

**THE ROLE OF COMMUNITY HEALTH WORKERS (CHWs)
ENGAGEMENT FOR IMPLEMENTATION OF DIGITAL
SOLUTION IN PUBLIC HEALTHCARE DELIVERY SYSTEM**

*Dissertation Submitted to The IIHMR University, Jaipur for the partial
fulfillment for the award of the degree of Master of Business
Administration (MBA) In Health Management*

Submitted by

Mr. Navneet Patkar

MBA Health Management, Roll No- 1334, Year-2021-23

Under the Supervision and Guidance of

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2023



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Declaration by Student

I hereby declare that this dissertation titled “The Role of Community Health Workers (CHWs) Engagement for Implementation of Digital Solution in Public Healthcare Delivery System” is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

(Signature)

Name of Student

Date

Certificate from Faculty Guide and School Dean

CERTIFICATE

This is to certify that this dissertation titled “The Role of Community Health Workers (CHWs) Engagement for Implementation Of Digital Solution In Public Healthcare Delivery System” is a record of the research work undertaken by Mr. Navneet Patkar in partial fulfillment of the requirements for the award of the degree of MBA Hospital and Health Management from the IIHMR University, Jaipur under my guidance and supervision and his approach to the research study has been sincere, scientific, and analytical.

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IIHMR University, Jaipur
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Dr (Col) Mahender Kumar
IIHMR University, Jaipur
Date:

Abstract

Background:

In recent times, the advancement of digital technologies has revolutionized healthcare assiduity, offering innovative results to enhance the delivery of public healthcare services. One similar platform is Khushi Baby, a digital healthcare result aimed at perfecting healthcare access and delivery in underserved communities. Still, the successful perpetration of digital results in public healthcare systems relies heavily on community (CHWs) engagement. This study focuses on exploring the part of community health worker engagement in the perpetration of digital results in the public healthcare delivery system, specifically within the environment of Khushi Baby. The end is to identify effective strategies that can be employed to engage community health workers and ensure the successful perpetration of digital results for bettered healthcare issues.

Material And Method:

This study employed a cross-sectional study design to examine the engagement of community health workers in the digital public healthcare delivery system. The study was conducted in a specific geographic area, fastening on CHWs, including Accredited Social Health Activists (ASHAs) and Auxiliary Nurse Midwife (ANMs). Data were collected from 34 districts in Rajasthan through telephonic interviews or checks using a standardized data collection tool developed for this study.

Objectives:

To Investigate the current level of community health workers (CHWs) engagement in the implementation of digital solutions in the public healthcare delivery system.

To Identify the barriers and challenges that hinder effective community (CHWs) engagement in the implementation of digital solutions in the public healthcare delivery system.

To Examine the role of community (CHWs) engagement in facilitating the successful implementation of digital solutions in public health.

To validate the data entered by the health workers at the community level and enhance their skills for using community health integrated platform through suggestions and suggest corrective changes.

To Propose recommendations and guidelines for enhancing community (CHWs) engagement in the implementation of digital solutions based on the findings and best practices identified.

Conclusion

The part of community health workers (CHWs) in the perpetration of digital results in the public healthcare delivery system, particularly within the environment of Khushi Baby, is pivotal for achieving bettered healthcare issues. This discussion stressed the benefits of community engagement, the challenges faced, and effective strategies for engaging CHWs and communities in the perpetration of digital results. The literature review emphasized the positive impact of community engagement on the relinquishment and application of digital results. It demonstrated that community involvement enhances the applicability and artistic felicitousness of these results and ensures that they address the specific requirements and precedence of the population. Still, challenges like limited digital knowledge, access to technology, artistic and language barriers, and power dynamics need to be addressed to achieve meaningful engagement.

Keywords: Community health workers, Digital health implementation, Healthcare delivery system

Acknowledgment

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Abbreviations

ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activists
AW	Anganwadi
AWW	Anganwadi Worker
CHC	Community Health Center
CHW	Community Health Worker
IIHMR	Indian Institute of Health Management Research
IMR	Infant Mortality Ratio
PHC	Primary Health Centre
SC	Sub-Centre
SDG	Sustainable Development Goals
WHO	World Health Organization

Chapter I: Introduction

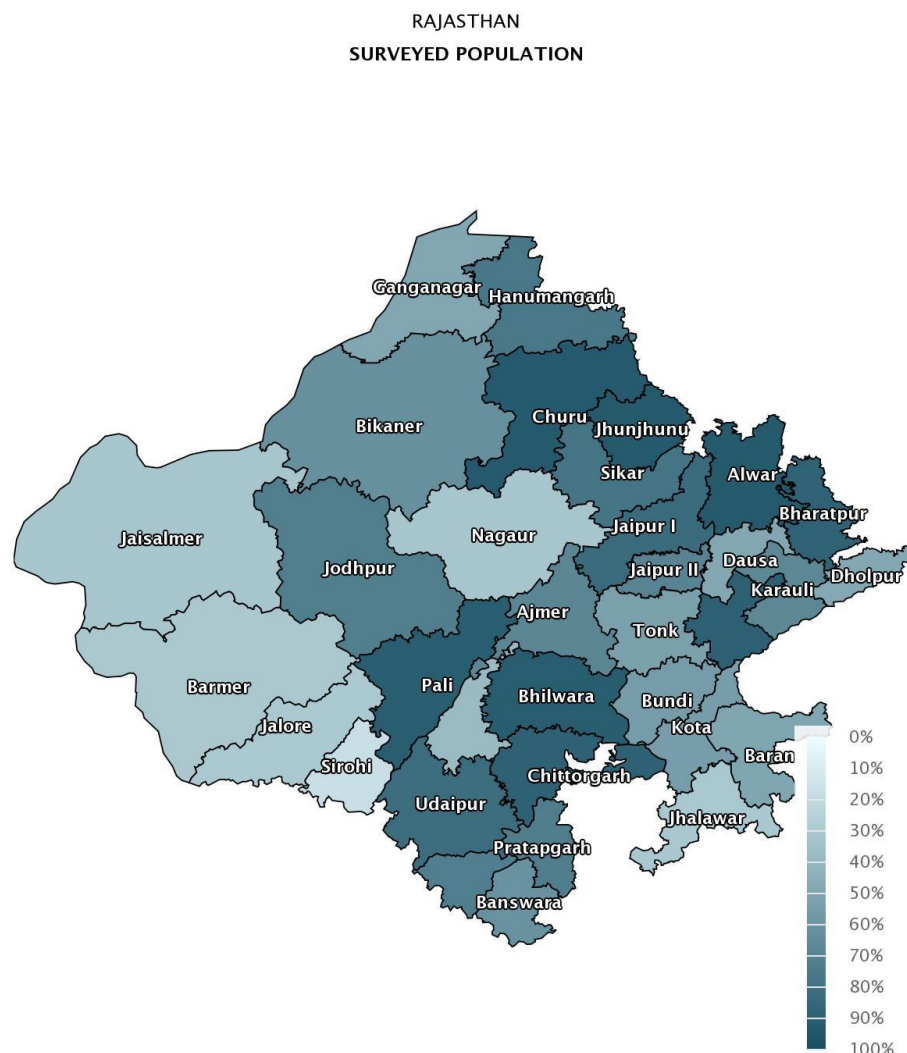
It takes a village to raise a child to be Khushi. We help that village be as healthy as possible, through digital health solutions for community health workers.

The arrival of digital technologies has brought about a paradigm shift in colorful sectors, and healthcare is no exception. In recent times, the integration of digital results into public healthcare delivery systems has surfaced as a transformative approach, promising bettered access, quality, and effectiveness of healthcare services. One pivotal aspect of successful perpetration lies in the engagement of Community Health Workers (CHWs) who play a vital part in bridging the gap between healthcare providers and the communities they serve. This discussion aims to explore and dissect the part of CHWs in easing the perpetration of digital results within the public healthcare delivery system, with a specific focus on the environment of Khushi Baby. Khushi Baby is an innovative digital platform that utilizes wearable technology and mobile operations to streamline healthcare data collection, immunization monitoring, and motherly and child healthcare services in low-resource settings.

The involvement of CHWs is critical due to their unique position within the community. These frontline healthcare workers are trusted members who retain a deep understanding of the original culture, language, and healthcare requirements. They act as a link between healthcare institutions, governmental bodies, and the communities they serve, enabling effective communication, education, and advocacy for health-related issues. The discussion was exploring the challenges and openings faced by CHWs when enforcing digital results in public healthcare delivery systems, aiming to identify crucial factors that impact successful integration. To negotiate these objects, a mixed-styles approach was employed, combining qualitative interviews, checks, and data analysis. Primary data was collected through in-depth interviews with CHWs, healthcare providers, community members, and crucial stakeholders involved in the perpetration of digital results in Khushi Baby. Quantitative data was collected through checks to assess the position of CHWs engagement and its influence on the relinquishment and application of digital platforms. The findings of this exploration contribute to the body of knowledge on the part of CHWs in the perpetration of digital results in public healthcare delivery systems. It exfoliated light on the strategies, challenges, and

practices associated with their engagement and gives precious perceptivity to policymakers, healthcare associations, and other stakeholders involved in analogous enterprises. Eventually, by understanding the part of CHWs in the successful perpetration of digital results in public healthcare delivery systems, this discussion seeks to contribute to the advancement of effective and sustainable healthcare interventions, with the ultimate thing of perfecting health issues and enhancing the overall well- being of the communities they serve in the environment of Khushi Baby.

Figure 1: 1 Districts of Rajasthan



(Source- <https://www.nirogi.rajasthan.gov.in/>)

Community Health Integrated Platform (CHIP)

Under the National Health Mission, India's public health system has the biggest decentralized community health workforce in the world. MoHFW is making a significant transition away from paper-based monitoring techniques to realize a National Digital Health Mission, which will enhance the delivery of healthcare. This endeavor will make it possible to track health delivery in a way that is more accountable, effective, and impactful.

The utilization of vertical health programmers is reflected in the present ecosystem of digital solutions. For example, there are many applications and backends for RMNCH+A, NCDs, TB, and COVID-19. A few programmers have seen widespread adoption, while others have fragmented, state-specific avatars that try to link to the relevant central government backends via APIs.

Problem



(Source- <https://www.khushibaby.org/>)

Solution

Community Health Integrated Platform



RMNCH+A

Non-Communicable Diseases

National Programme for Prevention & Control of Cancer, Diabetes, Cardiovascular Diseases, and Stroke
National Programme for Control of Blindness and Visual Impairment
National Mental Health Programme
National Programme for Healthcare of Elderly
National Programme for the Prevention & Control of Tobacco
National Oral Health Programme
National Programme for Palliative Care
National Programme for Prevention & Management of Burn Injuries
Other Non Communicable Disease Control Programs

Communicable Diseases

National Vector Borne Disease Control Programme
Revised National Tuberculosis Control Programme
National Leprosy Eradication Programme
Integrated Disease Surveillance Programme

❖ Digital Health Census

❖ Longitudinal Follow-up

❖ Outbreak Surveillance

(Source-<https://www.khushibaby.org/>)

Khushi Baby looks to address the below challenges with CHIP (“Community Health Integrated Platform”), a digital public health good, developed over the last 7 times, which is presently being gauged across Rajasthan, India’s largest state, in phases.

CHIP includes offline-ready, m- health operations for the three crucial health workers of the Indian public health system the ASHA (Accredited Social Health Activist), the ANM (Auxiliary Nurse Midwife, who visits the community once a month for precautionary check-ups), and the Medical Officer (who cares for high- threat cases). These mobile operations capture the entire work demand of each separate health worker, across all primary health care programs. This streamlines data collection, report generation, and payment robotization. These mobile operations are also interlinked, allowing sharing of longitudinal device data for informed care.

Using the platform, health workers will be enabled to perform the following core conditioning from their smartphones.

1. Performing a digital health tale (to capture the true population denominator and community health need)
2. Longitudinal follow-up of primary health care across program verticals (e.g., family planning, motherly and child health, non-communicable conditions, tuberculosis).
- 3 complaint outbreak surveillance for COVID-19 and other arising contagious conditions (including symptom-wireworks, referrals, and vaccination follow-up)

This platform also digitally empowers health officers with AI and Civilians- grounded dashboards.

1. Examiner and respond to community needs in real-time
2. Examiner and respond to healthcare performance in real-time
3. Automate substantiated community engagement to health workers and heirs via shoptalk-specific voice call dispatches. Meanwhile, the backend system can be abused to modernize MOHFW databases and automate payments to ASHAs.

USPs

Unified interface across health worker configurations and across public health programs, collecting over 500 primary health care pointers. With data, data responsibility through authenticated health visits by the use of NFC, biometric, and GPS technology and data quality score assigned to each health worker.

substantiation- grounded and scale- tested, through a 3200 case RCT and stationed at scale with 60K health workers reaching 18 million heirs. Adding real value to community health workers, through automated decision support, progress shadowing, reporting, and payment protrusions.

ASHA (Accredited Social Health Activist)

ASHA is a frontline community health worker in India who plays a pivotal part in delivering primary healthcare services at the grassroots position. Some crucial points are pressing the part and liabilities of ASHAs grounded on the Indian Public Health norms (IPHS) guidelines rallying and mindfulness ASHAs rally the community and produce mindfulness about

colorful health issues, including mother and child health, immunization, family planning, sanitation, and hygiene practices.

ANM (Auxiliary nurse Midwife)

ANMs are primary healthcare providers who form an essential part of the healthcare system in India. They work in the sub-center position and help in the delivery of comprehensive healthcare services. Some crucial points are pressing the part and liabilities of ANMs grounded on the IPHS guidelines Mother and Child Health Services ANMs give prenatal care, conduct deliveries (in case of normal deliveries), and give postnatal care to mother and child. They ensure proper nutrition, immunization, and family planning services for women of reproductive age.

ASHA Digital Health App

The ASHA Digital Health App is a mobile operation specifically designed for Accredited Social Health Activists (ASHAs) to support their pivotal part in delivering primary healthcare services. This app provides ASHAs with digital tools to enhance their effectiveness and ameliorate health issues in their separate communities.

ANM Digital Health App

The ANM Digital Health App is a mobile operation designed specifically for Auxiliary Nurse Midwives (ANMs) to enhance their healthcare delivery capabilities. It equips ANMs with digital tools and coffers to give effective and effective care to individuals and communities.

CHIP (Community Health Integrated Platform) dashboard

The CHIP (Community Health Integrated Platform) dashboard is a digital platform that serves as a central depository of health information for community health workers, healthcare providers, and policymakers. It provides a comprehensive view of crucial health pointers and data related to specific communities or geographical areas.

Chapter II: Objectives

Objectives:

To Investigate the current level of community health workers (CHWs) engagement in the implementation of digital solutions in the public healthcare delivery system.

To Identify the barriers and challenges that hinder effective community (CHWs) engagement in the implementation of digital solutions in the public healthcare delivery system.

To Examine the role of community (CHWs) engagement in facilitating the successful implementation of digital solutions in public health.

To validate the data entered by the health workers at the community level and enhance their skills for using community health integrated platform through suggestions and suggest corrective changes.

To provide recommendations for enhancing community (CHWs) engagement in the implementation of digital solutions based on the findings and best practices identified.

Chapter III: Literature Review

REVIEW OF LITERATURE:

Benefits of Community Engagement: Community engagement plays a crucial role in the successful implementation of digital solutions in public healthcare. According to Smith et al. (2017), community engagement fosters a sense of ownership among community members, leading to increased adoption and utilization of digital solutions. Active involvement of the community also enhances the relevance and cultural appropriateness of these solutions, as highlighted by Madero-Cabib et al. (2020). Furthermore, community engagement facilitates the identification of community-specific needs and priorities, ensuring that the digital solutions address the actual requirements of the population (Simmons et al., 2018).

Challenges in Community Engagement: While community engagement offers numerous benefits, it is not without challenges. Limited digital literacy and access to technology among community members can hinder their engagement in digital healthcare solutions (Hall et al., 2018). Additionally, cultural and language barriers, as noted by Esquivel et al. (2016), can pose challenges to effective communication and understanding of digital solutions. Balancing power dynamics, ensuring inclusivity, and addressing community skepticism are also crucial challenges in achieving meaningful engagement (Hickey et al., 2018).

Effective Strategies for Community Engagement: Several strategies have been identified to effectively engage communities in the implementation of digital solutions. Active participation and involvement of community members in the design, development, and decision-making processes have been found to enhance engagement and ownership (Simmons et al., 2018). Co-creation and co-design approaches, as suggested by Grimes et al. (2019), empower communities and enable them to contribute their perspectives and needs. Building trust through transparent communication, cultural sensitivity, and ongoing support is another key strategy in fostering community engagement (Madero-Cabib et al., 2020).

Community engagement is a critical factor in the successful implementation of digital solutions in public healthcare delivery systems. Engaging communities ensures that digital solutions are relevant, accessible, and tailored to their specific needs. While challenges exist,

effective strategies such as active participation, co-creation, and building trust can overcome these barriers. The findings from this literature review highlight the importance of community engagement and provide insights for policymakers, healthcare professionals, and researchers to foster meaningful engagement and maximize the benefits of digital solutions in public healthcare.

Chapter-IV: Methodology

Research question:

What are the effective strategies for engaging (CHWs) communities in the implementation of digital solutions in public healthcare delivery systems?

Materials and Methods:

- | | | |
|----|----------------------|-----------------------------------|
| 1. | Study Design | - Cross-sectional |
| 2. | Study Area | - 34 Districts in Rajasthan State |
| 3. | Sampling Technique | - Telephonic Interview/Survey |
| 4. | Data Collection Tool | - Questionnaire/Survey |
| 5. | Inclusion Criteria | - ASHAs, ANMs |
| 6. | Data Analysis | - Microsoft Excel |
| 7. | Study Duration | - 3 Months |
| 8. | Sample Size | - 400 (ASHA ANM) |

1. Study Design

To evaluate the existing status of community health workers (CHWs) involvement in the dissemination of digital findings in the public healthcare delivery system, the investigation used a cross-sectional study design. The CHWs engagement in this concept was tested, and any barriers and difficulties they could encounter were noted.

2. Study Area

The study was conducted in 34 districts of Rajasthan State, fastening on the perpetration of digital results within the Khushi Baby platform. These sections were named based on their different demographic and geographic characteristics to ensure a representative sample.

3. Sampling Technique

This study involved telephonic interviews or checks with community health workers, specifically ASHAs (Accredited Social Health Activists) and ANMs (Auxiliary Nurse Midwives). An intentional slice approach was employed to elect actors who have experience with digital results in public healthcare delivery.

4. Data Collection Tool

The primary data collection was conducted through telephonic interviews or checks using a standardized questionnaire. The questionnaire was designed to gather information on the position of CHW engagement, barriers and challenges faced, and the part of community engagement in easing successful digital result perpetration.

5. Addition Criteria

The study included ASHAs and ANMs who have been laboriously involved in the perpetration of digital results within the public healthcare delivery system. Their immediate guests and perspectives will give precious perceptivity to the exploration objects.

6. Data Analysis

The collected data were analyzed using Microsoft Excel. Descriptive statistics, like frequency and probabilities, were used to epitomize the data and identify patterns and trends. The analysis will concentrate on relating the current position of CHW engagement, barriers and challenges encountered, and the part of community engagement in successful perpetration.

7. Study Duration

The exploration was conducted for 3 months, allowing sufficient time for data collection, analysis, and report jotting.

8. Sample Size

The study aims to collect data from a sample size of 400 ASHAs and ANMs. This sample size was given a representative understanding of the CHW engagement in the perpetration of digital results within the Khushi Baby platform.

9. Data Analysis Plan

The collected data was entered into Microsoft Excel for analysis. The analysis involved tabulating and recapitulating the data using descriptive statistics. This helped in relating

crucial findings and patterns related to CHW engagement, challenges, and the part of community engagement in successful digital result perpetration. By employing a rigorous methodology, this exploration aims to give precious perceptivity to the effective strategies for engaging CHWs and communities in the perpetration of digital results in the public healthcare delivery system.

Standard definition:

Village Deletion:

Delete a village from the database due to non-existence, merging, and duplicate entries.

Anganwadi Deletion:

Removing anganwadi record from the system due to duplicate entries.

Migrate Village:

Migrate a village from one administrative unit and location to another due to administrative changes and boundary modifications and infrastructure development.

Migrate Anganwadis:

Migrate anganwadi from one administrative unit and location to another due to administrative changes and boundary modifications and infrastructure development.

Anganwadi Convert into Sub-Centre:

Converting an anganwadi into a SC from one administrative unit and location to another due to administrative changes and boundary modifications and infrastructure development.

Migrate Sub-Centre:

Relocating a SC from one area to another to improve accessibility, better serve the population, or align with changes in the healthcare infrastructure.

SC Convert to PHC:

Converting a SC into a PHC by expanding services and facilities, and staff to meet requirements and standards of a PHC.

Migrate Primary Health Centre from old to new block:

Migrate PHC from its existing location in a block to a new location in another block to better serve the population and improve accessibility, and align with changes in healthcare infrastructure.

Village to Sub Centre upgrade:

Upgrading a village-level healthcare facility to change the requirements and standards of a SC by enhancing infrastructure and services and staffing.

Created New Block:

Created a new administrative unit within a district. It includes defining boundaries and allocating resources, developing infrastructure for governance or public services.

Created new Sub-Centres:

Created a new additional SC in different locations to improve healthcare service coverage. This may be done for address population growth and enhance accessibility and alleviate the load on existing healthcare facilities.

Created new Primary Health Centres:

Created new PHC in different areas to deliver comprehensive healthcare services to a larger population. This expansion aims to enhance access to quality healthcare and alleviate the burden on existing Primary Health Centres.

Secret Key:

Unique and confidential code/password for secure access to a system/application.

Mobile no. Deletion:

Removal of a mobile number from the system.

Asha Registration:

Enrolling Accredited Social Health Activists (ASHAs) into the system/database.

ANM Login:

Access to applications/systems for Auxiliary Nurse Midwives (ANMs) using credentials.

Asha Login:

Access to platforms/systems for Accredited Social Health Activists (ASHAs) using credentials.

ANM Registration:

Enrolling Auxiliary Nurse Midwives (ANMs) into the system/database.

Pin Generation:

Generating unique identification numbers/codes (PINs) for authentication or access control.

ID Wrong:

Error/discrepancy in an identification number or code.

OTP Issue:

Problems with the One-Time Password (OTP) authentication process.

Syncing Page is Creating Confusion:

Difficulties or misunderstandings with the data synchronization process.

Checking Survey Details:

To check survey details of a specific area:

Access the relevant survey database or system.

Enter the area-specific information such as village name, block, district, or relevant parameters.

Retrieve the survey details about that area.

Follow the specific steps based on the system or platform being used.

Updating Population:

Follow the prescribed procedure within the system or database being used.

Access the population data section.

Select the relevant location (village, block, or district).

Enter the updated population figures based on the latest available data.

Save the changes to ensure accurate population data is updated.

Vaccination Updating:

Access the system or database containing vaccination records.

Record details of administered vaccines, including dates, dosages, and other relevant information.

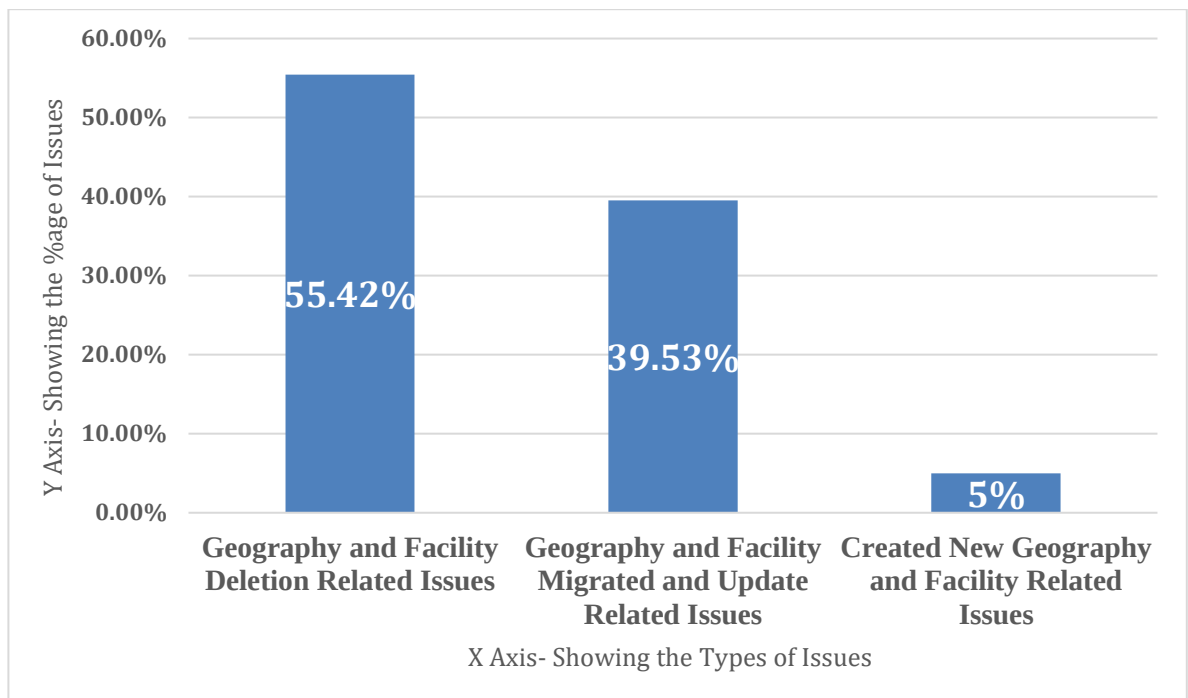
Update the vaccination history of individuals or the population.

Table 5.1: Categories of issues from the side of CHWs (n=400)

Categories of Issues	Number of Issues	% of Issues
Facility and Geography Related Issues	258	64.50%
Health Worker Application-Related Issues	129	32.25%
Beneficiary Details and Service Details Related Issues	13	3.25%

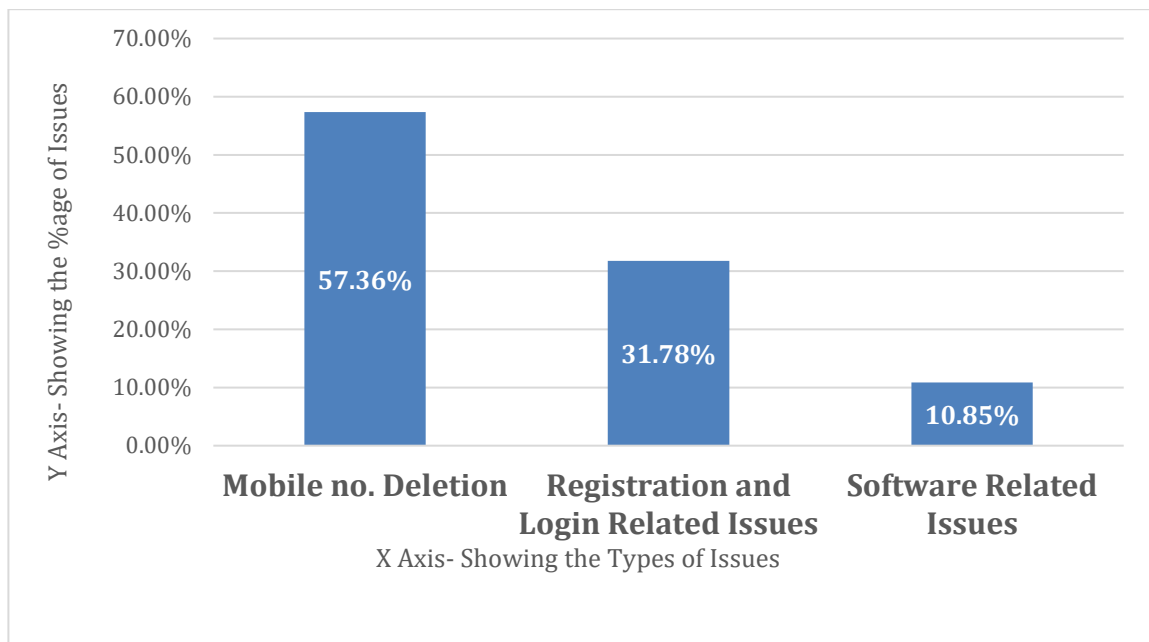
In this study, I have identified 400 issues of ASHA and ANM the number of ASHA and ANM are 400 and every ASHA and ANM has an issue (per ASHA per issue per ANM per issue) the findings of **Table 5.1** has 3 major queries in which (1) “Facility and Geography Related Issues” total 400 number of issues for ASHA and ANM so in this category, which I have identified 258 issues of this category and the result percentage is almost 65%. (2) “Health Worker Application Related Issues” total 400 issues for ASHA and ANM so in this category, I have identified 129 issues of this category and the result percentage is almost 33%. (3) “Beneficiary Details and Service Details Related Issues” total 400 issues for ASHA and ANM so in this category, I have identified 13 issues of this category and the result percentage is almost 4%. So, according to this table easily and clearly visible the finding of these study this table clearly visible in all categories, results in numbers, and results percentages.

Figure 5.1: 1st Categories of Facility and Geography-Related Issues from the Side of CHWs (n=258)



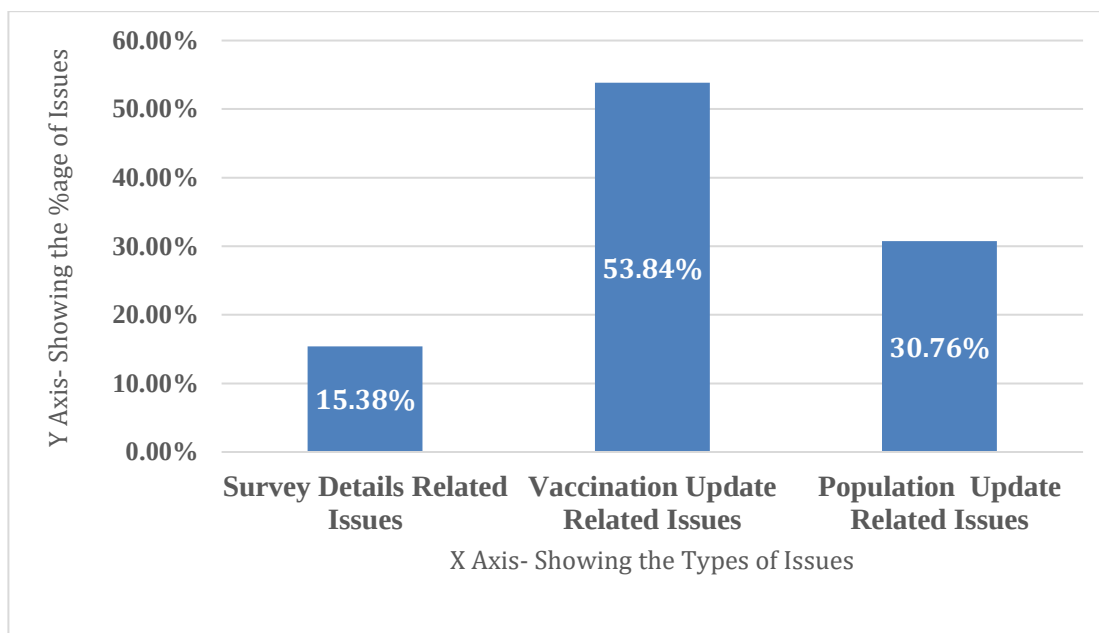
In this study, the findings of **Figure 5.1** has 3 sub-issues, those are from the first main issue in which “Facility and Geography Related Issues” so a total 258 number of issues for ASHA and ANM (per ASHA per issue per ANM per issue) so in this category, which I have identified 3 Sub-issues of this category and these sub-issues are contained geography deletion related issues and facility deletion related issues and geography migrated related issues and geography update related issues and facility migrated related issues and facilities update related issues and created new geography related issues and created new facility-related issues, So 1st sub-issue is “Geography and Facility Deletion Related Issues” total 258 number of issues for ASHA and ANM so in this category, which I have identified 143 issues of this category and the result percentage is almost 56%. And 2nd sub-issue is “Geography and Facility Migrated and Update Related Issues” which totals 258 issues for ASHA and ANM so in this category, I have identified 102 issues in this category and the result percentage is almost 40%. And 3rd sub-issue is “Created New Geography and Facility Related Issues” a total 258 number of issues for ASHA and ANM so in this category, I have identified 13 issues of this category and the result percentage is almost 5%. So, according to this table easily and clearly visible findings of these study this table clearly visible all categories, results in numbers, and results percentages.

Figure 5.2: 2nd Category of Health Worker Application Related Issues from the side of CHWs (n=129)



In this study, the findings of **Figure 5.2** has 3 sub-issues, are from the Second main issue in which “Health Worker Application Related Issues” so total 129 number of issues for ASHA and ANM (per ASHA per issue per ANM per issue) so in this category, which I have identified 3 Sub-issues of this category and these sub-issues are contained mobile number deletion related issues and ASHA registration issues and ANM registration issues and ASHA login issues and ANM login issues and software related issues and secret key related issues, So 1st sub-issue is “Mobile Number Deletion Related Issues” total 129 number of issues for ASHA and ANM so in this category, which I have identified 74 issues of this category and the result percentage is almost 58%. And 2nd sub-issue is “Registration and Login Related Issues” which totals 129 issues for ASHA and ANM so in this category, I have identified 41 issues for this category, and the result percentage is almost 32%. And 3rd sub-issue is “Software Related Issues” which totals 129 issues for ASHA and ANM so in this category, I have identified 14 issues of this category and the result percentage is almost 11%. So, according to this table easily and clearly visible findings of these study this table clearly visible all categories, results in numbers, and results percentages.

Figure 5.3: 3rd Category of Beneficiary Details and Service Details Related Issues from the side of CHWs (n=13)



In this study, the findings of **Figure 5.3** has 3 sub-issues, those are from the Third main issues in which “Beneficiary Details and Service Details Related Issues” so a total 13 number of issues for ASHA and ANM (per ASHA per issue per ANM per issue) so in this category, which I have identified 3 Sub-issues of this category and these sub-issues are contains survey details related issues and vaccination update related issues and population update related issues, So 1st sub-issue is “Survey Details Related Issues” total 13 number of issues for ASHA and ANM so in this category, which I have identified 2 issues of this category and the result percentage is almost 16%. And 2nd sub-issue is “Vaccination Update Related Issues” which totals 13 issues for ASHA and ANM so in this category, I have identified 7 issues of this category and the result percentage is almost 54%. And the 3rd sub-issue is “Population Update Related Issues” with a total of 13 issues for ASHA and ANM so in this category, I have identified 4 issues for this category, and the result percentage is almost 31%. So, according to this table easily and clearly visible findings of these study this table clearly visible all categories, results in numbers, and results percentages.

Chapter VI: Discussion

Current position of Community Health Workers (CHWs) Engagement. The disquisition into the current position of CHWs' engagement in the perpetration of digital results revealed varying degrees of involvement. While some CHWs laboriously employed digital tools, others faced challenges in penetrating and effectively exercising them. Factors impacting CHWs' engagement included training, access to technology, and support from healthcare systems.

Challenges to CHWs Engagement Several challenges hindered effective CHWs engagement in the perpetration of digital results. These included limited access to technology and internet connectivity, training and specialized support, resistance to change, and enterprises about sequestration and data security.

The study stressed the significant part of community CHWs engagement in easing the successful perpetration of digital results in public health. CHWs acted as interposers between the healthcare system and the community, enhancing communication, perfecting healthcare access, and promoting better health issues.

These included furnishing comprehensive training and ongoing support to CHWs, addressing structure and connectivity issues, involving CHWs in the design and development of digital tools, and icing sequestration and data security measures.

The study emphasized the significance of community CHWs engagement in the successful perpetration of digital results in public healthcare delivery systems. By addressing the links using effective strategies, healthcare systems can harness the eventuality of CHWs to ameliorate healthcare access, communication, and health issues for underserved communities

Discussion The part of Community Health Workers (CHWs) Engagement for the perpetration of Digital Solutions in Public Healthcare Delivery System

The findings of this study give precious perceptivity to the part of community health worker

engagement in the perpetration of digital results in the public healthcare delivery system. The idea of this study was to classify effective strategies for engaging community health workers and communities in the perpetration of digital results, with a focus on the environment of Khushi Baby. Originally, the study delved into the current position of community health workers engagement in the action of digital results in the public healthcare delivery system.

The Study found several barriers, including limited access to technology, training, and specialized support, resistance to change, and enterprises regarding sequestration and data security. Addressing these challenges is essential to optimize community health workers engagement and ensure the successful perpetration of digital results.

This Study highlighted the significance involving community health workers in the perpetration process and feting their unique position within the community. Based on the findings, recommendations, and guidelines were proposed to enhance community (community health workers) engagement in the perpetration of digital results. These recommendations include comprehensive training and support for community health workers, addressing structure and connectivity issues, and involving community health workers in the design, development of digital tools.

Chapter 7: Suggestions & Recommendations

1. Training and Capacity Building:

Provide comprehensive training to community health workers to enhance their digital literacy skills and proficiency in using digital healthcare solutions. This training should cover basic mobile technology usage, and specific training on the digital solutions being implemented and capacity-building initiatives should be undertaken to ensure community health workers remain updated with the latest advancements in technology.

2. Social Recognition:

Provide social recognition programs to motivate and reward community health workers for their active engagement in the performance of digital solutions. This can include monetary incentives and performance based bonuses, or non monetary rewards such as certificates and public appreciation events, and career advancement opportunities. Recognizing and valuing the contributions of community health workers will foster a sense of ownership and commitment.

3. Community Awareness and Education Campaigns:

Conduct community awareness and education campaigns to promote the benefits and value of digital solutions in public healthcare. These campaigns should target both community health workers and community members and highlighting the positive impact of digital solutions on healthcare outcomes. Clear and easily logical information about the purpose, and functionality, and advantages of digital solutions should be communicated through various channels such as community meetings, posters, brochures, and social media.

4. Collaboration with Local NGOs and Stakeholders:

Collaborate with local organizations, NGOs, and other stakeholders to strengthen community engagement in the implementation of digital solutions. These partnerships can provide additional resources and expertise, and support to overcome

barriers and challenges. Engage local leaders, community-based organizations, and religious institutions to leverage their influence and establish trust among community members.

5. Sustainability and Scalability:

Change strategies for the long-term sustainability and scalability of digital solutions in public healthcare. This involves considering factors such as infrastructure requirements, funding models and policy support, and integration with existing healthcare systems. Involve policymakers and relevant stakeholders to advocate for the integration of digital solutions into healthcare policies and strategies.

Chapter 8: Conclusion

The perpetuation of digital results in the public healthcare delivery system holds a great opportunity for perfecting healthcare access and issues, particularly in underserved communities. This study has explored the part of community health worker (CHW) engagement in the successful perpetration of digital results, with a specific focus on Khushi Baby. Through a cross-sectional study conducted in 34 districts of Rajasthan, the current position of CHW engagement in the responsibility of digital results was delved into. The findings stressed variations in the position of engagement, indicating the need for targeted interventions to enhance CHW participation and the application of digital tools. challenges hindering effective CHW engagement were linked, including limited access to technology, training, and specialized support, resistance to change, and data security.

These obstacles must be addressed to produce an enabling environment for CHWs to completely embrace digital results. The study emphasized the pivotal part of community CHW engagement in easing the successful perpetration of digital results. By bridging the gap between the healthcare system and the community, CHWs played a vital part in perfecting access, communication, and collaboration of healthcare services. Their active involvement led to better health issues and empowered communities. These suggestions for barriers/challenges include comprehensive training and support, addressing structure and connectivity issues, and involving CHWs in the design and development of digital tools and data security measures. In conclusion, community CHW engagement is essential for the effective perpetration of digital results in the public healthcare delivery system. By feting the significance of CHWs and addressing the linked policymakers and healthcare stakeholders can harness the full opportunity of digital results to improve healthcare access, quality, and issues for all.

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Annexures

QUESTIONNAIRE

Date	District	HW's name	HW mobile number	Designation	Query	Status	Callers	Query Resolved on	Remarks
__****	Jhunjhunu	*****	*****	ANM	How to check survey details of your area	resolved	Navneet	01-03-2023	Done

Date	District	HW's name	HW mobile number	Designation	Query	Status	Callers
__****	Alwar	*****	*****	***	how to update Population	resolved	Navneet

Ethical Considerations:

Data security measures, such as utilizing a secure server and password-protected access, have been implemented to safeguard the data from unauthorized access. Informed consent was obtained from all participants, particularly the ASHA ANMs, providing them with a clear understanding of their involvement and the implications of their participation.

Confidentiality is maintained through the anonymization of participant (CHWs) identities in all research materials, and strict protocols are followed to ensure the privacy of collected data. The implications of this research are significant for public healthcare delivery systems, specifically in the context of Khushi Baby and similar settings.