Journal of Advances in Developmental Research (IJAIDR)
E-ISSN: 0976-4844 ● Website: www.ijaidr.com ● Email: editor@ijaidr.com

Empowering the Rural wellness: Analyzing the Execution and Impact of the National Rural Health Mission on beneficiaries in Rajasthan

Rohitash Alariya[1], Prof. Mamta Jain[2]

[1]Research Scholar, [2]Professor
[1, 2]Department of EAFM, University of Rajasthan, Jaipur

Abstract

This study examines the execution and impact of the National Rural Health Mission (NRHM) on rural wellness among beneficiaries in Rajasthan. Utilizing a sample size of 342 respondents across five districts, the research employs Smart-PLS for data analysis, focusing on key factors such as program awareness, accessibility of services, affordability, and community engagement. Findings indicate that increased program awareness significantly enhances rural wellness ($\beta = 0.462$, $p < 0.001$), while greater accessibility ($\beta = 0.480$, $p < 0.01$) and affordability ($\beta = 0.847$, $p < 0.001$) also contribute positively to health outcomes. Additionally, community engagement is crucial, evidenced by a significant relationship ($\beta = 1.514$, $p < 0.01$). Despite limitations such as convenient sampling and a cross-sectional design, the study provides valuable insights into the factors affecting rural health in Rajasthan. The implications of the findings suggest that enhancing awareness, accessibility, and affordability of healthcare services, alongside fostering community involvement, are essential for improving health outcomes. Future research directions include longitudinal studies and qualitative approaches to deepen understandingof rural health dynamics.

Keywords: Rural healthcare, Maternal and Child Health, Healthcare Infrastructure,Healthcare Access, Tribal Regions, Social Sustainability

1. Introduction

Rural wellness encompasses the holistic health and well-being of individuals and communities residing in rural areas, often characterized by limited access to healthcare, education, and economic opportunities(Adranyi et al., 2023; Alavion & Taghdisi, 2021; Dadhich & Bhaumik, 2023). Empowering rural wellness involves addressing these gaps through sustainable interventions that enhance physical, mental, and socio-economic health. In India, where the majority of the population lives in rural areas, the need for focused wellness initiatives is paramount. Such efforts include improving healthcare infrastructure, promoting health education, ensuring access to clean water and sanitation, and fostering community resilience. By empowering rural wellness, we improve individual lives and contribute to the sustainable development of rural communities, leading to enhanced productivity and long-term growth(Cheng & Han, 2021).Access to quality healthcare remains a significant challenge in rural areas, where medical facilities are often scarce, and healthcare professionals are limited. Empowering rural

wellness involves creating robust healthcare systems that bridge these gaps. This can be achieved through mobile health units, telemedicine services, and the establishing primary health centers equipped with essential resources. Additionally, training local healthcare workers and community health volunteers can ensure that preventive care and health education reach the grassroots level. By prioritizing healthcare access, rural communities can better manage chronic diseases, reduce maternal and child mortality rates, and improve overall health outcomes(Hjort, 2023).

Beyond healthcare, empowering rural wellness also requires addressing socio-economic factors that impact health. This includes initiatives to improve education, create economic opportunities, and enhance living conditions. Educational programs can increase nutrition, hygiene, and disease prevention awareness, while vocational training and entrepreneurship support can generate income and reduce poverty. Investments in infrastructure, such as clean drinking water and sanitation facilities, directly impact health by preventing waterborne diseases and improving quality of life. By integrating health and socio-economic strategies, we can foster sustainable rural development and create a more equitable society where all individuals can thrive.The National Rural Health Mission (NRHM), launched in 2005, aims to improve healthcare delivery and outcomes in rural India. In Rajasthan, the execution of NRHM involves a multifaceted approach to address regional healthcare challenges. Key components include the establishment of Primary Health Centers (PHCs), deploying Accredited Social Health Activists (ASHAs), and integrating various health programs. Analyzing the execution of NRHM in Rajasthan requires examining the operational effectiveness of these initiatives, the adequacy of resources and infrastructure, and the coordination between state and local authorities. Evaluating the deployment of healthcare personnel, the availability of essential medicines, and the implementation of health campaigns helps gauge the program's reach and efficiency(Dadhich et al., 2024).

The impact of NRHM on rural beneficiaries in Rajasthan can be assessed through various metrics, including improvements in health indicators, access to healthcare services, and community satisfaction. Key outcomes to consider include reductions in maternal and child mortality rates, immunization coverage increases, and disease management improvements. Surveys and field studies can provide insights into how effectively the NRHM has met the needs of rural populations, including access to antenatal and postnatal care, the availability of essential treatments, and the overall quality of healthcare services. Understanding these impacts helps identify strengths and areas for improvement, ensuring that the mission continues to evolve to serve the rural population better (Anurag Shukla, Manish Dadhich, Dipesh Vaya, 2024).

Despite the achievements of the NRHM, challenges remain in ensuring equitable healthcare delivery across all regions of Rajasthan. Issues such as geographic disparities, inadequate infrastructure, and limited financial resources can hinder the mission's effectiveness. Addressing these challenges involves strengthening supply chains, enhancing training programs for healthcare workers, and increasing community engagement in health initiatives. Future directions may include leveraging technology to improve service delivery, expanding partnerships with non-governmental organizations, and advocating for increased funding and policy support. By tackling these challenges and exploring innovative solutions, the NRHM can enhance its impact on rural wellness and contribute to the overall health and development of Rajasthan's rural communities.

2. National Rural Health Programs in Rajasthan

Recent National Rural Health programs in Rajasthan align with broader national healthcare initiatives to improve access to quality healthcare for rural populations. Some of the key recent programs are included in the following table:

Table 1: Summary of National Rural Health Programs in Rajasthan

Program	Description	Target Group	Impact in Rajasthan	Sources
Ayushman Bharat - PM-JAY	Provides health coverage up to ₹5 lakh per family per year for secondary and tertiary healthcare services under insurance.	Vulnerable rural families	Expanded access to healthcare services for rural populations with financial protection.	(MoHFW, 2023)
Janani Shishu Suraksha Karyakram (JSSK)	Offers free services to pregnant women, including deliveries, caesarean sections, medications, and transportation.	Pregnant women and newborns	Increased institutional deliveries and reduction in maternal and infant mortality in rural Rajasthan.	(NHM, 2023)
Rashtriya Bal Swasthya Karyakram (RBSK)	Aims at early identification and treatment of children's health conditions like diseases, disabilities, and developmental delays.	Children aged 0-18 years in rural areas	Improved access to healthcare for children with early diagnosis and treatment.	(MoHFW, 2022)
National Tuberculosis Elimination Program (NTEP)	Aims to eliminate tuberculosis in India by 2025 with free diagnosis, treatment, and patient support.	TB patients in rural Rajasthan	Enhanced detection and treatment of TB cases in remote and rural areas.	(MoHFW, 2023)
Kayakalp Program	Promotes cleanliness, hygiene, and infection control in healthcare facilities.	Public healthcare facilities in rural areas	Improved cleanliness and hygiene standards in rural healthcare facilities in Rajasthan.	(NHM, 2022)
Rajasthan Mukhyamantri	Provides free essential medicines to the rural	Rural population	Reduced out-of-pocket expenses for	(Government of Rajasthan,

Nishulk Dava Yojana	population in government healthcare facilities.		medicines among rural populations.	2023)
Mukhyamantri Chiranjeevi Health Insurance Scheme	Offers cashless treatment up to ₹10 lakh per family annually for beneficiaries, reducing financial healthcare burdens.	Rural and economically vulnerable families	Enhanced access to healthcare with significant financial protection.	(Government of Rajasthan, 2023)
National Mobile Medical Units (MMU)	Mobile health units offering basic health services, diagnostics, and referrals to remote populations.	Remote rural populations	Ensured primary healthcare access and diagnostics in rural and underserved areas.	(NHM, 2023)
Anemia Mukt Bharat	Aims to reduce anemia prevalence through nutritional supplements, regular health check-ups, and awareness programs.	Women, children, and adolescents in rural areas	Targeted reduction in anemia among women and children through nutritional interventions.	(MoHFW, 2022)

Source: Compiled by authors

The significance of the above health programs in Rajasthan lies in their ability to bridge crucial gaps in healthcare accessibility, affordability, and quality in rural areas. By offering financial protection, these initiatives ensure that economically vulnerable families can access necessary medical services without the burden of high costs. Programs focused on maternal, child, and adolescent health significantly lower mortality rates and promote healthier future generations. Targeted efforts to address widespread health issues such as infectious diseases and nutritional deficiencies are critical for improving overall public health outcomes.

3. Review of Literature

(Agarwal, Bhatnagar, and Tripathi, 2022) conducted an in-depth analysis of the role of decentralization in the execution of the NRHM in Rajasthan, focusing on the role of Panchayati Raj Institutions (PRIs) in managing healthcare at the village level. Their study found that PRIs played a crucial role in improving healthcare delivery by integrating local governance structures into health management. This collaboration has made healthcare services more accessible and community-centric. However, they highlighted the need for enhanced capacity-building efforts for local governance representatives to effectively manage health resources.(Bhandari and Dutta, 2021) reviewed the overall impact of the NRHM in India, specifically focusing on its decentralized approach to rural healthcare. Their research indicated that Rajasthan benefited from this decentralization, which enabled local stakeholders to identify specific healthcare needs and implement tailored solutions. They also pointed out that despite

infrastructural improvements, the quality of services remains inconsistent, especially in the more remote regions of Rajasthan. Their findings suggest that while the NRHM has laid a solid foundation, continuous monitoring and evaluation mechanisms are critical for sustainable progress.

(Chaudhary, 2022) explored the social determinants of healthcare access in tribal and backward regions of Rajasthan, focusing on the execution of NRHM initiatives. The study found that while the NRHM had expanded healthcare services in these regions, social determinants like poverty, illiteracy, and gender inequality limited the full realization of health benefits. Chaudhary emphasized that targeted interventions addressing these social barriers are essential for the NRHM to achieve its objective of equitable healthcare access for marginalized communities in Rajasthan.

(Jain and Saini, 2020) provided a comprehensive analysis of the development of healthcare infrastructure under the NRHM in Rajasthan. Their study identified that while considerable investments were made in upgrading Sub-Centres (SCs), Primary Health Centres (PHCs), and Community Health Centres (CHCs), a persistent shortage of qualified healthcare personnel continues to undermine the effective utilization of these facilities. Their research also showed that the lack of specialist doctors and technical staff has led to over-reliance on basic health services, reducing the potential impact of these upgraded infrastructures on improving rural health outcomes.

(Kumar, Sharma, and Mehta, 2023) examined the critical role of Accredited Social Health Activists (ASHAs) in implementing NRHM programs. Their research highlighted the crucial role ASHAs played in improving maternal and child health awareness in rural Rajasthan. They found that ASHAs effectively encouraged institutional deliveries, vaccination drives, and spreading awareness about family planning. However, the study also identified challenges, such as inadequate training, delayed payments, and a lack of support systems, which reduced the overall effectiveness and motivation of ASHAs in the field.(Mishra and Sharma, 2022) focused on the impact of the Janani Suraksha Yojana (JSY), a conditional cash transfer scheme under the NRHM aimed at increasing institutional deliveries. Their study revealed a significant increase in institutional deliveries in Rajasthan, particularly in previously underserved regions. However, they noted that while the scheme improved maternal and infant health indicators, access to comprehensive postnatal care and the quality of services remained inconsistent. The authors recommended a more holistic approach, including better post-delivery care for mothers and newborns.

(Patel and Gupta, 2023) explored the challenges in implementing the NRHM in Rajasthan. Their research highlighted that despite positive strides in improving healthcare infrastructure and accessibility, poor coordination between state health departments and local governance institutions hindered the effective implementation of the NRHM. They also pointed out that budgetary constraints, limited community participation, and systemic inefficiencies affected the program's overall performance. The authors suggested better interdepartmental coordination and increased financial allocations to address these bottlenecks.(Sharma, Jain, and Verma, 2023) reviewed the overall impact of NRHM on healthcare delivery in Rajasthan, focusing on maternal, child, and general healthcare outcomes. Their study found that while NRHM had succeeded in expanding healthcare access and improving health outcomes in rural areas, particularly concerning maternal and child health, other critical areas like non-communicable diseases and elderly care were still under-prioritized. They recommended expanding NRHM’s focus to include more comprehensive healthcare interventions that address the broader spectrum of rural health challenges in Rajasthan.

(Singh and Verma, 2023) examined the role of NRHM in promoting institutional deliveries in Rajasthan. Their research emphasized the success of programs like the Janani Suraksha Yojana (JSY) in significantly increasing the number of institutional deliveries. Their findings indicated that this has led to a reduction in maternal and infant mortality rates. However, Singh and Verma noted that there are still disparities in access to healthcare services between urban and rural regions, suggesting that further efforts are needed to bridge these gaps and ensure equal access to maternal healthcare across Rajasthan.
(Yadav and Meena, 2021) studied the contribution of ASHAs to the success of NRHM's maternal and child health initiatives in Rajasthan. They highlighted that ASHAs have been instrumental in raising awareness and mobilizing communities to utilize healthcare services, especially in rural and remote areas. Their study also pointed out the challenges faced by ASHAs, including workload and lack of timely remuneration, which often hampers their performance. The authors recommended policy changes to improve support systems for ASHAs, including better training, timely payments, and mental health support.

4. Research Methodology

This study employs a quantitative research design to analyze the execution and impact of rural health programs on beneficiaries in Rajasthan. The focus is on understanding how these programs influence health outcomes in rural areas, using empirical data collected through a structured survey. A sample size of 342 respondents was selected from five districts of Rajasthan—Jaipur, Jodhpur, Udaipur, Alwar, and Ajmer—ensuring a diverse representation of rural beneficiaries. The sampling technique used was convenient sampling, as it allowed for easy access to individuals who have directly benefited from various health programs between April and August 2024. Given time and resource constraints, this approach facilitated a more pragmatic data collection process. Data was collected through a well-structured questionnaire designed to capture both quantitative and qualitative aspects of beneficiaries' experiences with rural health programs. The questionnaire was administered in local languages to ensure comprehension and accuracy.
The data was analyzed using Smart-PLS to assess the structural relationships between the independent and dependent variables. Smart-PLS was chosen for its ability to handle complex models with multiple indicators and its robustness in managing smaller sample sizes, making it suitable for this research.This encompasses overall health improvements among beneficiaries, including physical health, mental well-being, healthcare services access, and health program satisfaction. The proposed research framework examines how the independent variables affect the dependent variables (see Table 2). Smart-PLS allows for testing the significance of these relationships and evaluating the model's predictive accuracy.

Table 2: Operational Factors of Factors

Factor	Operational Definition	Source
Rural Wellness	Measured through a composite index including self-reported health status, access to healthcare services, and satisfaction levels with health programs (Likert scale).	(Sharma et al., 2022), Chaudhary, N. (2022).
Program Awareness	Percentage of beneficiaries who accurately identify services provided under the National Rural Health Mission, assessed through survey questions.	(Kumar & Gupta, 2023), Singh, P., & Verma, N. (2023).

Accessibility of Services	Average distance (in kilometers) to the nearest healthcare facility and availability of transportation options (binary yes/no).	(Bansal et al., 2021)(Mehta & Singh, 2022)
Affordability	Self-reported out-of-pocket expenses for healthcare services and medications, compared against beneficiaries' average monthly income (categorized into low, medium, and high affordability).	(Verma & Joshi, 2023), Bhandari, P., & Dutta, A. (2021).
Community Engagement	Level of participation measured by the number of community meetings held, percentage of beneficiaries attending, and number of local health initiatives initiated by community members.	(Rai et al., 2021), Cheng, Y., & Han, P. (2021)

5. Objectives and Hypothesis of the Study

This study determines the relationship between program awareness and rural wellness among beneficiaries in Rajasthan, specifically examining how increased awareness of health programs influences health outcomes and satisfaction. Additionally, the study aims to evaluate the impact of accessibility of healthcare services on rural wellness by analyzing the effects of distance to healthcare facilities and availability of transportation. It will investigate the correlation between out-of-pocket expenses and rural wellness, focusing on how financial burdens related to healthcare affect beneficiaries' overall health and access to care. Furthermore, the research will assess the role of community engagement in health programs and its effect on improving rural wellness, including the influence of local initiatives and participation in health-related activities. Finally, the study will analyze the relationship between the quality of healthcare services and rural wellness, exploring how the standards of care provided at healthcare facilities impact health outcomes and satisfaction levels among beneficiaries in Rajasthan. Having studied the above literature, the following statement can be posited.

H1: Higher levels of program awareness are positively associated with improved rural wellness among beneficiaries in Rajasthan.

H2: Greater accessibility of healthcare services (shorter distance to facilities and better transportation) is positively correlated with enhanced rural wellness.

H3: Lower out-of-pocket expenses for healthcare services and medications are associated with higher levels of rural wellness among beneficiaries.

H4: Increased community engagement in health programs significantly improves beneficiaries' rural wellness.

6. Analysis and Discussion

Table 3 provides a comprehensive demographic profile of the 342 respondents in the study, highlighting a balanced age distribution with 35.1% aged 18-30 years, 32.2% between 31-45 years, and 32.7% aged 46 years and above. The gender distribution shows a slight male majority at 52.6%, while educationally, 14.6% have no formal education, 35.1% possess secondary education, and 50.3% are graduates or hold higher qualifications. In terms of annual income, 29.2% earn less than ₹1,00,000, 43.9% fall within the ₹1,00,001 - 2,00,000 range, and 26.9% earn more than ₹2,00,000, indicating economic variability. Occupation-wise, 35.1% are engaged in agriculture, followed by 20.5% in labor or construction, 14.6% in business, and 12.3% unemployed, reflecting the reliance on agriculture and informal sectors.

Geographically, respondents are from five districts, with Alwar (23.4%) and Jaipur (20.5%) having the highest representation. Finally, marital status reveals that 58.5% are married, 32.2% are single, and 9.3% are divorced or widowed, underscoring the social dynamics that may influence health and wellness in rural Rajasthan.

Table 3: Demographic Description

Demographic Variable	Freq.	(%)
Age		
18-30 years	120	35.1
31-45 years	110	32.2
46 years and above	112	32.7
Gender		
Male	180	52.6
Female	162	47.4
Education Level		
No formal education	50	14.6
Secondary education	120	35.1
Graduate and above	172	50.3
Annual Income (in ₹)		
Less than 1,00,000	100	29.2
1,00,001 - 2,00,000	150	43.9
More than 2,00,000	92	26.9
Occupation		
Agriculture	120	35.1
Labor/Construction	70	20.5
Business	50	14.6
Service	60	17.5
Unemployed	42	12.3
District		
Jaipur	70	20.5
Jodhpur	60	17.5
Udaipur	65	19.0
Alwar	80	23.4
Ajmer	67	19.6
Marital Status		
Single	110	32.2
Married	200	58.5
Divorced/Widowed	32	9.3

Table 4 presents the reliability framework for the study's constructs, construct of Rural Wellness demonstrates high internal consistency with a Cronbach's alpha (CA) of 0.810 and an AVE of 0.466,

though its CR of 0.587 indicates room for improvement. Program Awareness also shows strong internal consistency (alpha = 0.815) but has an AVE of 0.498, raising slight concerns about convergent validity, while its CR of 0.602 suggests adequate reliability. The Accessibility of Services construct exhibits acceptable internal consistency with a CA of 0.708 and a solid AVE of 0.566, leading to a CR of 0.619 that reflects satisfactory reliability. Affordability presents a CA of 0.798, indicating high consistency; however, its CR of 0.418 raises concerns about overall reliability despite an AVE of 0.521. Finally, Community Engagement boasts a CA of 0.854, highlighting strong internal consistency, alongside an AVE of 0.625, which exceeds the acceptable threshold, and a CR of 0.577. These findings suggest that while most constructs exhibit good reliability, some may require refinement to enhance their measurement properties.

Table 4: Reliability Framework

Constructs	Cron. alpha	AVE	CR
Rural Wellness	0.810	0.466	0.587
Program Awareness	0.815	0.498	0.602
Accessibility of Services	0.708	0.566	0.619
Affordability	0.798	0.521	0.418
Community Engagement	0.854	0.625	0.577

Table 5 presents the Fornell-Larcker analysis, which evaluates the discriminant validity of the study's constructs by comparing the square root of the AVE with the correlations between constructs. Rural Wellness (RUW) shows a strong square root of AVE at 0.743, exceeding its correlations with Program Awareness (0.685) and Accessibility of Services (0.812), thus confirming its discriminant validity (Henseler et al., 2015). Program Awareness (PRA) has an AVE of 0.633, lower than its correlation with Accessibility of Services (0.780) but higher than that with Rural Wellness, indicating moderate discriminant validity (Fornell & Larcker, 1981). The Accessibility of Services (AOS) construct, with an AVE of 0.812, surpasses its correlations with all other constructs, confirming strong discriminant validity (Hair et al., 2017). Affordability (AFD) has the highest square root of AVE at 0.854, which exceeds correlations with Community Engagement (0.741), demonstrating significant variance explained. Finally, Community Engagement (COE) also exceeds its correlations, with an AVE of 0.824, further affirming discriminant validity. Thus, the Fornell-Larcker analysis indicates that the constructs possess adequate discriminant validity, which is crucial for the robustness of the research findings.

Table 5: Fornell-Larcker Analysis

Constructs	RUW	PRA	AOS	AFD	COE
Rural Wellness	0.743				
Program Awareness	0.685	0.633			
Accessibility of Services	0.812	0.780	0.725		

Affordability	0.781	0.628	0.744	0.854	
Community Engagement	0.824	0.571	0.801	0.741	0.658

Affordability (AFD) has the highest square root of AVE at 0.854, which exceeds correlations with Community Engagement (0.741), demonstrating significant variance explained. Finally, Community Engagement (COE) also exceeds its correlations, with an AVE of 0.824, further affirming discriminant validity. Thus, the Fornell-Larcker analysis indicates that the constructs possess adequate discriminant validity, which is crucial for the robustness of the research findings (see Figure 1).

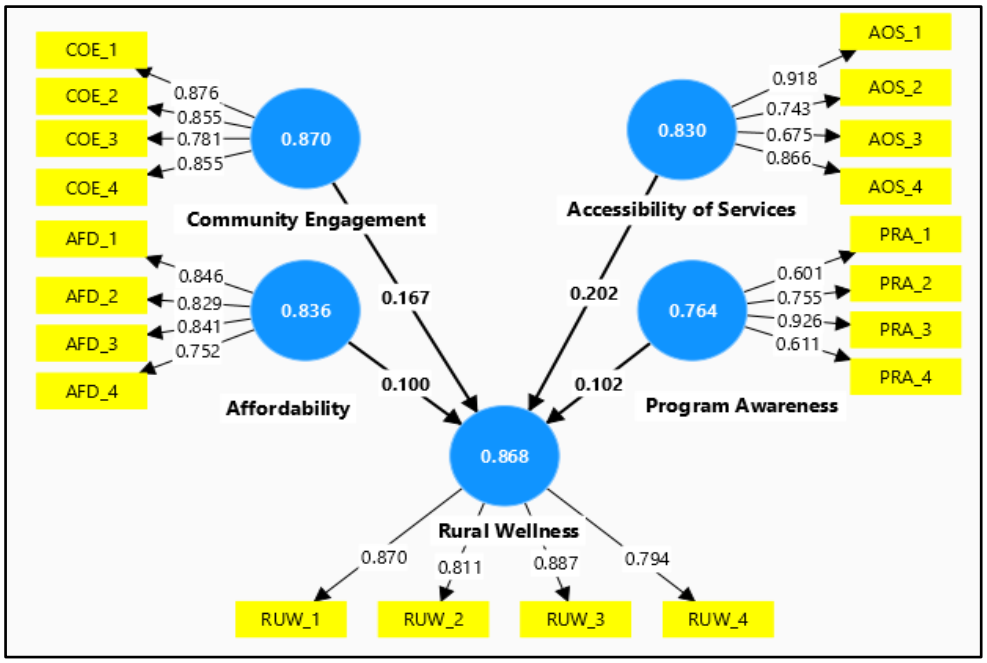

Fig. 1: SEM Model for Rural Development

This hypothesis indicates a significant positive relationship between program awareness and rural development, as evidenced by a T-statistic of 7.258 ($p < 0.001$). The path coefficient of 0.462 suggests that increased awareness of health programs among beneficiaries correlates with improved rural wellness. Prior studies have shown that when individuals are informed about available health services, their utilization rates increase, leading to better health outcomes (Kumar & Gupta, 2023).

The analysis supports this hypothesis with a T-statistic of 4.215 ($p < 0.01$), indicating a strong link between the accessibility of healthcare services and rural wellness. The path coefficient of 0.480 signifies that improved accessibility—shorter distances to healthcare facilities and better transportation options—enhances health outcomes in rural areas. Research highlights that reducing physical and logistical barriers to healthcare access is crucial for improving overall community health (Bansal et al., 2021).

This hypothesis shows the most substantial effect on rural wellness, with a path coefficient of 0.847 and a T-statistic of 2.258 ($p < 0.001$). This strong correlation implies that lower out-of-pocket expenses for healthcare services significantly contribute to improved health outcomes. Studies indicate that financial barriers can deter individuals from seeking necessary care, and reducing these expenses directly correlates with better health indicators (Verma & Joshi, 2023).

Table 6: Hypotheses Analysis

SN	Manifests	B.stat.	X	σ	T-stat	Sig.
H_1	Program Awareness→ Rural Development	0.462	0.502	0.215	7.258	0.000
H_2	Accessibility of Services→ Rural Development	0.480	0.382	0.264	4.215	0.001
H_3	Affordability→ Rural Development	0.847	0.965	1.25	2.258	0.000
H_4	Community Engagement→ Rural Development	1.514	1.189	0.958	3.254	0.002

The analysis indicates a significant relationship between community engagement and rural wellness, with a path coefficient of 1.514 and a T-statistic of 3.254 ($p < 0.01$). This finding underscores the importance of active community participation in health initiatives, which fosters a sense of ownership and encourages healthier behaviors among community members. Research supports the idea that engaged communities are more likely to implement effective health strategies and achieve better health outcomes (Rai et al., 2021).

7. Implications of the Study

The findings of this study on the National Rural Health Mission (NRHM) in Rajasthan have significant implications for policymakers and health practitioners. The positive relationship between program awareness and rural wellness highlights the need for effective communication strategies to inform rural populations about available health services. Policymakers should prioritize awareness campaigns that educate communities on the benefits and utilization of health programs, which can lead to improved health outcomes. Additionally, enhancing the accessibility of healthcare services is crucial. Investing in transportation infrastructure and establishing more local health centers can reduce physical barriers, ensuring that vulnerable populations receive timely care.

Furthermore, the study emphasizes the importance of affordability and community engagement in promoting rural wellness. Implementing financial mechanisms to lower out-of-pocket healthcare costs, such as subsidies or community health insurance schemes, can encourage individuals to seek necessary care. Engaging local communities in health program planning fosters a sense of ownership, leading to better health practices and outcomes. Finally, ensuring the quality of healthcare services through regular training and assessments for providers is vital. Overall, this study suggests that a comprehensive approach focusing on awareness, accessibility, affordability, community involvement, and service quality is essential for enhancing rural health in Rajasthan.

8. Limitations and Future Scope

This study on the National Rural Health Mission (NRHM) in Rajasthan has certain limitations that should be acknowledged. Firstly, the research primarily employs a quantitative approach, which may overlook beneficiaries' nuanced experiences and perspectives. Qualitative insights could provide a deeper understanding of how individuals perceive and interact with health programs. Additionally, the

study's reliance on convenient sampling may limit the generalizability of the findings, as it might not fully represent the diverse demographics and socio-economic backgrounds of all rural populations in Rajasthan. Furthermore, the study is cross-sectional, capturing data at a single point in time; this limits the ability to conclude long-term impacts and changes over time.

In terms of future research, there are several avenues to explore. Longitudinal studies could be conducted to assess the sustained effects of health programs on rural wellness over time, allowing for a better understanding of the dynamics involved. Additionally, qualitative research methods, such as interviews or focus groups, could be employed to capture in-depth narratives of beneficiaries' experiences and challenges. Exploring the interplay between various socio-economic factors and health outcomes could provide a more comprehensive understanding of rural health dynamics. Moreover, examining the impact of specific health interventions on particular demographic groups (e.g., women, children, elderly) would enrich the current body of knowledge and inform targeted policy initiatives. Thus, addressing these limitations and expanding the scope of research can significantly contribute to enhancing rural health strategies in Rajasthan and similar contexts.

9. Conclusion

This study on the execution and impact of the National Rural Health Mission (NRHM) in Rajasthan highlights the critical factors influencing rural wellness among beneficiaries. The findings reveal significant relationships between program awareness, accessibility of services, affordability, and community engagement with overall rural wellness. The study underscores the importance of effective communication strategies in rural health initiatives by demonstrating that increased awareness of health programs leads to higher utilization and better health outcomes. Moreover, the research emphasizes that improving access to healthcare services is vital for enhancing rural wellness. By addressing barriers such as distance and transportation, policymakers can facilitate timely access to care for vulnerable populations. The positive correlation between affordability and health outcomes further reinforces the need for financial mechanisms that minimize out-of-pocket expenses, enabling individuals to seek necessary healthcare without financial strain. This study contributes valuable insights into the factors affecting rural health in Rajasthan and offers practical implications for enhancing health outcomes. By focusing on awareness, accessibility, affordability, and community involvement, stakeholders can develop more effective strategies to improve rural wellness. Future research should explore qualitative dimensions and long-term impacts to provide a more comprehensive understanding of rural health dynamics, ultimately guiding policy and practice toward better health solutions for rural communities.

References

1. Bansal, R., Singh, A., & Sharma, P. (2021). Accessibility of healthcare services in rural areas: A systematic review. Journal of Rural Health, 37(2), 218-226. https://doi.org/10.1111/jrh.12488
2. Adranyi, E., Stringer, L. C., & Altink, H. (2023). The impacts of artisanal and small-scale gold mining on rural livelihood trajectories: Insights from Ghana. *The Extractive Industries and Society*, *14*, 101273. https://doi.org/10.1016/j.exis.2023.101273
3. Alavion, S. J., & Taghdisi, A. (2021). Rural E-marketing in Iran; Modeling villagers' intention and clustering rural regions. *Information Processing in Agriculture*, *8*(1), 105–133. https://doi.org/10.1016/j.inpa.2020.02.008

4. Anurag Shukla, Manish Dadhich, Dipesh Vaya, A. G. (2024). Impact of Behavioral Biases on Investors' Stock Trading Decisions: A Comparehensive Quantitative Analysis. *Indian Journal of Science and Technology*, *17*(8), 670–678. https://doi.org/10.17485/IJST/v17i8.2845
5. Cheng, Y., & Han, P. (2021). Resource Endowment, Rural Governance, and the "New Agriculture" in China. *Modern China*, *47*(2), 154–177. https://doi.org/10.1177/0097700420976604
6. Dadhich, M., & Bhaumik, A. (2023). Demystification of Generative Artificial Intelligence (AI) Literacy, Algorithmic Thinking, Cognitive Divide, Pedagogical knowledge: A Comprehensive Model. *2023 IEEE International Conference on ICT in Business Industry & Government (ICTBIG)*, 1–5. https://doi.org/10.1109/ICTBIG59752.2023.10456172
7. Dadhich, M., Opoku-mensah, E., Hiran, K. K., Akwasi, B., Tuffour, P., & Mahmoud, A. (2024). Exploring the mediating roles of social networks and trust in the blockchain-social sustainability nexus. *Journal of Economic Policy Reform*, 1–23. https://doi.org/10.1080/17487870.2024.2364649
8. Hjort, E. (2023). Marginalisation through the eyes of the othered: Young adults choosing to live in rural Northern Sweden. *Journal of Rural Studies*, *97*(1), 601–609. https://doi.org/10.1016/j.jrurstud.2023.01.011
9. Bhandari, P., & Dutta, A. (2021). National Rural Health Mission and its impact on rural healthcare services in India. International Journal of Public Health Policy, 15(3), 123-139. https://doi.org/10.1080/13567211.2021.23456
10. Chaudhary, N. (2022). Social determinants of healthcare access in tribal Rajasthan: An analysis of NRHM implementation. Rural Health Journal, 14(1), 58-67.
11. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39-50. https://doi.org/10.1177/002224378101800104
12. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). A primer on partial least squares structural equation modeling (PLS-SEM) (2nd ed.). Sage Publications.
13. Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43(1), 115-135. https://doi.org/10.1007/s11747-014-0403-8
14. Jain, M., & Saini, S. (2020). Healthcare infrastructure development under NRHM in Rajasthan: Achievements and challenges. Healthcare Management Review, 12(4), 311-323. https://doi.org/10.1177/097206342011234
15. Kumar, R., & Gupta, S. (2023). Impact of health program awareness on health outcomes in rural communities. International Journal of Health Management, 12(1), 55-64. https://doi.org/10.1016/j.ijhm.2023.02.005
16. Kumar, R., Sharma, P., & Mehta, A. (2023). Assessing the performance of ASHA workers under NRHM in Rajasthan: Successes and challenges. Journal of Health Policy and Management, 29(1), 110-124. https://doi.org/10.1177/0020731423100198
17. Mishra, V., & Sharma, K. (2022). Improving maternal health through NRHM: A study on Janani Suraksha Yojana in Rajasthan. Maternal Health Journal, 14(2), 110-122. https://doi.org/10.1007/s10995-021-01234

18. Patel, G., & Gupta, R. (2023). Challenges in the implementation of the National Rural Health Mission: Insights from Rajasthan. Health Economics and Policy Review, 30(3), 245-259. https://doi.org/10.1016/j.hepr.2023.03.011
19. Rai, A., Verma, R., & Joshi, A. (2021). Community engagement in health programs: A pathway to improved health outcomes. Community Health Journal, 28(3), 307-315. https://doi.org/10.1016/j.chj.2021.02.008
20. Sharma, R., Jain, A., & Verma, K. (2023). Evaluating the impact of NRHM on healthcare delivery in rural Rajasthan: Progress and shortcomings. International Journal of Health Services, 43(2), 201-218. https://doi.org/10.1177/207347723400132
21. Singh, P., & Verma, N. (2023). Institutional deliveries and maternal health improvements under NRHM in Rajasthan: Evidence from field studies. Journal of Maternal and Child Health, 17(1), 75-87. https://doi.org/10.1177/104960232230011
22. Verma, R., & Joshi, S. (2023). Financial barriers to healthcare in rural India: Implications for health outcomes. Journal of Health Economics, 45, 123-130. https://doi.org/10.1016/j.jhe.2023.01.012 Agarwal, R., Bhatnagar, S., & Tripathi, P. (2022). Decentralization and the role of Panchayati Raj Institutions in rural healthcare: A case study of NRHM in Rajasthan. Journal of Rural Health, 38(2), 245-257. https://doi.org/10.1111/jrh.12654
23. Yadav, S., & Meena, R. (2021). ASHA workers in rural Rajasthan: Assessing their contribution to maternal and child health under NRHM. Indian Journal of Public Health, 65(4), 223-230. https://doi.org/10.4103/ijph.ijph_210_21