SYNOPSIS

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Synopsis

Proposed Title

From Evidence to Adoption: A Framework and Go-to-Market Strategy for Remote Patient Monitoring in Indian Cardiac Post-Discharge Care

(a) Introduction

Healthcare delivery worldwide is being reorganised around the recognition that illness is rarely a discrete event and is better managed continuously over time. This shift is well advanced in high-income systems but is arriving later and more unevenly in emerging economies. India sits awkwardly within this transition, carrying one of the heaviest chronic disease burdens in the world while operating a health infrastructure that remains under-resourced and unevenly distributed.

A particular feature of this problem motivates the present study. For cardiac patients, the most dangerous period is frequently not the hospital stay but the weeks immediately after discharge. A patient discharged following a myocardial infarction, cardiac surgery, or an episode of decompensated heart failure returns home with unstable physiology requiring monitoring, medication titration, and prompt response to early warning signs. What such a patient typically receives in India is a discharge summary, a follow-up appointment several weeks away, and verbal instructions delivered in the final rushed minutes of an inpatient stay.

Remote Patient Monitoring (RPM) is widely proposed as a response to this gap. By capturing physiological data such as heart rate, blood pressure, oxygen saturation, and electrocardiographic activity from patients at home, RPM offers a way to maintain clinical visibility across the period when patients are most vulnerable and least observed. The underlying devices are not novel; what has changed is the convergence of low-cost sensors, near-ubiquitous mobile connectivity, cloud platforms, and alerting algorithms capable of flagging deterioration before it becomes a crisis.

The burden that makes this gap consequential is severe and rising. Cardiovascular disease deaths in India increased by roughly 139 percent between 1990 and 2023, and India's age-standardised CVD death rate continues to exceed the global average even as the global rate has fallen. The epidemiological need is therefore acute, the technology is available, and the clinical evidence base is substantial.

Yet despite this readiness, RPM in Indian cardiac post-discharge care remains largely unrealised at scale. Deployment is fragmented, pilots seldom progress beyond the pilot stage, and most post-discharge cardiac patients continue to be monitored by little more than a reminder for their next outpatient visit. This study treats that persistent gap not as a problem of missing technology or insufficient awareness, but as an adoption problem located at the intersection of clinical, economic, and organisational factors. It therefore asks why an evidence-backed intervention has failed to diffuse into routine practice in this specific context, and proposes a workable go-to-market configuration in response.

(b) Review of Literature

The clinical case for RPM in cardiac care is well established across more than two decades and multiple geographies. The TIM-HF2 trial demonstrated that structured remote monitoring of heart failure patients reduced days lost to unplanned cardiovascular hospitalisation and all-cause mortality relative to standard care, with the authors attributing the effect to the structured clinical response protocol surrounding the technology rather than to the devices alone. The European Society of Cardiology now includes RPM as a conditional recommendation for chronic heart failure, and growing evidence on consumer-grade wearables for atrial fibrillation detection signals the blurring line between clinical-grade and consumer-grade monitoring. Indian evidence, though thinner, consistently finds that outcomes are comparable to in-person follow-up in stable patients, while barriers such as device familiarity, caregiver involvement, alert fatigue, and network reliability require active management.

A literature review that catalogues only positive findings, however, misrepresents a field in which failure is common and instructive. The Whole Systems Demonstrator programme reported reduced admissions but no cost reduction, alongside serious integration failures and clinician resistance. Work on clinical workflow has identified alert fatigue as the dominant predictor of programme failure. Reviews of mobile health in low- and middle-income settings find that standalone applications rarely sustain change beyond the funded pilot period. The analytical value of this negative evidence is that it locates failure consistently at the points of integration, financing, and trust rather than at device performance.

Although existing literature establishes both the clinical benefits and the recurrent failure modes of RPM, limited research integrates the clinical, economic, and organisational determinants of adoption into a single context-specific account for Indian cardiac post-discharge care. This study addresses that gap.

(c) Theoretical / Conceptual Framework

This study is guided by an integrated conceptual framework derived transparently from the reviewed literature rather than asserted in advance. Established adoption theories, including the Technology Acceptance Model, the Diffusion of Innovations framework, and the Consolidated Framework for Implementation Research, inform the analysis but are treated as descriptive starting points rather than the framework itself.

The framework frames RPM adoption as the outcome of interaction between three actor levels, namely the patient, the provider (encompassing both physicians and hospital administration, whose incentives diverge), and the system (encompassing payers, regulators, and infrastructure), and four evaluation determinants, namely feasibility, scalability, cost, and trust. These four criteria were derived through structured thematic synthesis of the literature, selected because they recur most consistently across the evidence and map precisely onto the documented failure points of integration, financing, trust, and the inability to extend beyond a pilot. The regulatory and data-governance environment is treated not as a separate determinant but as a conditioning context that shapes feasibility and trust in particular.

(d) Research Gap

Existing studies establish the clinical efficacy of RPM, largely in Western and East Asian settings whose organisational, financial, and cultural conditions are embedded in the study designs. The adoption-behaviour literature offers generalisable but descriptive frameworks

that identify categories of barriers without providing a structured method for assessing which barriers are most material in a specific context. The deployment-model literature is drawn overwhelmingly from high-income settings or consumer health technology.

What is absent is an integrated, context-specific account of RPM adoption in Indian cardiac post-discharge care that draws the clinical, economic, and organisational determinants into a single coherent analytical structure and derives that structure transparently from a systematic reading of the evidence. This study addresses that gap by developing and applying such a framework and translating it into a phased deployment strategy.

(e) Research Questions

1. What are the primary barriers to adoption of remote patient monitoring in post-discharge cardiac care in India, and how do they operate at the patient, provider, and system levels?
2. How do existing RPM deployment models, namely hospital-led, physician-led, insurer-led, and direct-to-consumer approaches, differ in their clinical value delivery, cost structure, and scalability within the Indian healthcare context, and what do these differences imply for adoption?
3. What configuration of target segmentation, channel architecture, pricing model, and adoption pathway offers the most viable and scalable route to deploying RPM for cardiac post-discharge care in India?

(f) Research Objectives

Primary Objective

To derive a transparent, context-specific adoption framework and a phased go-to-market strategy for Remote Patient Monitoring in Indian cardiac post-discharge care.

Secondary Objectives

1. Conduct a primary descriptive analysis of the GBD 2023 dataset to quantify the cardiovascular disease burden in India and establish the epidemiological foundation for the post-discharge monitoring gap this dissertation addresses.
2. Develop a phased, evidence-grounded deployment strategy for RPM in Indian cardiac post-discharge care that can serve as both a contribution to the adoption literature and a practical reference for decision-makers in health technology, hospital management, and health policy.

(g) Methodology

Research Design

The study adopts a qualitative secondary research design, supplemented by a descriptive epidemiological analysis. The design is best described as a qualitative, framework-building secondary study, and its claims are accordingly to analytical generalisability rather than statistical generalisability.

Methodological Components

The design comprises four integrated components: a systematic literature review of twenty-eight studies; a content analysis of regulatory, policy, and data-governance instruments; a structured comparative analysis of deployment models, market segments, channels, and pricing approaches against the four evaluation criteria; and a framework evaluation applying the derived conceptual model to the Indian context.

Data Sources

The study draws on peer-reviewed clinical and health-services literature accessed through databases including PubMed, NCBI, SpringerLink, and ScienceDirect; health policy and regulatory documentation including the Telemedicine Practice Guidelines, the Medical Device Rules, applicable data protection legislation, and national digital health infrastructure documentation; industry and market intelligence on firms active in India; and international comparative literature, with the transferability of each finding noted explicitly.

A descriptive analysis of the Global Burden of Disease 2023 dataset, accessed via the IHME GBD Results Tool, provides quantitative epidemiological grounding.

(h) Plan of Analysis

The analysis proceeds through linked qualitative and quantitative techniques.

Qualitative and Strategic Analysis

- Thematic synthesis of the literature to derive the four evaluation criteria
- Directed content analysis of regulatory and policy instruments
- Structured comparative analysis of deployment models, segments, channels, and pricing against the four criteria, using a three-point ordinal grading scale (strong, moderate, weak) with explicit justification for each assessment
- Stakeholder influence analysis and competitive landscape analysis
- Robustness checking to distinguish conclusions that hold regardless of criterion weighting from those contingent on a particular emphasis

Quantitative Analysis

- Descriptive analysis of GBD 2023 mortality, DALY, incidence, and premature-mortality trends

(i) Tentative Chapter Plan

Chapter 1 – Introduction and Background. Clinical and systemic context, the epidemiological burden from GBD 2023, problem framing, research questions, objectives, scope, and contribution.

Chapter 2 – Review of Literature. Critical review across the RPM clinical evidence base (including failed-programme evidence), the adoption-behaviour literature, and the deployment-model literature, with a structured literature table, thematic derivation of the evaluation criteria, conceptual framework, and articulation of the research gap.

Chapter 3 – Research Methodology. Justification of the qualitative secondary design, data sources, literature selection procedure, content analysis approach, formal definition of the four evaluation criteria and methodological limitations.

Chapter 4 – Results and Discussion. The patient-journey failure-point analysis, synthesis of adoption barriers, comparative analysis of deployment models, four-criterion evaluation of segments, robustness check, stakeholder influence analysis, competitive landscape analysis, and break-even results.

Chapter 5 – Recommendations and Conclusion. A phased, KPI-gated go-to-market strategy covering target segmentation, channel architecture, pricing design, adoption pathway, and a pilot-to-scale implementation roadmap, with risks and built-in mitigations.

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