



REVIEW ON OPTIMIZING MATERNAL CARE:

FEASIBILITY AND PERSPECTIVES OF HOME SAMPLE COLLECTION IN MATERNITY HOSPITALS

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ROLL NUMBER : IIHMR-U/01/2022-24/1588

INTRODUCTION

PURPOSE OF RESEARCH

OBJECTIVES

CHALLENGES

ADVANCEMENTS

Home Sample Collection:

This approach allows expectant mothers to provide biological samples from home, leveraging telehealth and logistical networks to reduce the need for in-person visits, thus enhancing convenience and potentially improving patient satisfaction and resource allocation.

THESIS



Authors	Year	Study Location	Sample Size	Sampling Technique	Salient Features
Smith et al.	2023	USA	500	Random sampling	Explored patient acceptance rates of home sample collection.
Johnson and Lee	2022	UK	300	Convenience sampling	Investigated cost-effectiveness compared to traditional hospital visits.
Garcia et al.	2021	Spain	200	Stratified sampling	Analysed logistical challenges and benefits for rural populations.
Wang and Chen	2020	China	1000	Cluster sampling	Examined regulatory barriers and policy implications.
Brown and White	2019	Australia	400	Purposeful sampling	Evaluated patient satisfaction and healthcare provider perspectives.
Taylor et al.	2018	Global	N/A	Systematic review	7Synthesized findings on effectiveness and feasibility of home-based interventions in maternal and child health, including home sample collection.

INTRODUCTION

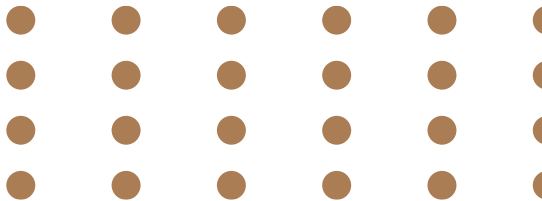
**PURPOSE OF
RESEARCH**

OBJECTIVES

**RESEARCH
DESIGN**

**KEY RESEARCH
QUESTIONS**

How feasible is it to implement home sample collection in maternity hospitals, and what are the perspectives of stakeholders on this initiative regarding its impact on reducing logistical burdens and improving patient satisfaction?



THESIS

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1. To Investigate Patient Preferences: To evaluate maternal attitudes towards home sample collection versus traditional lab visits during prenatal and postnatal care.

2.To Explore Healthcare Providers Perspectives:
To understand feasibility, benefits, and challenges of implementing home sample collection for prenatal and postnatal diagnostic testing.

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3. To Examine Technological and Logistical Considerations:

To assess their involvement in establishing and operating home sample collection services within maternity healthcare settings.

4. To Provide Recommendations for Integration:

Aimed at integrating and promoting home sample collection as a standard practice in maternity care, addressing potential barriers and outlining strategies for successful implementation.

THESIS

RESEARCH DESIGN



KEY RESEARCH QUESTIONS



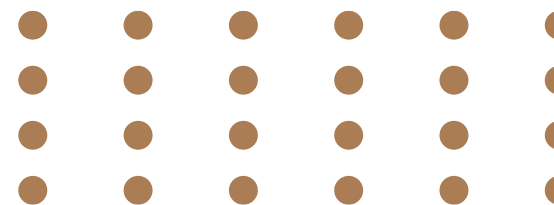
STUDY SETTING

STUDY POPULATION

SAMPLING TECHNIQUES



The study employs a mixed-methods approach, combining qualitative and quantitative assessments to explore the feasibility and perspectives of home sample collection in maternal care.



METHODOLOGY

**RESEARCH
DESIGN**



**KEY RESEARCH
QUESTIONS**



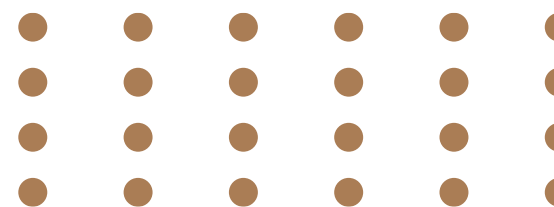
**STUDY
SETTING**

**STUDY
POPULATION**

**SAMPLING
TECHNIQUES**



The study aims to understand the perspectives of healthcare providers, expectant mothers, and hospital administrators regarding the feasibility, acceptability, and potential challenges of home sample collection in maternity hospitals.



METHODOLOGY

**RESEARCH
DESIGN**



**KEY RESEARCH
QUESTIONS**

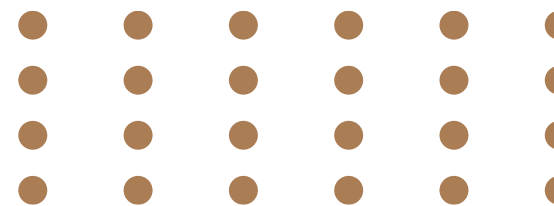
**STUDY
SETTING**

The research was conducted in tertiary care maternity hospitals with diverse patient demographics and varying levels of healthcare resources.

**STUDY
POPULATION**



**SAMPLING
TECHNIQUES**



METHODOLOGY

RESEARCH DESIGN

KEY RESEARCH QUESTIONS

STUDY SETTING

STUDY POPULATION

SAMPLING TECHNIQUES

- The study comprises of **300 patients**, constituting the sample size for analysis and investigation.
- The participants include:
 - Healthcare providers (obstetricians, midwives, nurses, and laboratory staff),
 - Expectant mothers.
 - Hospital administrators.

METHODOLOGY

**RESEARCH
DESIGN**



**KEY RESEARCH
QUESTIONS**

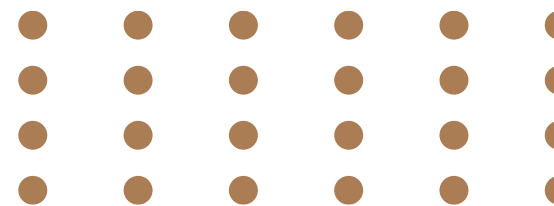
**STUDY
SETTING**

**STUDY
POPULATION**

**SAMPLING
TECHNIQUES**



Purposive sampling will be used to select participants based on their direct involvement or experience with maternal care and sample collection, ensuring diverse perspectives are captured.



METHODOLOGY

**STUDY
INSTRUMENTS**

**DATA
ANALYSIS**

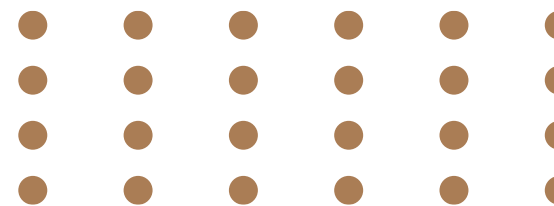
**ETHICAL
CONSIDERATIONS**

**QUALITATIVE
ASSESSMENT**

**QUANTITATIVE
ASSESSMENT**

Interview guides and surveys are developed to ensure consistency and coverage of key topics, with open-ended questions for qualitative data and structured questionnaires for quantitative data.

METHODOLOGY



**STUDY
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**ETHICAL
CONSIDERATIONS**

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**QUANTITATIVE
ASSESSMENT**

Thematic analysis was conducted on qualitative data to identify recurring patterns and themes, while quantitative data was analyzed using descriptive and inferential statistics to examine relationships and associations between variables.

METHODOLOGY

**STUDY
INSTRUMENTS**

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ANALYSIS**

**ETHICAL
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**QUANTITATIVE
ASSESSMENT**

The study was adhere to ethical principles including informed consent, voluntary participation, data security and confidentiality, minimizing harm, and obtaining ethical approval from an appropriate ethics review board

METHODOLOGY

**STUDY
INSTRUMENTS**

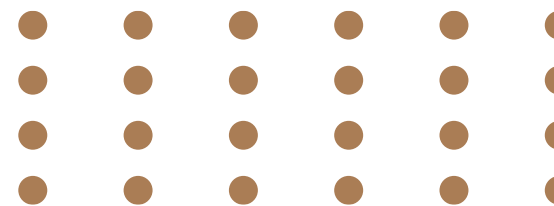
**DATA
ANALYSIS**

**ETHICAL
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Data was collected through semi-structured interviews and focus group discussions with healthcare providers, expectant mothers, and hospital administrators to gather in-depth insights.



METHODOLOGY

**STUDY
INSTRUMENTS**

**DATA
ANALYSIS**

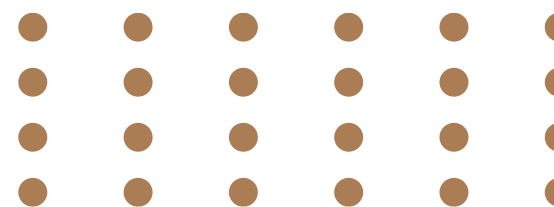
**ETHICAL
CONSIDERATIONS**

**QUALITATIVE
ASSESSMENT**

**QUANTITATIVE
ASSESSMENT**



Surveys was structured questions and Likert scales will be administered to healthcare providers and expectant mothers to quantify their attitudes, preferences, and perceived barriers related to home sample collection.



METHODOLOGY



RESULTS

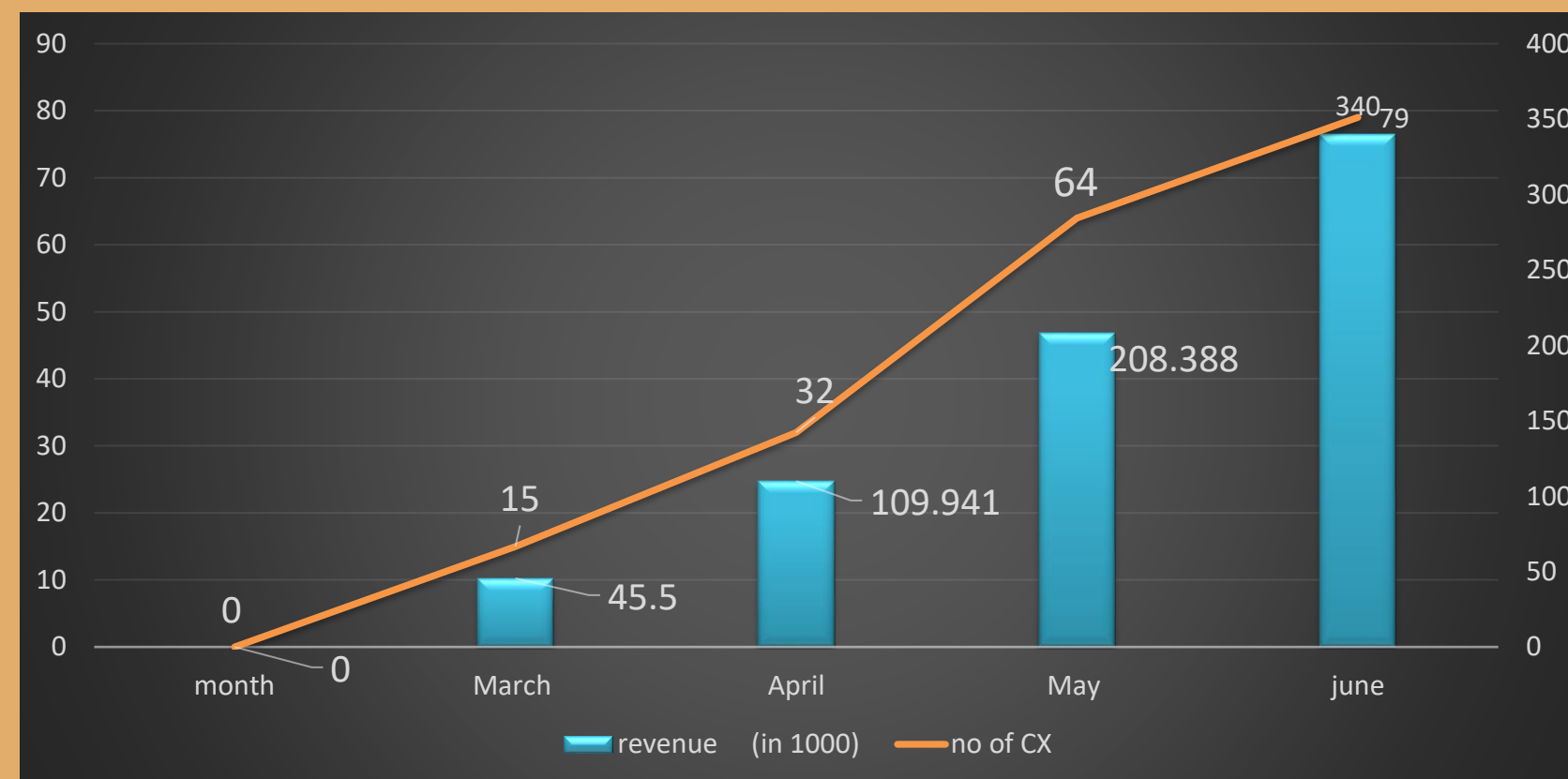


Figure 4.2: Monthly Revenue and Number of Customers (CX)

Table 4.1: Summary of Key Challenges Identified by Hospital Administrators in Implementing Home Sample Collection

CHALLENGE	PERCENTAGE OF RESPONDENTS
SAMPLE QUALITY CONTROL	42%
LOGISTICAL CHALLENGES	29%
INITIAL SETUP COSTS	18%
REGULATORY COMPLIANCE	11%



Perspectives of Hospital Administrators:

Hospital administrators **recognized** the benefits of home sample collection, like streamlined patient flow and increased satisfaction, but **stressed** the importance of clear policies, adequate resources, and regulatory adherence.



RESULTS



Table 4.2: Cross-Tabulation of Patient Preferences and Concerns about Sample Quality Control

PREFERENCE	CONCERN ABOUT SAMPLE QUALITY CONTROL	NO CONCERN	TOTAL
HOME SAMPLE COLLECTION	60%	25%	85%
HOSPITAL VISITS	10%	0%	10%
NEUTRAL/NO PREFERENCE	5%	0%	5%
TOTAL	75%	25%	100%

SERVICE PREFERENCE

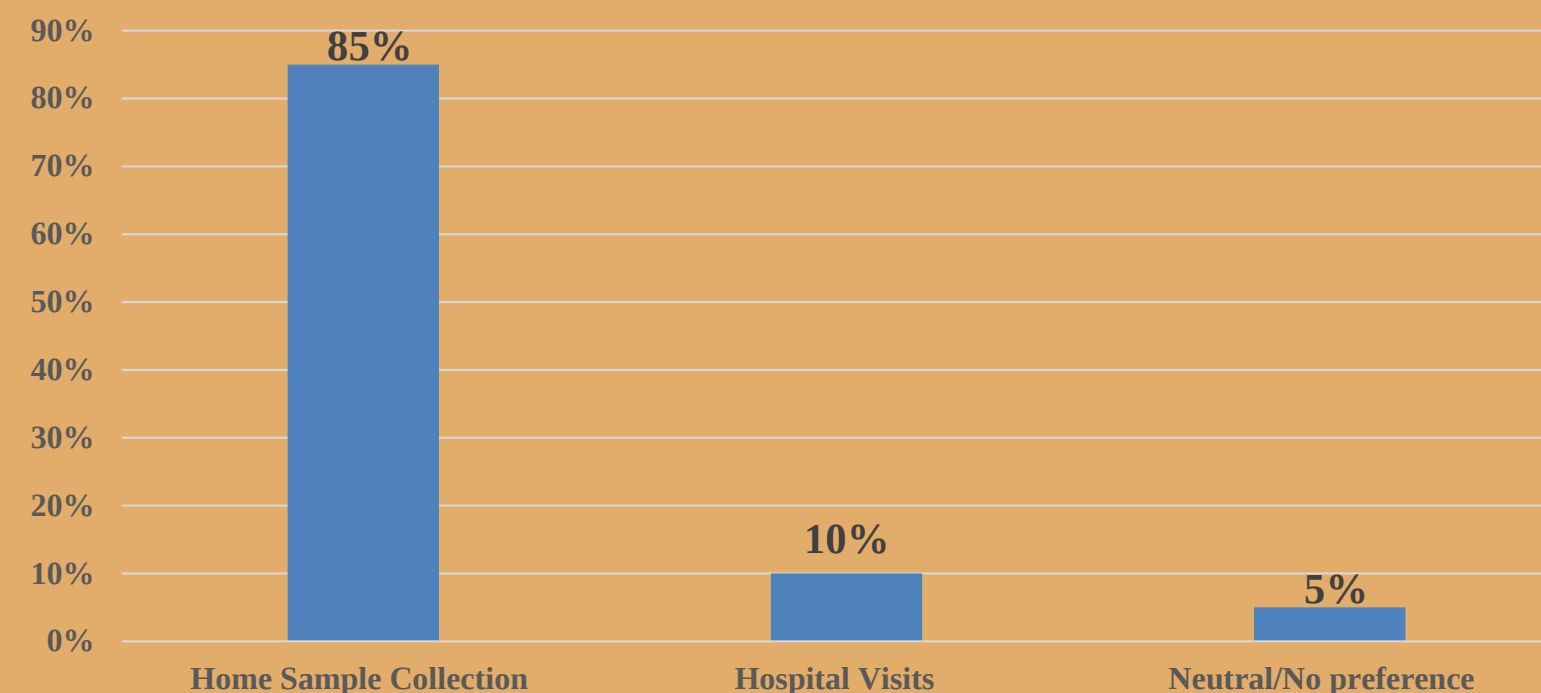


Figure 4.2: Bar Chart Illustrating Expectant Mothers' Preferences for Home Sample Collection Versus Hospital Visits

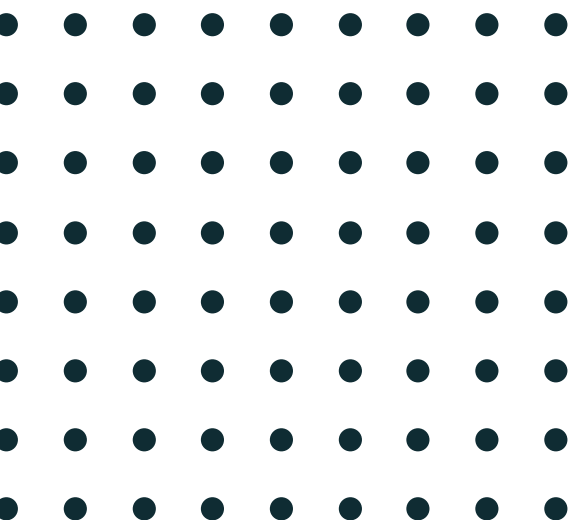


Quantitative Data Analysis:

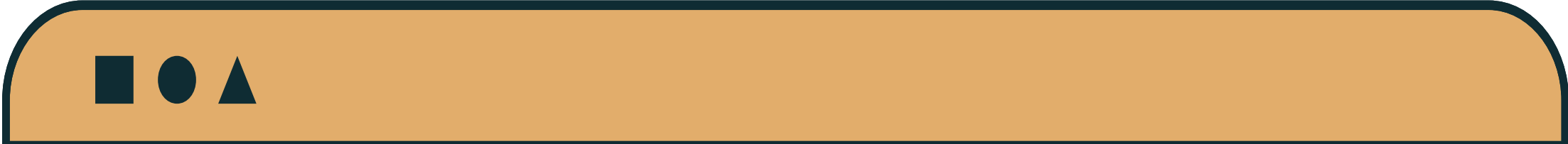
Quantitative data showed strong support for home sample collection among expectant mothers (85%).

SUGGESTIONS

- **Outsourcing the home sample collection team.**
- **Proper awareness of patient in the hospital about the home sample collection.**
- **Procurement of Proper sample collection kit.**
- **Training of the outsourced team for home sample collection team about the safety and privacy of patients during the entire process.**
- **Standardizing the laboratory result handover to patient.**



CONCLUSION

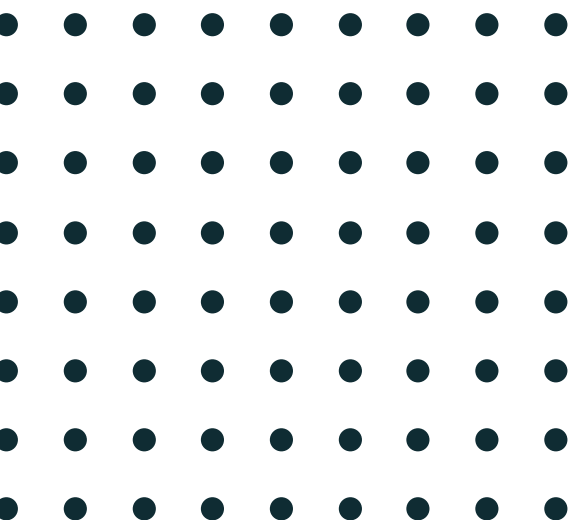


1. Feasibility and Perspectives of Home Sample Collection:

- Highlighting provider cautious optimism, maternal preferences, and recognized administrative benefits.
- Key concerns centered on sample integrity, regulatory compliance, and logistical challenges.

2. Patient-Centered Care:

- Expectant mothers valued the convenience, privacy, and minimized hospital exposure of home sample collection.
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CONCLUSION

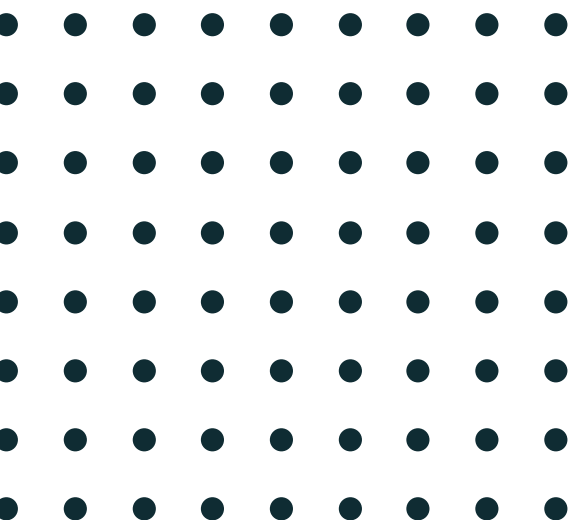


3. Operational Efficiency:

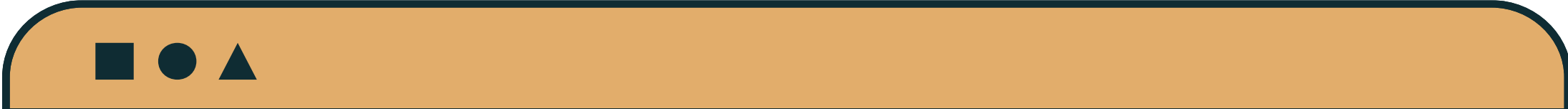
- Reducing hospital visits and optimizing resources, resulting in cost savings and allowing providers to focus on complex cases requiring direct intervention.

4. Policy Development and Implementation:

- Robust policies and stakeholder engagement.
 - Policymakers must craft clear regulations and protocols to ensure patient safety and quality care.
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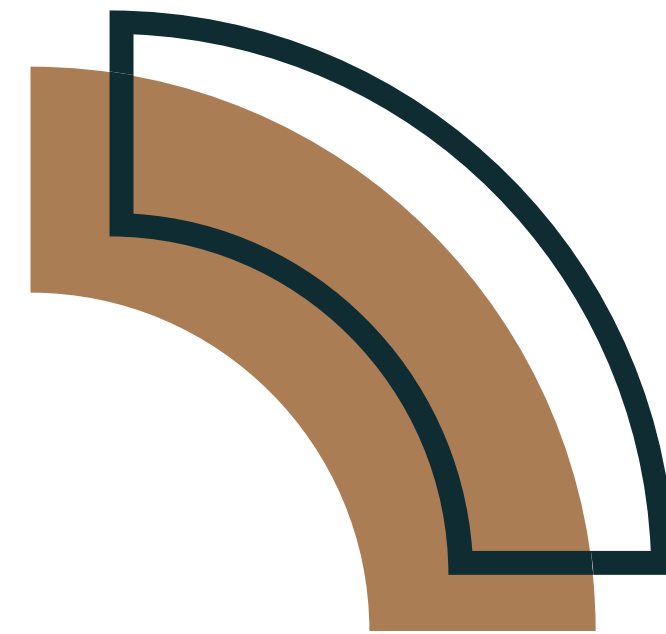
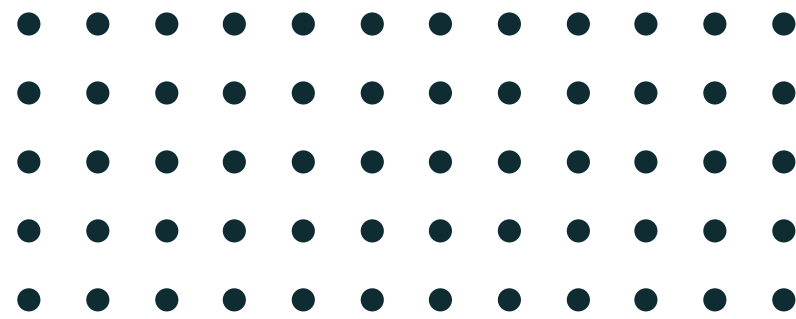


CONCLUSION



5. Education, Training, and Technology Integration:

- Enhancing patient education and healthcare provider training on home sample collection procedures.
- Leveraging technological advancements like telehealth platforms and remote monitoring to optimize efficacy and communication..



THANK YOU

