

Project Title

ASKVIJAYFOR RESPIRATORY CARE RESOURCES -INSTANT ACCESS ANYWHERE,
ANYTIME!

Project Lead and Members

Project lead: Ong Wei Jun Dan

Project members: Eleanor Dela Pena, Amit Kansal, Faheem Khan

Organisation(s) Involved

Ng Teng Fong General Hospital, Jurong Community Hospital

Healthcare Family Group(s) Involved in this Project

Allied Health

Applicable Specialty or Discipline

Respiratory Therapy

Project Period

Start date: Not applicable

Completed date: Not applicable

Aims

The primary goal of AskVijayis to provide a comprehensive and readily accessible digital guideline in respiratory care, addressing the absence of a consolidated resource and enhancing the overall quality of care.

Background

See poster appended/below.

Methods

See poster appended/below.

Results

See poster appended/below.

Conclusion

See poster appended/below.

Project Category

Care & Process Redesign

Quality Improvement, Design Thinking, Job Effectiveness, lean Methodology,
Workflow Redesign

Technology

Digital Health, Data Management, Data Platform

Keywords

Respiratory Therapy, Digital guideline, Respiratory Care, Increased efficiency,
Increased accessibility, Mobile Application

Name and Email of Project Contact Person(s)

Name: Ms Eleanor Dela Pena

Email: eleanor_dela_pena@nuhs.edu.sg

ASKVIJAY FOR RESPIRATORY CARE RESOURCES - INSTANT ACCESS ANYWHERE, ANYTIME!

Mission Statement

AskVijay's mission is to revolutionize healthcare practices in respiratory care by seamlessly integrating a comprehensive digital guideline into the workflow, empowering healthcare professionals with on-the-go access to up-to-date information, and fostering continuous improvement in patient care and operational efficiency.

Goal:
The primary goal of AskVijay is to provide a comprehensive and readily accessible digital guideline in respiratory care, addressing the absence of a consolidated resource and enhancing the overall quality of care.

Team Members

Salutation & Name	Designation	Organisation
Mr. Ong Wei Jun Dan	Senior Respiratory Therapist	Ng Teng Fong General Hospital
Ms. Eleanor Dela Pena	Head, Respiratory Therapy	Ng Teng Fong General Hospital
Dr. Amit Kansal	Senior Consultant, Intensive Care Medicine	Ng Teng Fong General Hospital
Dr. Faheem Khan	Head, Intensive Care Medicine	Ng Teng Fong General Hospital

Evidence of a Problem Worth Solving

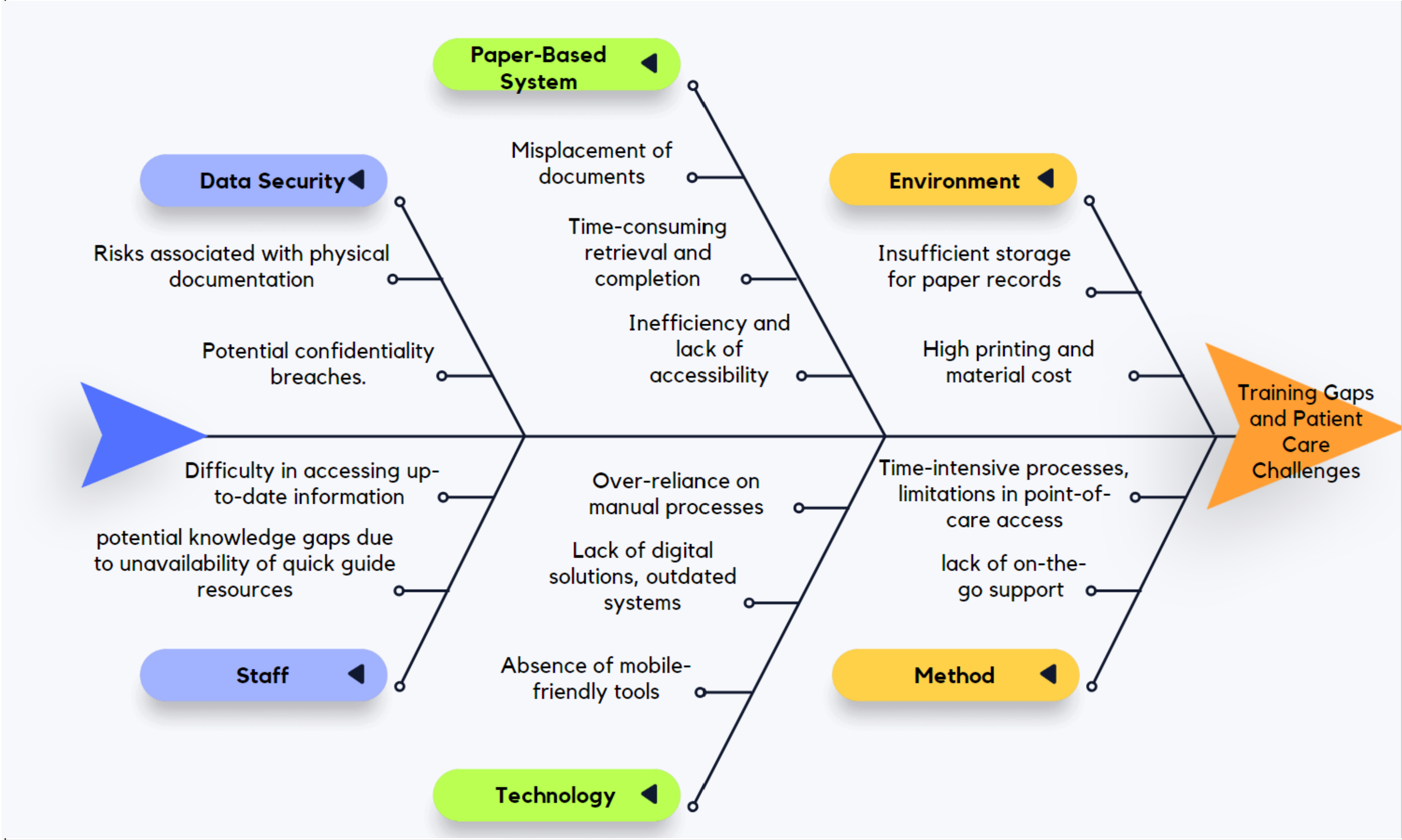
- The evidence for the problem worth solving lies in the challenges faced by healthcare professionals, especially in respiratory care, highlighted by the reliance on traditional paper-based systems. This outdated approach leads to difficulties in accessing up-to-date information, hindering timely and accurate decision-making.
- The inefficiencies of paper documents in fast-paced environments compromise patient care, emphasizing the need for a transformative intervention. Studies on mobile technology in healthcare underscore its potential to address these challenges, pointing to improved efficiency and patient outcomes.
- AskVijay emerges as a solution supported by evidence, aiming to bridge the information gap and enhance the quality of care in respiratory therapy through a user-friendly digital platform.

Opportunity for Improvement

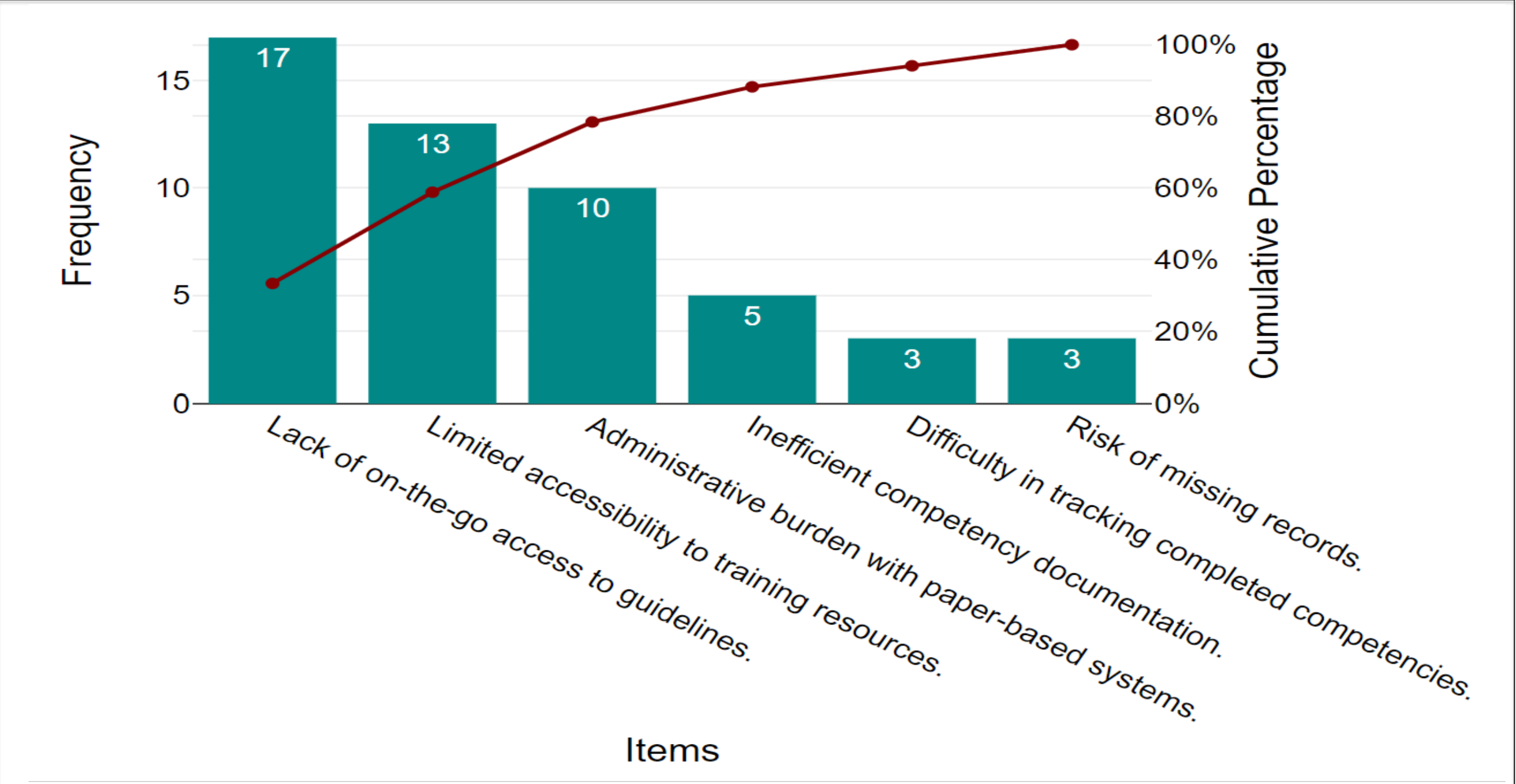
- AskVijay addresses the challenge of accessing current and reliable information in healthcare.
- Traditional paper-based systems prove cumbersome, limiting immediate access at the point of care.
- The platform offers a comprehensive mobile application to healthcare providers.
- Instant access to up-to-date clinical resources enhances responsiveness and efficiency.
- AskVijay prioritizes information accuracy, ensuring a seamless integration of technology into healthcare.

Cause and Effect Diagram

The root causes, including manual competency documentation, lack of real-time tracking, difficulty in accessing information, environmental impact, and training gaps, collectively hindered staff efficiency and patient care.



Pareto Chart

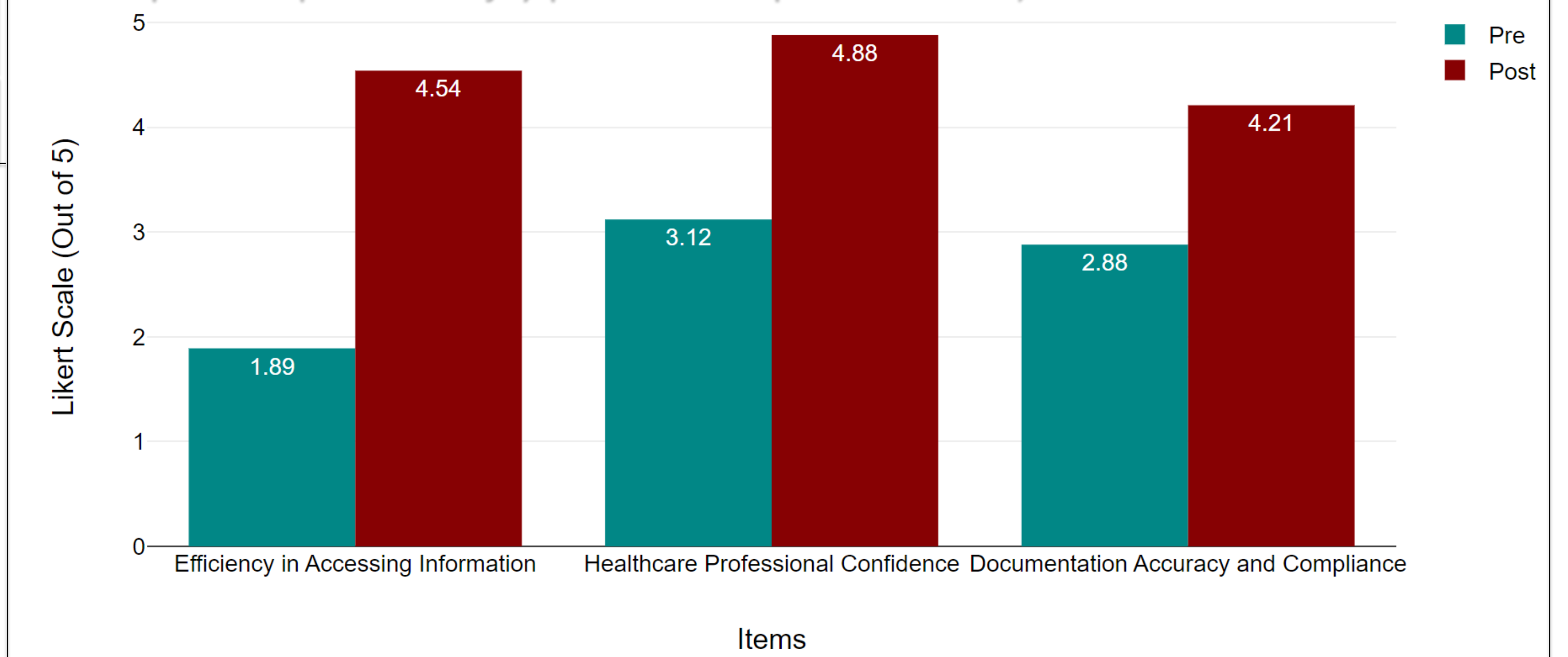


Implement Changes

Problem	Intervention	Process/Balance Measure	Date
Lack of on-the-go access to guidelines and support for healthcare professionals.	Transition from paper-based competency documentation to a digital system (AskVijay).	Improved efficiency, accessibility, and accountability in competency assessment through survey.	December 2022
Absence of consolidated resource impacting knowledge and skills gaps.	Development and implementation of AskVijay – a comprehensive digital guideline for respiratory care.	<ul style="list-style-type: none">% usage of AskVijaySeeking feedback to improve knowledge, skills, and confidence.	June 2023
Implementation of AskVijay and staff training for digital competency documentation.	Dissemination of training and collaborative adaptation to the new system.	Successful integration into existing workflows with feedback from stakeholders.	September 2023
Baseline data indicating challenges in information access and competency documentation.	Post-implementation data showing increased efficiency, accessibility, and positive staff feedback.	Productivity gain and cost-effectiveness, with sustained outcomes for at least six months.	October 2023
Healthcare professionals and staff.	Change management strategy with training sessions and feedback mechanisms.	Improved end-user experience, measured through staff satisfaction and feedback.	January 2024

Results

- Applying the Technology Model Assessment (TMA) model, a 25-question survey, scored on a five-point Likert scale, was completed by 24 healthcare professionals. The survey occurred before (May 2022) and after the beta launch of AskVijay (October 2023). Factor analysis of the data identified three distinct factors (Efficiency, Confidence, and Compliance) in the final factor models of the instruments. Notably, all three factors exhibited significant differences between the pre and post-AskVijay phases with p-value <0.05).



Spread Changes, Learning Points

- Continuous Enhancement:** Ensure AskVijay's relevance through regular updates, adding new digital workflows and guidelines to keep pace with evolving healthcare practices.
- Widespread Adoption:** Expand AskVijay's reach beyond the initial implementation, engaging various departments and wards to benefit a broader range of healthcare professionals.
- Collaborative Technological Development:** Collaborate with Form.SG and IT personnel to enhance AskVijay's capabilities, ensuring seamless integration and addressing potential challenges.
- User Training and Empowerment:** Establish structured training programs, empowering healthcare professionals with the skills needed to maximize the benefits of AskVijay.