





## From the **Founder's Desk**



"The experiences gathered through ARMMAN's work in the last 15 years have reaffirmed my belief that women, when empowered with knowledge, overcome all odds to shape their own healthcare journey."

As ARMMAN marks its 15th anniversary, I look back at the journey that began with a stark realisation for me—too many mothers and children lose their lives to entirely preventable causes, simply due to a lack of timely information and access to care. ARMMAN was born out of the urgent need to bridge this gap.

By harnessing mobile technology, we have developed cost-effective, scalable solutions that provide critical health information to women while equipping frontline health workers with the training they need. We use the government's infrastructure and health worker network, along with partner NGOs, to improve maternal and child health. Additionally, increased access to mobile phones helps us expand healthcare outreach. I am deeply grateful to everyone who has been part of this journey, which began as a personal endeavour. Today, ARMMAN has grown into a 200-member organisation with offices in Mumbai, Delhi, and Hyderabad. Our work directly influences maternal and child health outcomes by empowering women with information and strengthening healthcare delivery.

The road has not been easy. In the early years, securing funding was a significant challenge. It was difficult for an Indian grassroots organisation to attract international donors, especially in a landscape where multilateral agencies implemented most large-scale solutions. After three years of relentless effort, we received our first breakthrough—the 'People's Choice Award' at the 2011 Saving Lives at Birth event. This recognition opened doors, leading to sustained support from Johnson & Johnson for our mMitra programme since 2013. This moment underscored the importance of visibility in gaining the backing needed to scale impactful interventions.

Another defining milestone came in 2020 when ARMMAN was honoured with the Skoll Award for Social Entrepreneurship. This recognition placed us firmly on the global map. Over time, we realised the importance of effectively communicating the urgency of maternal and child health challenges and the transformative impact of our programmes.

We have touched the lives of more than 60 million women and children and trained over 450,000 health workers. Our homegrown programme, mMitra, has reached the lives of over 3.6 million women across nine states, implemented in partnership with 97 hospitals and 40 NGOs. The success of mMitra led to the Ministry of Health and Family Welfare (MoHFW), Government of India, inviting ARMMAN to implement Kilkari and Mobile Academy in 2018. This collaboration marked a pivotal shift, exponentially increasing our reach and impact. Today, mMitra serves as a testing ground for innovations which are then scaled to our two at-scale programmes – Kilkari and Mobile Academy.

Over the years, our experience in maternal and child health has given us clarity on our approach towards solving the essential problems faced by women and children which hinders their health-seeking behaviour. We are shifting from a fit-for-purpose approach to maximise the impact of our programmes. Within this framework, low-risk women receive comprehensive content via voice calls for feature phone users and WhatsApp for those with smartphones. In contrast, high-risk women or those facing significant disadvantages due to limited equity receive more tailored content with additional support through interactive, two-way communication. This new approach is grounded in equity and gender transformative lens, emphasising the active involvement of husbands and families caring for women and their children.

As we look ahead, we recognise that deep-rooted inequities-whether based on gender, socio-economic status, or geography-continue to impact maternal and child health. Our goal for 2030 is to empower over 100 million women, including 10 million women from marginalised communities such as migrant workers, religious minorities, and Scheduled Castes and Tribes, ensuring they have access to life-saving health **information.** To achieve this, we are launching equity-focused initiatives, including tailored outreach for urban religious minorities and migrant mothers, ensuring continuity of care. Our technology-driven solutions are also evolving to address these challenges. Kilkari 2.0 incorporates Interactive Voice Response (IVR), WhatsApp, and YouTube to deliver multimedia content that promoting interactive learning and facilitates two-way communication.

Mobile Academy 2.0 will provide more personalised, engaging training for health workers. Additionally, with support from the Bill & Melinda Gates Foundation, we are integrating Al-powered tools into our high-risk pregnancy management programme to enhance frontline healthcare worker training and decision-making. A WhatsApp support tool for Auxiliary Nurse Midwives (ANMs) has already been integrated into the programme and is proving invaluable in supporting nurses' learning.

As we celebrate this milestone, I remain deeply committed to ARMMAN's founding vision: that no mother or child should suffer due to a lack of information or access to care. Through continuous innovation, strong partnerships, and unwavering dedication, we will push forward, ensuring that every woman and child receives the healthcare they deserve.

Dr. Aparna Hegde Founder & Managing Trustee, ARMMAN

## **CEO's Message**



"Fifteen years ago, we started with a vision. Today, we have touched millions of lives, but our journey continues because every mother and child deserves a healthier future." As we celebrate ARMMAN's crystal anniversary, I am filled with immense gratitude and pride in how far we have come. Over the years, we have continuously evolved—learning from our experiences and expanding our impact to ensure that no woman or child is deprived of timely healthcare information and support. This year has been particularly significant as we expanded our reach and took bold steps towards leveraging technology and innovation to address maternal and child health inequities in India.

Partnerships and collaborations have played a pivotal role in our success. In 2024, we completed five years of collaboration with the Ministry of Health and Family Welfare (MoHFW), reinforcing our commitment to strengthening health systems at scale. With the successful launch of Kilkari and Mobile Academy programmes (the two programmes we implement in partnership with the MoHFW), in Maharashtra and Gujarat this year, we have now expanded our services to 20 states and Union Territories across India.

Additionally, new partnerships and funders, including the Bill & Melinda Gates Foundation (BMGF) and Merck for Mothers (also known as MSD for Mothers), have provided crucial support, enabling us to expand and innovate further.

We won the prestigious Grand Challenges Grant, an initiative funded by the Bill & Melinda Gates Foundation. With this support, we have collaborated with ARTPARK to develop a Large Language Model (LLM)-powered co-pilot for Auxiliary Nurse Midwives (ANMs) within our High-Risk Pregnancy Programme. This Al-driven intervention aims to enhance the decision-making capabilities of ANMs, ensuring timely and accurate identification and referrals for high-risk pregnancies. This innovation marks a significant step in integrating advanced technology into maternal healthcare, improving efficiency and accessibility for health workers. Funding from the Merck for Mothers Kenneth C. Frazier Award for Maternal Health Equity will enable us to strengthen our blended tech-plus-touch model, ensuring that marginalised women receive the care and information they need for safe pregnancies and healthy children.

In addition to strengthening our existing programmes, we launched Swasth Kadam in Aurangabad, Maharashtra, a crucial intervention for addressing child malnutrition. We also expanded the Arogya Sakhi programme to Nandurbar, an aspirational district in Maharashtra known for its challenging terrain and limited healthcare infrastructure. Working closely with systems in regions like Nandurbar allows us to provide targeted interventions where they are needed the most.

Looking ahead, ARMMAN is committed to driving innovation and deepening our impact. We are using mMitra as a sandbox to pilot innovations such as an urban model to provide targeted health information to women in city environments, acknowledging that access to healthcare challenges exist in both rural and urban settings. To sustain and expand our impact, we are strengthening our state-level teams and scaling our technology-based interventions.

Fifteen years ago, ARMMAN was founded with a vision to ensure that every mother and child receives the care they deserve. **Today, we have transformed millions of lives, but our work is far from over. With continued dedication, innovation, and collaboration,** we will continue striving towards a future where equitable maternal and child healthcare becomes a reality for all.

Ramesh Padmanabhan CEO, ARMMAN

## **i ABOUT US**

ARMMAN is an Indian non-profit organisation dedicated to reducing maternal and child mortality and morbidity through cost effective and tech-based solutions.

## Our approach:

- Empowering women Enhancing health-seeking behaviour among pregnant women and mothers.
- Strengthening health systems Training and supporting health workers for better antenatal and childhood care.
- Early risk detection Ensuring timely diagnosis, management, and referral of high-risk pregnancies.
- Using a "Tech Plus Touch" model -**ARMMAN** leverages mobile technology and existing health worker networks to improve healthcare access and outcomes at scale.

### ôô Vision

and every child is healthy.

**Mission** 

ARMMAN leverages technology, especially mobile health (mHealth), to enable healthy pregnancy, safe delivery and safe childhood by:

7

### A world where every mother is empowered

Addressing systemic gaps in health service delivery by strengthening health systems

Promoting healthcare-seeking practices in the community

> Developing evidence-based, cost-effective, scalable solutions using equity based and gender transformative approaches

antenatal

## Maternal & Child Health in India

Maternal and reproductive health issues, including malnutrition, stem from systemic inequities and gender discrimination. Only 1 in 5 pregnant women receives complete antenatal care.

Limited primary care access leads to poor awareness of risks among pregnant women and mothers. Even when care is sought, information quality is low, and the continuum of care is weak due to inadequately trained, overworked, and demotivated health workers. This results in inefficient referrals, delayed care, and overcrowded tertiary facilities, increasing maternal and child mortality.

ARMMAN's interventions address these systemic challenges through technology-driven, scalable solutions to strengthen healthcare delivery and improve maternal and child health outcomes.

> A woman dies in childbirth every **20 mins** in India

only 1 in 5 pregna

20 more women suffer debilitating morbidity



Gender inequity, weak health systems, poor accountability, data governance gaps, lack of programme integration, and severe infrastructure and staffing shortages exacerbate these challenges. ARMMAN tackles these systemic issues by addressing care delays, accessibility barriers,

and quality gaps.





**32%** of children are malnourished

----- National Family Health Survey (NFHS)-5

## Our Approach

ARMMAN enables health systems change in maternal and child health by developing scalable and cost-effective solutions. These solutions follow a non-linear programme design rooted in six principles (refer Our Model on Page 12).

Our Theory of Change is that an informed and empowered woman will adopt better health behaviours and will proactively anticipate problems, decipher danger signs, and seek timely care. Adequately skilled, trained, and empowered frontline health workers will overcome the prevalent asymmetric power and gender dynamics and provide support and reinforce the women's quest for care. They will diagnose high-risk factors in time and ensure early referral to higher care facilities.

## Our Model

Systems Change for Maternal and Child Health

Leveraging technology, especially mHealth, using a 'fit for purpose' approach

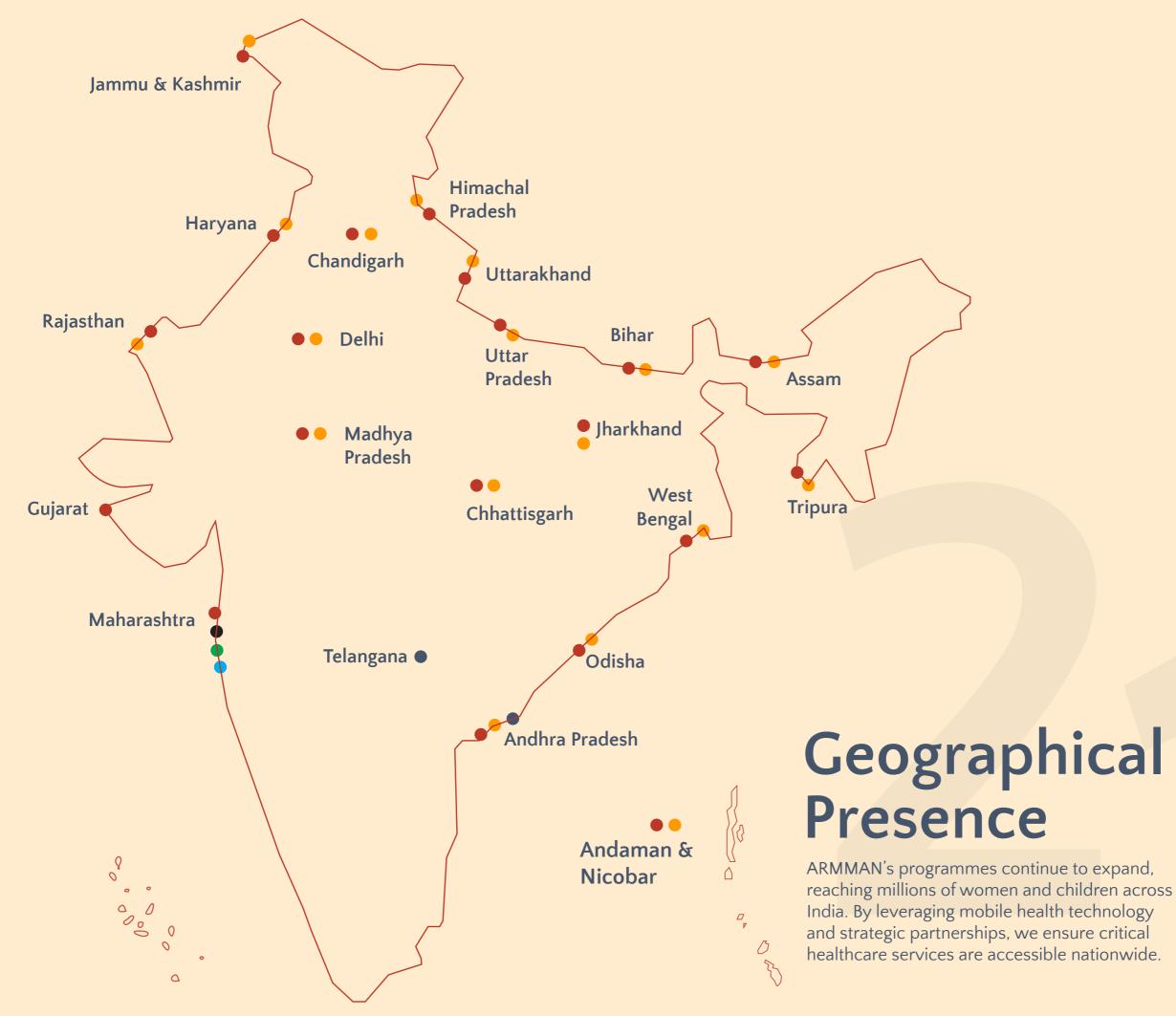
Creating content, which is responsive and user centric with multimedia approach

Thinking and Working politically based on the Political Economy Analysis (PEA) framework

Employing gender transformative and equity-based approaches

Leveraging the government's existing infrastructure and health worker network, along with partner NGOs, and integrating technology to varying degrees based on risk factors or equity issues

Data-driven evidence-based interventions that are bolstered by AI

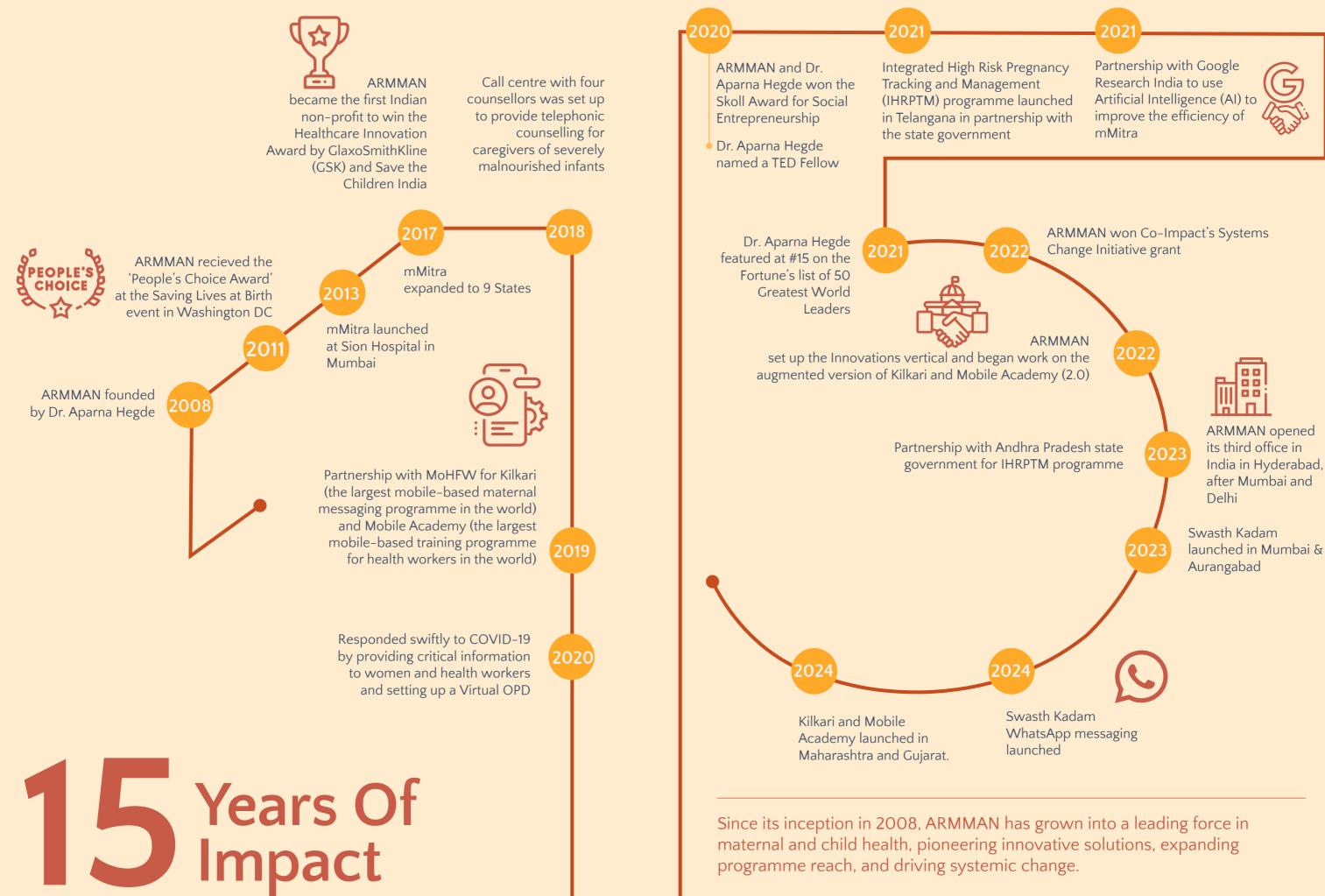


Legend

- Kilkari
  - mMitra
  - Swasth Kadam
  - **Mobile Academy**
- **IHRPTM**
- Arogya Sakhi

#### 21 **States** & Union Territories





# Highlights of the year

#### Kilkari & Mobile Academy **Expansion (KMA):**

KMA launched in Maharashtra and Gujarat (Watch the video of the launch event <u>here</u>), extending its reach to 20 States/Union Territories (UTs).

#### **AI Partnership with Google Research:**

We expanded our collaboration with Google Research to develop AI models for reducing Kilkari dropout rates and improving intervention efficiency. Previously, we built an AI-based prediction model for low listeners in mMitra, which was featured at The Check Up with Google Health this year. (Read more)

#### Training for ANMs & **Specialists:**

Phase 1 training for ANMs in Telangana is complete, and training for Medical Officers and Specialists in Andhra Pradesh has begun under the IHRPTM programme. Two new high-risk pregnancy protocols-Mental Health and Nutrition-have been introduced in Telangana.

#### **Grand Challenges Grant Win:**

ARMMAN secured the Grand Challenges Grant from the Bill & Melinda Gates Foundation. In partnership with ARTPARK, we developed an LLM-powered co-pilot for ANMs in the High-Risk Pregnancy Programme.

**Merck for Mothers Award:** 

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ARMMAN won the Kenneth C. Frazier Award for Maternal Health Equity to advance our blended tech-plus-touch model with an equity-based, gender-transformative approach to improve maternal and child health.

#### Arogya Sakhi Expands to Nandurbar:

The Arogya Sakhi programme began in the aspirational district of Nandurbar, Maharashtra, to detect high-risk conditions early and ensure timely referrals for women and children in severely underserved communities.

#### Swasth Kadam Launched in Aurangabad:

We launched Swasth Kadam programme in Aurangabad, Maharashtra, offering live telephonic counselling on high-risk factors and enhanced support for caregivers of malnourished children (6-36 months) to prevent severe malnutrition.

ARMMAN's initiatives leverage technology and innovation to improve maternal and child health outcomes:





#### Kilkari

Largest mobile-based maternal messaging programme in the world in collaboration with Health Ministry.



#### Swasth Kadam

Live telephonic counselling and support for caregivers of moderately underweight (MUW) children, to prevent their decline to acute forms of malnutrition.



#### **IHRPTM**

(Integrated High Risk Pregnancy Tracking And Management)

Training of health workers to implement high-risk pregnancy management protocols for sustained reduction in delayed/complicated referrals towards reducing maternal and child mortality and morbidity.

## **mMitra**

### mMitra

Free voice-call service providing critical preventive care information during pregnancy and infancy.



### **Mobile Academy**

Mobile-based refresher training course for frontline health workers (ASHAs) in partnership with Ministry of Health and Family Welfare.



### Arogya Sakhi

Training women leaders to provide home-based care, perform diagnostic tests and screen for high risk factors among pregnant women and mothers in severely underserved communities.

# Kilkari

Largest mobile-based maternal messaging programme in the world that sends timed and targeted critical preventive care information to women in India through pregnancy and infancy. The programme is implemented in partnership with the Ministry of Health and Family Welfare (MoHFW), Government of India.



## **VOICES FROM THE GROUND**

#### Kilkari became a support system for **Sumitra**

When Sumitra Devi, residing in Manatu Village in Ranchi District, Jharkhand, became pregnant for the first time, she missed the guidance from her mother-in-law, who had passed away. However, her encounter with a frontline health worker (Accredited Social Health Activist -- ASHA) proved to be a turning point. After being introduced to Kilkari by the ASHA, she began receiving regular guidance on her phone.

"Dr. Anita articulates everything about pregnancy and infancy with great clarity. After the loss of my mother-in-law, the Kilkari calls have been an invaluable support, providing me with essential information.



**Uses Interactive Voice** Response (IVR) and WhatsApp to deliver time-sensitive information using multimedia, directly to families' mobile phones.



Calls available in 8 Languages: Hindi, Marathi, Gujarati, Bengali, Odia, Bihari, Assamese, and Telugu, with a toll-free number for replaying calls at any time.



Implemented in 20 states/ union territories.



women and children reached till date

13,408K women enrolled in 2023-24

### 74% subscribers on Kilkari

platform picked up at least 1 call per month

The comforting voice of Dr. Anita (the fictional character who addresses the women in the Kilkari voice calls), and the comprehensive information on topics such as food habits, handwashing, vaccinations, etc., became a constant source of guidance for Sumitra in maintaining her health during pregnancy.

Diligently following the advice provided through Kilkari, Sumitra is now the proud mother of a healthy 4-month-old baby.

Dr. Mansukh Mandaviya, the Union Minister of Health and Family Welfare (MoHFW), acknowledged the success of the Kilkari and Mobile Academy programmes during the winter session of the parliament.



# mMitra

Free mobile voice call service delivering timely, targeted preventive care information to enrolled women during pregnancy and infancy, implemented in partnership with 97 Hospitals and 40 NGOs.

We are transitioning from mMitra to Kilkari in Maharashtra. While existing users will continue receiving mMitra calls, new enrollments will be under the Kilkari programme from April 2024 onwards.



141 timed and targeted messages

5

9 attempts for each call



Biweekly/weekly calls



Choice of time slot and language



**mMitra** 

Call centre support



Missed call system

# 30,00,000 women and children reached till date

of answered calls included listeners who heard over half of the content

150,523 new subscribers in 2023-24

## **VOICES FROM THE GROUND**

mMitra helped Reena navigate her high-risk pregnancy

Reena Ganesh Choudhari, a 32-year-old resident of Bhanudas Nagar, Aurangabad (Maharashtra) was excited to be pregnant for the second time. Having suffered a miscarriage at seven months in her earlier pregnancy due to high blood pressure (BP), she was determined to be more careful this time around. Reena registered with mMitra in the third month of her pregnancy after she went for her Antenatal Care check-up at the Hospital. Battling high BP once again during her pregnancy, she was swiftly referred to Ghati Hospital for specialised care. Thanks to timely intervention and treatment, Reena delivered a healthy baby weighing 3.6 kg.

Reflecting on her experience, Reena attributes the successful outcome to the advice from mMitra calls. She ensured timely and regular consumption of iron and calcium tablets, and adopted a balanced diet of small, frequent meals. Mindful of her BP, she conscientiously avoided excessive salt intake, as instructed in the calls.

"The invaluable guidance from mMitra calls on scheduling regular check-ups and recognising danger signs helped me through my difficult pregnancy.

# Swasth Kadam



Providing live telephone counselling and support for caregivers of moderately underweight infants (a high-risk condition) aged 0-36 months, with the goal of preventing decline to severe forms of malnutrition, and facilitating their recovery.



Weekly dissemination of information in multimedia format to families via WhatsApp for a period of 6 months



Each call provides health information. follows up on advised actions, answers queries, and offers referrals if needed



0000

0000

1 introductory 12 thematic weekly call calls for 4 months



Implemented in 4 districts of Maharashtra -Mumbai. Aurangabad, Palghar and Thane

Information provided on growth and development, nutrition and balanced diet, best practices in breastfeeding and complementary feeding, immunisation, WASH (Water, Sanitation and Hygiene), childhood infections, maternal health and mental health, and family planning.

total caregivers of Moderately Underweight children counselled (till date)

total enrollments in the programme 2023–24

1,220

6,483

88%

engagement as high as 88% observed on WhatsApp messages

## **VOICES FROM THE GROUND**

With Swasth Kadam's Support, Prathamesh **Overcomes Heart** Challenges

Prathamesh Adinath Dheple, aged one year and four months, lives in Aurangabad, Maharashtra.

At the time of his registration with Swasth Kadam, Prathamesh weighed 7 kg. Prathamesh was born with a congenital heart condition, which initially caused difficulties in digesting milk. Although doctors advised that the heart condition might self-heal with time, they also suggested surgery as a potential solution if the situation worsened.

Prathamesh's susceptibility to illness, particularly due to weather and temperature changes, often leads to colds and coughs. Ayodhya, Prathamesh's mother, notes that his voice has never been completely clear. Initially challenged by Prathamesh's poor eating habits, Ayodhya sought guidance from Swasth Kadam. Considering his heart condition, the counsellor advised smaller, more frequent meals-3 to 4 times a day. Ayodhya found the counsellor's recommendations on nutritious foods immensely helpful.

Prathamesh has shown increased interest in eating and engages in age-appropriate activities. His voice has also notably improved. Ayodhya expresses gratitude for the guidance received, noting her husband's satisfaction with Prathamesh's progress under Swasth Kadam's care.

"Thanks to Swasth Kadam counsellor's guidance, my son has become more active and falls ill less frequently.

## Mobile Academy

Largest mobile-based refresher training programme in the world for frontline health workers (Accredited Social Health Activists - ASHAs) in collaboration with Ministry of Health and Family Welfare (MoHFW), Government of India. The programme aims to strengthen ASHAs' knowledge of life-saving preventative health behaviors, and improve the quality of their engagement with new and expecting mothers and their families.



## **VOICES FROM THE GROUND**

#### **District** Officials

**Commend Mobile** Academy for Strengthening **Health System** 



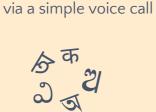


audio-based

**Uses Interactive Voice** Response (IVR) technology



Divided into chapters with guizzes with a pass/fail score



Handset-independent,

technology accessed

Available in 5 languages (Hindi, Odia, Assamese, Bengali and Telugu)



33

Covers 33 months

(from pregnan the child is 2 y

Implemented 17 states and union territorie

71,715 56,333 ASHAs completed ASHAs started the the course in 2023-24 course in 2023-24 380K+

ASHAs trained till date

#### Tamnar block in Chhattisgarh was one of the

first blocks where 100% of ASHAs (394 in total) completed the Mobile Academy (MA) collaboration between district officials and **ARMMAN's State Programme Manager.** 

Regular meetings between all stakeholders including ASHAs, facilitated the exchange of ideas and also provided a platform for open communication between stakeholders. The involvement of ASHA workers in decision-making processes empowered them and instilled a sense of ownership in the s of the Mobile Acader

#### At the district level, the Block ASHA Coordinator played a pivotal role in facilitating cation between the ASHA workers ) and the Block District Manager (BDM N -SHRC, ensuring that he grassroots level

The result was a highly motivated group of

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ouraged each other to v course and

the District to complete the rse. The course ifidence as ASHAs.

# IHRPTM

#### Integrated High Risk Pregnancy Tracking and Management

Training for Auxiliary Nurse Midwives (ANMs), Medical Officers (MOs) and specialists on managing high-risk pregnancies to ensure a continuum of care in collaboration with the Telangana and Andhra Pradesh governments & UNICEF.

An impact study highlighting the improvement in knowledge of nurses trained as part of the High Risk Pregnancy programme was published in the International Journal of Clinical and Medical Education Research. (Read a study highlighting the impact of the programme here)



## **VOICES FROM THE GROUND**

**IHRPTM** training helps ANM identify and refer high risk pregnancy condition

#### Implementation:

Telangana & Andhra Pradesh; expanding to Uttar Pradesh (pilot in Sambhal & aspirational district of Shravasti)

#### Scope:

End-to-end management of 18 high-risk conditions with clearly defined healthcare provider roles

#### **Training:**

Hybrid (classroom + online) with multimedia content (videos, simulations, quizzes, notifications)

#### **Tracking & Support:**

App for risk identification, referral, and follow-up; two-way support via call centre/WhatsApp

5,595 2,538 228

**ANMs** trained

MOs trained

specialist doctors trained

#### —— Year 2023–24 –

## **Recognition & Innovation**

IHRPTM was showcased as part of the Telangana Government exhibit at the G20 Health Working Group Meeting held in Hyderabad.

Developed a multilingual, multimodal chatbot (English & Telugu) using the Grand Challenges Grant with **ARTPARK to assist ANMs** with high-risk pregnancy queries. Recognised by Bill Gates among the top 5 innovations at the Grand Challenges Annual Meeting in Senegal.(Read more)

Dr. Hanimi Reddy Modugu, Director, Research, ARMMAN, presented **IHRPTM** at the **IASP** Southern Regional Conference, discussing programme design, high-risk conditions, and scale-up plans.



Chandrakala, an ANM, in Warangal, Telangana, received training in high-risk pregnancy protocols through ARMMAN's Integrated High Risk Pregnancy Tracking and Management (IHRPTM) programme.

Chandrakala shares that the skills and knowledge she gained from the training helped her identify Gestational Diabetes Mellitus in a pregnant woman and referred her for further treatment in a timely manner. Listen in to Chandrakala as she shares how this training enhanced her ability to provide better care and improve maternal health outcomes:

"The training helped me identify Gestational Diabetes Mellitus in a pregnant woman and refer her for timely treatment, enhancing the impact of my work.

## Arogya Sakhi arocia



#### Home-based Antenatal and Infancy Care programme

Women leaders (Arogya Sakhis) are trained to provide home-based care, perform diagnostic tests and screen for high-risk factors and ensure early referrals during antenatal and infancy period in severely underserved communities.

Arogya Sakhi's prompt action saves lives of mother and child



#### Arogya Sakhis:

- Conduct basic diagnostic tests including haemoglobin, blood sugar, urine analysis, blood pressure, fetal doppler, and anthropometric measurements.
- Equipped with a tablet-based decision-support application to record the test results and screen for high-risk symptoms.
- Have tablets embedded with informative animation videos on pregnancy and infancy to aid effective counselling.

Arogya Sakhis trained till date

95

Arogya Sakhis currently active in Palghar and Nandurbar in Maharashtra.

30

## 3,454

pregnant women supported with doorstep diagnostic and counselling services in 2023-24

## 5,251

children supported with doorstep diagnostic and counselling services in 2023-24

## **VOICES FROM THE GROUND**

During a routine home visit, Arogya Sakhi Chaya Jadhav met 22-year-old Sonam Korada from Balapur village, Palghar, Maharashtra. Following a series of tests, Sonam disclosed that she was experiencing white discharge. Acting promptly, the Arogya Sakhi recommended her without delay to the nearest Primary Health Care Centre (Kurze PHC)

Even after 10 days had passed, Sonam had not visited the PHC, and her issue of white discharge persisted. Concerned, the Arogya Sakhi contacted Sonam's family, urging them to arrange transportation. That night, she accompanied them to Vikramgad Rural Hospital.

Sonam received injections every 12 hours, and the next day, the Arogya Sakhi visited the hospital to check on her. Sonam reported improvement, and the white discharge had stopped. The doctor kept her under observation for 3 days, following which Sonam gave birth to a baby boy weighing 2.1 kg.

Although the baby initially cried, the crying subsided after a few moments. Subsequently, the doctor referred both the baby and Sonam to Jawhar Rural Hospital. Sonam stayed in the hospital for an additional 4 days, and both mother and baby are currently in good health.

"The consistent follow-up, regular visits, and the support of Arogya Sakhi helped me have a safe delivery and saved my child.

# Innovation

**ARMMAN** pioneers digital innovation in healthcare, leveraging technology to bridge gaps in delivery. Our initiatives include AI-powered solutions and personalised content via WhatsApp to improve healthcare outcomes.

#### **LLM-Powered Copilot: Enhancing ANM Training and Support**

We recently secured the Grand Challenges Grant that enabled us to integrate a Large Language Model (LLM)-powered copilot into our existing learning and support application, enhancing the training of Auxiliary Nurse Midwives (ANMs) to improve the management of high-risk pregnancies.

Our multilingual, multimodal chatbot responds to ANMs' text and voice queries on high-risk pregnancies and antenatal care in English and Telugu. Previously, Medical Officers answered ANMs' questions through the learning and support application.

The AI model has demonstrated over 93% accuracy across all modules, ensuring reliable responses to ANMs' queries. User testing has shown a 70% acceptance rate, highlighting the tool's potential to enhance frontline healthcare support.



The AI model has demonstrated over 93% accuracy across all modules



User testing has shown a 70% acceptance rate

#### **High-Risk Pregnancy Pilot** for Kilkari

A pilot in Ganjam and Sundargarh, Odisha, targeted Kilkari subscribers - pregnant women with diabetes, hypertension, or severe anaemia. Over 10 weeks, they received recorded voice calls with tailored content on symptoms, warning signs, check-ups, nutrition, delivery, postpartum care, and long-term health.

**Following the** pilot's completion, a large-scale research evaluation will be conducted, with plans to integrate the content into Kilkari 2.0.

Approximately 830 women completed the pilot. A telephonic survey with the first group of participants revealed promising outcomes:



## 37% improved their dietary

habits by incorporating more nutritious meals.

## Health Equity

By 2030, ARMMAN aims to empower over 10 million mothers from marginalised communities—including migrants, religious minorities, and scheduled castes and tribes—along with their families. This is done by providing them with critical and timely health information. This initiative will promote multi-generational health benefits across the country.

#### Health Equity Pilots: Ensuring Accessible, Affordable, and Equitable Care

Our Health Equity Pilots are designed to ensure that maternal and child health care is available, accessible, affordable, acceptable, and equitable for vulnerable and equity-encumbered populations in select regions.

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#### Strategic Partnerships to Reach Vulnerable Communities

To achieve this goal, we partnered with organisations experienced in working with these vulnerable groups in various geographies across India:

#### Sukarya:

This organisation assists in reaching rural religious minorities in Nuh, Haryana, covering 5 villages in the area. (**GBMM**): This partner Scheduled in Betul, Ma 30 villages i

Next year, ARMMAN will partner with two more organisations to expand its reach to urban slums, focusing on minority populations and migrant communities.

#### Gram Bharti Mahila Mandal (GBMM):

This partner helps us reach the Scheduled Tribes (STs) population in Betul, Madhya Pradesh, covering 30 villages in the region.



# Virtual OPD

The Virtual Outpatient Department (V-OPD) was launched during the COVID-19 pandemic to provide virtual consultations with obstetricians and pediatricians to pregnant women, mothers and their children via a toll-free number. Medical advice through a phone call proved convenient for women as this prevented them from the risk of stepping out during the lockdown.

The need for the Virtual OPD continues post the pandemic as women find it easier to get basic medical advice and counselling via a phone call. We additionally provide counselling via WhatsApp.

## 80,000

women and children received free consultations through VOPD, till date





## consultations through calls

women and children given

women and children received free consultations through WhatsApp messages

#### **Inferences of Patient** Usability Survey (sample of 109 users)

97% of beneficiaries reported that the VOPD service was useful

#### 95%

to use

beneficiaries reported of beneficiaries the service to be easy reported that VOPD provides sufficiently good quality of care

#### 97%

beneficiaries were satisfied with the **VOPD** service

#### **Inferences of Patient Usability Survey of patients** counselled through WhatsApp (sample of 150 users)

#### 88%

beneficiaries found WhatsApp more useful than telephonic consultations

#### 93%

found it more easy to take consultation using WhatsApp over telephonic consultations

#### 96%

93%

felt that the doctor could understand the health condition better through WhatsApp calls

#### 99%

were more comfortable using WhatsApp over telephonic or physical consultations



Consultations available in English, Hindi, Marathi

## Monday -Saturday

#### **Offering Expert Guidance and Vital Solutions**

Noices from the second

WhatsApp number :

#### +91-9004141452

Toll-free number :

#### +1-800-2121-425



11 am – 3 pm | 3 pm – 7 pm for children

> Following her sister's recommendation, Aliya reached out to Virtual OPD when her 8-month-old baby, Heena, was experiencing distress and was crying incessantly. Residing in Mumbra (outskirts of Mumbai), the distance to the hospital heightened her desperation for assistance. She had been feeding Heena Cerelac, but the baby encountered difficulties in passing stool, leaving her uncertain about the next steps.

> Upon consulting ARMMAN's Virtual OPD, the doctor advised discontinuing Cerelac and transitioning to homemade food while emphasising the importance of sustained breastfeeding. This guidance proved significantly beneficial. Furthermore, the recommendation to have the baby sit in a warm water tub contributed to alleviating Heena's discomfort. The doctor also suggested a visit to a pediatrician for a comprehensive examination. Given Heena's habit of putting various objects in her mouth, such as bottles, which may indicate some weakness, the doctor proposed the possibility of further assessment, potentially requiring a blood test.

"With no health facility nearby, **ARMMAN's Virtual OPD came as a** big relief for me as I could access timely medical advice for my daughter.

**U U U** 

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Media

At the Skoll World Forum 2023, our founder, Dr. Aparna Hegde, was honoured as a Skoll Awardee and spoke about ARMMAN's impact in maternal and child health. She participated in a panel on equitable health outcomes and joined a discussion, moderated by Rippleworks, on the challenges social entrepreneurs face due to limited funding for resource development.

Sri Satya, a TV channel in Andhra Pradesh, featured ARMMAN's high-risk pregnancy programme. In collaboration with state governments and UNICEF, the IHRPTM programme trains ANMs, MOs, and specialists in Andhra Pradesh and Telangana to ensure timely referrals and continuous care for pregnant women.

Jeffrey Skoll highlighted ARMMAN and Dr. Hegde in the 2024 Gates Foundation Annual Letter as key drivers of transformational change through health worker capacity building. (Read here)

Dr. Hegde also presented ARMMAN's work at the Innovations in Healthcare (IiH) Annual Forum in Washington, D.C., on 25 April.

At the Government of India's Global India AI Summit, Amrita Mahale, Director of Product & Innovation, spoke about ARMMAN's AI-driven mHealth interventions. (Watch here)



## **Future Focus Areas**

As we progress, our key priority is to enhance operations and broaden the reach of our programmes to drive improved health outcomes.

#### Kilkari and Mobile Academy

The expansion of both initiatives is planned across nine states in FY 24-25 and to all the States in India by the end of FY 25-26.

#### mMitra

We are using mMitra as a sandbox to pilot innovations that can be scaled via Kilkari. We will also pilot an urban model of our services for pregnant women and new mothers to address the unique healthcare access challenges faced by women in city environments, ensuring they receive targeted and relevant health information.

#### **IHRPTM**

The training of healthcare professionals, including Auxiliary Nurse Midwives (ANMs), Medical Officers (MOs), and Specialist Doctors, on high-risk pregnancy protocols is set to launch in two districts of Uttar Pradesh-Sambhal and Shravasti (aspirational district).

#### Health Equity Pilots

We have partnered with like-minded NGOs to reach the women and children among the population groups most affected by inequities namely, religious minorities, migrants, and Scheduled Castes and Scheduled Tribes. Preparations for baseline studies are ongoing and the pilots will be implemented in four geographies (Nuh in Haryana, Betul in Madhya Pradesh, slums of Delhi and Mumbai), and with the identified vulnerable and equity encumbered populations in collaboration with the NGO partners over a period of three years.

#### Swasth Kadam

To improve operational efficiency in Mumbai and Aurangabad (Maharashtra), we are focusing on the following key initiatives:

> Artificial Intelligence (AI)-Based Risk **Assessment** – We are developing an Al-powered risk scoring system to identify children between 6-36 months who may be moderately underweight at an early stage, leveraging existing datasets.

**Community Peer Network –** A peer-driven model will be established to empower women in our intervention areas with mobile phone access and training from ARMMAN. This network will facilitate community enrollments into Swasth Kadam, ensuring increased participation, especially in underserved regions.

**Planned Expansion** – As we refine the Swasth Kadam framework, we are exploring expansion in underserved regions like the aspirational district of Nandurbar.

#### **VISION 2030**









### **Board Of Trustees**

ARMMAN's Board of Trustees have the responsibility of governance as required by the Charity Commissioner. The trustees are signatories to bank accounts, FCRA, and the auditor's report.

- Dr. Aparna Hegde Doctor, Researcher and Social Entrepreneur
- Mr. Srinivaas V. Sirigeri Entrepreneur and Spiritual seeker
- Dr. Janhavi Sanjay Raut Director and Professor
- Mr. Anant Bhagwati Entrepreneur
- Mr. Paresh Parasnis **Executive Director & COO**

- Mr. Arindam Mukherjee Entrepreneur
- Dr. Srikrishna Solgudu Ramachandra Doctor and Researcher
- Mrs. Chanda Neeraj Kathuria Director and Retd. College Vice-Principal
- Dr. Dayashankar R. Maurya Physician and Professor

### **Team ARMMAN**

(April 2023-March 2024)

Key Additions To The Team
Dr. Shubalakshmi Iyer - Director Equity Dr. Priyanka Garg - CM Equity

	Male	Female	Total
Number of Employees as on 31st March ——	62	140	202
New Employees in 2023-24	28	50	78

## **Our Partners**

#### **Technology Partners**

- Inscripts • IMI
- Knowlarity
- BeeHyv

#### **Content Partners**

Babycenter

#### **Implementation Partners**

- Ministry of Health & Family Welfare, Government of India
- State Government of Telangana • State Government of Andhra Pradesh

#### **Partner NGOs**

#### Mumbai

- Sanvi Foundation Apnalaya Saheli Sanstha
- Pune

Prayas Pune

#### Nashik

Navjeevan World Peace & Research Foundation

#### **Partner Hospitals**

Lokmanya Tilak Municipal General Hospital & Medical College, Sion, Mumbai

Tyagmurti Ramabai Bhimrao Ambedkar Maternity Home, Parel, Mumbai

B.Y.L. Nair Hospital, Mumbai Central, Mumbai

Sheth V.H.Gandhi & M.A.Ora Municipal General Hospital, Ghatkopar (E), Mumbai

Matoshri Ramabai Ambedkar Maternity Home, Chembur Naka, Mumbai

K.B. Bhabha Hospital, Bandra (W). Mumbai

#### **Our Funders**

Bayer Foundation India	Google IT Solution Services
Bharat Serums And VaccInes Limited	Institute of Economics
Bill & Melinda Gates Foundation	Ishwar Vijay Charitable Tru
Citius Tech Healthcare Technology Pvt Ltd	Kotak Mahindra Trustee Co Limited
Cognizant Foundation	LGT Venture Philanthropy Foundation
Dasra	Mr Taizoon Khorakiwala
Dovetail Impact Foundation	MSD For Mothers
Elevate Prize Foundation	Netri Foundation
GEP Solutions Pvt Ltd	NIH Foundation
Glenmark Foundation	NIE FOUNDATION
	Raiden Infotech India Priva Limited



#### **Technical Partners**

- Federation of Obstetrics & Gynaecological Societies of India
- National Neonatology Forum

• FRHS

**Strategic Partners** • Dasra

> KEM Hospital, Parel, Mumbai (King Edward Memorial Hospital and Medical College)

M.W.Desai Hospital, Malad (W), Mumbai

Bharat Ratna Dr. Babasaheb Ambedkar Municipal & General Hospital, Kandivali (W), Mumbai

V.N.Desai Hospital, Santacruz (E), Mumbai

K.B. Bhabha Hospital, Kurla (E), Mumbai

es Pvt Ltd	Sahachari Foundation
	The Goradia Foundation
ust	The Jasmine Charitable Trust
ompany	Unitop Chemicals Pvt Ltd
	Fidelity Asia Pacific Foundation
	Pfizer
	Co-Impact
	Rippleworks Inc
	Tides Foundation
	3 Anonymous Funders

nfotech India Private

## **Financials**

ARMMAN (Advancing Reduction in 'Mortality and Morbidity of Mothers, Children and Neonates) Registration No. E-25192(MUM) Schedule VIII [Vide Rule 17 (I) of Maharashtra Public Trust Rules, 1951]

#### Balance Sheet as at 31 March 2024

(All amounts are in Indian Rupees)

(All amounts are in Indian Rupees)		As at	As at			As at	As at
FUNDS AND LIABILITIES	Note	31 March 2024		PROPERTY AND ASSETS	Note	31 March 2024	31 March 2023
Trust Funds		7 J.		Property, plant and equipment	10A		
Corpus fund	3	4,71,550	4,71,550	Balance at the beginning of the year		28,03,128	26,18,183
				Add: Assets purchased during the year		36,34,656	16,20,995
Other earmarked fund				Less : Assets written off		-	-
(Created under the provisions of the trust-deed or				Less : Depreciation		122 20 0701	124.20.050
Scheme or out of the income.)						(22,39,970)	(14,36,050)
Unspent grant	4	24,73,67,152	32,93,39,391	Total (A)		41,97,814	28,03,128
Deferred income - Property, plant and equipment	5	41,97,814	28,03,128	Other Property, plant and equipment	10B		
Reserve fund	6	12,75,79,783	5,30,01,526	Balance at the beginning of the year		-	
		37,96,16,299	38,56,15,595	Add: Assets purchased during the year		-	-
				Less : Assets written off		-	-
Liabilities				Total (B)		÷	-
For Trade payable	7	60,99,451	27,11,975				
For Expenses	8	24,59,958	68,00,708	Total (A) + (B)		41,97,814	28,03,128
For Statutory dues	9	14,87,884	7,42,198				
For Contribution to charity commissioner office		4,32,05,060	3,41,05,548	542	11		
(Refer Note 27)				Loans		10,000	21,000
		5,32,52,353	4,43,60,429	Grant receivables	12	27,76,964	1,09,86,554
				Cash and bank balances	13	41,61,63,562	42,73,01,069
				Deposits and advances	14	1,46,35,866	43,65,616
Income and Expenditure Account				Other current assets	15	85,93,464	23,98,078
Balance as per last balance sheet		1,78,99,421	2,63,70,618			44,21,79,856	44,50,72,317
Less : Appropriation		(2,77,53,285)	(2,05,81,729)				
Less : Prior period adjustment		-	(8,23,444)				
Add/(Less): Surplus or deficit as per Income and		2,33,62,882	1,29,33,976				
Expenditure Account							
		1,35,09,018	1,78,99,421				
TOTAL		44,63,77,670	44,78,75,445	TOTAL		44,63,77,670	44,78,75,445

The accompanying notes including summary of significant accounting policies and other explanatory information forms an integral part of the financial statements.

This is the Balance Sheet referred to in our report of even date.

For Walker Chandiok & Co LLP Chartered Accountants Firm's Registration No: 001076N/N500013

Jakan

Armaity Alaap Jayakar Partner Membership No: 134739

Place: Mumbai Date: 23 September 2024



For ARMMAN (Advancing Reduction in 'Mortality and Morbidity of Mothers, Children and Neonates)

Paresh Parasnis Trustee

Place: Mumbai Date: 23 September 2024



Srinivaas V. Sirigeri Trustee

tember 2024



ARMMAN (Advancing Reduction in 'Mortality and Morbidity of Mothers, Children and Neonates) Registration No. E-25192(MUM) Schedule IX [Vide Rule 17 (1) of Maharashtra Public Trust Rules, 1951]

Income and Expenditure Account for the year ended 31 March 2024 (All amounts are in Indian Rupees)

EXPENDITURE	Note	For the year ended 31 March 2024	For the year ended 31 March 2023	INCOME	Note	For the year ended 31 March 2024	For the year ended 31 March 2023
-		F 20 74 224	4 22 00 022	Dulatant	20	2,33,22,851	1,34,23,399
To Establishment expenses	16	5,38,71,324	4,22,98,823	-Accrued	20	85,93,464	23,98,078
To Remuneration to trustee	17	24,00,000	24,00,000			1,47,29,387	1,10,25,321
						2 64 220	0.00.700
To Audit fees	18	14,89,403	19,06,862	By Donations	21	3,61,728	8,80,789
To Depreciation				By Grant income	22	45,68,34,046	32,39,34,178
- on Property, plant and equipment	10A	22,39,970	14,36,050				
- on other property, plant and equipment	10B	-	*	By Miscellaneous income	23	-	16,276
To Expenditure on objects of trust	19						
(classification is as certified by trustees)							
(a) Religious		Ξ.	-				
(b) Educational		-	-				
(c) Medical and poverty relief		-					
(d) On other objects of the trust		39,71,55,046	27,72,78,931				
To Surplus transferred to balance sheet		2,33,62,882	1,29,33,976				
TOTAL		48,05,18,625	33,82,54,642	TOTAL		48,05,18,625	33,82,54,642

The accompanying notes including summary of significant accounting policies and other

explanatory information forms an integral part of the financial statements.

This is the Statement of Income and Expenditure referred to in our report of even date.

For Walker Chandiok & Co LLP Chartered Accountants Firm's Registration No: 001076N/N500013



Armaity Alaap Jayakar Partner Membership No: 134739

Place: Mumbai Date: 23 September 2024



For ARMMAN (Advancing Reduction in 'Mortality and Morbidity of Mothers, Children and Neonates)

Parm Paresh Parasnis

Paresh Parasnis Trustee

Place: Mumbai Date: 23 September 2024

Srinivaas V. Sirigeri Trustee







#### **ARMMAN** Office

Second Floor, Advance House, Plot-A, ARK Industrial Estate Compound, Makwana Rd, Marol Naka, Andheri East, Mumbai, Maharashtra 400059.

Designed by Simit Bhagat Studios