



INTERNSHIP REPORT

Organization: Khushi Baby, Jaipur



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Introduction

The importance of accessible and effective public healthcare, especially for mothers and children, cannot be overstated in India. This internship report details my experience at Khushi Baby, a non-profit organization (NGO) dedicated to making a real difference in public health outcomes across Rajasthan. Khushi Baby focuses on maternal and child healthcare (MCH), playing a vital role in supporting the well-being of mothers and children.

During my internship, I had the incredible chance to work alongside a passionate team deeply committed to improving public health. Khushi Baby holds a unique position as a technical support partner for the Government of Rajasthan. They collaborate with policymakers and public health officials to strengthen and implement crucial public health programs, maximizing their impact.

This report aims to be a comprehensive record of my valuable journey at Khushi Baby, wherein information about the organization's mission, its significant contributions to public health advancements in Rajasthan, and the specific projects or tasks I was involved in is covered.

My goals for this internship were two-fold: to contribute meaningfully to Khushi Baby's work and to gain valuable, real-world experience in public health. I wanted to learn and see how theoretical knowledge translates into practical solutions that truly improve lives. Furthermore, I was eager to understand the challenges faced by mothers and children in Rajasthan, especially in underserved communities.

This report is structured for clear understanding. Following this introduction, we'll explore Khushi Baby's history and core values. Then, we'll delve deeper into their role as a technical support partner for the government, highlighting specific programs and initiatives they've helped implement.

The core of the report will focus on my specific internship experience. Here, you'll find details about the projects or tasks I undertook, my responsibilities, and the skills I honed during my time at Khushi Baby. I'll also reflect on the challenges I faced and the valuable lessons learned.

Finally, the report will conclude with a summary of my key takeaways: the knowledge gained, the skills developed, and the lasting impact this experience has had on my future aspirations within public health.

I am immensely grateful for the opportunity to have contributed to their mission and to have gained invaluable experience in improving public health for mothers and children in Rajasthan.

Objectives of the Internship

- To gain valuable insights about the public health sector working and understand about the realities and complexities of the field.
- To learn about the activities involved in the successful development and implementation of projects.
- To understand the ways to coordinate and communicate with various stakeholders. (government, support partners, etc.)
- To gain knowledge about the digital health sector and learn about the various intricacies involved in the initiatives.
- To develop and enhance my skills and competencies, and increase capabilities.
- To understand the application of theoretical knowledge to the practical aspect.

Organisation Profile

Overview:



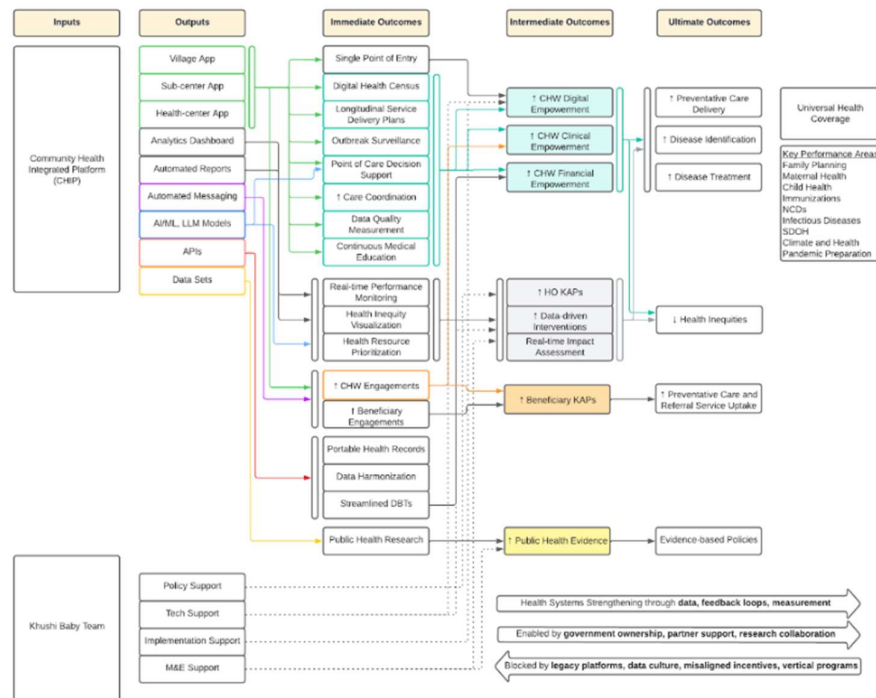
Khushi Baby is a distinguished non-profit organization headquartered in Rajasthan, India, dedicated to transforming community healthcare for underserved populations in rural areas. Founded as a classroom project at Yale University in 2014, Khushi Baby has expanded into a dedicated team of 80+ members, committed to merging tradition with technology to enhance maternal and child health outcomes. Serving as the Nodal Technical Support Partner to the Department of Health in Rajasthan, Khushi Baby aims to scale its digital health platform across India, encompassing all national health programs.

Mission and Vision:

- **Mission:** To monitor and motivate community health, especially maternal and child health, at the last mile.

- **Vision:** To establish a digital integrated community health platform that covers all national programs, ensuring comprehensive health tracking and interventions for underserved populations throughout India.

Theory of Change:



The Community Health Integrated Platform (CHIP) Theory of Change, devised by Khushi Baby, meticulously outlines the progression from initial inputs to ultimate health outcomes, focusing on enhancing community health. The framework begins with essential resources such as diverse healthcare applications, an analytics dashboard, automated reporting and messaging systems, AI/ML models, APIs, and data sets. These resources are supported by the Khushi Baby team through policy, technical, implementation, and monitoring and evaluation support. The direct outputs derived from these inputs encompass a single point of entry for health services, a digital health census, longitudinal service delivery plans, outbreak surveillance, decision support at the point of care, care coordination, data quality measurement, continuous medical education, real-time performance monitoring, health inequity visualization, and health resource prioritization. Additionally, there are increased engagements from community health workers and beneficiaries, portable health records, data harmonization, streamlined direct benefit transfers, and public health research.

The immediate outcomes are manifested through improved access to health services, comprehensive health data collection, enhanced care plans, better outbreak response, informed decision-making, efficient care coordination, accurate data quality, ongoing medical education, performance monitoring, identification and addressing of health disparities, optimal resource allocation, increased interactions and support from health workers, heightened community engagement, easy access to medical records, integrated health data, and evidence generation to inform policies and practices. Intermediate outcomes include the digital, clinical, and financial empowerment of community health workers, improved knowledge, attitudes, and practices among health officers, data-driven interventions, real-time impact assessments, enhanced health knowledge and practices among beneficiaries, and a strengthened evidence base for public health initiatives.

Ultimately, CHIP aspires to achieve long-term objectives such as increased delivery of preventive health services, enhanced disease identification and treatment, universal health coverage, reduced health inequities, and greater uptake of preventive care and referral services. The program's success is facilitated by government ownership, partner support, and research collaboration, while potential barriers include legacy platforms, data culture issues, misaligned incentives, and vertical programs. Key performance areas targeted by the initiative include family planning, maternal and child health, immunizations, non-communicable and infectious diseases, social determinants of health, climate and health, and pandemic preparation. The platform aims to strengthen health systems through the utilization of data, feedback loops, and continuous measurement, thereby ensuring an adaptive and robust healthcare infrastructure.

Khushi Baby's theory of change is based on the conviction that culturally appropriate, technology-driven health interventions can significantly improve community health outcomes. By equipping frontline health workers with digital tools and integrating traditional practices with modern technology, Khushi Baby seeks to create a sustainable and scalable healthcare delivery model that bridges gaps and reaches the last mile.

Founding and Early Development:

Khushi Baby was conceptualized at the Yale Centre for Engineering Innovation and Design by Ruchit, who, during his junior year, enrolled in the course 'Appropriate Technology for the Developing World.' This course, taught by Professors Joseph Zinter and Robert Hopkins, aimed to develop solutions to address the global immunization gap. The team innovatively

utilized Near Field Communication (NFC) tags to create digital vaccine records that could be updated via Android devices.

The team received seed funding from winning the inaugural Yale Thorne Prize for Social Innovation, enabling initial field tests. In partnership with Seva Mandir, a leading NGO in Rajasthan, Khushi Baby conducted its first randomized controlled trial (RCT) in 2015, evaluating the impact of their digital health records on timely infant immunization.

Growth and Expansion:

Khushi Baby's journey included significant milestones, such as a two-year RCT funded by the International Initiative for Impact Evaluation. During this period, Khushi Baby established its headquarters in Udaipur and recruited a dedicated team. The platform evolved to include a tablet application for health workers, the Khushi Baby necklace for beneficiaries, and a dashboard for health tracking.

By 2017, Khushi Baby had launched a comprehensive intervention in collaboration with the government, incorporating features such as automated voice call reminders, offline biometric authentication, and WhatsApp groups for follow-up. The design thinking approach adopted in 2018, supported by grants from GAVI and the Johnson & Johnson GenH Challenge, further refined the platform.

Impact and Recognition:

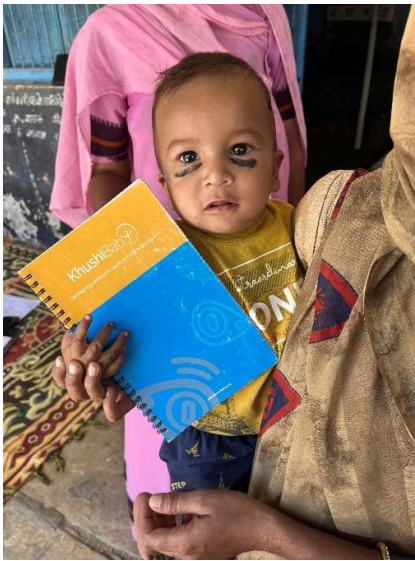
By the end of 2018, the results of the RCT demonstrated significant positive outcomes, with mothers in intervention areas being 1.66 times more likely to have fully immunized infants and a 0.26 times lower likelihood of child malnutrition. These promising results facilitated a partnership with the Rajasthan Department of Health, leading to the adoption of Khushi Baby's platform for the State's Nirogi Rajasthan initiative.

COVID-19 Response:

In 2020, Khushi Baby expanded its team to 40 members and adapted its platform for the COVID-19 response, empowering 50,000 health workers to reach 12 million residents. This included a statewide WhatsApp chatbot, social media and policy support, and PPE donations.

Future Aspirations:

Khushi Baby's success is rooted in its grassroots approach, evidence-based strategies, and frugal innovation. Looking ahead, the organization aims to build integrated digital health systems, implement AI models for tracking health worker performance, predict maternal and child health risks, and automate follow-up mechanisms. Khushi Baby remains committed to monitoring and motivating community health, ensuring that even the most remote populations receive essential healthcare services.



Key Services taken by the Organisation

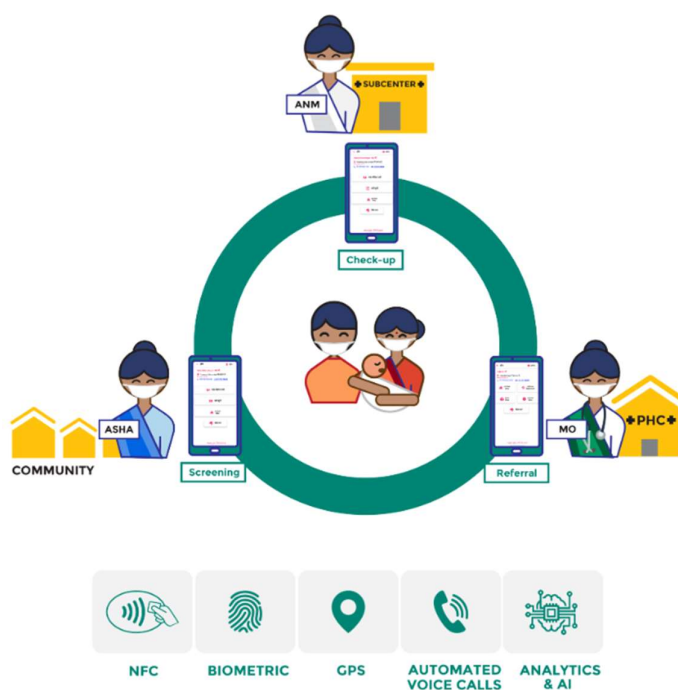
- **Community Health Integrated Platform (CHIP):**



The Community Health Integrated Platform (CHIP), developed by Khushi Baby, addresses the fragmented digital solutions within India's public health system by providing a unified, offline-ready m-health application for ASHAs, ANMs, and Medical Officers. CHIP streamlines data collection, report generation, and payment automation, enabling health workers to conduct digital health censuses, track longitudinal primary healthcare, and monitor disease outbreaks. The platform also equips health officials with AI and GIS-based dashboards for real-time monitoring and response, personalized community engagement, and integration with MoHFW databases.

CHIP's unique features include its comprehensive interface across health worker cadres and national health programs, its last-mile connectivity developed alongside community health workers, and its use of NFC, biometric, and GPS technology to ensure data accountability.

- **Longitudinal Reproductive, Maternal, Neonatal and Child Health (RMNCH) Platform:**



The Khushi Baby organization created a longitudinal Reproductive, Maternal, Neonatal, and Child Health (RMNCH) platform to address past challenges in India, where preventable maternal and child mortality rates were high. This platform

replaced paper-based data collection and fragmented digital systems with digital health solutions. This improved the accountability, timeliness, and accuracy of health data collected.

In the past, healthcare providers relied on paper-based systems. Khushi Baby's platform provided them with a user-friendly mobile application. This application automated data reporting, facilitated direct benefit transfers, and supported clinical decision-making. The application was designed for use in last-mile settings, even in areas with poor connectivity. It allowed for instant offline sharing of medical records through Near Field Communication (NFC) health cards. Additionally, GPS, NFC, and biometric verifications ensured accountability.

The platform also engaged the community in the past. It did this through automated voice calls for health camp reminders and awareness messages. It also supported health workers with household follow-ups for high-risk mothers and infants. Health officials were able to leverage actionable analytics and dashboards from the platform. This allowed them to make informed decisions based on extensive data sets and AI models used to predict adverse health outcomes.

The NFC-based health card developed by Khushi Baby allowed beneficiaries to carry their health records in the past. This ensured informed care and vital accountability checks, which were often missing in other mobile health solutions. This innovative approach garnered attention for its potential to improve vaccine tracking and overall healthcare delivery, even in remote areas with limited connectivity.

- **Digital Health Census**

Khushi Baby's Community Health Integrated Platform (CHIP) includes a dedicated module designed specifically for Accredited Social Health Activists (ASHAs) to conduct a digital health census in their respective villages. This module enabled ASHAs to systematically capture comprehensive sociodemographic and health-related data for each beneficiary, directly at the last mile. The application was developed to facilitate the collection of detailed information, encompassing various health factors essential for creating a robust and actionable health database.

By utilizing the CHIP application, ASHAs were able to efficiently gather data that provided insights into the health needs and conditions of the community. This digital health census module not only streamlined the data collection process but also ensured greater accuracy and completeness compared to traditional paper-based

methods. The information collected through this module was instrumental in forming the foundation for tailored health interventions and resource allocation, ultimately enhancing the effectiveness of public health initiatives in the targeted villages.

- **ASHA Chatbot**

In addition to the digital health census module, Khushi Baby recently created an AI-powered chatbot and a Large Language Model (LLM) specifically for ASHA workers. This chatbot provided real-time assistance and answered questions, making it easier for ASHA workers to perform their duties effectively.

These tools were integrated into Khushi Baby's digital platform, allowing ASHA workers to get instant help with both administrative and clinical tasks. The chatbot and LLM ensured that the ASHA workers had quick access to accurate information, which improved the overall quality of healthcare provided in the community.

- **WhatsApp Bulk Messenger/ Notifications**

Khushi Baby also utilized WhatsApp bulk messaging to send notifications to ASHA and ANM workers. These messages acted as reminders, helping the health workers stay organized and perform their duties more smoothly. By leveraging WhatsApp, the organization ensured timely communication and support, further enhancing the efficiency of its healthcare delivery system.

- **ABHA Creation**

Khushi Baby's mobile application further streamlined healthcare management by facilitating the creation of ABHA IDs. This functionality aligned seamlessly with the Government of India's ABDM project, offering a user-friendly avenue for beneficiaries to obtain their unique ABHA IDs. By linking these IDs to individual health records within the platform, Khushi Baby ensured not only secure storage but also effortless access and management of personal health information for patients. This integration offered a significant advantage, promoting patient empowerment and fostering a more holistic approach to healthcare management.

Key Activities undertaken

Developed Action Plans: Created proposals for initiatives in palliative care and the Aspirational Block Programme (ABP). These plans aimed to outline strategic steps for improving healthcare services in specific areas.

Improved Healthcare Delivery: Conducted scoping exercises focused on reducing Maternal Mortality Rate (MMR) and identifying key Child Health indicators. This involved comprehensive assessments to enhance healthcare outcomes for mothers and children.

Strengthened Program Management: Provided training on developing micro plans for Routine Immunization (RI), mapped the Local Government Directory (LGD), and recommended supportive actions for the Vikshit Bharat 2047 initiative. These efforts aimed to optimize program efficiency and effectiveness.

Enhanced Communication: Drafted impactful letters and conducted data analysis, cleaning, and mapping for health programs in Rajasthan. These activities aimed to improve communication strategies and ensure accurate data management for informed decision-making.

Technological Expertise: Utilized the Community Health Information Platform (CHIP) and contributed to developing Standard Operating Procedures (SOPs) for child health modules by KB. This leveraged technological tools to streamline healthcare processes and enhance service delivery.

Monitoring and Evaluation: Participated in scoping exercises for developing a health monitoring tool and dashboard. This initiative aimed to establish robust mechanisms for monitoring healthcare outcomes and evaluating program effectiveness.

Policy Development: Provided program recommendations for the Rajasthan 2024 health budget. This involvement aimed to influence policy decisions to better allocate resources for healthcare initiatives.

Research and Intervention Design: Formulated intervention questions targeting ASHA frontline workers (ASHA LLM). This research aimed to improve the effectiveness of frontline health workers through targeted interventions.

Data-driven Approach: Mapped relevant health indicators to ensure informed decision-making and effective program implementation based on data-driven insights.

Learnings from the organisation

Technical Skill Development

Proficiency was acquired in the use of dashboard formation tools and data visualization software, including Canva and Lucid. Additionally, expertise was developed in the Survey CTO platform for survey creation, and advanced skills were honed in spreadsheet software (Excel). This demonstrates a robust capacity for technical learning and application.

Government Relations and Advocacy

Communication skills were significantly enhanced through effective interactions with government officials at all levels. Strong advocacy skills were developed, enabling successful presentation of ideas and negotiation of program implementation.

Field Work Expertise

Valuable experience in community engagement was gained, fostering trust and collaboration with local stakeholders. Analytical abilities were strengthened by identifying and assessing ground-level challenges within healthcare systems. Expertise was developed in designing impactful healthcare interventions and evaluating their program outcomes.

Documentation and Record Management

A strong foundation was established in understanding document backgrounds, adhering to formal document creation protocols, and maintaining accurate and organized records. This ensured transparency and accountability within healthcare programs.

Understanding the Working Environment and Corporate Culture

Gained insights into the working environment and corporate culture by experiencing various organizational dynamics. Exposure to different work settings helped in understanding professional expectations, teamwork, and collaboration. This experience showed the importance of aligning personal values with company goals and maintaining a positive work atmosphere. It also highlighted the need for effective communication, flexibility, and the ability to thrive in a diverse and fast-paced environment.