8.7)	3 (13.0)	23 (100)
Community-Based Specialist						
Intake	2 (22.2)	5 (55.6)	0 (0)	1 (11.1)	1 (11.1)	9 (100)
Closing	1 (11.1)	2 (22.2)	1 (11.1)	2 (22.2)	3 (33.3)	9 (100)

More physicians were likely to agree or strongly agree that their workflow processes are streamlined and efficient at the Closing Survey (agree n=12; 37.5%, strongly agree n=6; 18.8%) when compared to the Intake Survey (agree n=9; 28.1%, strongly agree n=3; 9.4%) **(Figure 4.3; Table 4.9).**

Figure 4.3 Participant responses to *"My current workflow processes are streamlined and efficient:"* All participants, by Family Physician and Community-Based Specialist, comparison of intake and closing surveys (N=32)

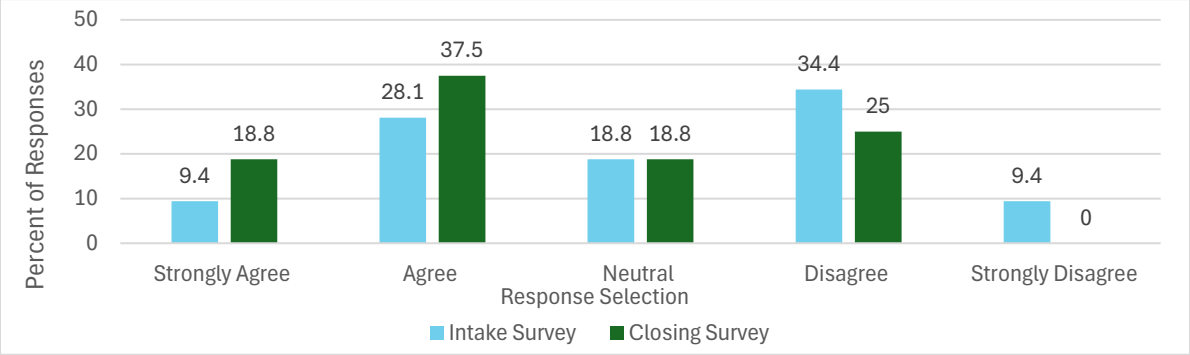


Table 4.9 Participant responses to *"My current workflow processes are streamlined and efficient:"* All participants, by Family Physician and Community-based Specialist, comparison of intake and closing surveys (N=32)

N=32	**Participant Responses n(%)**					
Physician Type	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
All Participants						
Intake	3 (9.4)	9 (28.1)	6 (18.8)	11 (34.4)	3 (9.4)	32 (100)
Closing	6 (18.8)	12 (37.5)	6 (18.8)	8 (25.0)	0 (0)	32 (100)
Family Physician						
Intake	1 (4.4)	6 (26.1)	6 (21.7)	9 (28.1)	2 (8.7)	23 (100)
Closing	4 (17.4)	9 (39.1)	4 (17.4)	6 (26.1)	0 (0)	23 (100)
Community-Based Specialist						
Intake	2 (22.2)	3 (33.3)	1 (11.1)	2 (22.2)	1 (11.1)	9 (100)
Closing	2 (22.2)	3 (33.3)	2 (22.2)	2 (22.2)	0 (0)	9 (100)

More participants were likely to agree that their administrative tasks are manageable within their current workflow at the time of the Closing Survey (n=10; 31.3%) when compared to the Intake Survey (n=4; 12.5%). This is paired with participants being much less likely to strongly disagree with this statement at the time of the Closing Survey (n=1; 3.1%) when compared to the Intake Survey (n=6; 18.8%) **(Figure 4.4; Table 4.10).**

Figure 4.4 Participant responses to *"Administrative Tasks such as paperwork, documentation and billing are manageable in my current workflow:"* All participants, comparison of intake and closing surveys (N=32)

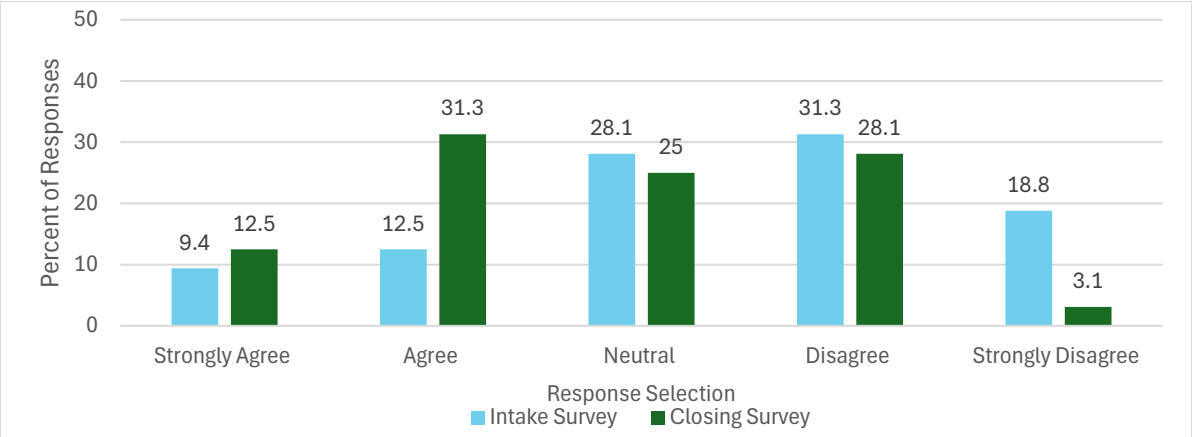


Table 4.10 Participant responses to *"Administrative Tasks such as paperwork, documentation and billing are manageable in my current workflow:"* All participants, comparison of intake and closing surveys (N=32)

N=32	**Participant Responses n(%)**					
Physician Type	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
All Participants						
Intake	3 (9.4)	4 (12.5)	9 (28.1)	10 (31.3)	6 (18.8)	32 (100)
Closing	4 (12.5)	10 (31.3)	8(25.0)	9 (28.1)	1 (3.1)	32 (100)
Family Physician						
Intake	1 (4.3)	4 (17.4)	6 (26.1)	8 (34.8)	4 (17.4)	23 (100)
Closing	2 (8.7)	8 (34.8)	6 (26.1)	6 (26.1)	1 (4.3)	23 (100)
Community-Based Specialist						
Intake	2 (22.2)	0 (0)	3 (33.3)	2 (22.2)	0 (0)	9 (100)
Closing	2 (22.2)	2 (22.2)	2 (22.2)	3 (33.3)	0 (0)	9 (100)

In the Intake Survey 84.4% of participants were in total agreement (agree: n=9; 28.1%, strongly agree: n=18; 56.3%) that administrative tasks such as paperwork and documentation were significantly detracting from the time physicians can spent on patient care, compared to the closing phase at 71.9% (agree: n=13; 40.6%, strongly agree: n=10; 31.3%). Family physicians showed a 21.7% decline in strong agreement from intake (n=11; 47.8%) to closing (n=6; 26.1%), with an increase in neutral and disagreement responses. Similarly, community-based specialists demonstrated a 33.4% reduction in strong agreement from intake (n=7; 77.8%) to closing (n=4; 44.4%), though overall agreement remained high **(Table 4.11).**

Table 4.11 Participant responses to *"Administrative tasks such as paperwork and documentation significantly detract from the time I can spend on patient care"* All participants, by Family Physician and Community-based Specialist, comparison of intake and closing surveys (N=32)

N=32	**Participant Responses n(%)**					
Physician Type	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
All Participants						
Intake	18 (56.3)	9 (28.1)	3 (9.4)	2 (6.3)	0 (0)	32 (100)
Closing	10 (31.3)	13 (40.6)	5 (15.6)	4 (12.5)	0 (0)	32 (100)
Family Physician						
Intake	11 (47.8)	8 (34.8)	3 (13.0)	1 (4.3)	0 (0)	23 (100)
Closing	6 (26.1)	9 (39.1)	4 (17.4)	4 (17.4)	0 (0)	23 (100)
Community-Based Specialist						
Intake	7 (77.8)	1 (11.1)	0 (0)	1 (11.1)	0 (0)	9 (100)
Closing	4 (44.4)	4 (44.4)	1 (11.1)	0 (0)	0 (0)	9 (100)

Participants responded to the statement, "The current technology and tools available in my practice help alleviate administrative burden," and among all participants, the proportion of those who strongly agreed increased from 9.4% at intake to 15.6% at closing, and those who agreed rose from 21.9% to 40.6%. Disagreement dropped significantly (18.8%) from 34.4% to 15.6% and strong disagreement also declined from 6.3% to 3.1%. For family physicians, the percentage of participants who strongly agreed grew 13.0% from 8.7% to 21.7%, and agreement increased from 17.4% to 34.8%. Neutral responses rose slightly from 21.7% to 30.4%, while disagreement decreased from 31.3% to 8.7%, and strong disagreement dropped from 8.7% to 4.4%. In contrast, among community-based specialists, no participants strongly agreed at closing, compared to 11.1% at intake. However, agreement increased 22.3% from 33.3% to 55.6%, while neutral responses decreased 33.3% from 44.4% to 11.1%. Disagreement rose from 11.1% to 33.3%, and no participants expressed strong disagreement at either time point **(Table 4.12)**.

Table 4.12 Participant responses to *"The Current Technology and tools available in my practice help alleviate* administrative *burden"* All participants, by Family Physician and Community-based Specialist, comparison of intake and closing surveys (N=32)

N=32	**Participant Responses n(%)**					
Physician Type	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
All Participants						
Intake	3 (9.4)	7 (21.9)	9 (28.1)	11 (34.4)	2 (6.3)	32 (100)
Closing	5 (15.6)	13 (40.6)	8 (25.0)	5 (15.6)	1 (3.1)	32 (100)
Family Physician						
Intake	2 (8.7)	4 (17.4)	5 (21.7)	10 (31.3)	2 (8.7)	23 (100)
Closing	5 (21.7)	8 (34.8)	7 (30.34)	2 (8.7)	1 (4.4)	23 (100)
Community-Based Specialist						
Intake	1 (11.1)	3 (33.3)	4 (44.4)	1 (11.1)	0 (0)	9 (100)
Closing	0 (0)	5 (55.6)	1 (11.1)	3 (33.3)	0 (0)	9 (100)

Participants responded to the statement, "I believe there is room for improvement in reducing administrative burden within my practice," and among all participants, strong agreement decreased 21.9% from 71.9% at intake to 50.0% at closing, while agreement increased 12.5% from 28.1% to 40.6%. Neutral responses and disagreement, which were absent at intake, emerged at 6.3% and 3.1%, respectively, at closing. No participants strongly disagreed at either time point. For family physicians, strong agreement declined from 73.9% at intake to 47.8% at closing, while agreement decreased slightly from 26.1% to 39.1%. Neutral responses emerged at 8.7%, and disagreement appeared at 4.4%, both of which were absent at intake. Among community-based specialists, strong agreement dropped from 66.7% at intake to 55.6% at closing, while agreement increased from 33.3% to 44.4%. No neutral or disagreement responses were observed in this group during either survey **(Table 4.13)**.

Table 4.13 Participant responses to *"I believe there is a room for improvement in reducing administrative burden within my practice."* All participants, by Family Physician and Community-based Specialist, comparison of intake and closing surveys (N=32)

N=32	**Participant Responses n(%)**					
Physician Type	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
All Participants						
Intake	23 (71.9)	9 (28.1)	0 (0)	0 (0)	0 (0)	32 (100)
Closing	16 (50.0)	13 (40.6)	2 (6.3)	1 (3.1)	0 (0)	32 (100)
Family Physician						
Intake	17 (73.9)	6 (26.1)	0 (0)	0 (0)	0 (0)	23 (100)
Closing	11 (47.8)	9 (39.1)	2 (8.7)	1 (4.4)	0 (0)	23 (100)
Community-Based Specialist						
Intake	6 (66.7)	3 (33.3)	0 (0)	0 (0)	0 (0)	9 (100)
Closing	5 (55.6)	4 (44.4)	0 (0)	0 (0)	0 (0)	9 (100)

Participants responded to the statement, "*I am satisfied with the number of hours I spend on Administrative Tasks*," and most participants expressed disagreement or strong disagreement with the use of AI Scribes during both phases, with 46.9% disagreeing and 37.5% strongly disagreeing for the intake phase, and 34.4% disagreeing and 28.1% strongly disagreeing for the closing phase. Family physicians were slightly more positive than specialists, with 8.7% strongly agreeing and 8.7% neutral about AI Scribes during intake, compared to specialists, where 44.4% strongly disagreed and 44.4% disagreed. Similarly, for the closing phase, 13% of family physicians agreed, compared to no agreement from specialists, who were mostly neutral (44.4%) or disagreed (33.3%) **(Table 4.14)**.

Table 4.14 Participant responses to *"I am satisfied with the number of hours I spend on Administrative Tasks"* All participants, by Family Physician and Community-based Specialist, comparison of intake and closing surveys (N=32)

N=32	**Participant Responses n(row%)**					
Physician Type	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
All Participants						
Intake	2 (6.3)	1 (3.1)	2 (6.3)	15 (46.9)	12 (37.5)	32 (100)
Closing	2 (6.3)	3 (9.4)	7 (21.9)	11 (34.4)	9 (28.1)	32 (100)
Family Physician						
Intake	2 (8.7)	0 (0)	2 (8.7)	11 (47.8)	8 (30.4)	23 (100)
Closing	2 (8.7)	3 (13.0)	3 (13.0)	8 (34.8)	7 (30.4)	23 (100)
Community-Based Specialist						
Intake	0 (0)	1 (11.1)	0 (0)	4 (44.4)	4 (44.4)	9 (100)
Closing	0 (0)	0 (0)	4 (44.4)	3 (33.3)	2 (22.2)	9 (100)

Regarding administrative burden in participants practice and how it affects well-being and job performances, the proportion of those who strongly agreed decreased from 41.9% at intake to 25.0% at closing, while agreement remained relatively stable, increasing slightly from 45.2% to 46.9%. Neutral responses rose from 6.5% to 15.6%, and disagreement increased from 0% to 12.5%. Strong disagreement dropped from 6.5% at intake to 0% at closing. For family physicians, the proportion of those who strongly agreed decreased from 36.4% at intake to 21.7% at closing. Agreement increased slightly from 50.0% to 52.1%, and neutral responses rose from 9.1% to 17.4%. Disagreement also increased from 0% to 8.7%, while strong disagreement dropped from 4.5% at intake to 0% at closing. Among community-based specialists, strong agreement declined from 55.6% at intake to 33.3% at closing. Agreement remained consistent at 33.3%, while neutral responses rose from 0% to 11.1%. Disagreement increased from 0% at intake to 22.2%, and strong disagreement, reported by 11.1% at intake, was not observed at closing **(Table 4.15)**.

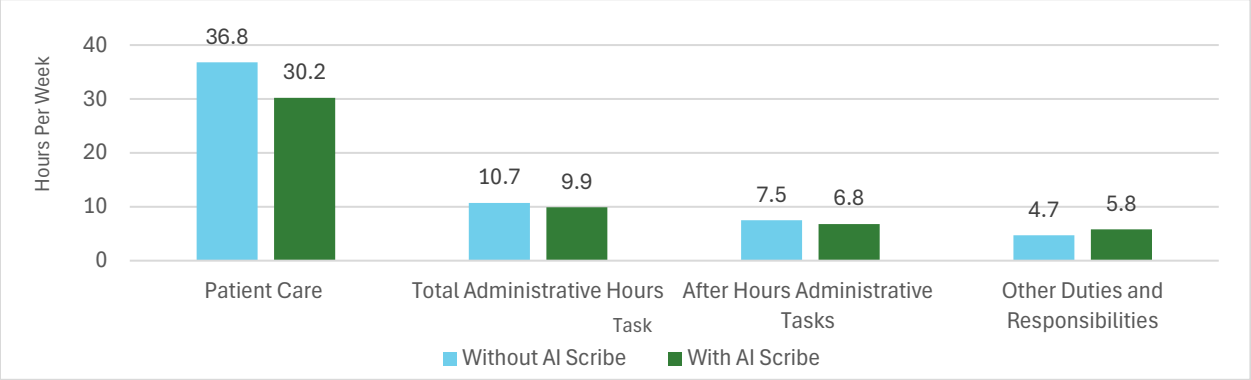
Table 4.15 Participant responses to *"Administrative Burden in my practice affects my overall well-being and job performance"* All participants, by Family Physician and Community-based Specialist, comparison of intake and closing surveys (N=32)*

N=32	**Participant Responses n(row%)**					
Physician Type	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
All Participants						
Intake	13 (41.9)	14 (45.2)	2 (6.5)	0 (0)	2 (6.5)	31 (100)
Closing	8 (25.0)	15 (46.9)	5 (15.6)	4 (12.5)	0 (0)	32 (100)
Family Physician						
Intake	8 (36.4)	11 (50.0)	2 (9.1)	0 (0)	1 (4.5)	22 (100)
Closing	5 (21.7)	12 (52.1)	4 (17.4)	2 (8.7)	0 (0)	23 (100)
Community-Based Specialist						
Intake	5 (55.6)	3 (33.3)	0 (0)	0 (0)	1 (11.1)	9 (100)
Closing	3 (33.33)	3 (33.3)	1 (11.1)	2 (22.2)	0 (0)	9 (100)

**Intake Survey: One response missing for intake survey*

Participants were asked to estimate the number of hours per week they spend on specific tasks within their workflow on both the Intake Survey (without AI Scribe) and the Closing Survey (with AI Scribe). During the pilot (with AI Scribe) the average number of hours spent on patient care per week decreased by 6.6 hours from what was reported in the intake survey. Additionally, total administrative hours decreased by a total of 0.8 hours per week (48 minutes). When asked to report on their average number of hours spent on administrative tasks after hours, there was a decrease of 0.7 hours per week (42 minutes). When reflecting on other duties and responsibilities, the amount of time increased by 1.1 hours per week with the use of the Scribe **(Figure 4.5; Table 4.16).**

Figure 4.5 Average number of hours per week on tasks prior to and during the use of AI Scribes, all participants (N=32)



Additional exploration of the data was conducted to determine if there are differences in time logged based on physician type (family physician vs. community -based specialist) and EMR Integration of the AI Scribe Type (Integrated vs. Non-Integrated). Key findings include family physicians (n=22) showing an average decrease of 2.7 hours in their total administrative tasks, where community-based specialists (n=9) showed an increase of 3.9 hours **(Table 4.16)**. Additionally, administrative tasks had a greater reduction in hours for those who were using an EMR-Integrated AI Scribe (2.9 hours) vs. those who were using a Non-Integrated Scribe (0.3 hours). Similar findings were seen regarding after-hours administrative tasks, where those using an EMR-Integrated Scribe saw a greater reduction in hours (2.1 hours) than those who used the Non-Integrated Scribe (No Change) **(Table 4.16)**.

Table 4.16 Average number of hours per week on tasks prior to and during the use of AI Scribes, all participants, By Family Physician and Specialist (N=32)

Question	Intake Survey	Closing Survey	Difference Hours/Week
	Average (# Hours)		
Patient Care			
Overall	36.8	30.2	-6.6
Family Physician	38.6	29.1	-9.5
Community-Based Specialist	32.1	32.9	+0.8
EMR Integrated AI Scribe	37.3	30.1	-7.2
Non-Integrated AI Scribe	36.5	30.2	-6.3
Administrative Tasks Total			
Overall	10.7	9.9	-0.8
Family Physician	11.5	8.8	-2.7
Community-Based Specialist	8.6	12.5	+3.9
EMR Integrated AI Scribe	11.7	8.8	-2.9

Non-Integrated AI Scribe	10.2	10.5	-0.3
Administrative Tasks After-hours			
Overall	7.5	6.8	-0.7
Family Physician	8.0	5.9	-2.1
Community-Based Specialist	6.3	8.9	+2.6
EMR Integrated AI Scribe	7.8	5.7	-2.1
Non-Integrated AI Scribe	7.4	7.4	0
Other Duties and Responsibilities			
Overall	4.7	5.8	+1.1
Family Physician	3.6	4.6	+1.0
Community-Based Specialist	5.5	6.4	-0.9
EMR Integrated AI Scribe	2.4	1.7	-0.7
Non-Integrated AI Scribe	5.1	7.1	+2.0

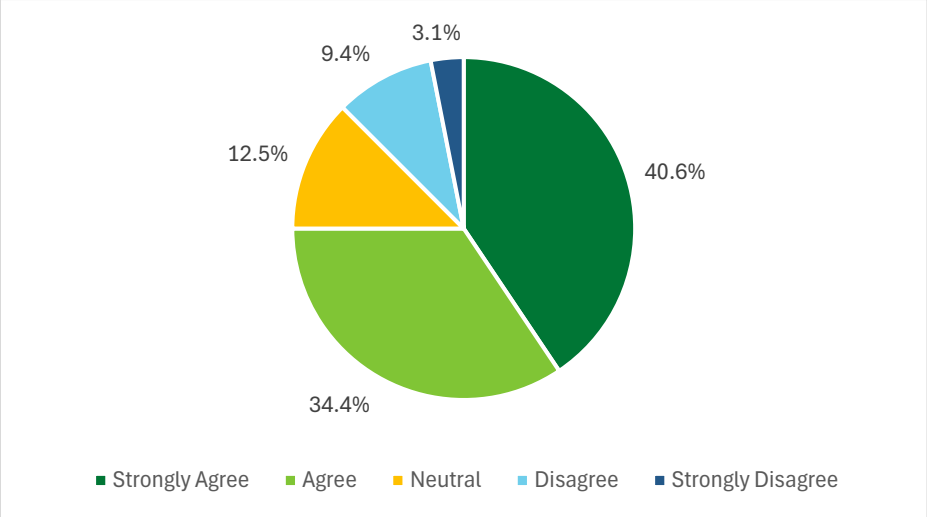
Participants were asked to provide additional insights through a free-text response regarding any factors that might have impacted the reported hours in the questions asked in **Figure 4.5**, specifically relating to after-hours documentation, administrative tasks, patient care, and other responsibilities. During the pilot, which occurred between October 2024 and January 2025, nine participants noted that factors such as sick leave, parental leave, the holiday season, and/or vacation time could have affected their workflow and working hours. One specialist shared that their AI Scribe "assisted with direct patient care tasks and the generation of consultation letters, [but they] did not utilize the AI scribe for other tasks (e.g., administrative tasks, prescriptions, test orders, etc.)." A family physician, who has tested multiple AI Scribes, mentioned that their current AI Scribe "significantly reduced the amount of time required to document [their] consultation note encounters… and greatly enhanced the verbosity of consult notes, making them more detailed." Another family physician indicated that their scribe was not compatible with the non-English language predominantly used by their patient population. Others noted impacts included the need to document after hours due to childcare conflicts, additional work commitments such as establishing a new clinic, and the responsibility of training new staff during the pilot. Finally, nine physicians reported that no factors impacted the numbers they provided.

Participants were also provided with an opportunity to offer additional insights regarding the self-reported numbers. Some participants emphasized that the reported figures were estimates based on their own reflections, acknowledging that their workflow tends to fluctuate on a weekly basis. Others noted that the use of the AI Scribe helped reduce administrative burden, though both challenges and benefits were experienced throughout the pilot. Several participants expressed that they did not have sufficient

time with the technology, and that administrative burdens remained present despite its use. One family physician utilizing an EMR-integrated scribe shared that the tool "really helped [them] to end the day with 95% of [their] notes done. [They have hardly ever before this pilot] completed [their] clinic notes before heading home… [and felt they could] focus on checking on all the other paperwork. [Their notes were] more comprehensive and [they] could read back on the actual transcription if [they were] unsure about something." Overall, the use of AI technology demonstrated an improvement in documentation efficiency, albeit with some limitations and required adjustments. The majority of participants (19) indicated that they had no further comments on their reported numbers.

Finally, physicians were asked to report their agreement with a statement regarding the overall efficiency of their documentation process. Overall, 75% (n=24) of participants "agreed" or "strongly agreed" that the AI Scribes has improved the efficiency of their documentation process **(Figure 4.6)**.

Figure 4.6 Participant responses to "*I believe that AI Scribes has improved the efficiency of my documentation process*"

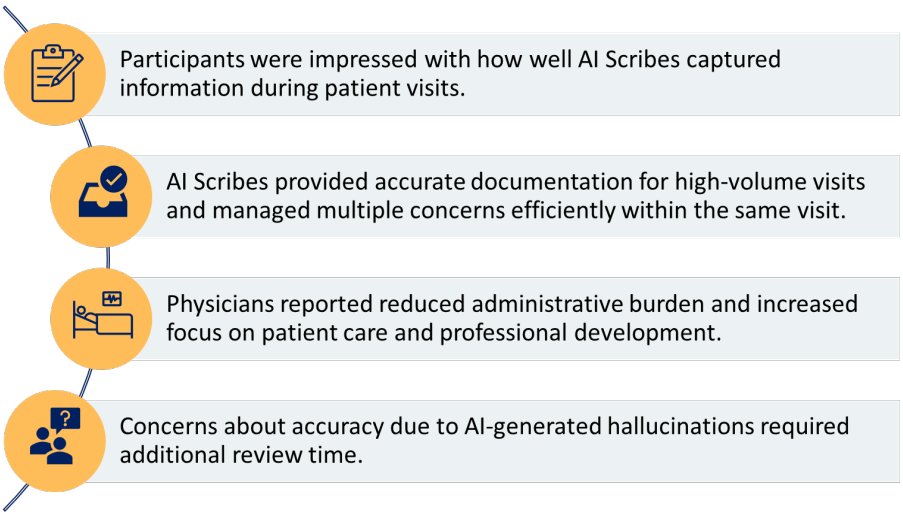


4.1.5 Open-ended Survey Responses on Administrative Burden

Many of the participants were surprised with how well AI Scribes captured information during patient visits. Physicians mentioned that the AI Scribe provided accurate documentation for high-volume patient visits and efficiently managed multiple concerns within the same visit. It also improved the efficiency of virtual health by enabling documentation during commuting. Physicians reported that they felt a reduction in administrative burden and that AI scribes allowed them to be more focused on patient care

and professional development. A family physician expanded on how “the AI scribe did wonders [for their practice efficiency and they are] extremely happy with the change. It has reduced [their] daily after-hours paperwork from 3 hours to 1-1.5 hours and allows [them to see patients in a timelier] manner and cut wait times”. However, physicians raised concerns regarding accuracy due to AI-generated hallucinations, requiring additional review time to ensure the data was accurate.

Figure 4.7 Summary of Administrative Burden findings for Open-Ended Response Questions



4.1.6 Technical Performance of the Scribe

In this section of the Closing Survey, participants were asked to reflect on the accuracy and performance of the AI Scribe. The majority of participants (total n= 21; 65.6%) either agreed or strongly agreed that they believed the documentation done by the Scribe was accurate, conversely, 18.8% (n=6) either disagreed or strongly disagreed with this statement **(Figure 4.8)**. Similarly, participants were likely to agree or strongly agree that the errors made by the Scribe were minimal (total n=18 = 56.3%), but a proportion also disagreed or strongly disagreed with this statement (total n=6; 18.8%) **(Figure 4.9)**.

Figure 4.8 Participant responses to "*I believe that the documentation done by the AI Scribe was accurate*" N=32

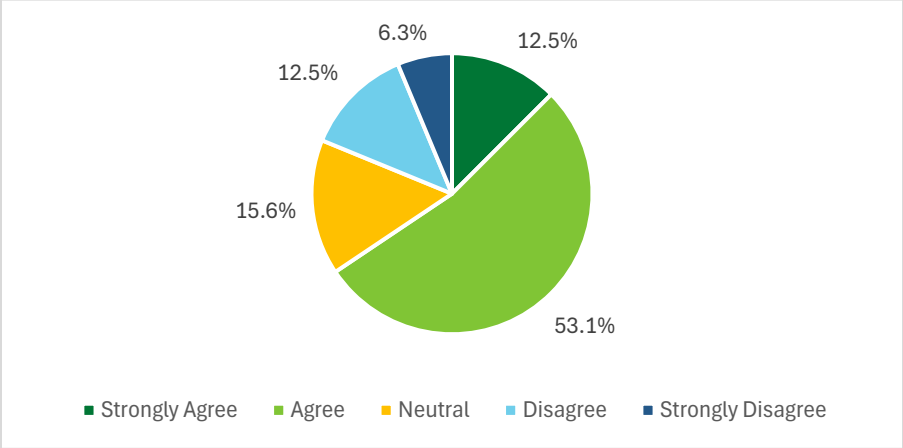
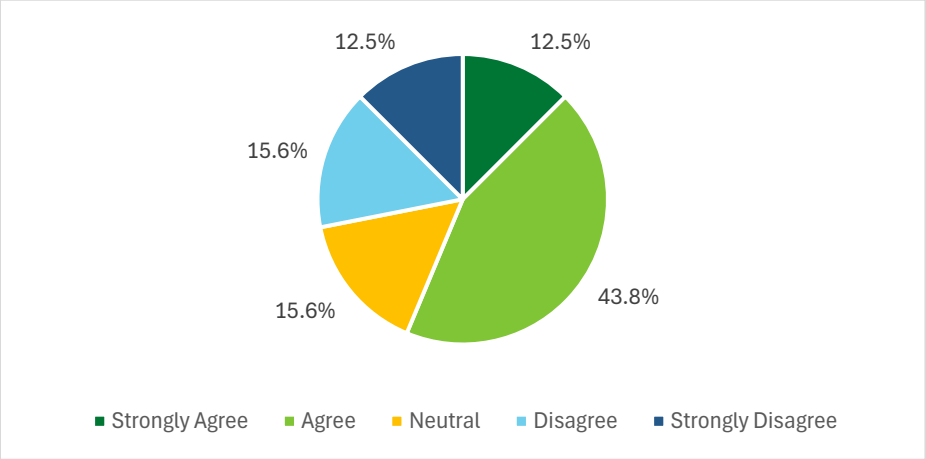


Figure 4.9 Participant responses to "*If any, errors made by the scribe (e.g., hallucination) were minimal*"



The next series of questions was to determine the performance of the AI Scribe in different types of scenarios that could occur within their practice. Regarding accuracy of the AI Scribe while multiple care providers were in the room, most participants indicated that this was not applicable (n=19; 59.4%); when it was applicable, the majority of participants indicated that they either agree or strongly agree (total n=6; 18.8%) or that they were neutral on the topic (n=6; 18.8%) **(Figure 4.10)**. Additionally, participants were likely to agree or strongly agree (total n=24; 75%) that the AI Scribe was accurate when there were multiple people in the room (i.e., family and caregivers) speaking during their appointments **(Figure 4.11).** Finally, of those who provided care in other languages (n=17), 59.8% (n=12) either agreed or strongly

agreed that the AI Scribe was accurate in those scenarios, while collectively 26.9% (n=5) disagreed or strongly disagreed **(Figure 4.12)**.

Figure 4.10 Participant responses to "*I believe the scribe was accurate when there were multiple care providers in the room (i.e., Physician and Nurse)*"

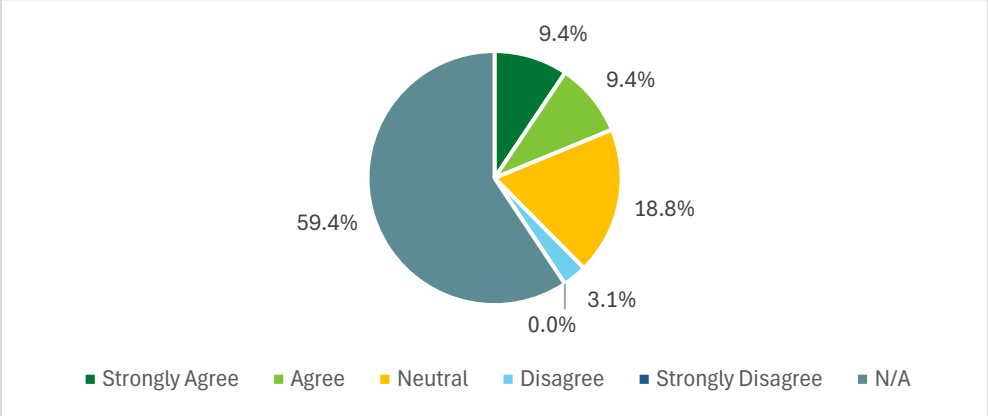


Figure 4.11 Participant responses to **"***I believe the scribe was accurate when more than one patient, caregiver or family member was speaking during the visit* "

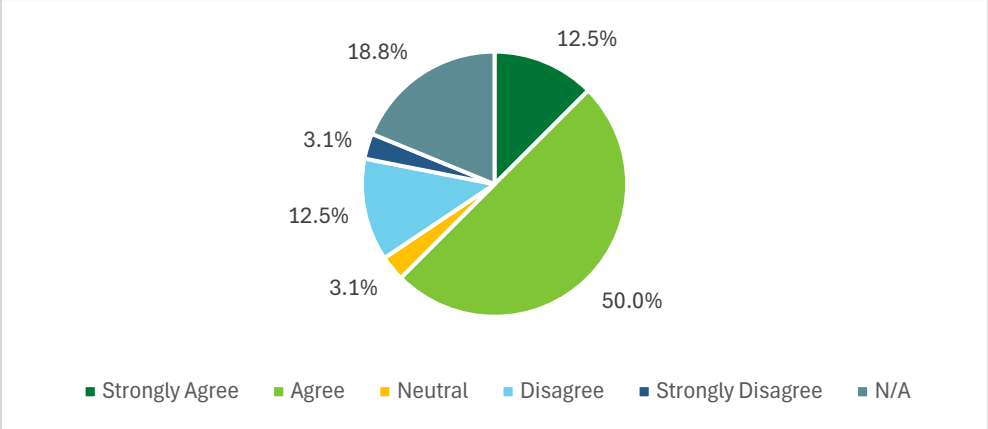
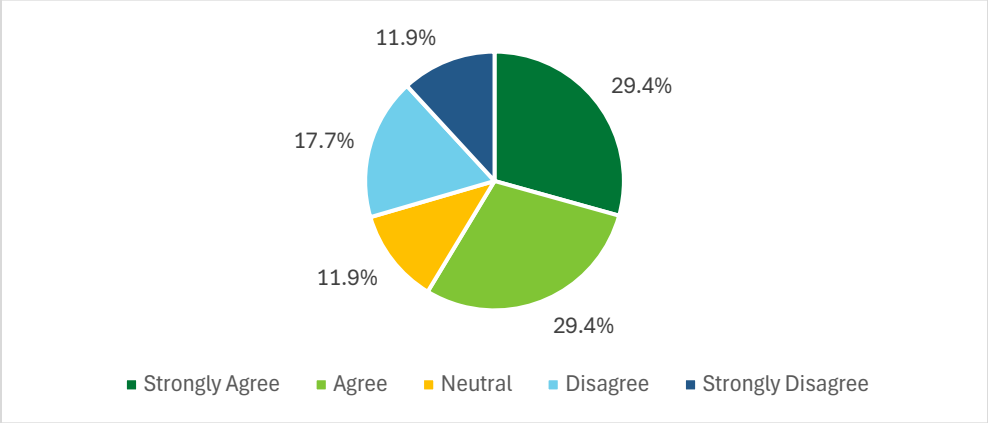


Figure 4.12 Participant responses to "*The AI Scribe supported documentation in the language(s) I provide care in (i.e., other than English)*" (N=17)



The next section of questions reflects physicians' perceptions of how the AI Scribe fits within their current documentation processes. Most physicians either agreed or strongly agreed (total n=26; 81.3%) that the AI Scribe was compatible with their documentation practices **(Figure 4.13)**. Slightly over half of participants indicated that they agreed or strongly agreed (total n=19; 59.4%) that the AI Scribe works well alongside their EHR system **(Figure 4.14)**. This question was further explored to assess whether there was a difference in responses between Integrated and Non-Integrated Scribe users **(Table 4.15)**. Total agreement for Integrated Scribes was 83.3% (agree: n=6; 50.5%, strongly agree: n=4; 33.3%), while Non-Integrated users were only 45.0% (agree: n=9; 45.0%, strongly agree: n=0; 0%). Finally, participants were asked if more time with the AI Scribe would allow them to realize more efficiencies in their practice. Overall, 78.2% (n=25) agreed or strongly agreed that they would see more efficiency given more time **(Figure 4.16)**.

Figure 4.13 Participant responses to "*I believe the scribe was compatible with my current documenting practices*"

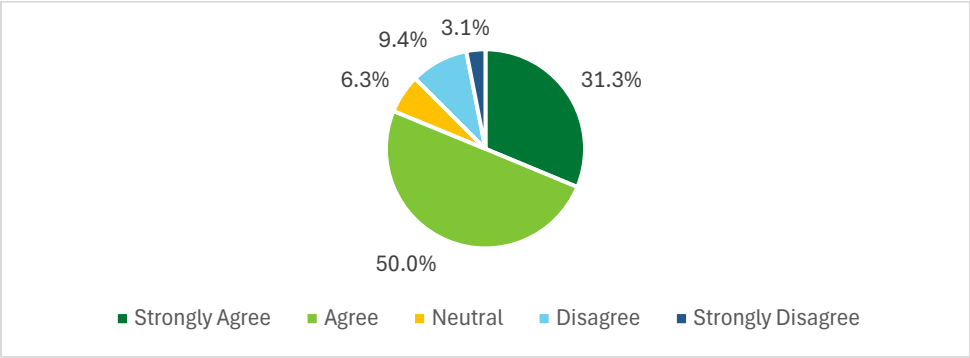


Figure 4.14 Participant responses to "*I believe the AI Scribe worked effectively alongside the EHR system I use in my Practice*"

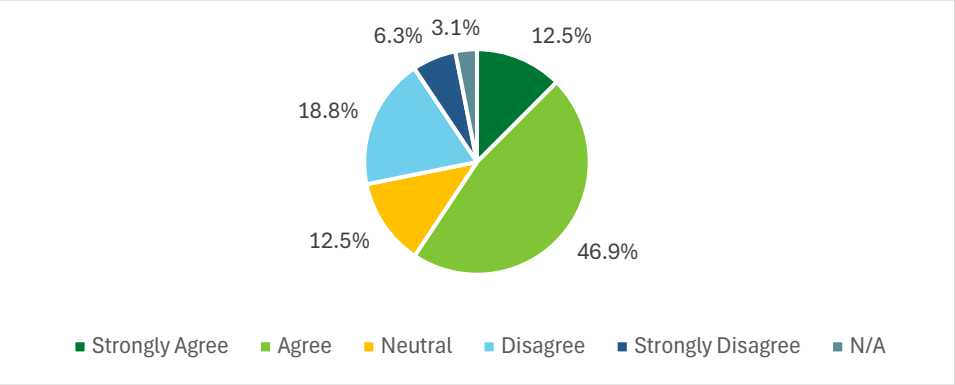
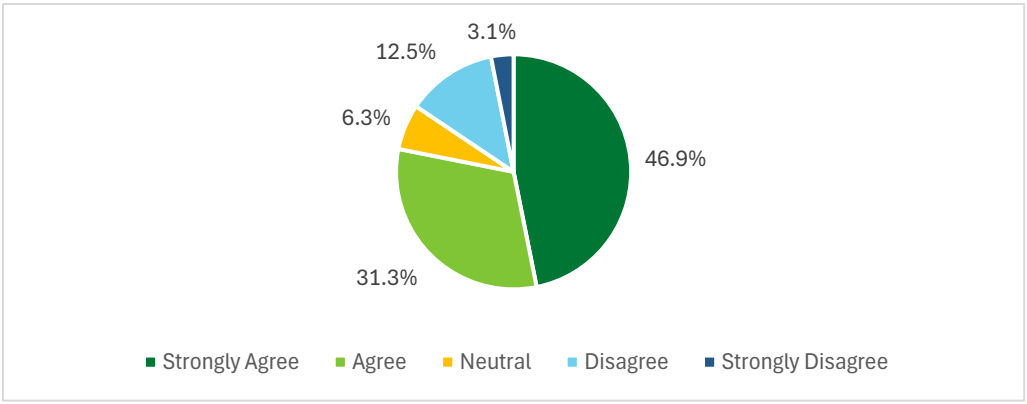


Table 4.17 Participant responses to **"***I believe the AI Scribe worked effectively alongside the EHR system I use in my Practice*" All Participants, Integrated and Non-Integrated Scribe groups (N=32)

N=32	**Participant Responses n(row%)**						
AI Scribe type	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A	Total
All Participants							
Integrated	4 (33.3)	6 (50.0)	0 (0)	2 (16.7)	0 (0)	0 (0)	12 (100)
Non-Integrated	0 (0)	9 (45.0)	4 (20.0)	4 (20.0)	2 (10.0)	1 (5.0)	20 (100)

Figure 4.15 Participant responses to "*I believe that given more time with the AI scribe as part of my workflow, I would be able to realize more practice efficiencies*"

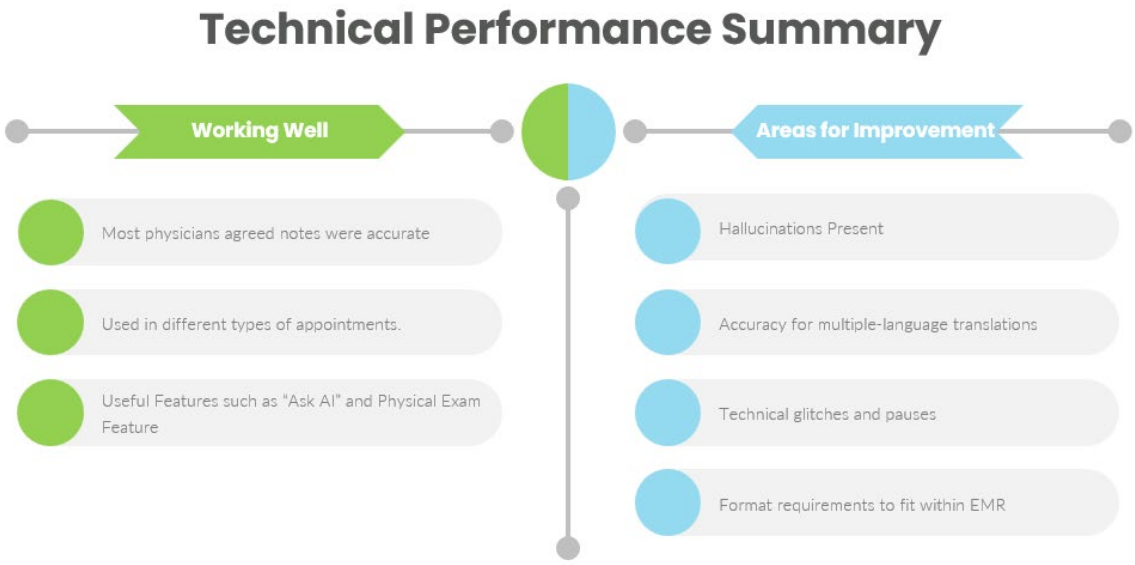


4.1.7 Open-ended Reponses on AI Scribe Performance and Challenges

Physicians suggest refining AI capabilities to streamline documentation, improve report formats, enhance patient consent processes, and reduce manual data review. Specialists managing complex, chronic disease management require AI scribes to capture relevant details concisely without being excessively verbose. AI Scribes have proven beneficial for mental health, complex visits, and follow-ups, particularly for patients with multiple concerns and who are poor historians. Consensus was that the AI Scribes can enhance documentation for lengthy patient visits, allowing the physician to be more present in the appointment.

AI Scribes exhibit issues such as hallucinations in documentation, language translation inaccuracies, and lack of compatibility with certain consultation methods. Most physicians noted minor hallucinations or errors that required manual changes, while others experienced more severe hallucinations. One physician noted that they had AI Scribe generated notes which consisted of entire sections that were not "an accurate reflection of the visit. [They] had to spend time reviewing each created note for accuracy and content, similar to the time [they] may have spent in the past checking for typos in [their] dictated notes." Challenges arose with physicians who provide care in languages other than English. Depending on the vendor and patient language, there were mixed opinions on the scribe's usefulness for non-English languages. Some users had great success with languages such as Mandarin while others found the capabilities lackluster. Physicians working with non-English-speaking patients require better language support, particularly for Cantonese consultations. Enhancing AI's ability to recognize and document specialty-specific terminology accurately would improve its utility. For physicians using non-integrated scribes, it was noted that copy/paste was required to properly format notes. This required extra effort from physicians.

Figure 4.16 Technical Performance Summary of AI Scribe Characteristics that went Well and Areas for Improvement



4.2 AI Scribe Implementation and Change Management

On the Closing Survey, participants were asked questions related to the implementation and change management supports available for this pilot study. Most participants indicated that the onboarding process to start using an AI Scribe was smooth **(Figure 4.17)**, it was easy to learn how to use the AI Scribe **(Figure 4.18)**, and that the Scribe was easy to implement into their daily workflow **(Figure 4.19)**.

Figure 4.17 Participant responses to *"*I believe the process of starting to onboard and use the AI Scribe in my practice was smooth," *All participants, closing survey only (N=32)*

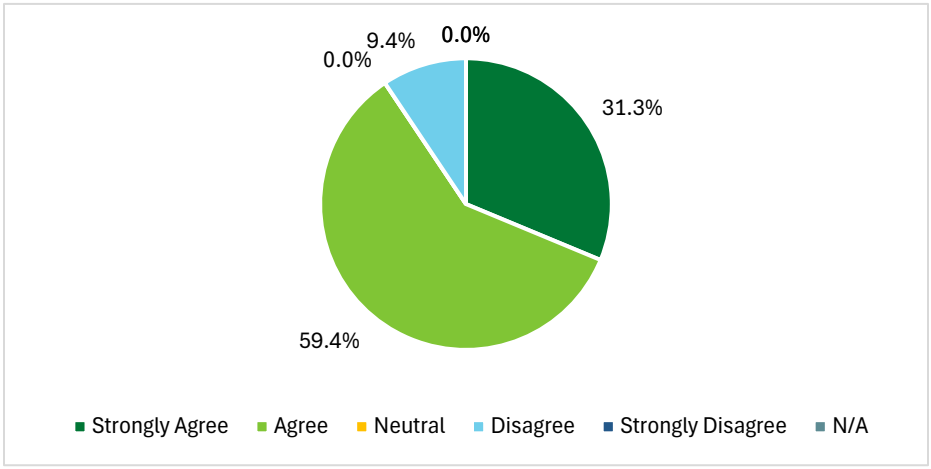


Figure 4.18 Participant responses to *"*I believe that it was easy to learn how to use AI Scribes," *All participants, closing survey only (N=32).*

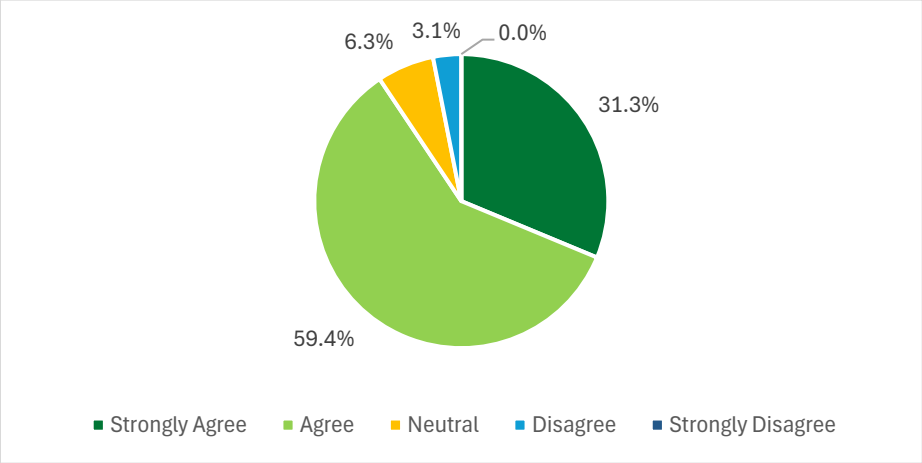
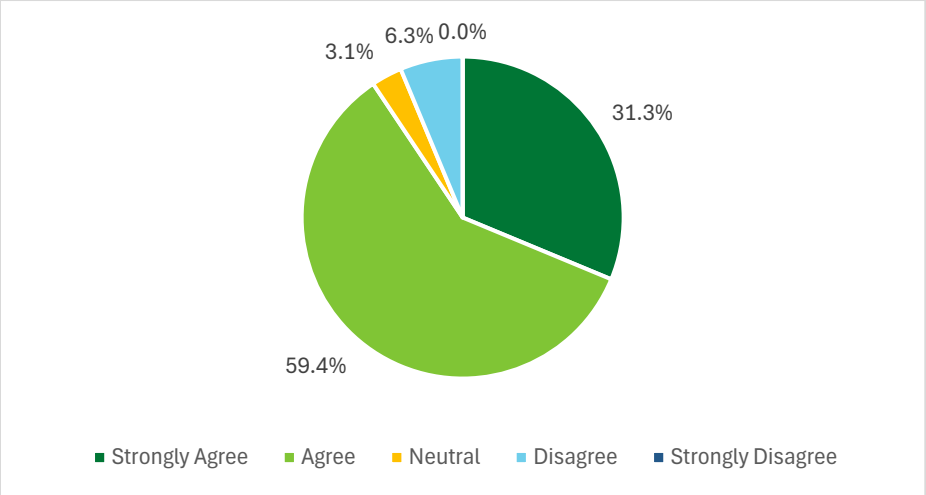


Figure 4.19 *Participant responses to "*I believe that it was easy to Implement AI Scribes into my day-to-day practice," *All participants, closing survey only (N=32).*



AI Scribe users were asked to estimate how many hours total during this pilot they spent for the initial setup and learning how to use the Scribe technology. On average, participants spent 3.5 hours for implementation (n=32), some participants spent as little as 1 hour while others spent up to 10 hours for setup and reviewing learning materials. Family physicians reported an average of 3.4 hours for this task, while community-based specialists spent slightly more time at 3.7 hours. Participants were also asked to comment on how many hours during this pilot they spent on adjustments to the AI Scribe technology (e.g. creating templates) or other associated adjustments to workflow. Similarly, on average, participants spent

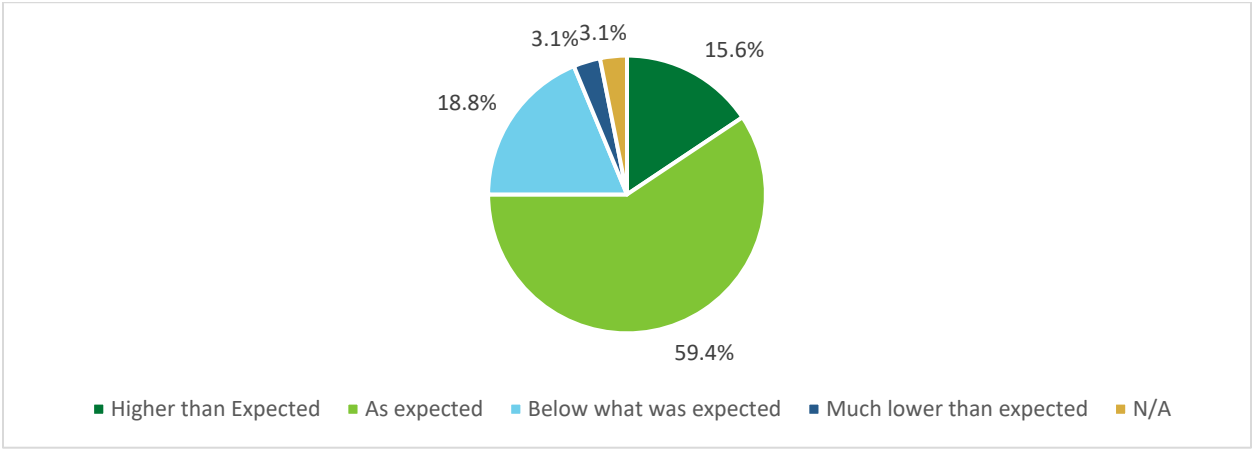
3.4 hours adjusting, with some participants using the technology as is (0 hours on adjustments) and some spending up to 15 hours. Family physicians reported an average of 2.9 hours, whereas community-based specialists spent more time at 4.5 hours on average. **(Table 4.18)**.

Table 4.18 Total Number of Hours Spent on Implementation for this Pilot

	Average Time Spent (hours)	Min	Max
The Total Hours During this Pilot Spent on Initial Setup and Learning How to Use the AI Scribe			
Overall (N=32)	3.5	1.0	10.0
Family Physicians (N=23)	3.4	1.0	10.0
Community-Based Specialists (N=9)	3.7	2.0	6.0
The Total Hours During this Pilot Spent on Adjustments to AI Scribe (e.g. Templates) or Associated Workflow to Suit Clinic Needs			
Overall (N=32)	3.4	0.0	15.0
Family Physicians (N=23)	2.9	0.0	15.0
Community-Based Specialists (N=9)	4.5	1.0	10.0

The participants were asked to respond to the amount of the time they spent adjusting AI Scribe to suit their clinic's needs. Majority of participants (59.4%) indicated that the time spent was as expected, while 18.8% reported it was below what was expected. A smaller proportion, 15.6%, found the time to be higher than expected, and 3.1% each reported the time as much lower than expected or selected N/A **(Figure 4.20)**.

Figure 4.20 Participants Reponses to the Statement: "*The amount of time I spent adjusting the Scribe to suit my clinic's needs during the pilot was*"



A large majority of participants (96.9%) agreed that the time spent adjusting the Scribe was acceptable for a pilot implementation, while only 3.1% disagreed. Similarly, 90.6% of participants reported that the

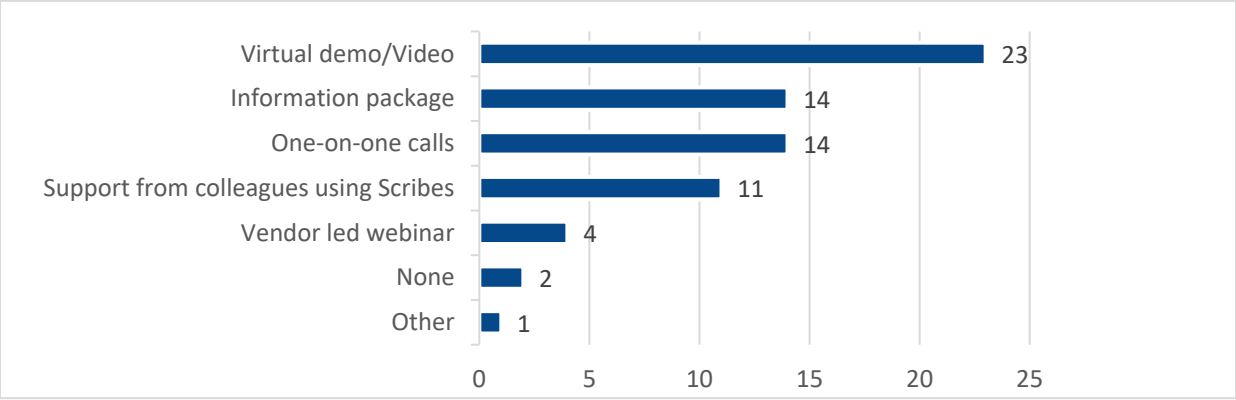
time spent decreased as they became more comfortable using the Scribe, with 9.4% indicating otherwise. Additionally, 96.9% of participants expressed confidence that the time required for adjustments will decrease over time once an established workflow with the Scribe is in place, with only 3.1% disagreeing **(Table 4.19)**.

Table 4.19: Participants Responses on the Amount of Time spent Adjusting AI Scribe to meet their clinic needs

N=32	Yes	No	Total
	n(%)		
"Was Acceptable for a Pilot Implementation"			
All Participants	31 (96.9)	1 (3.1)	32 (100)
"Decreased as I Became More Comfortable with Using the Scribe"			
All Participants	29 (90.6)	3 (9.4)	32 (100)
"Will Decrease Overtime Once I have an Established Workflow with the Scribe"			
All Participants	31 (96.9)	1 (3.1)	32 (100)

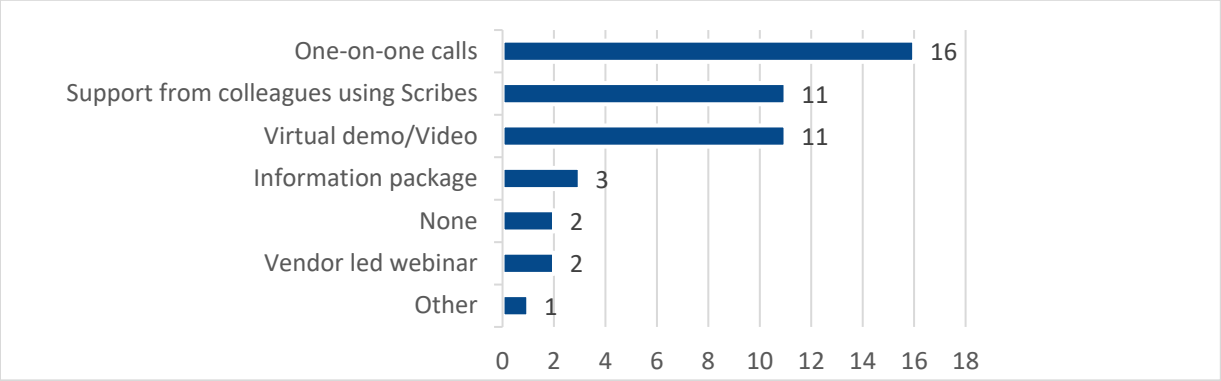
Vendors provided training supports to participants in this pilot, along with technical support when needed. "Virtual demo/Video" was the most utilized support, with 23 participants indicating they had used these types of supports. Both "One-on-one calls" and "Information package" were used equally often, each with 14. "Support from colleagues using Scribes" was moderately utilized, with a frequency of 11."Vendor-led webinar" had a usage frequency of 4, while "Other" and "None" both had the lowest frequencies, with 1 and 2 users respectively **(Figure 4.21)**.

Figure 4.21 Resources and supports participants utilized during the Pilot for the implementation and adoption of the AI Scribe (N=32)



The participants indicated that "One-on-one calls" were the most beneficial support, with a frequency of 16. "Virtual demo/Video" and "Support from colleagues using Scribes" were equally beneficial, both with a frequency of 11. Meanwhile, "Information package" was less beneficial, with a frequency of only 3. "Vendor-led webinar" and "None" both had low frequencies of 2, and "Other" had the lowest frequency of 1 which was entered as a free text comment as support directly the vendor **(Figure 4.22)**.

Figure 4.22 Resources and support that participants felt were most beneficial for their practice (N=32)



Regarding the support and assistance they received, over half of participants either “agreed” (53.1%) or “strongly agreed” (15.6%) that they had received the necessary technical assistance while using the AI Scribe **(Figure 4.23)**. Almost everyone (n=29; 90.6%) either “agreed” or “strongly agreed” that the training materials were sufficient to support their learning and use of AI Scribes **(Figure 4.24)**. When asked if they could have benefitted from more training or supports, over half (n=17; 53.2%) of respondents either disagreed or strongly disagreed, and the remaining participants (n=15; 46.8%) agreed or strongly agreed with this statement **(Figure 4.25)**.

Figure 4.23 Participant responses to “I have received the necessary technical assistance while Using AI Scribes,” All participants, closing survey only (N=32).

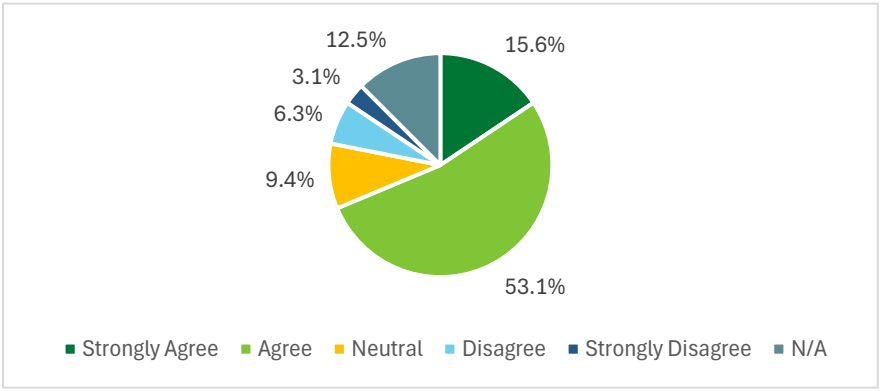


Figure 4.24 *Participant responses to* "I believe the training materials were sufficient in supporting my AI Scribes learning and use" *All participants, closing survey only (N=32).*

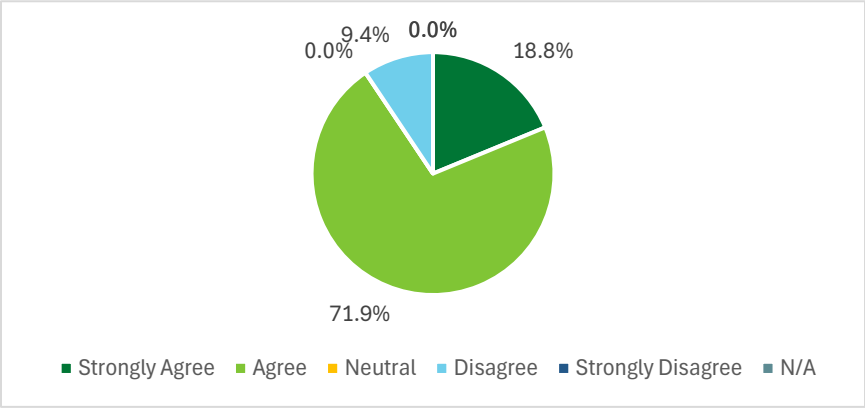
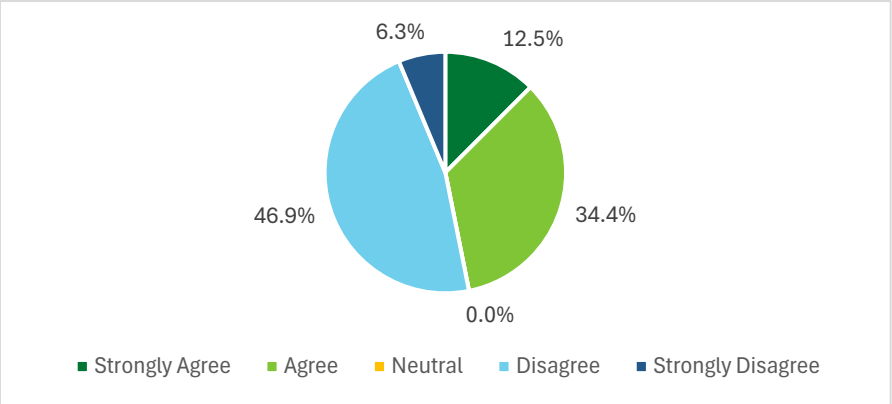


Figure 4.25 Participant responses to *"I believe that I would have benefitted from more support and training from my AI Scribe Vendor"* All participants, closing survey only (N=32).



4.2.1 Implementation & change management open ended responses

Issues with practice type

Physicians highlight the need for better documentation systems, particularly in specialty practices. AI Scribes have demonstrated benefits in reducing documentation time and improving efficiency for detailed consultations and chronic disease management. Key areas sought for improvement include deeper EMR integration, language support, automated form generation, and enhanced data entry functionalities. Physicians seek AI Scribes that further streamline tasks such as disability form completion, lab summaries, and patient handouts, ultimately reducing administrative workload and improving patient care.

Support and Resources

Physicians noted that successful AI Scribe integration into practice could be supported by troubleshooting support, improved EMR compatibility, and financial subsidies for adoption. Physicians emphasize the need for structured templates for accurate data collection, support for allied health charting, and cost-effective adoption and implementation strategies. Training and ongoing technical and workflow support are also critical for optimizing AI scribe use. Many physicians emphasize community resources and shared best practices from peers could further facilitate effective adoption across medical practices.

4.2.2 Overall Perceptions and Future Use of Scribes

In the closing survey, participants were asked to reflect on their experience and future use of the AI Scribe. The majority of participants "agreed" (n=7; 21.9%) or "strongly agreed" (n=18; 56.3%) that they would be disappointed if they could no longer use AI Scribes in their practice, but the remaining 21.9% of participants stated that they would not be disappointed if they could no longer use the AI Scribe **(Figure 4.26).** The same numbers are reflected when asked if they were likely to continue using the AI Scribe long term ("agreed" (n=7; 21.9%) or "strongly agreed" (n=18; 56.3%)) **(Figure 4.27)**. Almost all participants (n=31; 96.7% total agreement) said that they would recommend AI Scribes to their colleagues **(Figure 4.28).** Finally, 90.6% of participants collectively agreed or strongly agreed that they think using AI Scribes is a good idea **(Figure 4.29)**.

Figure 4.26 Participant responses to *"I would be disappointed if I could no longer use AI Scribes in my Practice"* All participants, closing survey only (N=32).

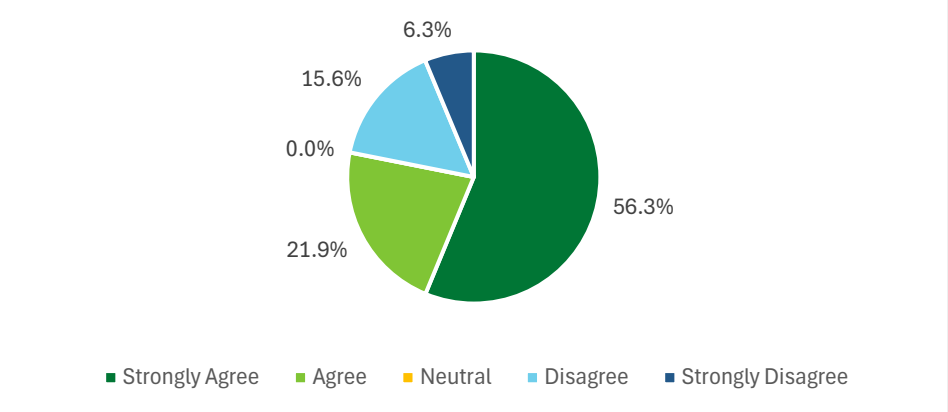


Figure 4.27 Participant responses to "*I am likely to continue using an AI Scribe in my practice long term*" All participants, closing survey only (N=32).

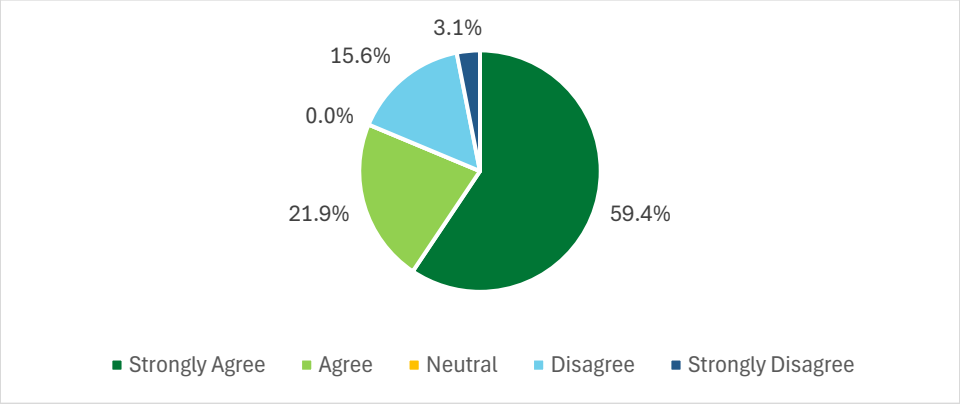


Figure 4.28 Participant responses to "*I would Recommend AI Scribes to my Colleagues*" All participants, closing survey only (N=32).

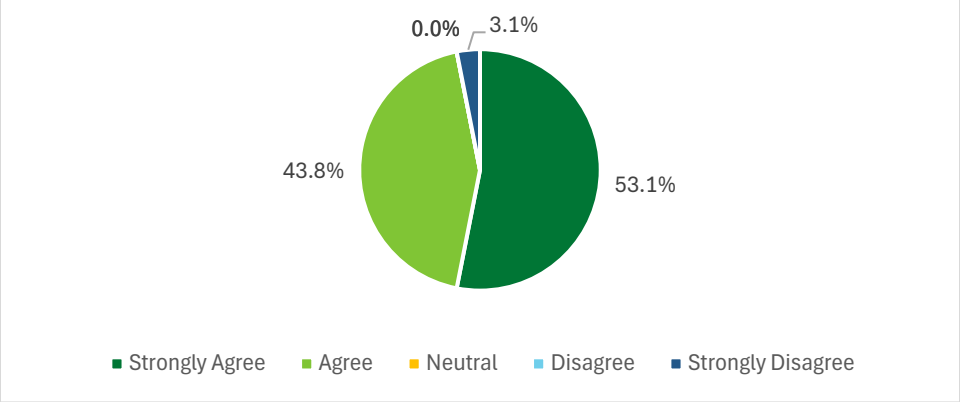
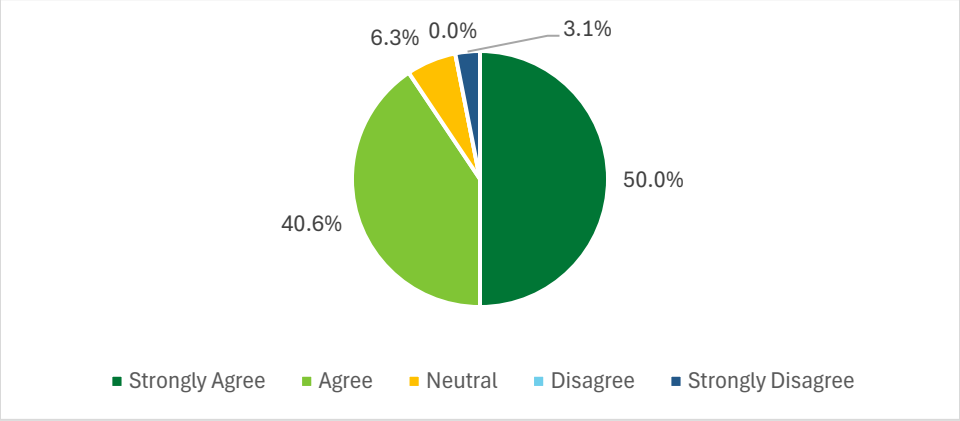
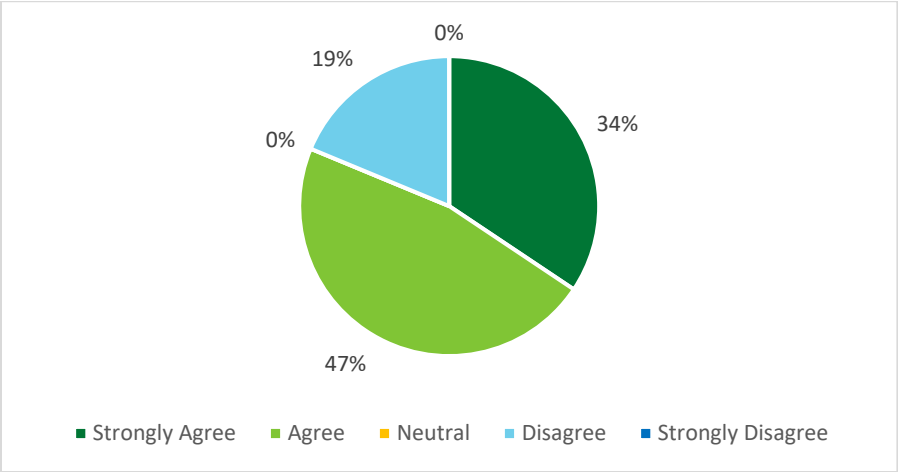


Figure 4.29 Participant Responses to "*I think it is a good idea to use AI Scribes to document clinical encounters*" All participants, closing survey only (N=32).



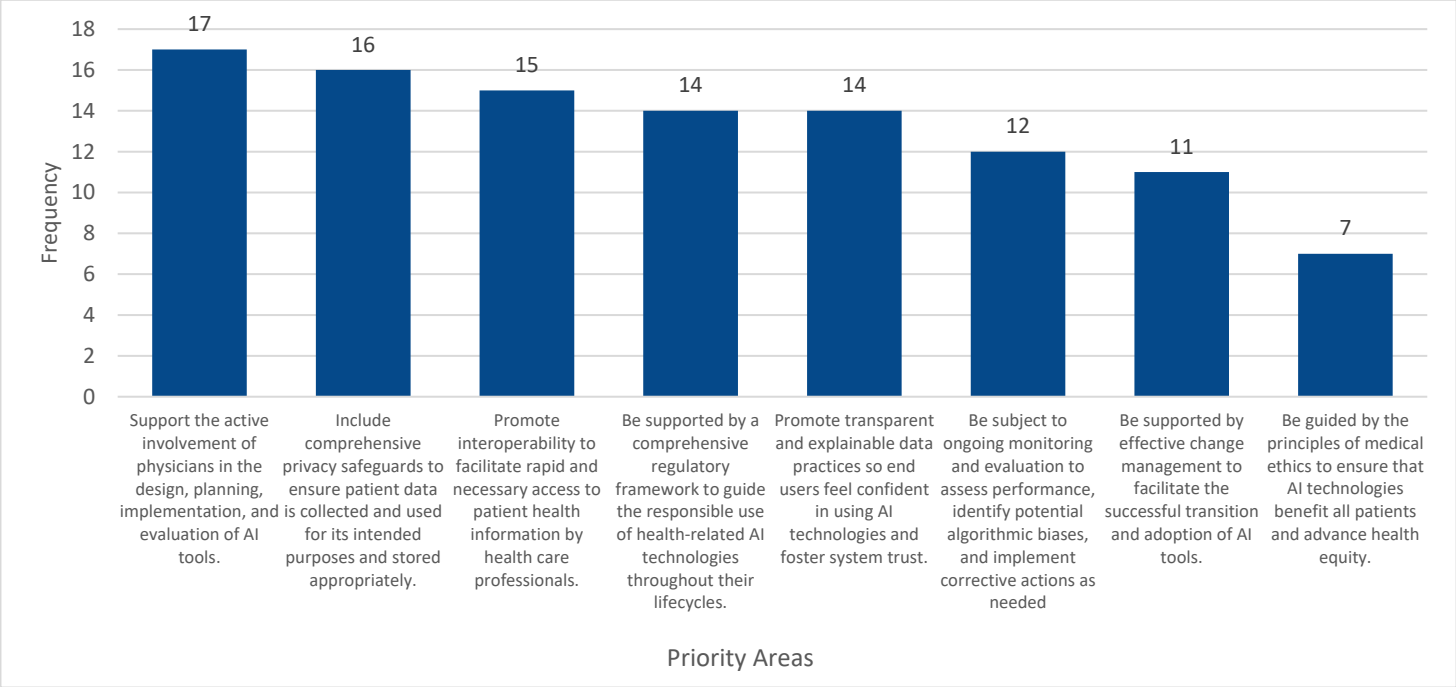
Participants were asked to respond to the statement, “I would like to test out other AI Scribe solutions in the future,” based on data collected from the closing survey (N=32). A majority of participants expressed positive sentiment, with 47% agreeing and 34% strongly agreeing with the statement. Neutral responses accounted for 19% of participants, while no participants selected "Disagree" or "Strongly Disagree." These results suggest a strong overall interest among participants in exploring alternative AI scribe solutions in the future **(Figure 4.30)**.

Figure 4.30 Participant Responses to “*I would like to test out other AI Scribe solutions in the future*” All participants, closing survey only (N=32).



The chart illustrates the frequency of selected priority areas for the future implementation of AI technologies in healthcare. The most frequently chosen priority is "Support the active involvement of physicians in the design, planning, implementation, and evaluation of AI tools," with a frequency of 17. This is followed by "Promote interoperability to facilitate rapid and necessary access to patient health information by health care professionals" (n=15) and "Include comprehensive privacy safeguards to ensure patient data is collected and used for its intended purposes and stored appropriately" (n=16). Other notable priorities include "Be supported by a comprehensive regulatory framework to guide the responsible use of health-related AI technologies throughout their lifecycles" and "Promote transparent and explainable data practices so end users feel confident in using AI technologies and foster system trust," each with a frequency of 14. The priority with the lowest frequency, at 7, is "Be guided by the principles of medical ethics to ensure that AI technologies benefit all patients and advance health equity" **(Figure 4.31).**

Figure 4.31 Participant Responses when asked to Select their Top Three Priority Areas for the Advocacy and to Support Responsible Adoption of AI in Health Care. All participants, closing survey only (N=32).



Open-Ended Feedback on Future Use of AI Scribe

Physicians emphasize the importance of addressing costs of AI Scribe tools and expanding scribe capabilities. There were ideas to enhance scribe usability, including being able to pull data from charts and automate data entry. Physicians highlighted existing challenges in their workflows which include administrative tasks, insurance paperwork, lab report review and referral creation. Physicians suggest expanding multi-language support, increased EMR integration options, and minimizing transcription delays and issues with note creation not working. Cost-effectiveness, vendor support, and ongoing technology improvements remain key factors in the decision-making process for physicians to continue with or try other scribe vendors in the future.

Open-Ended Feedback on Ideas for Expanding AI Scribe Capabilities

Future enhancements to AI Scribes could expand capabilities and have additional impacts on the ability to mitigate administrative burdens for physicians and clinics. These could include assistance with disability applications, automated patient summaries, and the completion of forms such as ICBC, WSBC, and

disability-related paperwork. Physicians emphasized the need for pre-built templates to streamline form submissions. AI Scribes should also support additional administrative tasks, including task assignments for medical office assistants, structured data entry into EMRs, coding new diagnoses, updating referral statuses, and generating lab requests. Improving AI's ability to draft referral letters and automatically generate ICD-9 codes would enhance its efficiency. Some participants have trialed AI tools capable of retrieving the latest treatment studies, a feature that could be beneficial if integrated.

4.3 Time Tracking Study

To understand the impact AI Scribes may have on patient visit length and documentation time a time tracking study was completed during this pilot with self-reported times from physicians. Participants were asked to submit time tracking sheets for 15 appointments without the use of the AI Scribe, and 15 Appointments with the use of the AI Scribe. This sheet included information on the length of the appointment time, and the length of the documentation after the appointment, as well as other key factors of the appointments, such as whether the appointment was virtual, and intake appointment, or simple or complex. The sample for this analysis is time tracking sheets from 31 physicians, comprised of 22 family physicians (71.0%) and 9 community-based specialists (as one set of sheets were invalid) **(Table 4.20)**. The total number of valid appointments submitted was 1,140 combined for both without the AI Scribe (n=589) and with the AI Scribe (n=551). Some physicians chose to include more or less than 15 appointments. The average number of appointments recorded without the AI Scribe was 19.0 per physician, and the average number of appointments recorded with the AI Scribe was 17.8 per physician **(Table 4.20)**.

Table 4.20 Summary Time Study Characteristics

Characteristic	**Frequency of Responses (%)** (n=31)
Physician Type	
Family Physician	22 (71.0)
Community-Based Specialist	9 (29.0)
AI Scribe Vendor Type	
Physicians using an EMR Integrated	11 (35.5)
Physicians using a Non- EMR Integrated	20 (64.5)
Data Points Submitted by Participant	
All Participants	1140 (100)
Family Physician	853 (74.8)
Community-Based Specialist	287 (25.2)

Number of Appointments With and Without AI Scribe		
Number of Data Points		
Without AI Scribe	589	
With AI Scribe	551	
Average Appointments Submitted per Physician		
Without AI Scribe	19.0	
With AI Scribe	17.8	
Number of Appointments With and Without AI Scribe by Physician Type		
	Without AI Scribe	With AI Scribe
Family Physician	445	408
Community Based Specialist	144	143

The average time physicians spent with patients during the appointment ("During Appointment") and the time they spent documenting after the appointment ("After Appointment") was calculated for each physician for both appointments with the use of the AI Scribe and appointments without the use of the AI Scribe. These averages were used to calculate average differences between the use cases **(Table 4.21)**. Most notable findings include an overall decrease in after-appointment documentation time of 2.3 minutes for all participants in the pilot (7.3-5.0, *Z=2.58, p=0.01*) **(Table 4.21; Figure 4.32)**. With further investigation, it was noted that this decrease was due to a significant decrease in after appointment documentation time for family physicians, averaging at 3.4 minutes (6.5-3.1, Z=3.09, p=0.004) **(Table 4.21; Figure 4.33)**; no significant difference found for community-based specialists in the analysis (Z=<0.01, p=1.0) **(Table 4.21; Figure 4.34)**.

Table 4.21 Average Documentation Time in Minutes, During and After Appointments, Without and Without the AI Scribe (N=31)

Group and Documentation Period	Without AI Scribe	With AI Scribe	Difference	Z (p)
	# of Minutes			
Overall				
During Appointment	16.4	15.6	-0.8	Z=0.41 (p=0.68)
After Appointment	7.3	5.0	-2.3	Z=2.58 (p=0.01)
Family Physician				
During Appointment	13.4	12.2	-1.2	Z=0.63 (p=0.53)
After Appointment	6.5	3.1	-3.4	Z=3.09 (p=0.004)
Community-Based Specialist				
During Appointment	23.6	24.1	+0.5	Z=-0.13 (p=0.9)
After Appointment	9.4	9.6	+0.2	Z=<0.01 (p=1.0)

**Average documentation time was calculated by establishing an average number of minutes per appointment, per physician, to control for varying numbers of appointment entries per physician.*

Figure 4.32 Average Documentation Time in Minutes, During and After Appointments, Without and Without the AI Scribe for all Participants* (N=31).

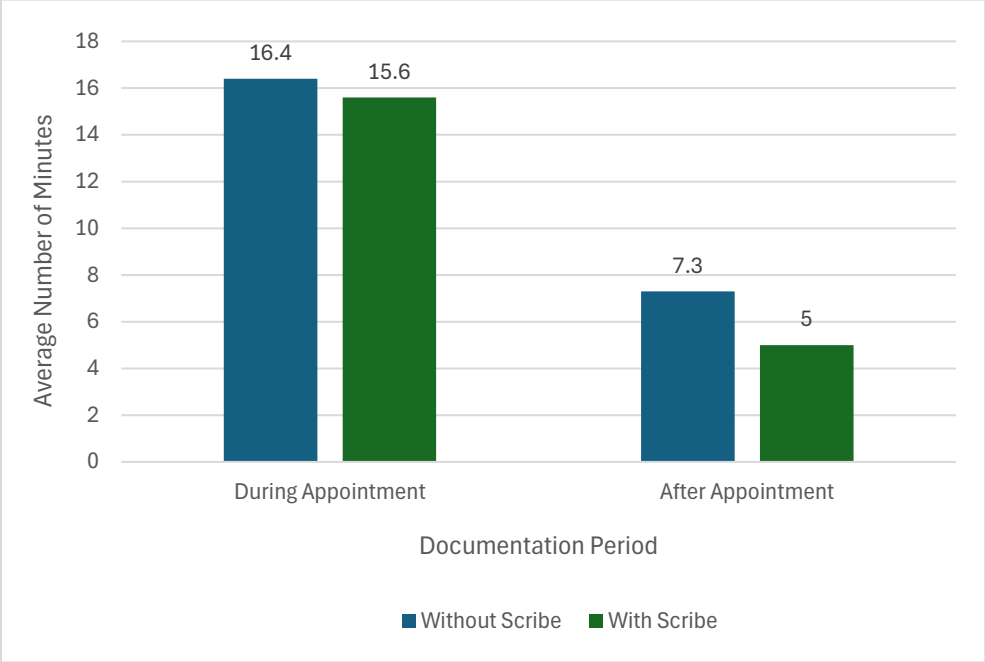


Figure 4.33 Average Documentation Time in Minutes, During and After Appointments, Without and Without the AI Scribe for Family Physicians (N=22).

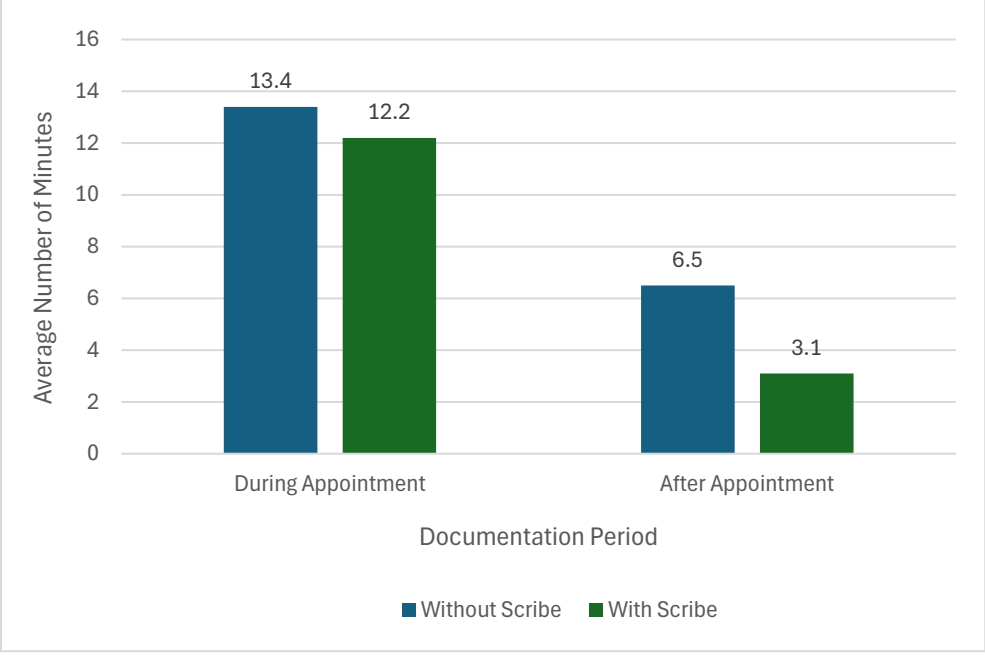
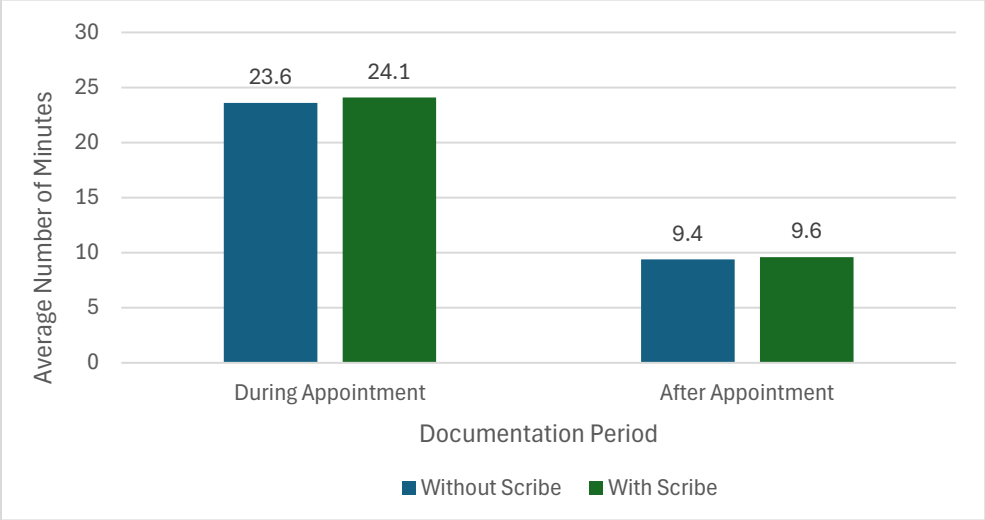


Figure 4.34 Average Documentation Time in Minutes, During and After Appointments, Without and Without the AI Scribe for Community-Based Specialists (N=9).



For physicians who provided data on appointment type for **simple appointments** (without AI Scribe n=313, with AI Scribe n=282) the data has been categorized: overall, by specialist and family physician, and integrated or non-integrated scribe. Overall, with AI scribes, documentation time during appointments was 10.2 minutes compared to 9.5 minutes without AI Scribes, an increase of 0.7 minutes. Documentation time after appointments remained constant at 3.8 minutes.

For family physicians, documentation time during appointments was 7.4 minutes with AI Scribes and 8.3 minutes without AI Scribes, a decrease of 0.9 minutes. After appointments, documentation time was 2.4 minutes with AI Scribes and 3.0 minutes without AI Scribes, a decrease of 0.6 minutes. For community-based specialists, documentation time during appointments was 17.7 minutes with AI scribes and 14.6 minutes without AI Scribes, an increase of 3.1 minutes with use of the AI Scribe. After appointments, documentation time was 7.7 minutes with AI Scribes and 7.2 minutes without AI Scribes, an increase of 0.5 minutes with use of AI Scribes.

For EMR-integrated scribes, documentation time during appointments was 7.4 minutes with AI Scribes and 10.3 minutes without AI Scribes, a decrease of 2.9 minutes. After appointments, documentation time was 1.5 minutes with AI Scribes and 4.5 minutes without AI Scribes, a decrease of 3.0 minutes. For family physicians in this group, the data matched the overall trend. Data for community-based specialists was not available.

For non-integrated scribes, documentation time during appointments was 11.1 minutes with AI Scribes and 9.3 minutes without AI Scribes, an increase of 1.8 minutes. After appointments, documentation time was 4.6 minutes with AI Scribes and 3.6 minutes without AI Scribes, an increase of 1.0 minute. For family physicians, documentation time during appointments was 7.4 minutes with AI Scribes and 7.6 minutes without AI Scribes, a decrease of 0.2 minutes. After appointments, documentation time was 2.8 minutes with AI Scribes and 2.5 minutes without AI Scribes, an increase of 0.3 minutes. For community-based specialists, documentation time during appointments was 17.7 minutes with AI scribes and 14.6 minutes without AI Scribes, an increase of 3.1 minutes. After appointments, documentation time was 7.7 minutes with AI Scribes and 7.2 minutes without AI Scribes, an increase of 0.5 minutes **(Table 4.22)**.

Table 4.22 Average Documentation Time in Minutes, During and After Appointments, Without and Without the AI Scribe for Appointment Type: **Simple Appointments**, Integrated and Non-Integrated Scribes (595 encounters)

Group and Documentation Period	Without AI Scribe	With AI Scribe	Difference
	# of Minutes (n of observations)	Minutes (% Change)	
Both Integrated and Non-Integrated Scribe			
Overall			
During Appointment	9.5 (313)	10.2 (282)	+0.7 (+7.0)
After Appointment	3.8 (313)	3.8 (282)	0.0 (0.0)
Family Physicians			
During Appointment	8.3 (254)	7.4 (206)	-0.9 (-11.0)
After Appointment	3.0 (254)	2.4 (206)	-0.6 (-20.0)
Community-Based Specialists			
During Appointment	14.6 (59)	17.7 (76)	+3.1 (+21.0)
After Appointment	7.2 (59)	7.7 (76)	+0.5 (+7.0)
EMR Integrated Scribe			
Overall			
During Appointment	10.3 (69)	7.4 (70)	-2.9 (-28.0)
After Appointment	4.5 (69)	1.5 (70)	-3.0 (-67.0)
Family Physicians			
During Appointment	10.3 (69)	7.4 (70)	-2.9 (-28.0)
After Appointment	4.5 (69)	1.5 (70)	-3.0 (-67.0)
Community-Based Specialists			
During Appointment	N/A	N/A	N/A
After Appointment	N/A	N/A	N/A
Non-Integrated Scribe			
Overall			

During Appointment	9.3 (244)	11.1 (212)	+1.8 (+19.0)
After Appointment	3.6 (244)	4.6 (212)	+1.0 (+28.0)
Family Physicians			
During Appointment	7.6 (185)	7.4 (136)	-0.2 (-3.0)
After Appointment	2.5 (185)	2.8 (136)	+0.3 (+12.0)
Community-Based Specialists			
During Appointment	14.6 (59)	17.7 (76)	+3.1 (+21.0)
After Appointment	7.2 (59)	7.7 (76)	+0.2 (+7.0)

For physicians who provided data on appointment type for **complex appointments** (without AI Scribe n=204, with AI Scribe n=178) the data has been categorized: overall, by Specialist and Family Physician, and Integrated or Non-Integrated Scribe. For all physicians, the overall documentation time during appointments decreased from 23.2 minutes without AI Scribes to 21.0 minutes with AI Scribes, a reduction of 2.2 minutes. After appointments, the documentation time decreased from 10.2 minutes without AI scribes to 7.2 minutes with AI Scribes, a reduction of 3.0 minutes. Among family physicians in this group, documentation time during appointments dropped from 19.2 minutes to 17.0 minutes, a decrease of 2.2 minutes, and after appointments from 9.0 minutes to 4.4 minutes, a reduction of 4.6 minutes. For community-based specialists, documentation time during appointments slightly decreased from 31.3 minutes to 30.9 minutes, a reduction of 0.4 minutes, while after appointments, the time increased from 12.6 minutes to 14.0 minutes, an increase of 1.4 minutes.

For physicians using EMR-integrated AI Scribes, the overall documentation time during appointments decreased from 19.3 minutes without AI Scribes to 15.4 minutes with AI Scribes, a reduction of 3.9 minutes. After appointments, the time decreased from 7.0 minutes to 2.9 minutes, a reduction of 4.1 minutes. For family physicians in this group, the trend matched the overall data, with documentation time during appointments dropping from 19.3 minutes to 15.4 minutes, and after appointments from 7.0 minutes to 2.9 minutes. Data for community-based specialists using EMR-integrated scribes was not available.

For non-integrated AI Scribes, the overall documentation time during appointments decreased from 25.9 minutes without AI scribes to 24.1 minutes with AI Scribes, a reduction of 1.8 minutes. After appointments, the documentation time decreased from 12.4 minutes to 9.5 minutes, a reduction of 2.9 minutes. Among family physicians in this group, documentation time during appointments slightly decreased from 19.0 minutes to 18.6 minutes, a reduction of 0.4 minutes, while after appointments, the

time dropped from 12.2 minutes to 5.9 minutes, a reduction of 6.3 minutes. For community-based specialists, documentation time during appointments decreased from 31.3 minutes to 30.9 minutes, a reduction of 0.4 minutes, while after appointments, the time increased from 12.6 minutes to 14.0 minutes, an increase of 1.4 minutes **(Table 4.23)**.

Table 4.23 Average Documentation Time in Minutes, During and After Appointments, Without and Without the AI Scribe for Appointment Type: **Complex Appointments**, Integrated and Non-Integrated Scribes (382 encounters)

Group and Documentation Period	Without AI Scribe	With AI Scribe	Difference
	# of Minutes (n of observations)		Minutes (% Change)
Both Integrated and Non-Integrated Scribe			
Overall			
During Appointment	23.2 (204)	21.0 (178)	-2.2 (-9.0)
After Appointment	10.2 (204)	7.2 (178)	-3.0 (-29.0)
Family Physicians			
During Appointment	19.2 (137)	17.0 (127)	-2.2 (-11.0)
After Appointment	9.0 (137)	4.4 (127)	-4.6 (-51.0)
Community-Based Specialists			
During Appointment	31.3 (67)	30.9 (51)	-0.4 (-1.0)
After Appointment	12.6 (67)	14.0 (51)	+1.4 (+11.0)
EMR Integrated Scribe			
Overall			
During Appointment	19.3 (85)	15.4 (63)	-3.9 (-20.0)
After Appointment	7.0 (85)	2.9 (63)	-4.1 (-59.0)
Family Physicians			
During Appointment	19.3 (85)	15.4 (63)	-3.9 (-20.0)
After Appointment	7.0 (85)	2.9 (63)	-4.1 (-59.0)
Community-Based Specialists			
During Appointment	N/A	N/A	N/A
After Appointment	N/A	N/A	N/A
Non-Integrated Scribe			
Overall			
During Appointment	25.9 (119)	24.1 (115)	-1.8 (-7.0)
After Appointment	12.4 (119)	9.5 (115)	-2.9 (-23.0)
Family Physicians			
During Appointment	19.0 (52)	18.6 (64)	-0.4 (-2.0)
After Appointment	12.2 (52)	5.9 (64)	-6.3 (-52.0)
Community-Based Specialists			
During Appointment	31.3 (67)	30.9 (51)	-0.4 (-1.0)

After Appointment	12.6 (67)	14.0 (51)	+1.4 (+11.0)

For physicians who provided data on visit type for **intake visits** (without AI Scribe n=72, with AI Scribe n=91) the data has been categorized: overall, by specialist and family physician, and integrated or non-integrated scribe. For physicians using both integrated and non-integrated AI Scribes, the overall documentation time during appointments decreased from 24.2 minutes without AI Scribes to 19.7 minutes with AI Scribes, a reduction of 4.5 minutes. After appointments, documentation time decreased from 8.8 minutes without AI Scribes to 5.4 minutes with AI Scribes, a reduction of 3.4 minutes. Among family physicians in this group, documentation time during appointments decreased from 20.2 minutes to 13.0 minutes, a reduction of 7.1 minutes, while after appointments, the time decreased from 7.6 minutes to 2.1 minutes, a reduction of 5.5 minutes. For community-based specialists, documentation time during appointments decreased from 28.8 minutes to 25.7 minutes, a reduction of 3.1 minutes, while after appointments, the time decreased from 10.1 minutes to 8.3 minutes, a reduction of 1.8 minutes.

For physicians using EMR-integrated AI Scribes, the overall documentation time during appointments decreased from 19.8 minutes without AI Scribes to 13.5 minutes with AI Scribes, a reduction of 6.3 minutes. After appointments, documentation time decreased from 6.8 minutes to 1.8 minutes, a reduction of 5.0 minutes. Family physicians in this group showed the same trend, with documentation time during appointments decreasing from 19.8 minutes to 13.5 minutes and after appointments from 6.8 minutes to 1.8 minutes. Data for community-based specialists using EMR-integrated scribes was not available.

For non-integrated AI Scribes, the overall documentation time during appointments decreased from 26.7 minutes without AI Scribes to 22.9 minutes with AI scribes, a reduction of 3.8 minutes. After appointments, documentation time decreased from 10.0 minutes to 7.2 minutes, a reduction of 2.8 minutes. Among family physicians in this group, documentation time during appointments decreased from 21.0 minutes to 11.8 minutes, a reduction of 9.2 minutes, while after appointments, the time decreased from 9.5 minutes to 2.8 minutes, a reduction of 6.7 minutes. For community-based specialists, documentation time during appointments decreased from 28.8 minutes to 25.7 minutes, a reduction of 3.1 minutes, while after appointments, the time decreased from 10.1 minutes to 8.3 minutes, a reduction of 1.8 minutes **(Table 4.24)**.

Table 4.24 Average Documentation Time in Minutes, During and After Appointments, Without and With the AI Scribe for Visit Type: **Intake Visits**, Integrated and Non-Integrated Scribes (163 encounters)

Group and Documentation Period	Without AI Scribe	With AI Scribe	Difference
	# of Minutes (n of observations)		Minutes (% Change)
Both Integrated and Non-Integrated Scribe			
Overall			
During Appointment	24.2 (72)	19.7 (91)	-4.5 (-19.0)
After Appointment	8.8 (72)	5.4 (91)	-3.4 (-39.0)
Family Physicians			
During Appointment	20.2 (38)	13.0 (43)	-7.1 (-36.0)
After Appointment	7.6 (38)	2.1 (43)	-5.5 (-72.0)
Community-Based Specialists			
During Appointment	28.8 (34)	25.7 (48)	-3.1 (-11.0)
After Appointment	10.1 (34)	8.3 (48)	-1.8 (-18.0)
EMR Integrated Scribe			
Overall			
During Appointment	19.8 (26)	13.5 (31)	-6.3 (-32.0)
After Appointment	6.8 (26)	1.8 (31)	-5.0 (-74.0)
Family Physicians			
During Appointment	19.8 (26)	13.5 (31)	-6.3 (-32.0)
After Appointment	6.8 (26)	1.8 (31)	-5.0 (-74.0)
Community-Based Specialists			
During Appointment	N/A	N/A	N/A
After Appointment	N/A	N/A	N/A
Non-Integrated Scribe			
Overall			
During Appointment	26.7 (46)	22.9 (60)	-3.8 (-14.0)
After Appointment	10.0 (46)	7.2 (60)	-2.8 (-28.0)
Family Physicians			
During Appointment	21.0 (12)	11.8 (12)	-9.2 (-44.0)
After Appointment	9.5 (12)	2.8 (12)	-6.7 (-71.0)
Community-Based Specialists			
During Appointment	28.8 (34)	25.7 (48)	-3.1 (-11.0)
After Appointment	10.1 (34)	8.3 (48)	-1.8 (-18.0)

For physicians who provided data on visit type for **virtual visits** (without AI Scribe n=198, with AI Scribe n=147) the data has been categorized into three categories: overall, by specialist and family physician, and integrated or non-integrated scribe. For physicians using both integrated and non-integrated AI

scribes, the overall documentation time during appointments decreased from 12.2 minutes without AI scribes to 10.5 minutes with AI Scribes, a reduction of 1.7 minutes. After appointments, the documentation time decreased from 5.3 minutes to 4.5 minutes, a reduction of 0.8 minutes. Among family physicians in this group, documentation time during appointments decreased from 9.1 minutes to 7.7 minutes, a reduction of 1.4 minutes, while after appointments, the time decreased from 3.4 minutes to 2.8 minutes, a reduction of 0.6 minutes. For community-based specialists, documentation time during appointments decreased from 20.6 minutes to 17.9 minutes, a reduction of 2.7 minutes, while after appointments, the time increased from 8.9 minutes to 10.1 minutes, an increase of 1.2 minutes.

For physicians using EMR-integrated AI Scribes, the overall documentation time during appointments decreased from 11.2 minutes without AI Scribes to 8.7 minutes with AI Scribes, a reduction of 2.5 minutes. After appointments, documentation time decreased from 5.6 minutes to 1.3 minutes, a reduction of 4.3 minutes. Among family physicians in this group, the trend was consistent, with documentation time during appointments decreasing from 11.2 minutes to 8.7 minutes, and after appointments decreasing from 5.6 minutes to 1.3 minutes. Data for community-based specialists using EMR-integrated scribes was not available.

For non-EMR integrated AI Scribes, the overall documentation time during appointments decreased from 12.5 minutes without AI scribes to 10.9 minutes with AI Scribes, a reduction of 1.6 minutes. After appointments, the documentation time increased slightly from 5.1 minutes to 5.5 minutes, an increase of 0.4 minutes. Among family physicians in this group, documentation time during appointments decreased from 7.9 minutes to 7.4 minutes, a reduction of 0.5 minutes, while after appointments, the time increased slightly from 3.0 minutes to 3.2 minutes, an increase of 0.2 minutes. For community-based specialists, documentation time during appointments decreased from 20.6 minutes to 17.9 minutes, a reduction of 2.7 minutes, while after appointments, the time increased from 8.9 minutes to 10.1 minutes, an increase of 1.2 minutes (**Table 4.25**)

Table 4.25 Average Documentation Time in Minutes, During and After Appointments, With and Without the AI Scribe for Visit Type: **Virtual Visits**, Integrated and Non-Integrated Scribes (345 encounters)

Group and Documentation Period	Without AI Scribe	With AI Scribe	Difference
	# of Minutes (n of observations)		Minutes (% Change)
Virtual Visits: Both Integrated and Non-Integrated Scribe			
Overall			
During Appointment	12.2 (198)	10.5 (147)	-1.7 (-14.0)
After Appointment	5.3 (198)	4.5 (147)	-0.8 (-15.0)
Family Physicians			
During Appointment	9.1 (144)	7.7 (107)	-1.4 (-15.0)
After Appointment	3.4 (144)	2.8 (107)	-0.6 (-18.0)
Community-Based Specialists			
During Appointment	20.6 (54)	17.9 (40)	-2.7 (-13.0)
After Appointment	8.9 (54)	10.1 (40)	+1.2 (+13.0)
EMR Integrated Scribe			
Overall			
During Appointment	11.2 (49)	8.7 (26)	-2.5 (-22.0)
After Appointment	5.6 (49)	1.3 (26)	-4.3 (-77.0)
Family Physicians			
During Appointment	11.2 (49)	8.7 (26)	-2.5 (-22.0)
After Appointment	5.6 (49)	1.3 (26)	-4.3 (-77.0)
Community-Based Specialists			
During Appointment	N/A	N/A	N/A
After Appointment	N/A	N/A	N/A
Non-Integrated Scribe			
Overall			
During Appointment	12.5 (149)	10.9 (121)	-1.6 (-13.0)
After Appointment	5.1 (149)	5.5 (121)	+0.4 (+8.0)
Family Physicians			
During Appointment	7.9 (95)	7.4 (81)	-0.5 (-6.0)
After Appointment	3.0 (95)	3.2 (81)	+0.2 (+7.0)
Community-Based Specialists			
During Appointment	20.6 (54)	17.9 (40)	-2.7 (-13.0)
After Appointment	8.9 (54)	10.1 (40)	+1.2 (+13.0)

4.4 AI Scribe Vendor Metrics

From October 1 to January 17, the three AI Scribe vendors collected user metrics (n=26) to assess participant system usage patterns. Some user's data was unavailable (n=6) because these participants had used the vendor in the past with the same email, making them ineligible for inclusion in this pilot's user metric data pull within the vendor's system. The vendor metrics offered insights into key aspects such as documentation efficiency, feature utilization, and user engagement. While each vendor supplied similar categories of information, there were notable differences in the reported data, reflecting variations in AI Scribe functionality, adoption, and user experience. By analyzing these metrics, we aimed to understand AI scribe use and identify trends across vendors.

The total number of sessions recorded by the vendors across all participants was 7,017. The findings compare the use of an AI scribe among family physicians and community-based specialists based on the number of sessions using an AI Scribe and participants. 5,619 sessions (n=17) were done by family physicians with an average of approximately 330 sessions per physician. While 1,398 sessions (n=9) were among community-based specialists with an average of approximately 155 sessions per user **(Table 4.26)**. Among all participants (n=26), 18% (1,272 sessions) were conducted with an EMR integrated scribe, while 82% (5,745 sessions) were non-integrated. Overall, 23.1% (6 participants) were using an EMR integrated scribe and 76.9% (20 participants) were not. When stratified by physician type, family physicians (n=17), with 35.3% (1,272 sessions) using the integrated scribe and 64.7% (4,347 sessions) being non-integrated. In contrast, specialists (n=9) had only non-integrated vendor sessions, with all 1,398 sessions (100%) **(Table 4.27)**

Table 4.26: Number of sessions for Family Physician and Specialist AI Scribe users between October 1, 2024 and January 17, 2025

N=26	Number of Sessions n(column %)	Average Number of Sessions n	Number of Participants n(column %)
Participants Type			
Specialist	1,398 (19.9)	155.3	9 (34.6)
Family Physician	5,619 (80.1)	330.5	17 (65.4)
All Participants	7,017 (100)	269.9	26 (100)

Table 4.27 Number of sessions for AI Scribe users between October 1, 2024, and January 17, 2025 based on vendor type

N=26	Number of Sessions n(column %)	Number of Participants n(column %)
Vendor Type (All Participants)		
Integrated	1,272 (18.0)	6 (23.1)
Non-Integrated	5,745 (82.0)	20 (76.9)
Total	7,017 (100)	26 (100)
Vendor Type (Family Physicians)		
Integrated	1,272 (23.0)	6 (35.3)
Non-Integrated	4,347 (77.0)	11 (64.7)
Total	5,619 (100)	17 (100)
Vendor Type (Specialist)		
Integrated	0 (0)	0 (0)
Non-Integrated	1,398 (100)	9 (100)
Total	1,398 (100)	9 (100)

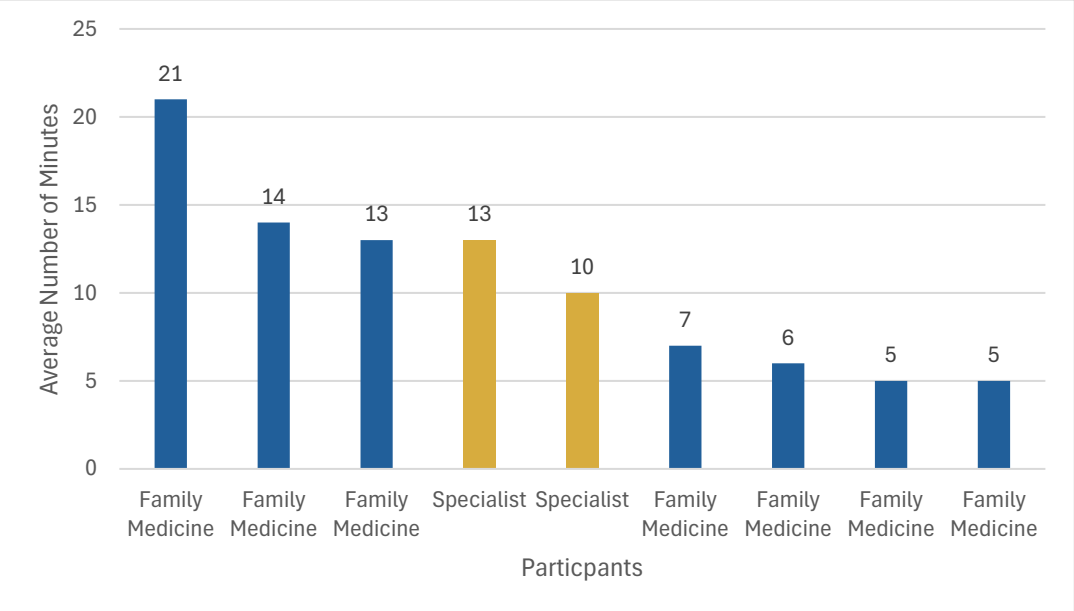
The integrated scribe vendor provided data describing participant usage for templates. Among the 6 participants and 1,256 AI scribe sessions, the most used format was SOAP notes, accounting for 77.0% (967 uses), followed by SOAP Multiple Issues at 17.4% (218 uses). Other formats were used less frequently, including Consult Letter - Multiple Sections (3.3%, 41 uses) and Referral Letter (1.6%, 20 uses). Notably, formats such as Comprehensive SOAP (0.1%, 1 use), SOAP - Merged Assessment and Plan (0.4%, 5 uses), Consult (0.2%, 3 uses), and Pediatrics - General Consult (Beta) (0.1%, 1 use) were rarely utilized within this pilot **(Table 4.28)**.

Table 4.28 Templates usage among participants who used an integrated scribe (n=6, family physicians)

N=6	Number of Uses n(row %)
SOAP	967 (77.0)
SOAP MULTIPLE ISSUES	218 (17.4)
Consult Letter - Multiple Sections	41 (3.3)
Comprehensive SOAP	1 (0.1)
Referral Letter	20 (1.6)
SOAP - Merged Assessment and Plan	5 (0.4)
CONSULT	3 (0.2)
Pediatrics - General Consult (Beta)	1 (0.1)
Total	**1,256 (100)**

One of the non-integrated scribe vendors reported data on the average encounter time per participant. The maximum time recorded was 21 minutes, and the minimum was 5 minutes, both observed among family physicians. Specialists reported intermediate encounter times, averaging 10 and 13 minutes. Overall, the average encounter time across all participants was approximately 10 minutes. **(Figure 4.35)**.

Figure 4.35 Non-integrated scribe provided metrics on average time spent on encounters (n=9, 1,959 sessions, 2 Specialists, 7 Family Physicians)



The other non-integrated scribe vendor provided details on features used by the participants. There were 11 participants using this vendor for 3,786 sessions, in which they used the Ask AI tool 446 times. Family physicians used Ask AI 229 during their 2,443 encounters, while specialists used it 217 times during their 1,343 encounters. This feature allows the user to ask the software to perform tasks such as creating letters, billing codes, or a patient summary. The participants created 546 documents (family physicians = 370, specialist = 176), this could have included consult/visit summary for patients, sick letter for work, or referral letters but no specific information was provided. Furthermore 2,609 notes were generated from scribe encounters, 1,864 coming from family physicians and 745 from specialists **(Table 4.29).**

Table 4.29 Non-integrated scribe provided metrics (n=11, 7 Specialists, 4 Family Physicians)

N=11	**Number of Uses* n(%)**
Ask AI	
Family Physician	229 (51.3)
Specialist	217 (48.7)
Total	446 (100)
Documents Generated	
Family Physician	370 (67.8)
Specialist	176 (32.2)
Total	546 (100)
Notes Generated	
Family Physician	1,864 (71.4)
Specialist	745(28.6)
Total	2,609 (100)

**There were 3,786 sessions total with this scribe, family physicians completed 2,443 sessions and Specialists completed 1,343*

4.5 Participant and Expert Focus Groups

The following section highlights key findings from the four focus group sessions held during this pilot. These sessions each involved an approximately one-hour semi- structured interview with selected groups of physicians: Experienced Physicians (who have used AI scribes before this pilot), Family Physicians, and Community-Based Specialists, to observe differences and similarities across the different roles within this pilot **(Table 4.30)**. These family physicians and community-based specialists representing different experience levels highlighted benefits such as improved efficiency, shorter documentation times, and enhanced patient interactions, while also addressing challenges related to technical performance, formatting issues, and data security. This section is organized into themes that presented within the focus group discussions.

Table 4.30 Summary Characteristics for Focus Group Participants

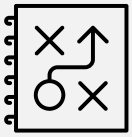
Characteristic	**Frequency of Responses n(%)** (n=14)
Physician Type	
Family Physician	11 (78.6)
Community-Based Specialist	3 (21.4)
Vendor Type	
Physicians using an EMR Integrated	4 (40.0)
Physicians using a Non-EMR Integrated	10 (60.0)
User Type	
First time user	8 (57.1)
Has tried AI Scribes before this Pilot	6 (42.9)

4.5.1 Integration of AI Scribe into Workflow

Physicians in the Specialist focus group mentioned using AI Scribes more selectively, often limiting their use to documenting the more subjective portions of patient notes. Physicians in the Experienced focus group, on the other hand, had more fully integrated AI Scribes into their daily workflows, having figured out what works best for them. They utilized the AI tools for nearly all patient encounters, including phone consultations, referrals, and disability paperwork. For many family physicians in the focus groups, the pilot program represented their first experience with AI Scribes, although a few participants had experimented with the technology outside of the pilot. Most family physicians used AI Scribes for 70-80% of their patient visits, including both in-person and virtual consultations. Overall verbal consent was commonly obtained

from patients, with a few using written consent forms. Physicians also experimented with multi-patient or multi-issue visits, finding AI Scribe templates to be helpful, though some had to make adjustments due to inconsistencies in the tool.

> "I probably on average save about an hour a day [of time savings], which I don't really want to go and see more patients. I want to do it for my work life balance. We're all stressed. We're all in danger of burning out. [AI scribe is] definitely helpful for not having that stress at the end of the day since I have recorded it."
>
> Family Physician



Integration of AI Scribe into Workflow: Summary

- Specialist physicians use AI Scribes selectively, mainly for subjective portions of notes.
- Experienced physicians use AI Scribes for nearly all encounters (phone, referrals, paperwork).
- Family physicians primarily use AI Scribes for approximately 70-80% of patient visits.
- AI templates were helpful in multi-patient or multi-issue visits, though inconsistencies required adjustments.

4.5.2 Benefits of AI Scribe Use

One of the major advantages noted by participants was the reduction in the burden of typing during patient visits. However, it was noted that this benefit did not always translate into significant time savings, as many physicians still had to review and edit AI-generated notes for accuracy. Participants emphasized time reduction could be seen for specific patient encounters. AI Scribes were seen as beneficial in reducing the documentation time required and cognitive burden, particularly when dealing with multiple issues or vague patient histories. Some participants found the experience of reviewing an AI-generated note to be significantly less burdensome that needing to complete all the documentation without the AI-Scribe, finding even a thorough review of generated notes to be less stressful and mentally taxing. An experienced user of AI Scribes, who had refined their workflow, reported saving approximately one hour per day. Many physicians stated that any time savings contributed to a better work-life balance, and there was discussion of needing to not simply translate all time savings into more work hours but instead seek to achieve better work-life balance. In some cases, physicians had commented that they were considering hiring someone to help with documentation and with the AI Scribe they have reduced the need for procuring a human scribe, resulting in financial savings. Several physicians praised the physical exam feature for accurately capturing detailed exam notes, although some found it challenging or awkward to describe physical

findings in layman's terms out loud. Most participants felt that AI scribes allowed them to focus more on their patients during visits and maintain better eye contact, thereby improving the quality of patient interactions. Physicians noted that this increased patient engagement and allowed for better communication.

> "I think it's very important [that we] got [AI Scribe] for free, and had there been a cost to it, I may not have known what an incredible tool it was. I know that it's saving me at least an hour a day, if not an hour and a half or two hours."
>
> Family Physician

Benefits of AI Scribe Use: Summary

- Reduced cognitive burden, but significant time savings required workflow refinement.
- Specific time reductions noted for multi-issue or vague histories, with some users saving ~1 hour daily.
- Potential financial savings by reducing or eliminating human scribes.
- Improved patient focus and eye contact, enhancing communication and engagement.

4.5.3 Challenges and Concerns

Despite the benefits described by participants across all groups, there were also several noted challenges and concerns. The most common issue was that AI Scribes sometimes added unnecessary information or "hallucinations" to the notes. These errors included the omission of important information, inclusion of random details, or misattributed statements, making careful review and editing necessary for all AI Scribe use in order to ensure accuracy of the notes. Physicians noted that identification of hallucinations was sometimes a difficult process, and some had concerns they might miss them or find them difficult to detect. Technical glitches, such as software crashes and transcription errors, were also common sources of frustration, particularly when clinicians relied heavily on the tool. Furthermore, there were issues with formatting when transferring notes into their EMR that hindered workflow efficiency for participants using non-integrated AI Scribe vendors. Specialists in particular found that AI Scribes often lacked the depth needed for detailed documentation in complex or long evaluations, highlighting a limitation of the tool in certain medical specialties. Additionally, AI's ability to handle multi-lingual patients had mixed reviews, it was particularly challenging for patients who switched from one language to another during the same visit. There was also the lack of options for multi-lingual visits as not all languages are currently

available on AI Scribes and vendors have different and evolving options. Some physicians expressed hope for improvements in AI's ability to manage these language transitions in the future. There were also concerns regarding the speed of note processing, with some doctors experiencing delays in AI-generated transcription or encountering technical glitches where the note could even be lost; these cases were particularly frustrating and concerning for users. There were a few participants who mentioned times when the system was undergoing updates that caused issues with their transcription as well, this caused them to have to pivot their workflow that day and go back to manual note tacking. One physician experienced consistent misidentification in sessions by the AI Scribe, despite ongoing use: the AI Scribe kept assuming a female doctor was the patient, which caused the physicians to need to perform additional edits to the note.

> “The last couple of times I was using [AI Scribe], it wasn't working… there would be a huge delay, or it would freeze. That happened to me one day and it was very annoying, especially since I've been now using it all the time… when I was getting those errors and it wasn't recording, it really interfered with what I was doing.”
>
> Specialist

Challenges: Summary

- Common errors: unnecessary details, misattributions, omissions, and hallucinations.
- Technical issues: crashes, transcription errors, formatting problems with non-integrated EMR systems.
- Specialists found AI Scribe lacking in detail for complex evaluations.
- Multi-lingual visits and language switching were problematic.
- Delays in transcription and glitches caused workflow disruptions.
- Voice recognition inconsistencies required additional editing.

4.5.4 Privacy, Security, and Consent

When it came to patient interactions, the vast majority of patients were accepting of AI Scribes based on physician experience, especially when clinicians took the time to explain their purpose and function. Physicians felt that AI Scribes improved the quality of their consultations by enabling them to concentrate on the patient rather than on documenting during the visit. Patients generally did not express major concerns about the use of AI, though a few were curious and required clarification on its purpose. Only a small number of patients expressed hesitation regarding the use of AI technology. Some physicians used

AI-generated notes to create patient handouts, which improved communication and continuity of care. Many physicians were using verbal consent, though written consent forms were still used by some.

> "[Privacy and security] are not a barrier for me because for me, I feel like I can't live without a scribe."
>
> Family Physician

> "A large portion of (patients), their question was: is this going to make your life easier? (Then) great, go for it. That was almost always the answer in the end."
>
> Family Physician

There were a few physicians who expressed concerns on how the AI models are made and how they work; they sought details about their scribe's ability to learn their encounters and if any information or feedback is going into the model. Many participants expressed that while that the technology has come a long way, they believe AI Scribes are ever evolving tools that will need continuous co-designed updates, and quality support from vendors to reflect provider needs in practice. There is concern that AI Scribes are not mature and safe enough to use and that the technology is not ready across the board to put that out an "official endorsement" or recommendation for all physicians to utilize.

Privacy, Security, and Consent: Summary

- Patients were accepting of AI Scribes, with some requiring clarifications on AI's purpose.
- Verbal consent was standard, with occasional use of written forms.
- AI notes used for patient handouts, improving care communication.
- Concerns among physicians about AI model training and data usage.
- Some believed AI was not mature or safe enough for universal recommendation.
- One participant raised environmental concerns regarding AI's impact on climate change

4.5.5 Training and Support

The focus groups also addressed the issue of training and support for AI Scribes. Many participants felt that vendor onboarding materials could be improved, with a preference for concise written guides instead of training videos. Both groups emphasized the importance of customization, with advanced users developing specialized templates and commands to optimize AI Scribe performance. Many participants suggested that ongoing peer support or structured learning opportunities could help clinicians refine their usage over time and share learning experiences and templates with each other.

Training and Support: Summary

- Onboarding materials could have been improved; concise written guides were preferred over videos.
- Advanced users developed customized templates and commands for optimization.
- Peer support and structured learning were suggested for ongoing improvement and sharing best practices.

4.5.6 Looking to the Future

Most participants found that AI scribes to be a valuable tool to improve documentation efficiency and enhance patient interactions and found effective use of the tool to be contingent upon thoughtful implementation, customization, and troubleshooting. AI Scribes had a positive impact on reducing administrative workloads and allowing for improved workflow efficiency. **Across the focus groups, there was consensus that AI Scribes have the potential to improve medical documentation, but they require continuous enhancements in accuracy, integration, and reliability to be fully effective in diverse clinical settings.** The consensus among participants was that while AI Scribes showed great promise, further improvements and refinements were necessary to make the technology a more reliable and seamless tool in clinical practice. There were suggestions that the technology should do more than just scribe in order to maximize the value of integrating into clinical workflow. Participants highlighted that that documentation time in clinical workflows includes creating referrals, lab requisitions and other documents, and AI Scribe would be an even better tool if it could perform those tasks as well based on the encounter note. Additionally, more personalized training and ongoing support will be crucial to ensure that physicians can effectively leverage these tools in their daily practices.

> “You need to invest the time to set [AI Scribes] up the way you like it. Be aware of hallucinations. They're there, they’re subtle and they're tricky… the quick answer is yes, I recommend [AI Scribes].”
>
> Specialist

While overall support for scribes was consistent among participants, one participant indicated that they would not be continuing with AI Scribes because of its potential environmental impacts. The participant wanted to do more research into the environmental impacts of AI technology. They believed physicians are practicing in a time when climate change is a stark reality, directly affecting patients. Given this, they felt it would be irresponsible for the medical community to embrace and advocate for AI if its use and advancement come at the expense of our planet. Several prospective participants also choose not to pursue the pilot and cited concerns about data security.

Looking to the Future: Summary

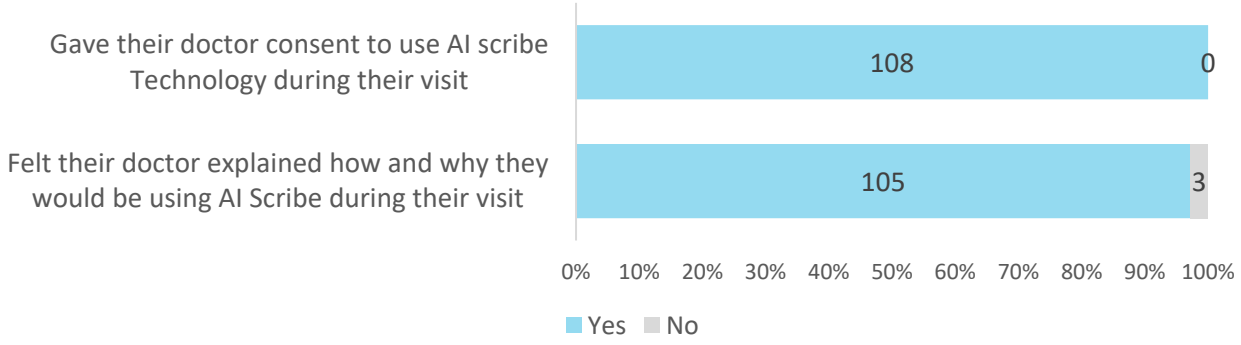
- AI Scribes were viewed as valuable for improving documentation efficiency and patient interactions.
- Improvements needed in accuracy, integration, and reliability.
- Suggested future use cases: generating referrals, lab requisitions, and other documents from notes.
- Personalized training and ongoing support were considered crucial for effective usage.
- Participants acknowledged AI’s potential but emphasized the need for continuous development.

4.6 Patient Experience

4.6.1 Patient Experience Survey

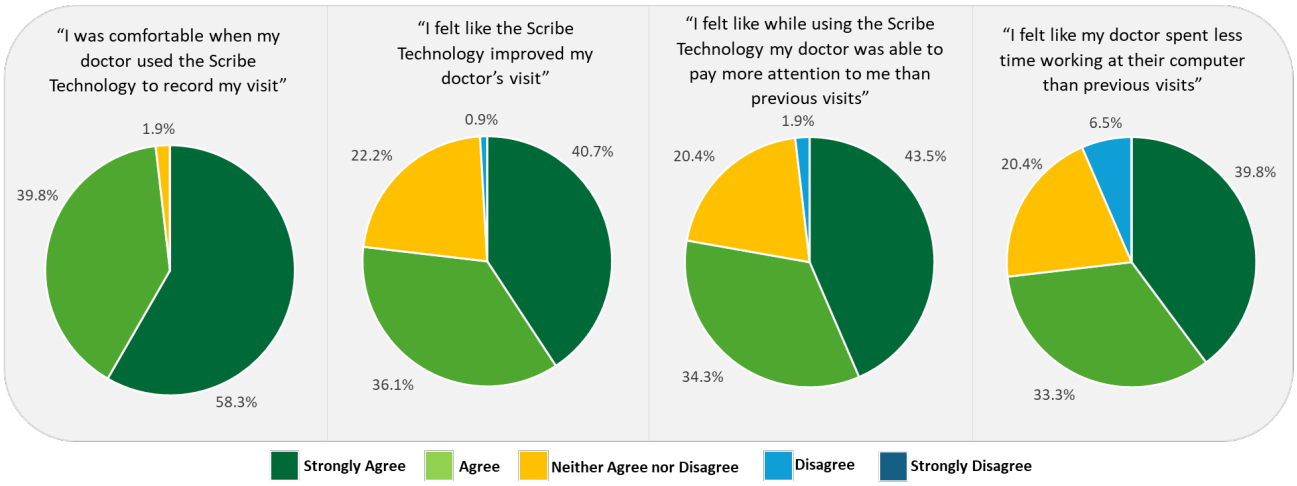
The patient experience survey had a total of 108 respondents. The same survey was offered in both as a paper copy and online format, via a QR code provided by the physician or clinic. The majority of respondents chose to complete the survey online (101) with the remainder returning paper copies (7). All respondents (n=108) noted that they gave their doctor their consent to use the scribe during their visit, and all but 3 respondents (n=105) felt their doctor explained the use of the scribe during their visit (**Figure 4.36)**.

Figure 4.36 Patient Experience Survey Results for the following Yes/No Questions (n=108)



Patients were then asked four questions regarding their experience with their physician using the AI Scribe during their visit. The large majority of respondents agreed (39.8%) or strongly agreed (58.3%) that they were comfortable with their doctor using the AI Scribe during their visit, with the remaining respondents selecting “neither Agree nor Disagree” with this statement (1.9%). No respondents disagreed with this statement. Most respondents “agreed” (36.1%) or “strongly agreed” (40.7%) that the AI Scribe improved their visit, “agreed” (34.3%) or “strongly agreed” (43.5%) that their doctor was able to pay more attention to them than previous visits and “agreed” (33.3%) or “strongly agreed” (39.8%) that their doctor spent less time working at their computer during previous visits. Of all questions, patients were most likely to “disagree” that their doctor spent less time working at their computer during the visit (6.5%) **(Figure 4.37).**

Figure 4.37 Patient experience survey results for the following agreement statements regarding their experience using AI Scribe during their visit (n=108)



4.6.2 Physician Perceptions of Patient Experience and Encounters

In the closing survey, physician participants were asked questions regarding their perceptions of their patients' experience using AI Scribes during their appointment. The large majority of respondents indicated that they agreed or strongly agreed (total N=28; 87.5%) that their patients had welcomed and felt comfortable with the AI Scribe being used during their appointment **(Figure 4.38)**. Additionally, most participants agreed or strongly agreed that the AI Scribe allowed them to be more engaged with their patients (total n=27; 84.4%) **(Figure 4.39)**. Consistent with this finding, participants were more likely to disagree or strongly disagree that the use of the AI Scribe interferes with the way they interact with their patients (total n=23; 71.9%) **(Figure 4.40)**. Overall, 65.7% (n=21) of participants in total agreed or strongly agreed that the AI Scribes helped provide better care to their patients, and 25% (n=8) were neutral on the topic **(Figure 4.41).**

Figure 4.38 Participant Responses to *"I believe that most of my patients have welcomed and been comfortable with the fact that I use AI Scribe during their encounters,"* All participants, closing survey only (N=32)

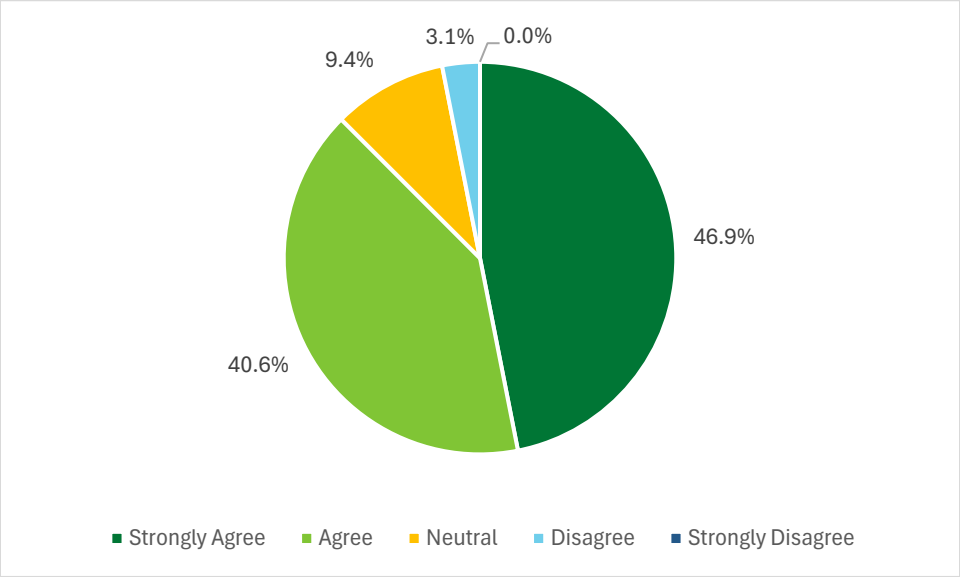


Figure 4.39 Participant Responses to "*I believe that the use of AI Scribes has helped me be more engaged with my patients during clinical encounters,*" All participants, closing survey only (N=32)

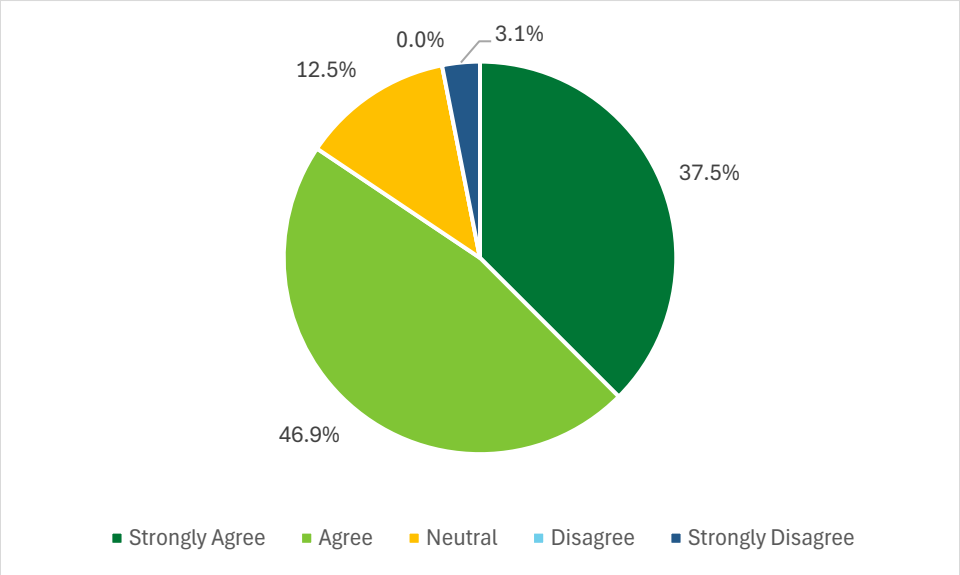


Figure 4.40 Participant Responses to "*I believe that the use of AI Scribes interferes with how I typically interact with my patients,*" All participants, closing survey only (N=32)

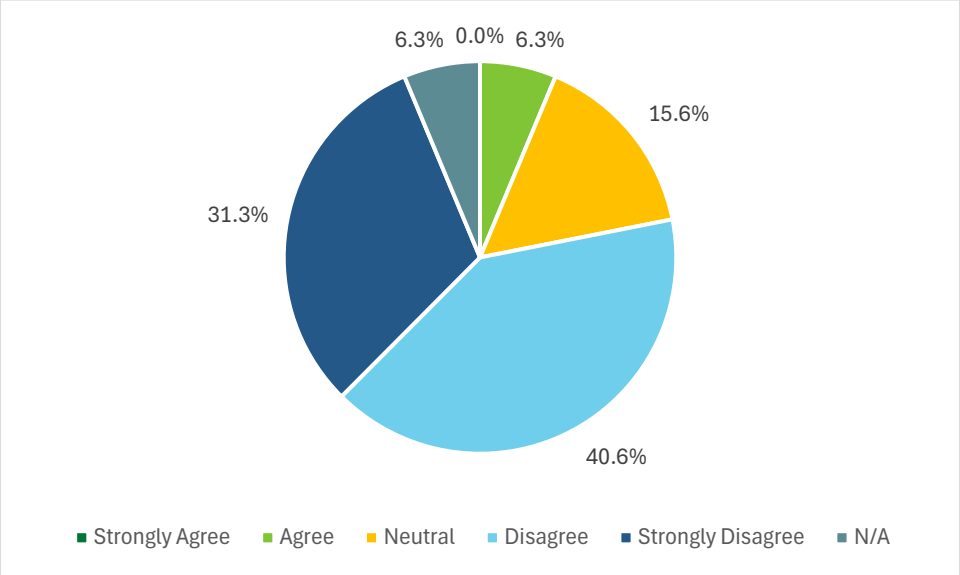
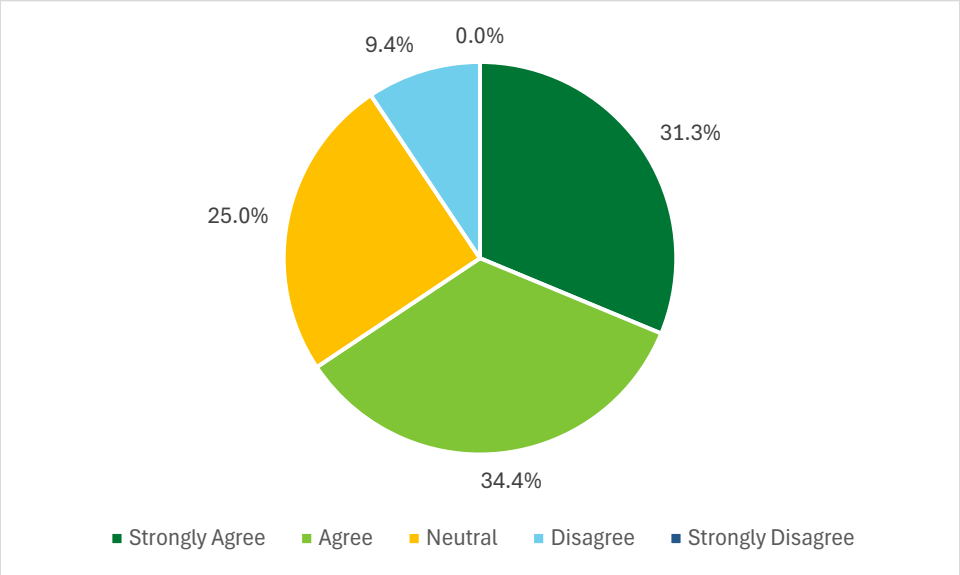


Figure 4.41 Participant Responses to "*I believe that the use of AI Scribes has helped me provide better quality of care to my patients,*" All participants, closing survey only (N=32)



5. Discussion, Recommendations, and Future Scope

This pilot recruited and provided AI Scribe access to 32 physicians (who returned their data collected tools) for up to 6 weeks. Each physician documented their experience using the AI Scribe in their practice by completing a series of data collection measures. Key discussion topics of this pilot are organized by the evaluation goals, which highlight the user experience with the AI Scribe and the impact on physician burnout, the technical performance of the AI Scribe, and the patient perspective of the AI Scribe during their physician encounters. This section also discusses change management and adoption of AI Scribes into practice, as well as recommendations identified through this work, recommendations for future evaluation scope, and limitations of the current pilot.

5.1 AI Scribe Impact on Administrative Burden and Physician Burnout

The AI Scribes used in this pilot have the potential to positively impact physician documentation workload and decrease physician burnout with regular use for **family physicians**. An average decrease of **3.4 minutes in after appointment documentation time per appointment** was seen for family physicians. With an average number of appointments for family physicians per week estimated at 100, this could lead to a potential time savings of up to 5.7 hours per week with maximal AI Scribe use (Canadian Institute for Health Information, 2020). Additionally, family physicians estimate a total reduction of administrative work of 2.7 hours per week, with 2.1 hours per week being reduced after regular working hours. These reductions were noticed by the physicians in their answers to other survey questions, indicating that they felt like their workflow had improved, and that they were more likely to agree that their paperwork and billing during the pilot study was manageable with the use of the AI Scribe. These results are similar to what was found in previous research in Ontario, which showed a decrease of over 3 hours per week in administrative burden and documentation time for physicians with the use of AI Scribes (Women's College Hospital, 2024).

For Family Physicians, AI Scribes have the ability to reduce two known causes of physician burnout: administrative burden and after-hours workload. This is evidenced in this study with both time-measurement tracking and physician perceptions of their workload. More evaluation and data collection are needed to determine the degree to which these types of reductions have an impact on physician workload long-term, and what personal and system benefits can be realized as a result of these

reductions, such as improved work life balance, improved mental health of physicians, and more capacity for high-quality patient care.

Recommendation: Evaluate Realized Impacts

This pilot provides evidence to suggest measurable time savings as a result of AI Scribe use. More investigation in the form of a longitudinal study is needed to determine how this time is being used to make an impact on physician workload and burnout, work-life balance, and system cost savings.

Reductions in timed administrative burden were not seen for community-based specialist physicians for this pilot. Compared to family physicians, they reported less positive impact of AI Scribe use on administrative burden and burnout, indicating the need for more research into how scribes could be tailored to suit the needs of specialist physicians. Similarly, this is in line with previous pilot explorations in British Columbia with community-based specialist physicians, indicating no reduction in documentation time. This outcome was primarily attributed to the rapid evolution of the solutions, requiring continuous adaptation, and the inconsistency of output. Over time, these factors offset any time savings achieved when the technology functioned seamlessly (Elevate Consulting, 2024).

However, community-based specialists indicated positive impacts of AI Scribe use during the focus group and survey results. They affirmed that the AI Scribe can take detailed notes during long appointments, providing more information in the notes than would be possible typing on the computer, allowing them to be more present within their conversations with patients; one specialist emphasized that this left them better able to do clinical assessment *during* the visit, and reduced their mental fatigue and burden of documentation. It is possible in the case of some specialist physicians, the benefit of the scribe in this pilot was not directly related to the reduction of administrative burden, but to the reduction of cognitive burden, alongside the quality of the notes and time spent with patients during appointments.

Recommendation: Tailored Features for Specialist Physicians

Strategies to improve administrative workload for specialist physicians could include the development of tailored solutions for specific practice needs, i.e., patient examinations, referral notes, and note templates. Once these features are in place, an evaluation of potential applicability to specialist physicians could yield more benefits for these groups.

In addition to stratifications for family physicians and specialists, further analysis was completed to determine how the AI Scribe could impact documentation time on specific types of appointments. When comparing physician-indicated "simple" and "complex" visits, physicians saw a greater reduction in documentation time for complex visits. Within participant focus groups, some physicians noted that for their workflows it may be easier to note simple appointments without the AI Scribe, rather than copy and pasting the generated note, as physicians are already efficient in noting simple appointments. Notable documentation time reductions were also seen for intake visits and virtual visits, providing evidence that AI Scribes can be versatile and efficient in multiple appointment types.

When comparing administrative task time reduction amongst EMR-Integrated vs non-integrated AI Scribes, this pilot provides evidence that **EMR-Integrated Scribes may be more likely to lead to a significant reduction in documentation and administrative workload** for most appointment types. Larger reductions were almost always noted for physicians using EMR-integrated scribes for all appointment types. When selecting an AI Scribe, factors to consider include clinic's ability to support an EMR Integrated scribe, EMR Vendor, Cost, and Privacy and Security implications.

In summary, there are many factors that contribute to administrative and cognitive burdens, and physician burnout. This study highlights that AI Scribes can decrease documentation time for physicians, with a range of factors impacting effectiveness within the short study period, such as physician and practice type, and AI Scribe features such as EMR Integration and language capabilities. The physicians in this pilot indicated a majority positive response to the AI Scribe, experienced some alleviation of administrative and cognitive burden, potentially giving them more time to allocate to other tasks or work-life balance.

5.2 Technical Performance of the AI Scribe

During this pilot, physicians used the scribe for over 7,000 appointments, an average of 270 appointments per physician (this included appointment data collected for 26 physicians). The majority of physicians (n=24, 75%) in this pilot were able to use the AI Scribe multiple times a day, many indicating that they used the scribe for 81-100% of their visits (n=11, 34.4%), providing evidence that they were able to use the scribe in many different scenarios.

When asked about the AI Scribe's technical performance, the majority of respondents believed the documentation to be accurate (n=21, 65.6%), however, nearly 20% were in disagreement that the documentation was accurate, leaving room for more exploration as to how the AI Scribes' documentation accuracy could be improved. Focus group participants stated that they experienced technical challenges and glitches, potentially having a negative impact on their note quality and detail if they were depending on the AI Scribe to take their notes. Physicians were split in indicating the severity of the errors, with (56.3%) in agreement that errors were minimal, and 28.1% with total disagreement that the errors were minimal, indicating a group of physicians noticed impactful errors.

Accurate documentation is essential for not only reduction in administrative burden and physician burnout, but also to provide high-quality, safe care to patients. Incorrect documentation produced by AI Scribes has the potential to increase the possibility of errors within the patient records. Because of this, it is essential for physicians to continue to review and validate the notes produced by the AI Scribe. This could have had an impact on the total reduction in documentation time, as physicians are required to spend time reviewing and correcting the created notes. The burden of documentation review versus generation differed notably between study participants; the extent and type of any reduction of burden will vary by AI Scribe user.

Recommendation: Ongoing Physician Review

Although most physicians felt that the AI Scribe produced accurate notes, there is still a need to validate the generate notes to assess for accuracy and completeness to avoid missing information and errors that could affect patient care.

The vendor-provided metrics provided insights into popular uses of the AI Scribe technology, the most popular being SOAP note templates for single and multiple issues. Non-integrated AI Scribes provided insights into additional features commonly used within the software, where physicians utilized their other AI capabilities to perform tasks to aid in the summarization and creation of documents. Moving forward, EMR Integration, note accuracy, and additional features such as billing coding would be valuable to expand the functionality and uses cases of the Scribe. With national efforts and value being placed on data standardization (Canadian Institute for Health Information, 2024) and interoperability (Canada Health Infoway, 2023), AI Scribes have the potential to make a large impact to improve the health data

available within the healthcare system. Improved data quality has important implications for population health management (Bernardi, et al., 2023), and AI Scribes have the opportunity to positively contribute to these efforts.

Recommendation: Value in Offline Capabilities

Participant focus groups indicated technical issues posing challenges to the completeness of their documentation. If a physician is relying on the scribe and the system fails to produce the note due to technical error or loss of internet, this could lead to loss of valuable information. Use of the technology while offline could be particularly important for physicians in rural communities more subject to outages.

Future Work in AI Scribes

AI Scribes could be considered as a facilitator to improve data quality, standardization, and interoperability with commonly used features assisting in coding and summarizing patient information.

5.3 Change Management and Adoption of AI Scribes

Overall, the majority of participants indicated that the AI Scribes were easy to learn, easy to use and easy adopt into their practice. They also reported that the training materials and technical support provided by the vendor were adequate to support their adoption of the AI Scribe into their practice. Training supports and materials such as virtual and video demos, information packages, and one-on-one calls were utilized and seen as beneficial to support the onboarding needs of physicians. Training materials were provided directly through the vendor, requiring physicians to seek direct support if needed. There was no pilot specific support process for technical assistance; therefore, the pilot data around training needs reflects a minimal level of base support that was generally sufficient for physicians to implement but not necessarily optimize AI Scribe use. Participants were split on whether they could have benefitted from more training materials, as many believed they received the training they needed. Of note, there were a few comments to improve training materials within the focus groups.

With smooth adoption and learning of AI Scribes noted in this pilot, there could be potential for large-scale adoption with administrative benefits that quickly out-weigh the time spent to adopt the tool. Metrics regarding physician time investment to implement the scribe reported some physicians spent as little as 1 hour learning to use AI Scribes while some said they spent approximately 10 hours. Overall, the

average time spent was 3.5 hours to implement and use the AI Scribe, and another 3.4 hours adjusting the technology to suit their needs. Most participants in this pilot indicated that they used the AI Scribe for 4-6 weeks before returning their data collection tools; additionally, they noted that if they were to have more time using the Scribe, they expected to see more efficiencies and benefits to AI Scribe use. This implies that it might take longer than 6 weeks of trial time to optimize use, realize efficiency and implement additional features of the AI Scribe. Therefore, when planning to implement an AI Scribe, allowing for a few months before making a benefits assessment may yield more impactful results, including better reflecting of the impact of ongoing use in practice.

Peer-to-peer support was seen as an effective enabler of the successful learning of AI Scribe features, identified within both survey open-ended responses and participant focus groups. For example, focus groups settings organically included participants sharing both share tips and strategies for effective AI Scribe use and identifying useful features; this was a highlight for participants and from these learnings, it is seen that access to peer support or the facilitation of identifying clinician champions may be an indicator of positive AI Scribe adoption and maximization of use.

Recommendation: Peer-to-Peer Support

It was noted and witnessed within this pilot that having clinician to clinician support for the implementation and optimization of use could be beneficial for new and experienced users of AI Scribes. Vendors or clinics seeking to onboard groups of physicians could facilitate peer support to establish what works best for different practice types and use cases.

5.4 Patient Experience with AI Scribes

This project was able to capture the patient experience from over 100 patient encounters using the AI Scribe. Patient responses were positive to AI Scribe use, indicating that they felt comfortable with the AI Scribe and that their physicians spent less time at their computer, and more time face-to-face with the patient. Previous research on patient perception of AI Scribes used within health care settings indicates similar findings, in that few patients declined the use of the scribe, and when the scribe was present, it had positive or little perceived impact to their visit (Tierney, et al., 2024).

Patient buy-in is of utmost importance for implementing digital technologies, such as AI Scribes, for long-term and wide-spread within medical settings. Having patients feel comfortable and supported is crucial to patient experience, and their willingness to receive care. A recent review of facilitators and barriers of patients using digital health tools such as portals and telemedicine indicated barriers such as digital literacy and privacy consent (Madanian, Nakarada-Kordic, Reay, & Chetty, 2023). These barriers could also be applicable to patient acceptance of AI Scribe use, indicating the importance of patient education and informed consent for wide-spread adoption.

Most physician participants indicated positive impact to patient experience with Scribe use, indicating that they were able to spend more time with patients, and that they felt it improved or did not change the quality of care to their patients. Focus groups echoed these findings, highlighting more benefits to patients print-outs and doctor's notes. Some AI Scribes have the potential to produce a patient print out of the note created by the AI Scribe during their appointment; participants who utilized this feature found their patients were generally interested and impressed by the note. This feature could improve patient involvement in care and self-advocacy. Providing patients information about their own care and what was discussed at their appointments could lead to patients feeling more informed and involved. More information is needed to determine the long-term implications of these features on patient experience and improvements to patient autonomy.

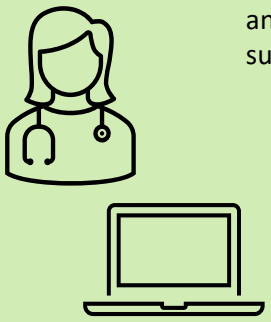
Recommendation: Explore Tangible Value to Patients

In addition to improved patient experience within the appointment, it was noted that AI Scribes could produce documents available to the patients, such as note summaries and physician notes for sick leave. More investigation is needed to determine how these documents can assist in providing holistic care to patients.

6. Summary: Recommendations and Future Evaluation Scope

This pilot project provided valuable insights into the impact of AI Scribes on physician burdens, while uncovering directions for future use of AI Scribes and research and evaluation opportunities. The following section provides summaries of learnings and recommendations for the implementation of AI Scribes, for

future evaluation scope, and learnings from this pilot to bring forward for implementing more trials of AI Scribes.

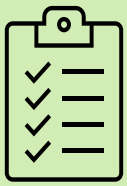


Physicians considering AI Scribe exploration and implementation should consider their readiness and plan for learning the tool and adjusting workflow. Specific readiness considerations that surfaced through this pilot include:

- ✓ AI Scribe compatibility with EMR System
- ✓ Practice and appointment type
- ✓ Implementation and change management, time to install and adjust the scribe to suit their needs
- ✓ Utilize the support materials provided by the vendor
- ✓ Ability to seek peer support
- ✓ Length of the trial of the scribe: May not be able to see the benefits realized within the time frame offered for a free trial
- ✓ Privacy and security implications
- ✓ Cost

To further assess the impact of AI Scribes, the follow key areas of interest emerged as a result of this pilot:

- ❖ Explore long-term impacts of AI Scribe use on physician administrative burden, burnout, well-being, and work-life balance
- ❖ Explore the impact of AI Scribes on patient care from the lens of experience, holistic care and self-advocacy, and patient outcomes
- ❖ Investigate resolutions to common AI Scribe errors and how they will impact the overall quality of notes and documentation
- ❖ Determine how AI Scribes could be useful tools for data standardization, interoperability, and population health management.



Clinicians are encouraged to try the AI Scribe for multiple appointment types, the family physician participants in this pilot provided evidence that AI Scribes could reduce documentation time for:

- ✓ After-appointment documentation time
- ✓ Simple Appointments
- ✓ Complex Appointments
- ✓ Virtual Appointments with EMR Integrated Scribes
- ✓ Intake Appointments

7. Limitations

This pilot was subject to a restricted timeline, which only allowed participants to use the allocated AI Scribe between October 1, 2024, and January 17, 2025. This constrained period may not have been sufficient for all physicians to fully integrate the scribe into their workflows or for new users to gain proficiency. Additionally, some participants had prior experience with other scribe vendors, which could have influenced their perceptions and adaptation to the allocated AI Scribe. The variation in prior exposure may have affected consistency in user experience and outcomes. Furthermore, participants were identified by self-proclaimed interest in using an AI Scribe for the pilot, these physicians may be more likely to adopt and trial digital health solutions within their practice and therefore have an easier time adopting technology than those who may be resistant to introduce new technologies into their practice. Future evaluation is needed to determine factors that may lead physicians not to trial or adopt AI Scribe technology.

The decision to protect physician anonymity with the use of anonymous patient surveys prevented differentiation between experiences reported by patients seeing specialists versus those seeing family physicians. This lack of specificity limited our ability to assess whether patient experience varied across different types of care providers. Additionally, self-reported data, particularly in the form of paper copies, introduced potential for human error and bias. Patients who declined to use the scribe were also excluded from the survey, creating a gap in understanding their perspectives. More research is also needed to determine the perspectives of those who did not want to use the scribe technology during their appointments.

The time-tracking component of the study was subject to multiple potential sources of variability. Recognizing the great effort physicians made to report data for this pilot, a paper recording sheet was chosen to log appointment and documentation times with and without AI Scribe use for physicians. This was chosen as the best method to limit further administrative burden to physicians to complete this pilot, by avoiding needing to log in and open another window within their computers during appointments, and to allow for easy transfer between appointment rooms. However, self-reported timing could include inaccuracies due to delays in starting or stopping the timer, as well as estimations rather than precise measurements. Further, variability in physician workflows, documentation habits, and patient interaction styles could have influenced the recorded time, making direct comparisons challenging. Awareness of the

time-tracking study may have also influenced physician and patient behavior, potentially leading to conscious or unconscious alterations in workflow. Additionally, not all physicians included a full range of visit types—such as complex, intake, virtual, and simple encounters—further limiting possibility for stratification and generalizability. Lastly, technical challenges with the scribe impacted time-tracking data for some physicians, introducing inconsistencies in the dataset.

Finally, this pilot project had a short time frame and required multiple sources of reporting and data collection by physicians. Because of this, our target sample of 50 participants to return their data collection tools was not met. Although over 50 physicians were on-boarded and trialed the AI Scribe, only 32 physicians were able to successfully complete and return all their data collection tools. Because of this, we were not able to understand the full perspective of those who trialed the AI Scribe, or dropped out of the trial, leading to potential bias in reporting to include only those physicians who were able to complete the pilot. In future work, noting the effort to decrease paperwork for physicians, the potential to target specific measures could reduce the amount of data collected by physicians. As this was a pilot study, a breadth of information was necessary to identify areas of interest for future investigations.

8. Conclusion

This pilot study examined the experience of family physicians and community-based specialists in British Columbia using AI Scribes within their practice for up to six weeks. Physicians completed and returned a series of data collection tools to provide insights into their experience with adoption of the AI Scribe, impact on their workflow and administrative burdens, and the technical performance of the AI Scribe. Key findings suggest that AI Scribes can help reduce administrative burden for family physicians, and that AI Scribes can be used for a variety of appointment types and documentation methods. Physicians noted that careful, consistent review of AI-generated notes was necessary to ensure accuracy, and the value of engaging with peers to share learnings and optimize AI Scribe use in practice. This work also highlighted considerations for change management and adoption of AI Scribes for physicians, bringing forward helpful recommendations for implementation. This pilot was able to capture patient experience with AI Scribe use, noting that patients were comfortable with AI Scribe being used by their physician, and that AI Scribes have the potential to improve their visits. Next steps for AI Scribe evaluation include longitudinal investigation of the realized benefits of reduced administrative hours for physicians, as well as how the

continuous enhancement and development of AI Scribe features could impact overall patient care through the lens of data quality and relieved burdens for physicians.

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Appendix A: Data Collection Tools

Intake Survey

* Surveys were filled out via Microsoft Forms link*

Consent

Thank you for participating in the AI Scribe Pilot! This survey should be completed at the beginning of the pilot. The information you provide helps us evaluate the opportunity of AI Scribes to alleviate physician burdens in a practice context in BC.

Please note that by completing this survey, you agree to have your contact information shared with our evaluators and Doctors of BC staff for the purposes of participating in this pilot. Please fill out each of the sections below. This survey should take about 30 minutes, and compensation for this time will be included in your sessional payment at the close of the project, no further action required.

If you have any difficulties with the survey, or questions about the pilot in general, please don't hesitate to reach out to please contact _____ .

Contact and Participant Info

1. Full Name

2. Email Address

Please provide the address you would like to be contacted at in relation to the pilot. Please note that this information will be shared with the evaluators and pilot support staff in order to run and evaluate the pilot.

3. Are you a family physician or specialist?

a. Family Physician

b. Specialist

If specialist:

What is your specialty?

Free text

Continues:

4. Which of the following best describes your clinic environment?

a. Walk in clinic

b. Appointment based

c. On-call

d. Other: _____

5. Do you provide patient care virtually?

a. Yes, and it is a significant portion of my encounters (over 35%)

b. Yes, but it is a minimal portion of my encounters (under 35%)

c. Not at this time

6. Which best describes your current practice type?
a. Solo practice
b. Group or team-based practice
c. Hospital-based practice
d. I do not know
e. Prefer not to answer
f. Other

7. Which best describes your employment status based on work commitment?
a. Full-time (30+ hours per week)
b. Part-time (less than 30 hours per week)
c. Casual, on-call, or short-term contract
d. I do not know
e. Prefer not to answer
f. Other

8. In which health authority do you practice? Please select all that apply.
a. Fraser Health
b. Interior Health
c. Island Health
d. Northern Health
e. Providence Health
f. Vancouver Coastal Health
g. Provincial Health Services

9. What EMR are you currently using?
a. Accuro (QHR)
b. Arya EHR (Arya Health)
c. Cerner (Oracle)
d. CHR (TELUS)
e. cEMR (Mustimuhw)
f. iClinic (MDLand)
g. Juno (WellHealth)
h. Med Access (Telus)
i. Meditech (Meditech)
j. MOIS (Bright Health)
k. Myle (MedFar)
l. Oscar Pro (WellHealth)
m. Oscar Classic
n. Plexia (MedFar)

o. Profile (Intrahealth)
p. Plexia (MedFar)
q. Other

10. Are you practicing in a rural community?
a. Yes
b. No

11. Does your patient panel include a high percentage of any of the below patient populations?
a. First Nations, Inuit, Metis and/or from urban Indigenous communities
b. Racialized/ethnic communities
c. Persons with disabilities/disabled persons
d. 2SLGBTQ+ persons
e. Complex disease management
f. Precarious status individuals (e.g. temporary foreign workers, refugees)
g. Linguistic diversity (e.g., non-English speaking)
h. Low socioeconomic status
i. 65+
j. Under 18
k. Other

12. Do you provide care in languages other than English?
a. Yes
b. No

Technical Use and Experience in Practice

13. Please indicate your level of comfort and competency using Electronic Medical Records to support delivery of care:
a. **Novice** (i.e. I can perform basic tasks, but I'm uncertain about more advanced functions and may need guidance).
b. **Intermediate** (i.e. I am comfortable using EMRs for care delivery and can navigate the technology and most tasks independently.)
c. **Expert** (i.e. I am highly skilled and experienced in using EMRs to deliver care, and I can troubleshoot technical issues).
d. Prefer not to answer

14. Are you a current or previous user of AI Scribes?
a. Yes, currently using or testing an AI Scribe product
b. Yes, I have tried one or more AI Scribes in the past, but am not currently using one
c. No, I have not used an AI Scribe in my practice

If yes to above:

Please indicate your current level of competency with AI Scribes to support delivery of care:

a. **Novice** (i.e. I can perform basic tasks, but I'm uncertain about more advanced functions and may need guidance).
b. **Intermediate** (i.e. I am comfortable using AI Scribes for care delivery and can navigate the technology and most tasks independently.)
c. **Expert** (i.e. I am quite experienced in using AI Scribes to deliver care, and I can troubleshoot technical issues).
d. Prefer not to answer

Administrative Workflow and Current Clinic Processes

*Please reflect on your daily work and interactions that you may have had **prior** to the implementation of the AI Scribe in your practice for the following questions.*

15. Please provide your best estimate for how many hours in a typical week you spend on **Patient Care** (including direct patient care and on-call work hours).
Note: Provide a numeric response [#] hours/week and if you do not perform this task ENTER "0" or "N/A"

16. Please provide your best estimate on how many hours in a typical week you spend on **Administrative Tasks** (including electronic documentation time, email, prescriptions, ordering tests etc.)
Note: Provide a numeric response [#] hours/week and if you do not perform this task ENTER "0" or "N/A"

17. Please provide your best estimate on how many hours in a typical week you usually spend on **Other Duties/Responsibilities** (including teaching, committee work, research, leadership role, etc.)
Note: Provide a numeric response [#] hours/week and if you do not perform this task ENTER "0" or "N/A"

18. Please indicate how many hours in a typical week you usually spend on **After-hours Documentation and Administrative Tasks** (including electronic documentation time, email, prescriptions, ordering tests, etc.)
Note: Provide a numeric response [#] hours/week and if you do not perform this task ENTER "0" or "N/A"

19. **Please complete the following statement:** "The amount of time I spend on the electronic medical record after hours during the pilot is"
a. "Excessive, High, Satisfactory, Modest, Minimal/None, N/A"

Workflow Processes and Administrative Burden

20. Please rate the following statements regarding your current workflow processes and administrative burden. (Scale: "Strongly agree," "Agree," "Neutral," "Disagree," or "Strongly disagree.")

a. The current workflow processes in my practice are efficient and streamlined.
b. Administrative tasks such as paperwork, documentation, and billing are manageable in the current workflow.
c. The amount of time needed to complete required administrative tasks is unsustainable

d. Administrative tasks such as paperwork and documentation significantly detract from the time I can spend on patient care.
e. The current technology and tools available in my practice help alleviate administrative burden in my practice.
f. I believe there is room for improvement in reducing administrative burden within my practice.
g. I am satisfied with the number of hours I spend on administrative tasks.

21. Please rate the following statements regarding the impact of administrative workflow. (Scale: "Strongly agree," "Agree," "Neutral," "Disagree," or "Strongly disagree.")
a. The administrative burden in my practice affects patient satisfaction and quality of care.
b. The administrative burden in my practice affects my overall well-being and job performance.
c. My work schedule leaves enough time for personal/family life.
d. The administrative burden in my practice has contributed to a high degree of workplace burnout.

22. Are there any issues or burdens specific to your practice type, practice context or practice location that you hope an AI Scribe can help address? E.g. specialty specific issues, rural challenges etc. (free text, long answer)

23. Is there anything else you feel is important to share with us regarding your current experience with administrative burden and clinical workflow efficiencies? (free text, long answer)

Perception of AI Scribes

24. Please reflect on your practice and the perceptions you may have about AI Scribe processes.
For each statement, select the option that best indicates the extent to which you agree or disagree.
a. I believe that my clinic has the necessary infrastructure to support the use of AI scribes.
b. I will use AI Scribes if I receive the necessary technical assistance.
c. I believe that most of my patients will welcome and be comfortable with the fact that I will be using AI Scribes during their encounters.
d. I believe that AI Scribes will help me be more engaged with my patients during clinical encounters.
e. I believe that the use of AI Scribes may interfere with how I typically interact with my patients.
f. I believe that the use of AI Scribes will help me provide better quality of care to my patients.

25. Please reflect on the perceptions you may have about AI Scribes.
For each statement, select the option that best indicates the extent to which you agree or disagree.
a. I believe that I can easily learn how to use AI scribes.
b. I believe that it will be easy to implement AI scribes in my day-to-day clinical practice.
c. I think it is a good idea to try using AI scribes to document clinical encounters.
d. I believe that AI scribes will improve the efficiency of my documentation process.
e. I believe that there will be high accuracy with the documentation done by AI scribes.
f. I believe that the use of AI scribes will be compatible with my current documenting practices.

g. I am concerned about the potential privacy and security risks associated with using AI scribes.

26. Are there any factors of your current workflow that you think will impact your ability to use AI Scribes effectively? (free text, long answer)

Time Tracking Sheet

Time tracking sheets were filled out by hand, document, or PDF, and emailed/scanned to the evaluation team

This Time Tracking Study will compare the amount of time taken for patient visits and drafting documentation with and without use of AI Scribe technology. We recommend familiarizing yourself with the AI Scribe before starting the Post-Implementation component to ensure you are comfortable with its functionality and workflow considerations.

Pre-Implementation Time Tracking:

- Before introducing the AI Scribe, please track the time spent on each patient visit and drafting documentation notes. You can use a stopwatch or a digital timer, like your phone, for accurate timing.
- For each patient encounter, record the time dedicated to the visit and documentation, noting whether the case was simple, complex, intake, or virtual.
- Please perform these tasks as you normally would, without rushing due to the timer, to ensure that the data reflects your typical practice.

Post-Implementation Time Tracking:

- After implementing the AI Scribe, repeat the process of timing your patient visits, drafting documentation notes.
- This process might look slightly different while using an AI Scribe, such as reviewing and editing the scribe generated note and ensuring the information added to your EMR is accurate.

Remember to conduct these appointments as you normally would, without trying to rush because you are being timed. This will ensure that the data collected is representative of your usual practice. Our goal is to compare the time spent before and after implementing an AI Scribe to identify any changes in efficiency.

Please complete 15 patient encounters without the AI Scribe and 15 with the AI Scribe.

Please seek to include a variety of encounter types, with a slight preference for complex encounters and initial visits as there is a greater opportunity to evaluate the tools' impacts.

Definitions:

Time spent with Patient During Visit (Minutes)	This includes the time from the start of the patient interaction until the end. This should be timed from the moment the physician starts the consultation until the patient leaves the room.
Documentation Time Post-Visit (Minutes)	This includes extra time spent on documentation (e.g., SOAP note template, consult letters, follow up letters) outside of the patient encounter when the patient is no longer in the room. This may include updating the patient chart with notes related to the assessment, plan notes related to the patient's case, any revisions to notes made during the patient visit, or revisions after an AI Scribe generated note is made.
Visit Type and Clinical Case Complexity (check any that apply)	Refers to type of visit and the complexity of a patient's health situation. Several factors can influence the visit type being simple or complex, including the number of health issues, the severity of those conditions, and the required interventions. A patient with a single health issue, like a common cold, may be seen as a simple case. In contrast, a patient facing multiple health issues—such as diabetes, heart disease, and high blood pressure—might be considered a complex case. Other options apply to the type of visit whether it be a virtual or an initial intake visit for new patients.

Clinic Name:		**Start Date:**		**Submit to**	email
Clinician Name:		**End Date:**		**Email Subject**	"[SCRIBE] <insert clinic name>"

Do not include any extraneous patient information to this tracker.

Pre-Implementation (without an AI Scribe)				**Post Implementation** (with an AI Scribe)			
	Time spent with Patient During Visit (Minutes)	**Documentation Time Post-Visit** (Minutes)	**Visit Type and Clinical Case Complexity** (check any that apply)		**Time spent with Patient During Visit** (Minutes)	**Documentation Time Post-Visit** (Minutes)	**Visit Type and Clinical Case Complexity** (check any that apply)
1			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**16**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake
2			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**17**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake
3			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**18**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake
4			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**19**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake
5			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**20**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake
6			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**21**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake
7			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**22**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake
8			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**23**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake
9			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**24**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake
10			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**25**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake
11			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**26**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake
12			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**27**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake
13			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**28**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake
14			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**29**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake
15			☐ Simple ☐ Virtual ☐ Complex ☐ Intake	**30**			☐ Simple ☐ Virtual ☐ Complex ☐ Intake

Focus Group Script

Focus groups were held on Microsoft Teams for approximately 1 hour per group

Consent Statement: [Read aloud, with text on slide for participants. There was a separate formal consent form signed]

Before today, you were sent and returned a letter of consent to participate. If you have not done so already, could you please ensure this is signed and returned after this focus group. This is a reminder to please not include any identifying information (aside from your name) of any patients, and to please keep responses confidential to the members of this group.

Your participation in this focus group is voluntary, you can choose to answer or not answer any questions you wish, you can withdraw your participation at any time.

Does anybody have any questions before we begin?

[Questions in Bold are to be read aloud and projected on screen, Prompts below are to be asked if more information is needed after participants have responded]

Questions

1. **Please describe your level of experience using AI Scribes**

[Prompts]

a. Is this pilot your first experience with AI scribes?
b. How long have you been using Scribes?
c. When did you start using scribes?
d. How many different AI Scribes have you used, and are you still using one
e. How long have you used each of the scribes (sustained use?)

2. **How have you integrated AI scribes into your daily workflow?**

[Prompts]

- What tasks do you typically use an AI scribe for?
- What features do you use most commonly
  - What templates? Do you create your own?

3. **What impact has the use of AI scribe technology had on your daily workflow, if any?**

4. **Have you encountered any challenges or difficulties while using AI scribe technology?**

[Prompt]

- When reviewing generated transcripts, what do you consider to be an acceptable amount of time to correct errors or edit the note? What types of errors are you encountering?
- How would you rate the accuracy?
  - Has the scribe been able to correctly differentiate between yourself (the physician) and the patient and/or caregivers/ family members?
- What have been the enablers or barriers to your experience?
- Have you encountered any or would you anticipate any risks associated with using scribes? (Privacy, consent, validity, errors)

5. **How has the use of AI scribes affected your interactions with patients during appointments?**

[Prompts]

- How did you introduce your patients to your use of AI scribe during clinical encounters?
- Have your patients expressed any concerns?
- Do you perceive any changes in the satisfaction or engagement of patients?

6. **Is there anything unique about your practice type or patient population that would alter the use or applicability of the AI Scribe?**

7. **What support or training did you receive to use AI scribe technologies?**

[Prompt]

- If you did not receive support/training, what would you have liked to have access to?

8. **What continued training or support do you think would be valuable to clinicians or clinics?**

9. **Would you recommend AI Scribes to colleagues? If so, what advice do you have for them?**

[Prompts]

- Type of scribe
- When to implement
- What to use it for
- Challenges to look out for
- How to optimize

10. **Do you have any recommendations on how the AI scribe technologies you have tested could be improved? Or how users can improve their own experience with AI scribe?**

11. **Is there anything else you would like to share about your experiences with using AI scribe? What should we have asked you?**

Patient Survey

Patient Surveys were filled out via Microsoft Forms (QR code provided for patients) or in office on paper (to be scanned in by the physician)

Thank you for agreeing to complete this survey. We are gathering feedback about your experience with **[Scribe Technology]**. Your participation is voluntary**,** your name will not be collected, this survey will not go into your patient chart, and your doctor will not view your answers. ***Please do not write any personal***

information about yourself on this survey. The results of the survey will be used for evaluation and quality improvement of **[Scribe Technology]**.

** **(please check)** I consent to participate in this survey and have my answers (no personal identifiers) shared, with the evaluation team and used in evaluation reporting and publications.*

1. Did your doctor explain how and why they would be using **[Scribe Technology]** during your visit?

   Yes ☐ No ☐

2. Did you give your consent for your doctor to use **[Scribe Technology]** during your visit?

   Yes ☐ No ☐

Please choose your level of agreement with the following statements about your visit by circling the most correct response:

Example:

Strongly Agree	***Agree***	***Neither Agree nor Disagree***	***Disagree***	***Strongly Disagree***

3. *"I was comfortable when my doctor used an [Scribe Technology] to record my visit"*

Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree

4. *"I felt like the [Scribe Technology] improved my doctor's visit"*

Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree

5. *"I felt like while using [Scribe Technology] my doctor was able to pay more attention to me than previous visits"*

Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree

6. *"I felt like my doctor spent less time working at their computer than previous visits"*

Strongly Agree	*Agree*	*Neither Agree nor Disagree*	*Disagree*	*Strongly Disagree*

Thank you for participating!

Closing Survey

* Surveys were filled out via Microsoft Forms link*

Consent

The purpose of this survey is to gain insights on your experiences using an AI Scribe as part of the AI Scribes Burden Pilot **"The Pilot"**. The information shared in this survey will be analyzed and reported for

the purpose of evaluating the AI Scribe to measure performance and to inform understanding of the potential impact on physician administrative burdens. The findings from this survey will be used in reports, presentations, and publications. This information is being collected by Amplify Care, a third-party evaluator supporting Doctors of BC in partnership with Canada Health Infoway. Amplify Care and Doctors of BC will be collecting your personal information [i.e., name and email] within this survey to track completion. This information will be used to track and link your completed surveys and data collection tools throughout the project. Data will be stored in a secure location and not available to anyone outside of the project team. Your name and email address will not be used in any reporting, presentations, or publications from this work. Completing this survey will act as consent to have your answers shared after deidentification. For questions about this survey, please contact _____ .

CONTACT AND PARTICIPANT INFO

1. Full Name

2. Email Address

3. Which best describes your practice?

a. Family Physician

b. Specialist

4. Which AI Scribes Vendor did you use in this Pilot?

a. Scribe 1

b. Scribe 2

c. Scribe 3

d. Scribe 4

5. Are any other physicians in your clinic currently using AI Scribe Tools?

a. Yes, they are using the same scribe that I am using for the pilot

b. Yes, they are using a different scribe

c. No, nobody else is using scribes in my clinic that I am aware of

EXPERIENCE IN PRACTICE

6. How many weeks to-date have you been using the AI Scribe in your practice for this pilot?

a. 1

b. 2

c. 3

d. 4

e. 5

f. 6+

7. How frequently have you used the AI scribe in your practice? (Select one)

a. Very frequently - Multiple times a day

b. Once a day

c. Intermittently - Several times a week

d. Once a week

e. Less than once a week

f. Never

g. Do not know

h. Prefer not to answer

i. Other (please specify): _____[Free text, short]

8. Please select your best estimate of the percentage of appointments in which you used the AI Scribe, out of all the appointments you had during this pilot.

a. 0-20% of appointments

b. 21-40% of appointments

c. 41-60% of appointments

d. 61-80% of appointments

e. 81-100% of appointments

9. Please select the types of encounters in which you have used the AI Scribe (Select all that apply)?

a. In-person appointments

b. Virtual appointments

c. Simple appointments

d. Complex patients

e. Intake appointments (or new consults)

f. Follow-up appointments

g. Appointments with multiple health care professionals assessing the patient

h. Appointments with a patient and other speakers in the room (i.e., a caregiver or friend)

i. Other, Please specify_____

10. Were there specific appointment types where you were more likely to use the AI Scribe than others? If so, please briefly explain the type of appointment and why you were more likely to use the scribe for these appointments. [Free text, Long]

11. What features of the AI Scribe have you used to date? [Select all that apply]

a. Medical note templates provided by the AI Scribe or user community (e.g., SOAP note template, consult letters, follow up letters)

b. Medical note/letter templates that you created or adapted to suit your needs

c. Referral letters

d. Patient handouts, including patient summaries or visit notes

e. Multi-language translation (e.g., transcribe and generate a conversation in French)

f. Coding and billing documentation

g. Dictation

h. Do not know

i. Prefer not to answer

j. Other (please specify): _____ [Free text, short]

12. Please indicate your current self-perceived level of competency with AI Scribes to support delivery of care after your participation in this pilot

a. Novice (i.e., I can perform basic tasks, but I am uncertain about more advanced functions and may need guidance).

b. Intermediate (i.e., I am comfortable using AI Scribes for care delivery and can navigate the technology and most tasks independently.)

c. Expert (i.e., I am quite experienced in using AI Scribes to deliver care, and I can troubleshoot technical issues).

d. Prefer not to answer

13. Please indicate your level of comfort/expertise in creating, managing, and troubleshooting AI Scribe templates to meet your needs:

a. Novice (i.e., I can use the available templates, but I am uncertain about more advanced functions and may need guidance).

b. Intermediate (i.e., I am comfortable using AI Scribes templates for care delivery and can navigate options to develop, edit and modify templates mostly independently.)

c. Expert (i.e., I am quite experienced in using AI Scribes templates to deliver care, and I can develop, edit, modify, and troubleshoot technical issues).

d. Prefer not to answer

14. What were your sources of support for template development? (check all that apply) ...

a. Self-directed

b. Direct vendor support

c. Vendor community generated

d. Peer support (same specialty)

e. Peer support (different specialty)

f. Doctors of BC resources

g. Not applicable (did not develop, edit, or modify templates)

h. Other

ADMINISTRATIVE WORKFLOW AND CLINIC PROCESSES

15. Please provide your best estimate for how many hours per week you spent on Patient Care during the pilot (including direct patient care, and on-call work hours).
    Note: Provide a numeric response [#] hours/week and if you do not perform this task ENTER "0" or "N/A"

16. Please provide your best estimate on how many hours per week you spent on Administrative Tasks during the pilot (including electronic documentation time, email, prescriptions, ordering tests etc.)
    Note: Provide a numeric response [#] hours/week and if you do not perform this task ENTER "0" or "N/A"

17. Please provide your best estimate on how many hours per week you spent on Other Duties/Responsibilities during the pilot (including teaching, committee work, research, leadership roles, etc.)

Note: Provide a numeric response [#] hours/week and if you do not perform this task ENTER "0" or "N/A"

18. Please estimate how many hours per week you spent on Afterhours Documentation and Administrative Tasks during the pilot (including electronic documentation time, email, prescriptions, ordering tests, etc.)

Note: Provide a numeric response [#] hours/week and if you do not perform this task ENTER "0" or "N/A"

19. Was there anything apart from using the AI Scribe that could have had an impact on the time you spent on any of the above items (after hours documentation, administrative tasks, and patient care) during the pilot project?

This might include vacation time, holidays, sick/bereavement leave, or other commitments that occurred during your normal work hours throughout this pilot. (Free text, long)

20. Is there anything else you want to highlight about the numbers you reported above regarding after hours documentation, administrative tasks, and patient care?

This may include any comments or considerations you had when estimating your hours per week. (Free text, long, not required)

21. Please complete the following statement: “The amount of time I spend on the electronic medical record after hours during the pilot is”

a. “Excessive, High, Satisfactory, Modest, Minimal/None, N/A”

CURRENT WORKFLOW PROCESSES, TECHNOLOGY, RESOURSES & SUPPORT

22. Please rate the following statements regarding your current workflow processes and administrative burden after implementing the AI Scribe. (Scale: “Strongly agree,” “Agree,” “Neutral,” “Disagree,” or “Strongly disagree.”)

a. The current workflow processes in my practice are efficient and streamlined.
b. Administrative tasks such as paperwork, documentation, and billing are manageable in the current workflow.
c. The amount of time needed to complete required administrative tasks is unsustainable
d. Administrative tasks such as paperwork and documentation significantly detract from the time I can spend on patient care.
e. The current technology and tools available in my practice help alleviate administrative burden in my practice.
f. I believe there is room for improvement in reducing administrative burden within my practice.
g. I am satisfied with the number of hours I spend on administrative tasks.

23. Please rate the following statements regarding the impact of administrative workflow after the implementation of AI Scribes. (Scale: “Strongly agree,” “Agree,” “Neutral,” “Disagree,” or “Strongly disagree.”)

a. The administrative burden in my practice affects patient satisfaction and quality of care.

b. The administrative burden in my practice affects my overall well-being and job performance.

c. My work schedule leaves enough time for personal/family life.

d. The administrative burden in my practice has contributed to a high degree of workplace burnout.

24. Are there any issues or burdens specific to your practice type, practice context or practice location that you hope an AI Scribe can help address? Please explain. (free text, long)

E.g., specialty specific issues, challenges due to location, internet connectivity, etc.

25. Is there anything else you feel is important to share with us regarding your current experience with administrative burden and clinical workflow efficiencies? (free text, long)

PERCEPTION OF AI SCRIBES

26. Please reflect on your practice and the perceptions you have about your current AI Scribe processes. For each statement, select the option that best indicates the extent to which you agree or disagree. (Scale: “Strongly agree,” “Agree,” “Neutral,” “Disagree,” or “Strongly disagree.”)

a. I believe that my clinic had the necessary infrastructure to support the use of AI scribes.

b. I have received necessary technical assistance while using AI Scribes.

c. I believe that most of my patients have welcomed and been comfortable with the fact that I use AI Scribes during their encounters.

d. I believe that the use of AI Scribes has helped me be more engaged with my patients during clinical encounters.

e. I believe that the use of AI Scribes has helped me provide better quality of care to my patients.

f. I believe that the use of AI Scribes interferes with how I typically interact with my patients.

27. Reflect on the perceptions and experiences you have had about AI scribes now that you have been using the technology. For each statement, select the option that best indicates the extent to which you agree or disagree. If you feel you are unable to answer an item or it is not applicable to your workflow, you may select N/A.

a. I believe that it was easy to learn how to use AI Scribes.

b. I believe that it was easy to implement AI Scribes in my day-to-day clinical practice.

c. I think it is a good idea to use AI Scribes to document clinical encounters.

d. I believe that AI Scribes has improved the efficiency of my documentation process.

e. I believe that the documentation done by AI Scribes was accurate.

f. If any, errors made by the scribe (e.g., hallucinations) were minimal.

g. I believe the AI Scribe was accurate when there were multiple care providers in the room (i.e., physician and nurse).

h. I believe the AI Scribe was accurate when more than one patient, caregiver or family member was speaking during the visit.

i. I believe that using AI Scribes was compatible with my current documenting practices.

j. I am concerned about the potential privacy and security risks associated with using AI Scribes.

k. The AI Scribe worked effectively alongside the electronic health records system I use in my practice.

l. The AI Scribe supported documentation in the language(s) I provide care in (i.e., languages other than English).

m. I believe that given more time with the AI Scribe as part of my workflow, I would be able to realize more practice efficiencies. Whether through improvements to existing workflow or through adoption of additional functionalities available through the AI Scribe.

n. I believe that the amount of time I spent working to integrate the AI Scribe into my workflow, learn, and make improvements would decrease over time as I fine tune my process and learn my way around better.

28. Are there any factors of your current workflow that you think impacted your ability to use AI Scribes effectively during this pilot? (Free text, long)

Resources and Support

29. *Please complete the following statements based on your experience in the pilot:*

(Very Satisfied, somewhat satisfied, Neither satisfied nor dissatisfied, somewhat dissatisfied, very dissatisfied) -five-point scale

a. How satisfied were you with the amount of time it took to implement the Scribes tool into your clinic?

b. How satisfied were you with the support you received from the vendor?

c. How satisfied were you with the process of filling out the time tracking sheet?

30. Reflect on your experience with the process of implementing AI scribes into your workflow.

Please estimate how many hours in TOTAL during this Pilot you spent on initial setup and learning how to use the Scribe Technology

Note: Provide a numeric response [#] hours/minutes and if you do not perform this task ENTER "0" or "N/A"

31. Reflect on your experience with the process of implementing AI scribes into your workflow.

Please estimate how many hours in TOTAL during this Pilot you spent on adjustments to the Scribe Technology (E.g. Templates) or associated workflow to suit your clinic's needs

Note: Provide a numeric response [#] hours/minutes and if you do not perform this task ENTER "0" or "N/A"

32. Please complete the following statement: "The amount of time I spent adjusting the Scribe to suit my clinic's needs during the pilot is"

a. "Higher than expected, As expected, Below what was expected, Much lower than expected, N/A"

33. The amount of time I spent adjusting the tool to meet my clinic's needs:

b. Is acceptable for a pilot implementation (Yes/No)

c. Decreased as I became more comfortable with using the Scribe (Yes/No)

d. Will decrease overtime once I have an established workflow with the scribe (Yes/No)

34. For each statement, select the option that best indicates the extent to which you agree or disagree. If you feel you are unable to answer an item, you may select N/A.

a. I believe the process of starting to onboard and use the AI Scribe in my practice was smooth.

b. I believe the training materials were sufficient in supporting my AI Scribes learning and use.

c. I believe that I would have benefited from more support and training from my AI Scribe Vendor

d. Trouble shooting within the solution was relatively easy to do.

35. Please describe any challenges (obstacles/barriers) you have had adopting the AI Scribes in your practice. [Free text, long]

36. Please indicate which supports you utilized during the Pilot for the implementation and adoption of the AI Scribe [Check all that Apply]

a. One-on-one calls

b. Information package

c. Virtual demo/Video

d. Support from colleagues using Scribes

e. Vendor led webinar

f. Other – Please explain

37. Which support(s) did you find most beneficial for your practice? (select any)

a. One-on-one calls

b. Information package

c. Virtual demo/Video

d. Support from colleagues using Scribes

e. Vendor led webinar

f. Other – Please explain

38. Do you have any comments regarding your experience collecting the data required for this pilot? [Free text, long]

39. Have you had any experience throughout your use of the Scribe that surprised you (positive or negative)? (Free text, long)

40. Is there anything else you feel is important to share regarding your experience using the AI Scribe during this pilot? (Free text, long)

Future Use

41. Please reflect on the following statements related to your experience with AI Scribes

a. I would be disappointed if I could no longer use AI Scribes in my practice.

b. I would recommend an AI Scribe to my colleagues.

c. I am likely to continue using an AI scribe in my practice long term.

d. I would like to test out other AI Scribe solutions in the future

42. If you are interested in exploring ongoing use of an AI Scribe in your practice, what factors would you take into consideration? (Free text, optional)

43. Based on your pilot experience, what considerations or specific supports do you think are important for your type of practice in exploring or potentially adopting use of an AI Scribe? This may include resources that were useful for you, suggestions for future scribe users, or recommendations for future scribe projects. (Free text, long)

44. After your experience in the pilot, what do you consider to be priority areas for advocacy to support the responsible adoption of AI in health care? Please choose the top three priorities. *(Ranking question)*

a. Be supported by a comprehensive regulatory framework to guide the responsible use of health-related AI technologies throughout their lifecycles.

b. Include comprehensive privacy safeguards to ensure patient data is collected and used for its intended purposes and stored appropriately.

c. Promote interoperability to facilitate rapid and necessary access to patient health information by health care professionals.

d. Be subject to ongoing monitoring and evaluation to assess performance, identify potential algorithmic biases, and implement corrective actions as needed.

e. Be guided by the principles of medical ethics to ensure that AI technologies benefit all patients and advance health equity.

f. Promote transparent and explainable data practices so end users feel confident in using AI technologies and foster system trust.

g. Support the active involvement of physicians in the design, planning, implementation, and evaluation of AI tools.

h. Be supported by effective change management to facilitate the successful transition and adoption of AI tools.