

THE ROLE OF COMMUNITY HEALTH WORKERS (CHW'S) ENGAGEMENT FOR IMPLEMENTATION OF DIGITAL SOLUTION IN PUBLIC HEALTHCARE DELIVERY SYSTEM.

**Presented by :
Navneet Patkar
Roll No. :
IIHMR-U/01/2021-23/1334**

**Guided By:
Dr Vinod Kumar SV
Dean In-Charge
SD Gupta School of
Public Health**

Content

- **01.** Introduction
- **02.** Objectives
- **03.** Methodology
- **04.** Results & Study Findings
- **05.** Suggestions & Recommendations
- **06.** Conclusion

Introduction

- 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 (CHW's) 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 insure the successful perpetration of digital results for bettered healthcare issues.

Research Question

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

Objectives

- To Investigate the current level of community health workers' (CHW's) engagement in the implementation of digital solutions in public healthcare delivery system.
- To Identify the barriers and challenges that hinder effective community (CHW's) engagement in the implementation of digital solutions in public healthcare delivery system.
- To Examine the role of community (CHW's) engagement in facilitating the successful implementation of digital solutions in public health.
- To validate the data entered by the health workers at 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 (CHW's) engagement in the implementation of digital solutions based on the findings and best practices identified.

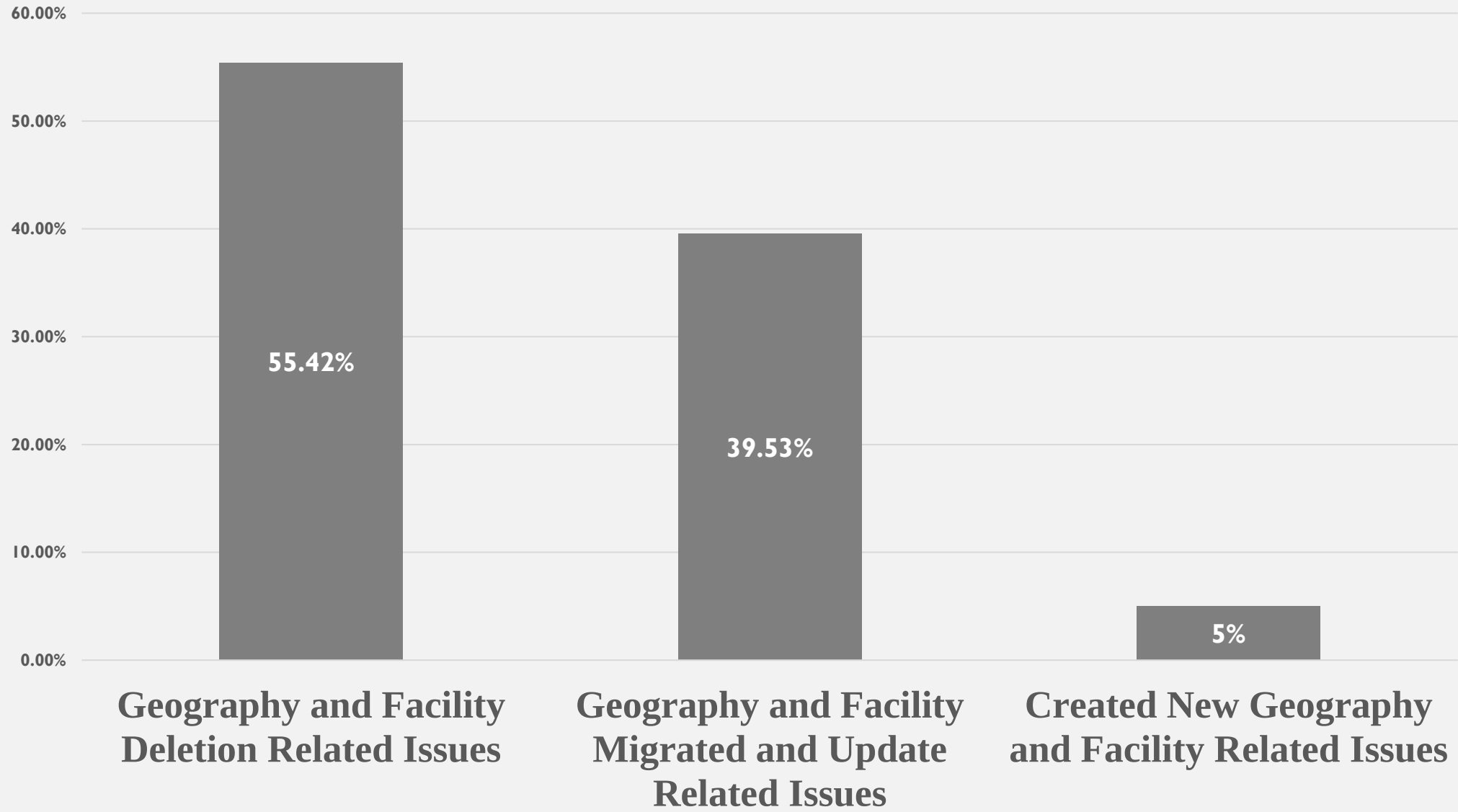
Methodology

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

Results:-

Issues	Number of Issues	% of Issues
Facility and Geography Related Issues	258	64.50%
Health Worker Application Related	129	32.25%
Beneficiary Details and Service Details Related Issues	13	3.25%
TOTAL	400	100%

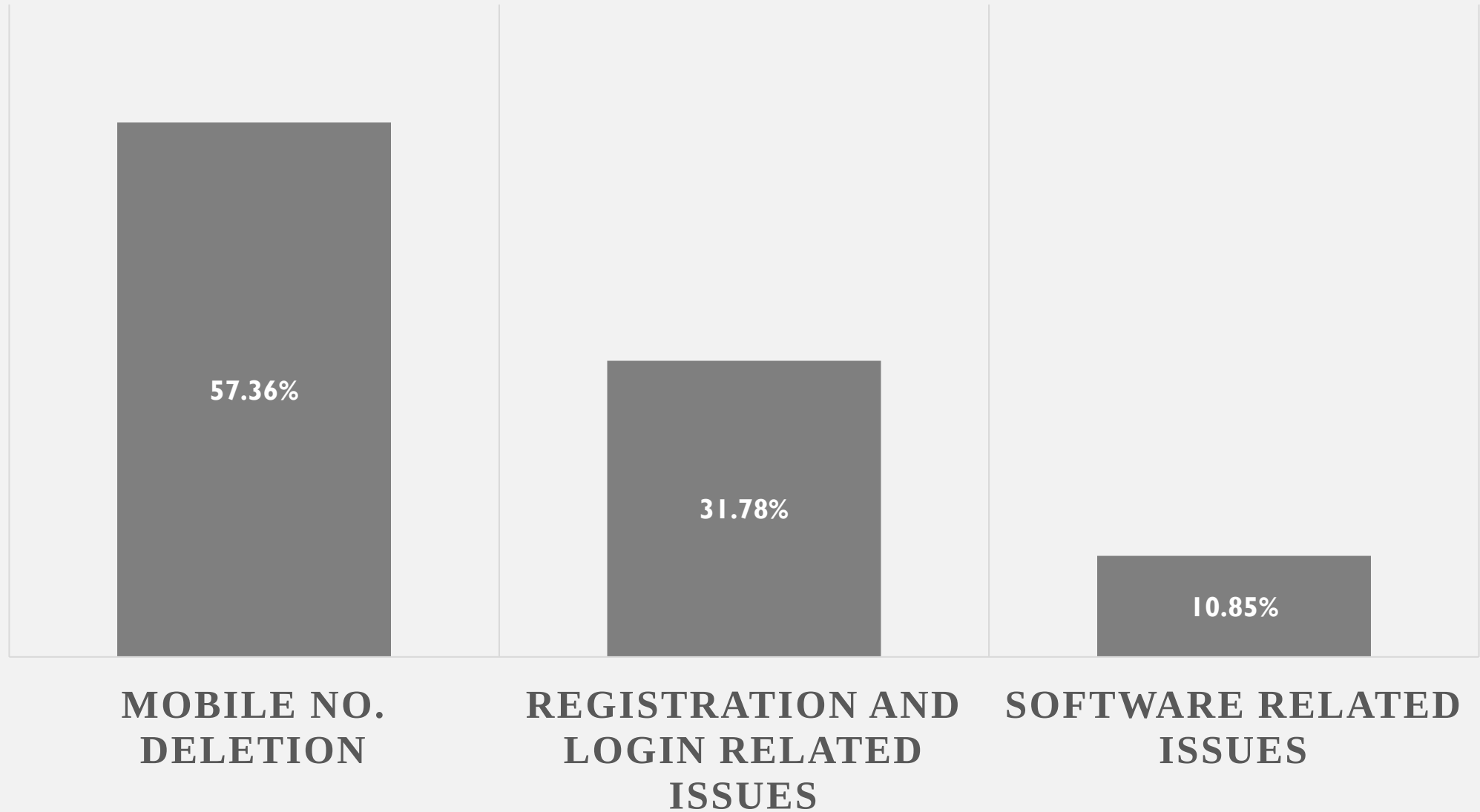
- According to this table it is clearly visible finding of these study that almost 65% of issues are Facility and Geography Related Issues and almost 33% issues are clearly show the Health Worker Application Related issues also 4% of issues are Beneficiary Details and Service Details Related Issues are side of Health workers



Y Axis- Showing the %age of Issues

X Axis- Showing the Type of Issues

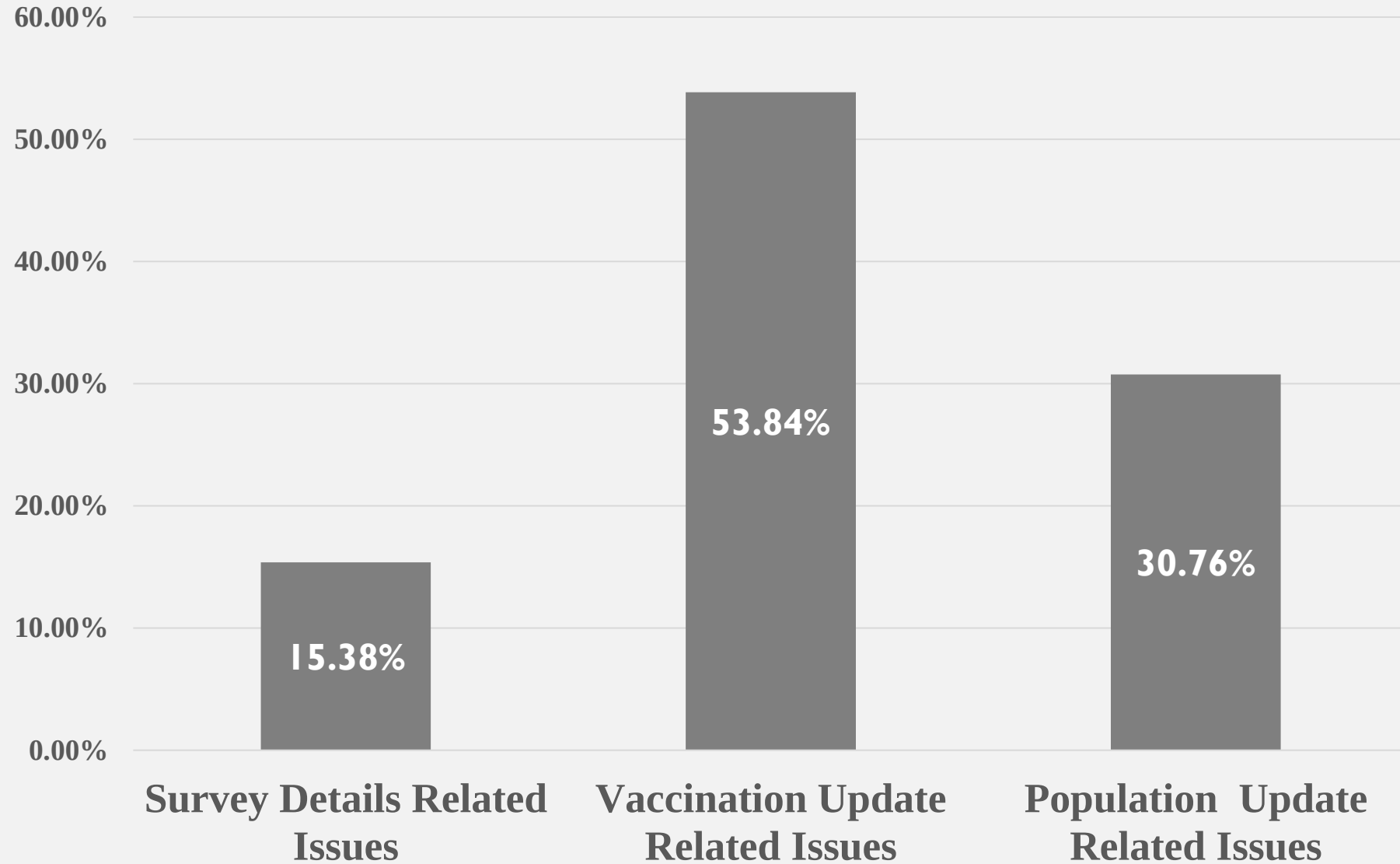
- From this bar graph it is clearly visible finding of these study that almost 56% of issues are Geography and Facility Deletion Related Issues and almost 40% issues are clearly show the Geography and Facility Migrated and Update Related Issues also 5% of issues are Created New Geography and Facility Related Issues are side of Health workers.



Y Axis- Showing the %age of Issues

X Axis- Showing the Type of Issues

- According to this bar graph it is clearly visible finding of these study that almost 58% of issues are Mobile no. Deletion and almost 32% issues are clearly show the Registration and Login Related Issues also 11% of issues are Software Related Issues are side of Health workers



Y Axis- Showing the %age of Issues

X Axis- Showing the Type of Issues

- From this bar graph it is clearly visible finding of these study that almost 16% of issues are Survey Details Related Issues and almost 54% issues are clearly show the Vaccination Update Related Issues also 31% of issues are Population Update Related Issues are side of Health workers.

Study Findings

- Limited access to technology
- CHWs' engagement included training
- These included limited access to internet connectivity and specialized support, resistance to change
- 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.

- The Community Health Information Platform (CHIP) is a comprehensive healthcare solution that has revolutionized the way health workers collect, manage, and analyze data in the field. One of the key applications of CHIP is the Asha application, designed specifically for Accredited Social Health Activists (ASHAs) who play a crucial role in delivering primary healthcare services at the grassroots level. The Asha application is a user-friendly mobile application that enables ASHAs to record and update patient information, track vaccinations, monitor maternal and child health indicators, and provide personalized health education to individuals and communities.
- Another integral component of CHIP is the Auxiliary Nurse Midwife (ANM) application, which caters to the needs of ANMs, who are responsible for providing primary healthcare services in rural areas. The ANM application empowers these healthcare professionals by enabling them to collect data related to antenatal and postnatal care, immunization, family planning, and disease surveillance. With real-time data synchronization, ANMs can access the latest information and ensure timely interventions to improve the health outcomes of the communities they serve.
- To effectively manage the data collected by ASHAs and ANMs, CHIP incorporates a comprehensive dashboard. This dashboard serves as a central hub for data analysis and visualization, providing decision-makers with valuable insights to inform public health policies and interventions. The dashboard offers a range of features, including data aggregation, filtering, and visualization tools, which allow healthcare administrators and policymakers to monitor key health indicators, identify trends, and prioritize resources accordingly. With the ability to generate customizable reports and export data for further analysis, the dashboard empowers stakeholders to make data-driven decisions and track the impact of various interventions over time.

- To evaluate the effectiveness and usability of CHIP, a survey was conducted involving 400 ASHAs and ANMs. The survey aimed to assess their experiences with the Asha application, ANM application, and dashboard, shedding light on the strengths and areas for improvement of the platform. The survey encompassed questions about ease of use, functionality, reliability, and overall user satisfaction.
- Preliminary findings from the survey indicated that most respondents found the Asha application intuitive and easy to navigate. ASHAs appreciated the features that allowed them to track and monitor patients' health progress, as well as the provision of personalized health education materials. Similarly, ANMs expressed satisfaction with the ANM application, highlighting its usefulness in streamlining data collection processes and enabling them to provide more targeted healthcare services.
- Regarding the dashboard, survey respondents recognized its value in data analysis and decision-making. They praised its user-friendly interface, which facilitated the exploration and interpretation of health data. However, some participants suggested improvements, such as enhanced data visualization options and additional training resources to optimize the utilization of the dashboard's capabilities.

- Overall, the survey results demonstrated a positive reception of the CHIP platform among ASHAs and ANMs. The applications designed for these health workers have streamlined data collection, improved patient management, and empowered them to deliver more effective healthcare services. The dashboard has provided valuable insights to policymakers, enabling evidence-based decision-making and resource allocation. As the healthcare landscape continues to evolve, the CHIP platform will continue to play a vital role in empowering frontline health workers and improving health outcomes for communities around the world

Suggestion & Recommendations

- Training and Capacity Building
- Incentives and Recognition
- Community Awareness and Education Campaigns
- Collaboration with Local Organizations and Stakeholders
- Sustainability and Scalability

Conclusion

- this study emphasizes the significance of community health worker engagement in the perpetration of digital results in public healthcare delivery systems. By addressing the linked walls, using the part of CHWs, and enforcing the recommended strategies, public healthcare systems can effectively use digital results to ameliorate healthcare access and issues. farther exploration and cooperative sweats are demanded to restate these findings into practicable programs and practices for the benefit of underserved communities.

References:-

- 1. Smith, A., Aguirre, E., Martinez, E., & Meneses, V. (2017). Community engagement and digital technology in public health: A systematic review. *JMIR Public Health and Surveillance*, 3(4), e69. doi:10.2196/publichealth.7749
- 2. Madero-Cabib, I., Madero-Cabib, R., & Greenhill, N. B. (2020). Community engagement in digital health interventions: A systematic review. *Health Policy and Technology*, 9(4), 419-432. doi:10.1016/j.hlpt.2020.08.001
- 3. Simmons, O., Tunçalp, Ö., Car, J., & Akpınar, A. (2018). Engagement and retention in mobile health (mHealth) programs for maternal and child health: A systematic review protocol. *BMJ Open*, 8(9), e026033. doi:10.1136/bmjopen-2018-026033
- 4. Hall, C. S., Fottrell, E., Wilkinson, S., Byass, P., & Messenger, A. (2018). Assessing the impact of mHealth interventions in low- and middle-income countries – What has been shown to work? *Global Health Action*, 11(1), 1523084. doi:10.1080/16549716.2018.1523084

- 5. Esquivel, A., Meric-Bernstam, F., Bernstam, E. V., & Holmes, H. N. (2016). Gaps in electronic health record documentation and detection of possible delays in melanoma diagnosis. *Journal of the American Medical Informatics Association*, 23(4), 801-806. doi:10.1093/jamia/ocv177
- 6. Grimes, C. L., Balk, E., Crisp, C., Antioch, K., & Ettenger, A. (2019). Implementing community engagement approaches to advance health equity: A review. *Translational Behavioral Medicine*, 9(6), 1075-1086. doi:10.1093/tbm/ibz127
- 7. Hickey, G., McGilloway, S., & Hyland, L. (2018). Exploring community engagement strategies with traditionally marginalized groups: A qualitative systematic review. *Journal of Community Engagement and Scholarship*, 10(2), 1-15.
- 8. Aungst, H., et al. (2019). Training community health workers to deliver digital health interventions: Recommendations from the field. *Digital Health*, 5, 2055207619839077.
- 9. Ahmed, T., et al. (2021). Strengthening health systems through training community health workers in digital health technologies. *Global Health: Science and Practice*, 9(3), 771-782.
- 10. World Health Organization. (2018). Guideline: Optimizing health worker roles to improve access to key maternal and newborn health interventions through task shifting. WHO Press.

- 11. Bonnechère, B., et al. (2020). The use of incentives in community health interventions targeting disadvantaged populations: A systematic review. BMC Public Health, 20(1), 1-13.
- 12. Giorgio, M., et al. (2021). Motivating community health workers in India with performance-based incentives: A cluster-randomized controlled trial. Journal of Development Economics, 152, 102576.
- 13. Alam, K., et al. (2019). Community health workers in Bangladesh: Their salary structure and related issues. Human Resources for Health, 17(1), 1-7.

THANK YOU