

# CHAPTER - 04

## COMPETITIVE LANDSCAPE AND MARKET ANALYSIS OF REMOTE PATIENT MONITORING SERVICES IN US

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### INTRODUCTION

Remote patient monitoring (RPM) constitutes a segment within the telehealth domain, employing digital technologies to collect medical or health data from individuals in one location and securely transmit it electronically to healthcare providers in another location for assessment and recommendations. Physiological data such as vital signs, weight, blood pressure, and heart rate are commonly gathered through RPM programs. Utilizing customized telehealth systems or downloadable software applications on devices like computers, smartphones, or tablets, patient data is transmitted to healthcare facilities for review. RPM allows healthcare professionals to remotely monitor patient activities and vital signs, facilitated by connected electronic devices that record and transmit patient vitals to caregivers. Through a central system linking sensors and

monitoring equipment to an external monitoring centre, patients remain connected for continuous monitoring [2,3].

The remote RPM market is projected to experience significant growth, with a compound annual growth rate (CAGR) of 38.2 percent, increasing from USD 23,201.4 million in 2020 to USD 117,103.58 million by 2025. This growth is driven by factors such as the expanding geriatric population and the growing demand to enhance healthcare accessibility. However, market expansion may face obstacles due to regional regulatory variations, healthcare fraud, and informal social media practices. The RPM market is categorized into software & services and devices, with the software and services sector accounting for 71.7 percent of the global remote patient monitoring market in 2019. Increased reimbursement for RPM programs and the rise in chronic illnesses have contributed to the substantial market share in this segment, leading to widespread adoption of RPM services globally [1,2].

## **RESEARCH OBJECTIVES**

1. To conduct an analysis and estimation of the market for remote patient monitoring services within the United States region.
2. To gain an understanding of the competitive landscape within the remote patient monitoring service market.
3. To evaluate the factors driving and hindering the growth of the market.

## **RESEARCH METHODOLOGY**

The secondary research was conducted based on relevant articles from reputable peer-reviewed journals. A total of 11-15

secondary sources and databases were accessed for comprehensive analysis. The secondary research aimed to delve into various aspects, including an overview of the current status of the remote patient monitoring services market with a brief historical background, identification of important current trends and focus of ongoing research, exploration of emerging and future trends, and assessment of opportunities, challenges, and limitations. The study design employed was a descriptive cross-sectional study. Inclusion criteria encompassed all start-ups and established players operating within the United States, while exclusion criteria excluded companies outside the US, emerging companies incorporated after April 2022, and secondary data predating January 2015. The duration of the study spanned from March 24, 2022, to June 15, 2022.

## **RESULTS & DISCUSSION**

Continuous monitoring of oxygenation levels was deemed critical in hospitals and other critical care settings, as any decline in the patient's oxygenation levels could result in unconsciousness, brain damage, or respiratory failure. These devices also played a crucial role in preoperative monitoring to assess the patient's cardiorespiratory status. The data could be captured, stored, and then transmitted to specialists for evaluation. Fingertip pulse oximeters, which could be connected with smartphones, were user-friendly devices suitable for hospitals or home care environments. Some pulse oximeters were equipped to send notifications or alarms if values deviated from the patient's routine threshold. The increasing awareness of these devices and their convenience in self-monitoring were factors that drove the adoption of pulse oximeters and contributed to the overall market growth of respiratory monitoring devices. Other

drivers included the availability of low-cost oximeters and technological advancements.

Moreover, pulse oximeters played a role in detecting COVID-19. The demand for pulse oximeters had significantly increased since the onset of the pandemic. For example, individuals experiencing COVID-19 symptoms such as weakness, muscle pain, or fever could utilize the pulse oximeter as a primary screening device to measure blood oxygen levels. If the value registered as 92% or lower, then the patient needed to undergo further screening at a hospital or seek medical attention.

## **CONCLUSION**

Telehealth and remote patient monitoring are poised to experience significantly greater acceptance in the current climate, with opportunities in this market expected to extend beyond the pandemic. This presents a substantial opportunity for RPM vendors to collaborate with traditional healthcare provider organizations, offering the necessary technology for effective remote healthcare delivery. Additionally, consumer satisfaction with telehealth services, as reported by industry experts, underscores the potential of this market. Consequently, RPM companies have a profitable opportunity to persuade both patients and providers to transition from traditional care to remote care, demonstrating the benefits of their products and engaging customers to maintain their customer base post-pandemic. However, the surge in usage may pose challenges for RPM companies in managing increased load and potential technical issues such as IT crashes, necessitating advanced mobility solutions. To address these challenges, the FDA issued updated guidelines in March 2020, facilitating quicker entry into the RPM market for equipment. This presents another

opportunity for RPM companies to assess and understand these challenges, preparing themselves to effectively manage such situations in the future.

## **REFERENCES**

1. *Ivanov, A. B., Hrisafov, K., Chivarov, N., Chivarov, S., & Budinska, I. (2021). Tele-Medical System For Remote Monitoring Of Patients With Covid 19 And Other Infectious Diseases. Ifac-papersonline, 54(13), 327-332.*
2. *Sharma, N., Mangla, M., Mohanty, S. N., Gupta, D., Tiwari, P., Shorfuzzaman, M., & Rawashdeh, M. (2021). A smart ontology-based IoT framework for remote patient monitoring. Biomedical Signal Processing and Control, 68, 102717.*
3. *Kim, Y. H., Lim, I. K., Lee, J. W., & Lee, J. K. (2012). Sensor based real-time remote patient monitoring system: a study on mobile DB construction of minimum network traffic in use of HTML5 WebSQL. Procedia Engineering, 29, 2382-2387.*