



AUGNITO

Enhancing Healthcare Intelligence



Saving 3 hours Everyday for Doctors with Voice AI



www.augnito.ai

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KEY NOTES

- Electronic Medical Records (EMR) are at the core of India's goal of digitalizing the healthcare system
- Excessive time consumption and inefficient personnel utilization are key barriers to EMR implementation
- Augnito provides advanced AI-based speech-to-text solution which enables digital scribing
- Augnito is highly advantageous with its user-friendly interface, high accuracy, and efficiency
- Use of Augnito increases documentation speed by 4X and reduces documentation time by 75% with >3 hours saved per day
- Saved time can be reallocated more efficiently increasing profits
- A cost reduction of 75% is seen with adoption of Augnito

MEDICAL DOCUMENTATION: CURRENT SCENARIO

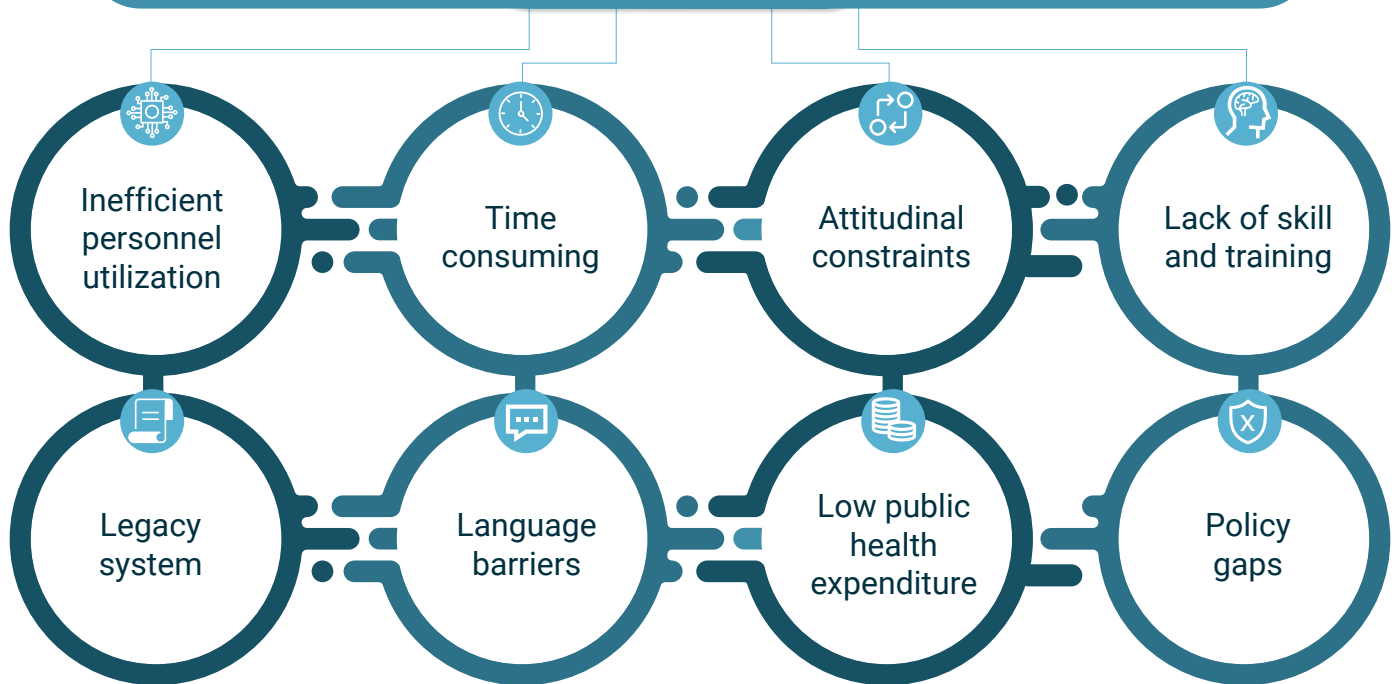
Medical documentation is an integral component of professional practice, aiding efficient coordination and continuation of care.¹ It also holds tremendous medico-legal significance, besides forming the backbone for insurance reimbursements.¹ Electronic Medical Records (EMR) are at the core of India's goal of digitization of the healthcare system and moving towards Universal Health Coverage (UHC), especially in terms of improving patient coordination, patient participation, medical research, and healthcare cost reduction.² EMR is defined as digitally stored healthcare information throughout an individual's lifetime with the purpose of supporting continuity of care, education, and research. These include things such as observations, laboratory tests, medical images, treatments, therapies, drugs administered, patient identifying information, legal permissions, and so on.³ EMR systems contribute not only to improving healthcare quality and efficiency, but also save up to \$81 billion in healthcare costs annually.⁴ The Ministry of Health & Family Welfare, Government of India (GoI), first came out with standards for EMR for India in September 2013 and launched the UHC scheme, known as the Ayushman Bharat Yojana in 2018, mandating digitization of health data for the beneficiaries.^{2,5}

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BARRIERS TO EMR IMPLEMENTATION IN INDIA



Inefficient personnel utilization

Indian private hospitals tend to spend only 2.5% of the total hospital budget on Information Technology (IT). The corresponding share is much lower in government hospitals. Consequently, healthcare professionals spend a lot of time typing out reports or discharge summaries that could otherwise be utilized for their respective specialized roles.^{2,6}

Time consuming

In some cases, the staff themselves refrain from maintaining patient data digitally as the patients:doctor ratio is very high in India and manually typed electronic documentation is exhaustively time-consuming, contributing to clinician burnout.² Hence, EMR implementation reduces practice productivity and disturbs workflow (at least initially).³

Attitudinal constraints

Complicated and unfriendly to use and hence gets discarded, or medical scribes misconstrue it as a threat rather than an aid.³

“ Healthcare professionals spend a lot of time typing out reports that could otherwise be utilized for their specialized roles ”

Lack of skill and training

Use of technology is not usually a part of medical degree courses in India, leaving doctors, nurses, and other medical staff ill-equipped to enter the data online. As a result, hospitals have to spend time and money on training of their staff in medical informatics.^{2,3,6}

Legacy system

Most patient records are paper based, except in few of large-scale private hospitals, and difficult to convert to an electronic format.⁶

Language barriers

Multiple local languages used by patients and staff further complicate EMR adoption, as there are over 22 regional languages in India, while medical data is required to be recorded in English.⁶

Low public health expenditure

In 2020-21, India spent only 1.8% of its gross domestic product (GDP) on healthcare.⁷ This corresponds to poor infrastructure readiness and personnel shortage.²

Policy gaps

Lack of viable standards and issues with data sharing and data security.^{2,6}

A developing nation like India, faced with the challenges of low doctor-patient ratio and a huge disparity in healthcare access between urban and rural areas, any technological solution that improves efficiency and accuracy for healthcare providers would be deeply beneficial. More innovative approaches like web-based and cloud-based solutions could provide meaningful contributions to this endeavour.⁶

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VOICE BASED AI FOR MEDICAL DOCUMENTATION

Obstacles in adoption of healthcare digitization can be overcome by utilizing voice-based artificial intelligence (AI) systems. Augnito is one such product that provides advanced AI-based speech-to-text solution which enables digital scribing. Augnito stands for 'augmented cognition' and provides an enhanced tool for medical transcription. With Augnito, doctors can keep talking while a software automatically converts this speech to text in real time. This serves to overcome the barriers limiting EMR implementation in healthcare practices. Augnito is India's first medical speech recognition AI product developed by Scribetech, a 20 year old established healthcare company working with the National Healthcare System (NHS), UK. A result of intense research and development efforts by a team of speech scientists, academicians, and consultants, it is the only product in the Indian market to have an extremely powerful and advanced engine.

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With Augnito, doctors can keep talking while a software automatically converts this speech to text in real time

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WHAT MAKES IT DIFFERENT?

- **Simple and user-friendly design**

Takes 10 minutes to install & get started with a one click approach

- **Eliminates the need for manual scribing**

Eliminates dependence on clinical comprehension abilities of their manual transcribers

- **Faster and efficient**

Enhances physician's productivity and quality of life.

- **High out-of-the-box accuracy (99%+)**

Ensures highest level of data integrity, thus improving data quality for analytics, audits, and insurance claims

- **No voice profile training needed**

Allows doctors to speak at a reasonable speed without any errors

- **Recognizes medical terminologies and abbreviations**

Allows doctors to report as they normally would in a written format without forcing any major procedural or behavioral changes

- **Wide medical coverage**

Covers more than 50+ medical specialties with ever increasing clinical lexicon and drug formulary providing the most updated support for doctors across specialties

- **No spelling mistakes**

Entire language of Medicine is inbuilt and regularly updated

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Augnito enhances physician's productivity and ensures 99%+ accuracy out of the box

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- **Negligible learning curve**

Voice is the most natural, intuitive medium of communication

- **Easily recognizes Indian accents**

Used in 25 states with 100+ enterprise clients in India

- **Easy to integrate**

Voice Power your HIS, EMR, PACS, RIS, LIS, others.

- **Works flawlessly** with widely used word processors like Microsoft Word

- **Seamless integration**

Easy to use Speech API & SDK available to directly integrate with existing software systems in hospitals, enabling direct sale to hospitals and independent practitioners

- **Reduces burden on healthcare system**

Improves clinical operational efficiency allowing hospitals to accommodate a bigger patient pool

- **Accelerates patient care and satisfaction**

Real-time reporting reduces the time for diagnosis, clinical processes, and patient discharge

- **Provides structured data** for analytics and research

- **Available on multiple platforms**

Web/Desktop/Mobile/Plugin

- **Free mobile mic**

No expensive hardware required

- **Doctor-centric approach**

Not a professional threat but an aid for doctors across specialties

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Augnito is available to directly integrate with existing software systems in hospitals

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USEFUL FEATURES



Voice biometrics login system



Web and Cloud access
(allows adoption even in non-EMR based healthcare practices)



Smart editing



Detection of multiple accents and comprehension



Simple voice access to menus, templates and other feature



Lightweight network-based application



Dedicated 24x7 customer support



Enterprise grade platform



Free feature upgrades (for SaaS)



Data Security & Storage policy:

- ISO 27001 certified for 11 years by British Standard Institute (BSI)
- GDPR and HIPAA compliant
- Cyber Essentials Plus certified, ISO 9001 & ISO 14001 certified.

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INCREASE YOUR SPEED BY 4X AND REDUCE YOUR COSTINGS

A cross-sectional survey was conducted to assess the utility and efficacy of Augnito among healthcare professionals. It consisted of 12 questions pertaining to usage frequency, ease of use, time saved, effort reduction, data integrity and user satisfaction. A total of 100 Augnito adopters responded to the survey. This data was incorporated into a 1000-bed hospital using a value calculator and the results analyzed.



Usage frequency, ease and learning curve

The survey revealed that majority of the responders use Augnito on a daily basis in their practice (91.95%), while 5.75% use it weekly, 1.15% fortnightly and 1.15% monthly. Over 57% responders find Augnito very easy to use with a short learning curve of 1-3 days (89.66%). This is mainly reflective of the user-friendly interface and one-click approach utilized by Augnito for transcribing voice commands. It has been designed in a doctor-centric manner to mitigate any hassles in AI usage.

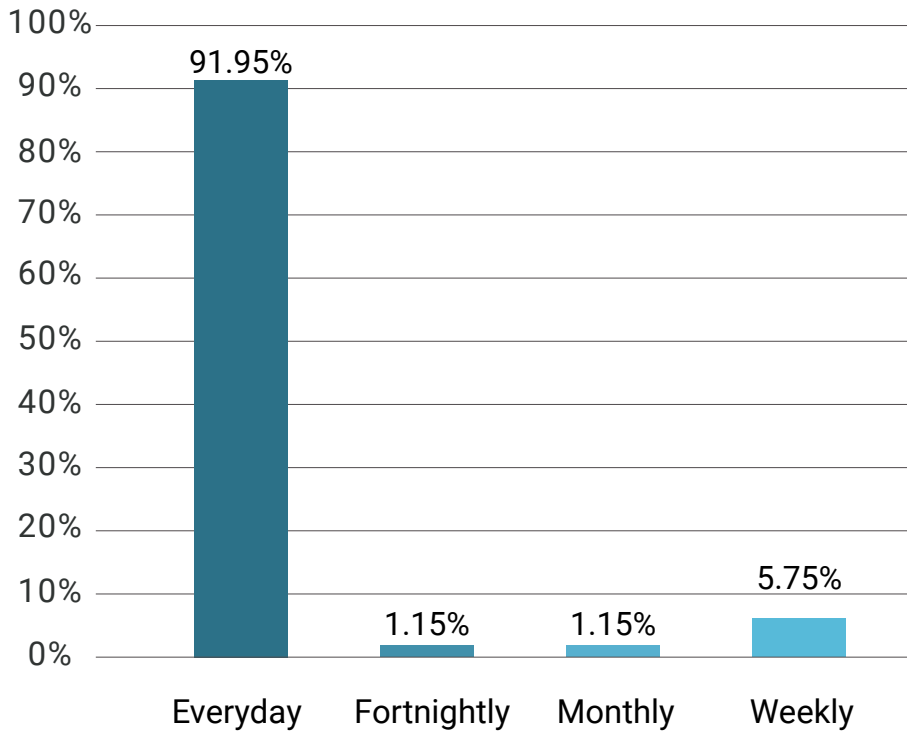


Fig.1: Augnito usage frequency

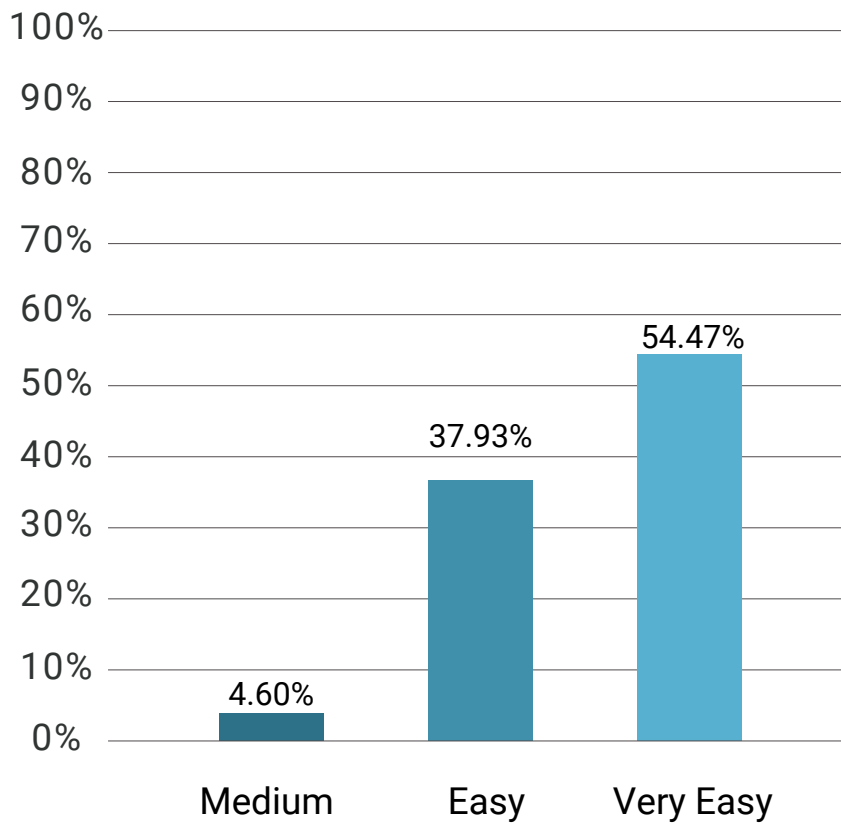


Fig.2: Ease of using Augnito

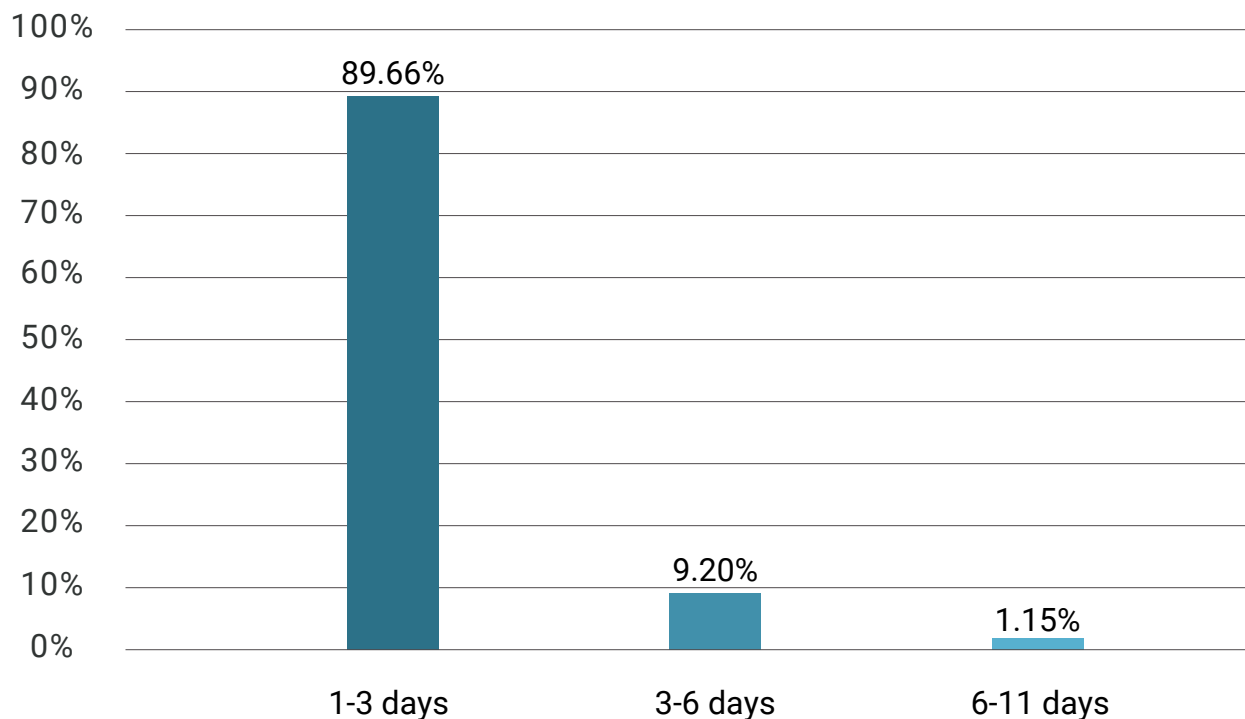


Fig.3: Learning curve for Augnito

Speed and Time

Using Augnito, responders experience an increase in their speed of typing clinical reports by 3-5 times. On an average this speed is increased by 3.977 \approx 4 times. In other words, the typing speed using Augnito is four times that of without Augnito. This is primarily because of its powerful engine and vast medical coverage. Consequently, the time required for documentation is reduced by four. This implies that the time spent in documentation with Augnito is merely 25%. Hence, Augnito saved 75% of documentation time, which could be reallocated more meaningfully. For most responders, Augnito saves > 2 hours daily (41.38%), while it saves >1 hour for some others (28.74%). Considering this in a 1000-bed hospital, 18 hours of documentation time is saved for an employee doctor and reallocated because of Augnito per month.

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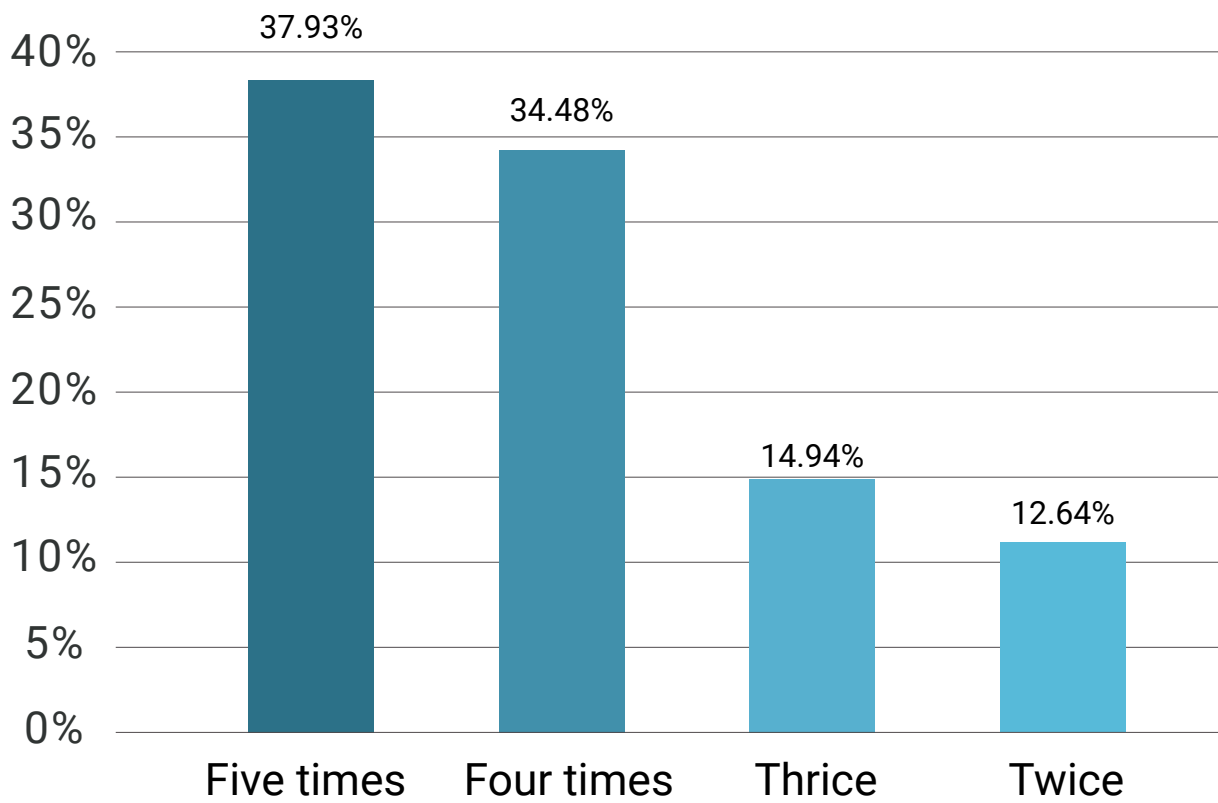


Fig. 4: Typing speed with Augnito

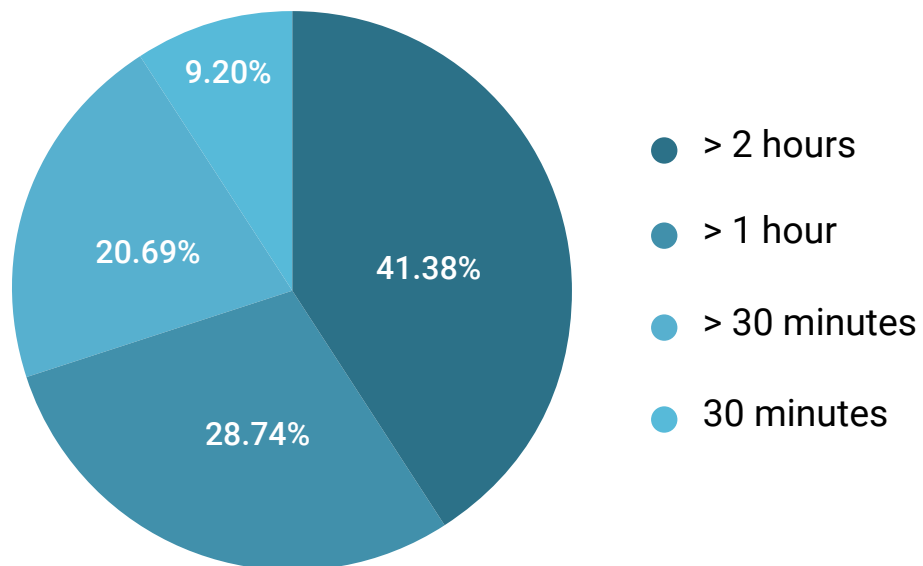


Fig.5: Daily time saved with Augnito

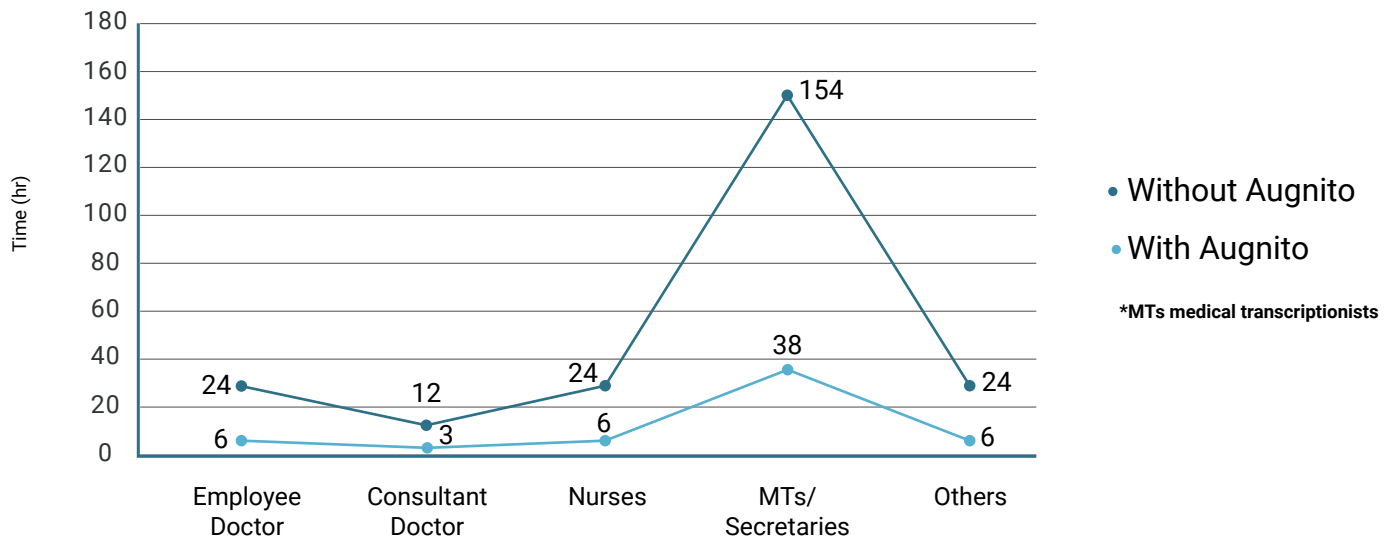


Fig. 6: Time spent on documentation per month with and without Augnito

Work efficiency

As a result of saving time, Augnito also contributes to a significant increase in the number of reports completed per day compared to those without Augnito ($p < 0.001$ by Welch's t-test), with 77.01% responders completing up to 25 more reports daily with help of Augnito than without it, and some even up to 75-100 more reports within the same time (2.3%), significantly enhancing work efficiency.

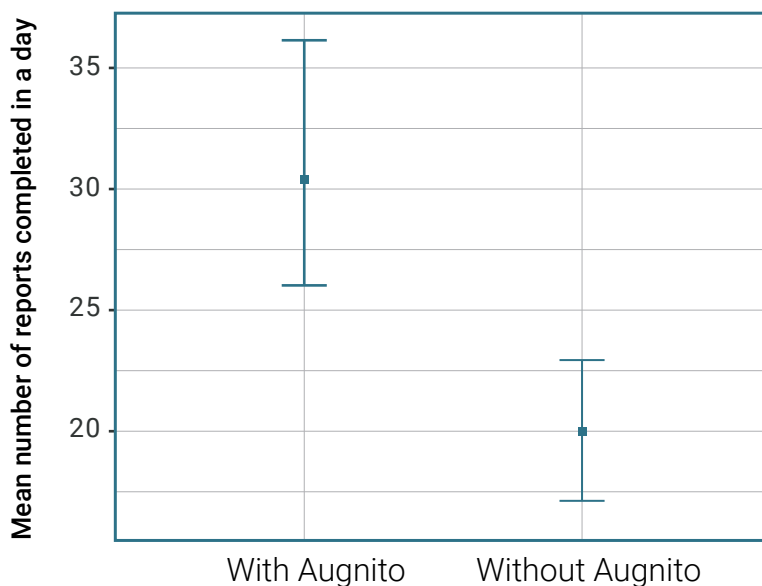


Fig. 7: Mean plot of number of reports completed in a day with and without Augnito

“ Augnito also contributes to a significant increase in the number of reports completed per day enhancing work efficiency ”

Effort reduction

34.48% responders reported >75% reduction in effort required for clinical reporting with this tool. This is likely achieved owing to Augnito's vast vocabulary and versatile accent recognition. Augnito's proprietary AI engine provides insurmountable accuracy for medical terminologies that result in high level of gains in efficiency for our users.

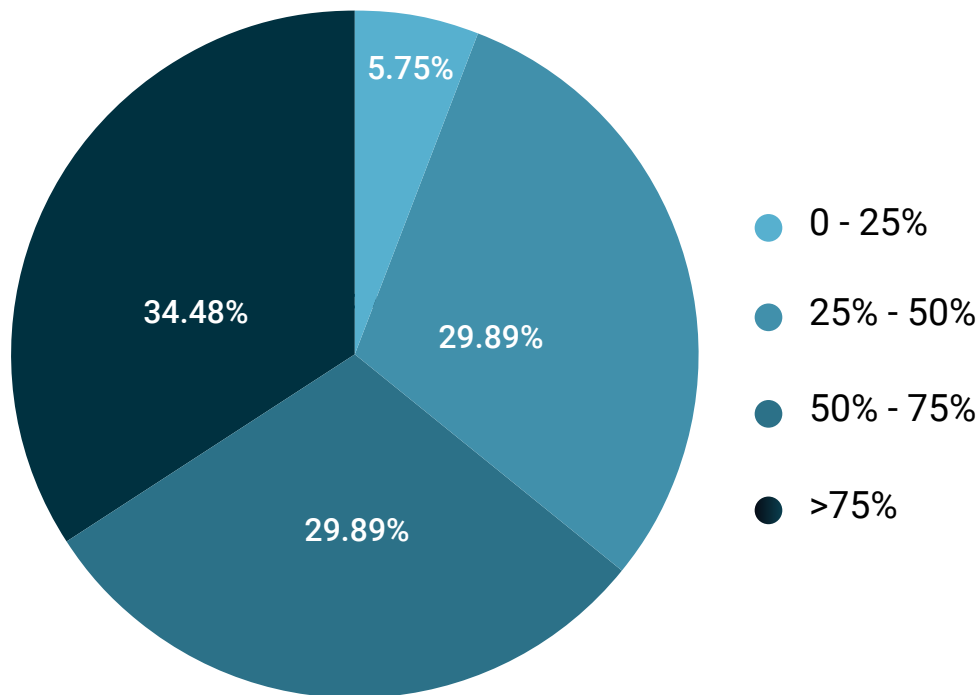


Fig. 8: Effort reduction with Augnito

User satisfaction

Over 50% of responders experienced highest level of satisfaction with Augnito's customer support. Nearly 74% subjects are most likely to continue using Augnito in their practice and 85.06% subjects are most likely to recommend Augnito to others. This reflects a culmination of convenience, speed, accuracy, and savings achieved with Augnito.

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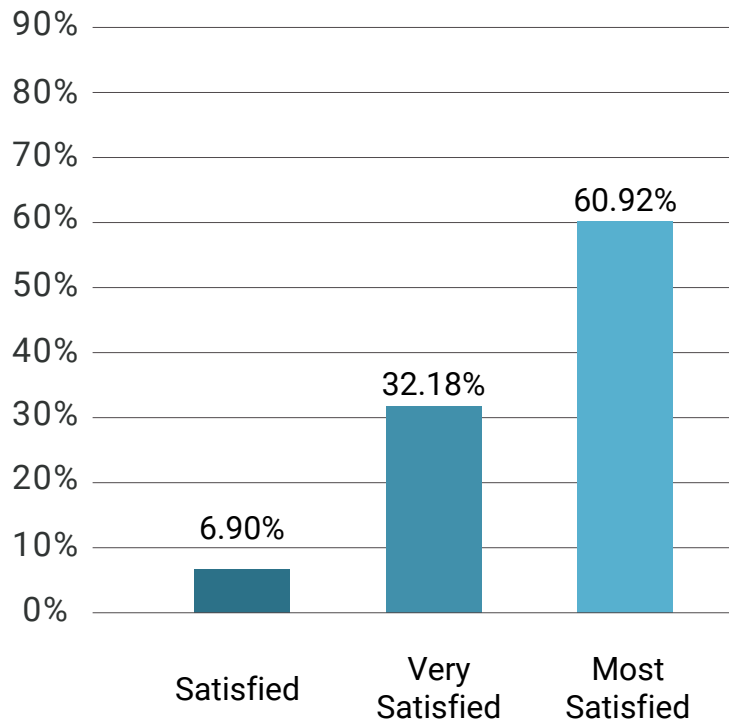


Fig. 9: User satisfaction with Augnito

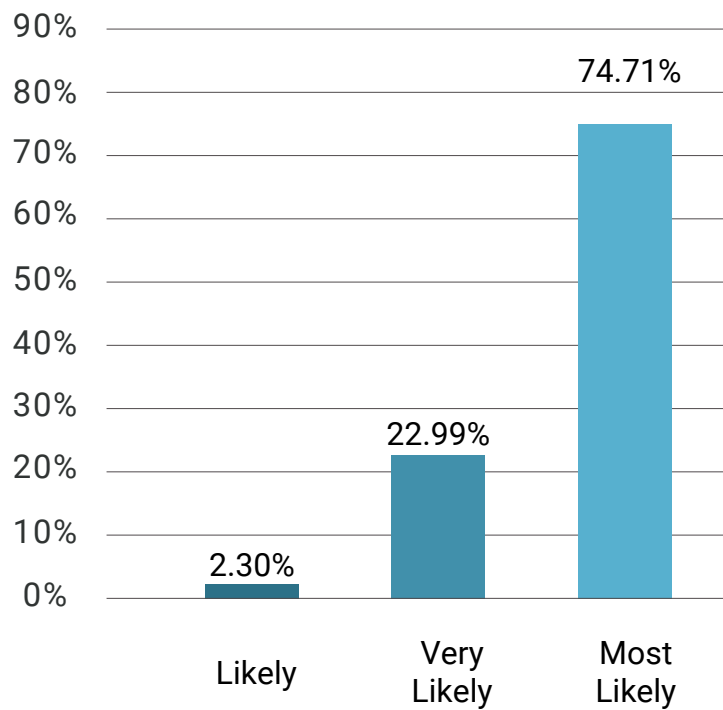


Fig. 10: Likelihood of continued Augnito use

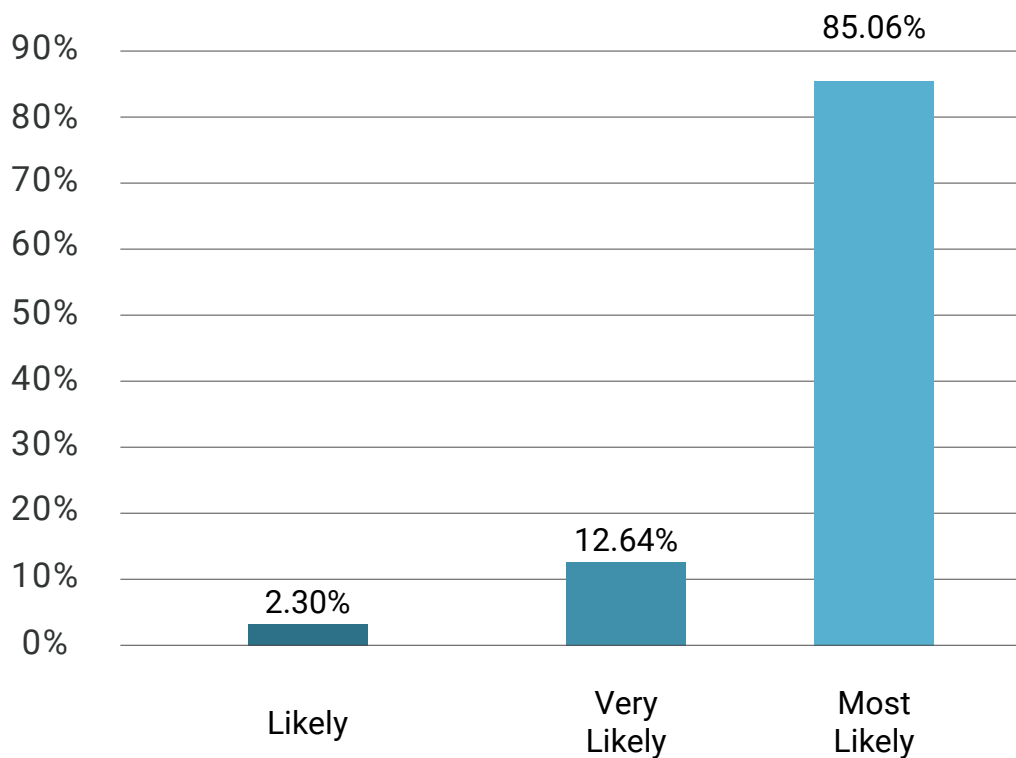


Fig. 11: Likelihood of recommending Augnito to others

Savings & Additional Profit

The time saved by Augnito can be utilized in accommodating more patients and performing more specialized roles by healthcare professionals. As a result, it is found that an employee doctor and a consultant doctor can generate an additional monthly profit of ₹27,000 and ₹5,400 respectively by increasing the number of patients seen. An additional monthly savings of ₹11,250 for the employee doctor is calculated considering the % time saved, the hourly cost of the doctor and number of working days per month bringing the total savings for the employee doctor to ₹38,250 per month. Considering the time saved monthly, documentation cost which otherwise comes to ₹15,000 without Augnito is reduced to ₹3,750 with Augnito (exclusive of Augnito cost).

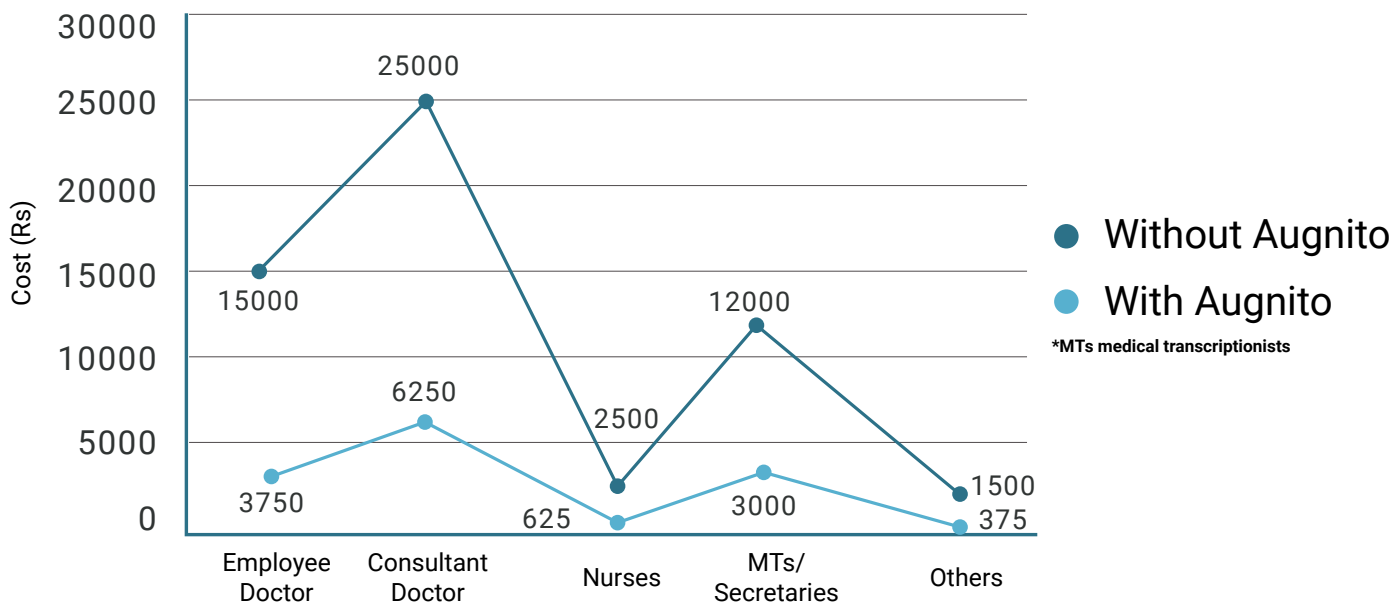


Fig. 12: Cost of documentation per month exclusive of Augnito's cost

It is also observed that greater the adoption rate for Augnito, greater are the profits. With an adoption rate of 80% in a 1000 bed hospital, which is considered as the best-case scenario, additional annual profits of ₹45.98 crores can be achieved. Therefore, Augnito not only provides scribing convenience, it also serves as an excellent business strategy in the field of healthcare.

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THE NEW FRONTIER IN HEALTHCARE

Augnito is unarguably the next giant leap in healthcare management. It provides a one stop solution for all sorts of clinical documentation requirements including but not limited to discharge summaries, lab reports, prescriptions, surgery notes, nursing notes, and insurance claims. An effective, efficient, and inclusive product, Augnito is set to revolutionize healthcare systems in India.

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