



SNEHA

Inclusive . Multi-Sectoral . Scalable



Malnutrition Management and Technology
A Karnataka Story With a Difference _____

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Inclusive | Multi-Sectoral | Scalable

Malnutrition Management and Technology

A Karnataka Story with a Difference

Center for Study of Science, Technology and Policy

December 2021

Designed and edited by CSTEP

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(The author list provided assumes no particular order as every individual contributed to the successful execution of the project.)

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Preface

The concept of SNEHA (Solution for Nutrition and Effective Health Access) was born in 2017 in the office of the Principal Secretary of the Department of Women and Child Development (DWCD) in Bengaluru, Karnataka. The challenge at hand was to expedite improvement in malnutrition management in the state. The National Family Health Survey (NFHS 4) report had recently been released, and it was sobering for the whole country. The Center for Study of Science, Technology and Policy (CSTEP) team had been invited as a potential technology partner to hear about experiences of technology interventions in the tribal regions of Kerala and Maharashtra.

“A systems approach begins when first you see the world through the eyes of another.”
- Churchman

The Health and Family Welfare Department (HFWD) joined the discourse, and we were soon discussing a malnutrition management blueprint for Karnataka, which eventually culminated in SNEHA. In retrospect, I am thankful to all the stakeholders that SNEHA was treated as a

programme beyond technology intervention. Our discussions were not centred around an app or a set of dashboards, but around the challenges faced by fieldworkers, pregnant women, and new mothers. These discussions opened a whole new world and played an important role in the design of SNEHA.

We, as technologists, often get into the trap of technology deployment without process and system transformations. Fastening technology on age-old processes is like beating an old horse to run faster. Processes are often ignored when designing technology interventions.

“If I had asked people what they wanted, they would have said faster horses.”
- Henry Ford

We agreed that SNEHA had to make services not just efficient, but also effective.

What followed was a best-in-class technology intervention in a complex social setup. It balances people, processes, systems, and technologies.

36 Lakh Children	8 Lakh Women	65,000 Anganwadi Centres	79 NRCs (District & Taluka)
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SNEHA promises to be a blueprint for technology solutions targeted at complex social problems. This report provides the narrative of this continuing journey.

Ashish Srivastava
Sector Head – AI and Digital Lab, CSTEP

Glossary

Anganwadi	Childcare Centre operated under the scheme of ICDS
ANM	Auxiliary Nurse and Midwife
ASHA	Accredited Social Health Activist
AWC	Anganwadi Centre
AWS	Anganwadi Supervisor
AWW	Anganwadi Worker
CNNS	Comprehensive National Nutrition Survey
DWCD	Department of Women and Child Development
JSY	Janani Suraksha Yojana
HFWD	Department of Health and Family Welfare
ICDS	Integrated Child Development Scheme
KUTUMBA	Family ID for Karnataka (based on Ration Card ID)
Mathrupoorna	Maternal Hot Meal programme run by DWCD Karnataka
NFHS	National Family Health Survey
NRC	Nutrition Rehabilitation Centre
PHC	Primary Healthcare Centre
RCH	Reproductive and Child Health
SAM	Severe Acute Malnourishment
SDG	Sustainable Development Goals
SC	Sub-Centres (Healthcare Centres operating under PHC)

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1. Malnutrition: a Multi-sectoral Problem

India is reeling under child and mother malnutrition

Improving nutrition is the key to achieving Sustainable Development Goal 2 (SDG)—zero hunger, achieving food security, and improved nutrition.

Undernutrition is a significant universal health problem, which affects a large number of children in developing countries. The 2020 Global Hunger Index (GHI) Report by the International Food Policy Research Institute (IFPRI) ranked India in the Global Hunger Index at 94 out of 107 countries that were ranked. The index calculates hunger and malnutrition levels across the world. Undernutrition in young children results in delayed physical growth and motor development and impedes behavioural and cognitive development. It leads to a vicious intergenerational cycle of malnutrition.

The Karnataka government has strengthened the nutrition supplement programme with various schemes, such as *Mathrupoorna* for pregnant and lactating women. Despite these supplementary programmes, the state still has a long way to go.

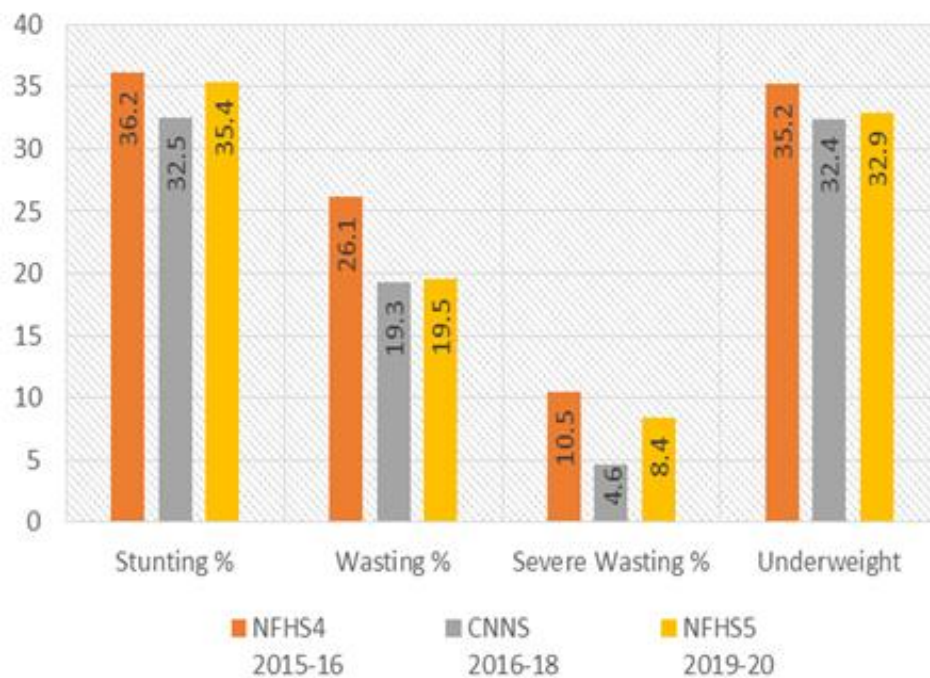


Figure 1: Story of Malnutrition in Karnataka

According to the National Family Health Survey (NFHS-5) Karnataka data (2019–2020), stunting of children under 5 stands at 35.4%. Wasting and underweight status is also problematic at 20% and 33%, respectively.

Malnutrition is a complex problem – Needs a holistic approach

In policy terms, malnutrition is often classified as a wicked problem. The term ‘wicked problem’ was introduced by Rittel and Webber in the 1970s to draw attention to the complexities and challenges of addressing planning and social policy problems. Such problems are hard to define, have complex causal relationships, and have no definite boundaries.

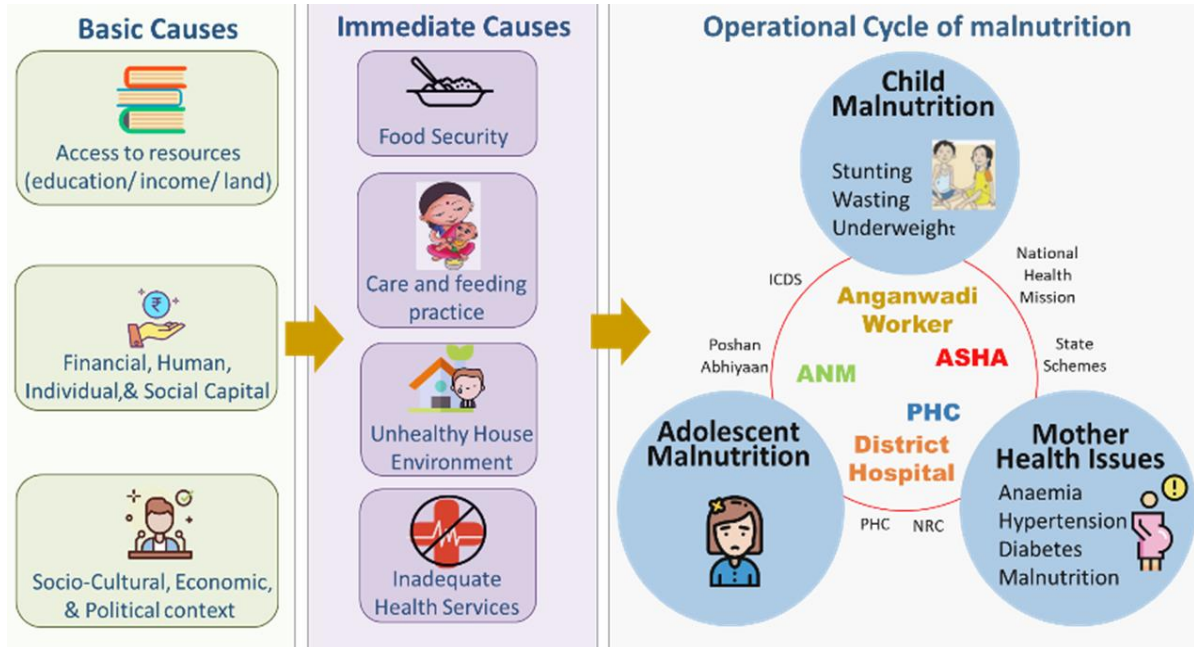


Figure 2: A simplified view of the interplay of departments, fieldworkers, and socio-economic causes in the management of malnutrition.

Long-term planning and policy interventions are required to address the basic causes of malnutrition. These do not have a quick technology fix. The immediate causes are best addressed through a mix of on-the-ground efficiencies and behaviour counselling. The operational cycle is easiest to manage, but any solution must factor in the needs of—and integrate processes across—schemes, stakeholders, and departments.

Technology can be a facilitator, but it alone cannot be the answer. The solution must be multi-sectoral and inclusive of all the stakeholders.

The development of a holistic and multi-sectoral solution was championed by the DWCD and supported by the HFWD. For the better management of malnutrition, the Government of Karnataka, in partnership with the Center for Study of Science, Technology and Policy (CSTEP), undertook the development of a concept solution.

Thus, a holistic foundation for the SNEHA platform was laid.

2. How did the SNEHA Design Evolve

Systems Thinking adopted as a guiding principle

Systems Thinking as an approach matured in the early 2000s to function as a guide towards crafting a solution for complex problems. Systems Thinking emphasised the need to look at systems as a whole instead of parts. Identification of stakeholders, boundaries, and relationships are important aspects of Systems Thinking.

Adoption of Systems Thinking philosophy leads immediately to many advantages. It helps solution builders avoid the trap of ‘reductionism’. Reductionism can make one focus only on part of a problem rather than maintaining a holistic perspective. It can lead to a belief that a quick fix tool—such as a data entry app or a set of dashboards—will provide a meaningful solution.

Systems Thinking also helps ensure that the big picture perspective is adequately balanced with the individual stakeholder’s perspective. It was evident early on during our endeavour that a grassroots study of the problems and perspectives had not been adequately factored into the existing solutions.

The key concepts of Systems Thinking were adopted as the guiding principles for SNEHA.

An extensive field study to understand grassroots issues

To study the functioning of systems, extensive fieldwork was undertaken. The CSTEP team embarked on extensive fieldwork involving primary research at Anganwadi Centres (AWCs) and with Primary Healthcare Centre (PHC) workers, senior doctors, nutrition experts, and senior officials of the state government.

30 Anganwadi Centres	4 Primary Health Centres	1 Tertiary Hospital
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Thirty AWCs spread over rural and urban areas were visited. During the study, Anganwadis’ daily routines were observed, the working process was understood, monthly meetings were attended, and records were reviewed. Many discussions were held with the AWWs and Helpers, and sometimes with the end beneficiaries, particularly pregnant women.

PHC visits were undertaken to understand the operations of primary care through discussions with doctors, ANMs, and ASHA workers. The team spent extensive time in the SAM ward (NRC) at the Bengaluru-based Vani Vilas Hospital, understanding daily operations and challenges.

STORY 1: The Field Study – about people and the processes



Figure 3: Images captured during field research

Field research was kept human-centric and provided excellent insights into the challenges on the ground.

One of the pregnant women was exasperated that the health centre for her antenatal check-up (ANC) was several kilometres away. She had little family support and no transport in hot weather. She would rather skip the ANC than undertake the trouble of commuting.

Several AWWs expressed a desire for an issue escalation mechanism—from lack of electricity or cooking gas to the non-payment of salaries. They did not want another app to just help them with register data entry. They needed a facilitative tool addressing their needs and be their own assistant to help them deliver services.

A tertiary hospital nurse was emotional about the lack of a tracking mechanism for the children released from NRCs. They kept wondering if the child had recovered or relapsed. They were already overworked and had to deal with numerous data entries. Sadly, the process of data coordination across departments was non-existent, making seamless tracking of women and children exceedingly difficult.

It was becoming increasingly evident that their needs were more complex than what just an app or a dashboard could address.

The team also assessed the ability of the AWWs to use digital technology such as smartphones. This threw up a pleasant surprise. Most of the young workers (typically, less than 45 years of age) were either already comfortable or willing to learn about smartphone usage. This accounted for more than 85% of the workforce.

Some pending process issues still need resolution. Most importantly, the protocol for handling severely stunted children is not clearly articulated. There is no clear mandate with the NRCs, who consider only severe wasting and its associated symptoms for treatment. A clear policy is not available with the fieldworkers.

The field study opened the eyes of the development team to the needs on the ground. Some of the critical issues that had to be addressed were as follows.

Study Conclusion 1: Inconsistency in Health Data



The records maintained by the AWWs, the ASHA personnel, and ANMs were reviewed. The basic health data of families, children, and women were found to be inconsistent across departments. Children and women needing intervention could not be traced easily across departments. This makes consistent and seamless tracking of services from detection-to-cure extremely difficult.

Even where the data source was the same (e.g., immunisation record), manually copying the data into Anganwadi records made it error-prone. As a result, at the senior administrative level, the state-level reports from different departments did not match.

Study Conclusion 2: Multi-sectoral Process Integration



The process of managing and addressing the complete malnutrition cycle does not exist, and this impacts efficiency. In the absence of unique identification numbers between departments, the track of children or women is lost across departments. The healthcare centres do not have access to the records of anthropometric measurements taken at the AWCs.

There is also duplication and redundancy of effort. For example, the family survey is done by ASHA as well as the AWWs in their respective areas, but each of these efforts is independent. The data does not flow through seamlessly across departments.

Study Conclusion 3: Women's Health



Malnutrition is known to be an inter-generational problem. Only a healthy mother can raise a healthy baby. Several state and central schemes such as *Janani Suraksha Yojana (JSY)* and *Mathrupoorna* help pregnant women and new mothers. Despite these, some foundational issues were uncovered during the field study.

Women healthcare needs better facilitation. Sub-Centres are often far from homes, and ANC is not easily accessible by expectant mothers. Even though there are home visits by fieldworkers during pregnancy, the counselling quality is inconsistent. Lastly, the benefits under the various schemes are hard to track and utilise.

Study Conclusion 4: The Voice of the Fieldworkers



Information asymmetry and lack of data-led empowerment were the most significant weaknesses identified during field study. Substantial data is collected at the state and the national levels for assessment of malnutrition. However, actionable data that can make the fieldworker's job efficient and effective is missing.

Fieldworkers need more than just a data entry platform. A robust job-aid platform will facilitate informed decision-making and timely interventions.

A multi-sectoral experiment that validates the SNEHA approach

Services to children and women are provided by the DWCD and the HFWD. To be effective and efficient in malnutrition management, the cycle from detection to intervention for a child should be seamless, quick, and well-coordinated.

The SNEHA initiative received an opportunity to demonstrate the power of multi-sectoral coordination in Ramanagara district.

STORY 2: Detection to Action – a multi-sectoral example

Based on the need expressed by Ramanagara district officials, a SNEHA pilot was organised to accurately determine the levels of malnutrition among children in the district and help take immediate corrective actions.



Figure 4: Images captured during the SNEHA pilot survey

Using an early version of SNEHA, anthropometric measurements (height, weight, and mid-upper arm circumference) of all children in the district was taken. The tool helped capture accurate details of over 54,000 children, surveyed by more than 3,000 AWWs and ASHA personnel over three days.

Daily reports, generated by the tool, were presented to district officials after each day of the survey. Overall, 2,800 children were identified as severely malnourished.

But the survey was just the beginning.

Follow-up actions were immediately identified. The sectors and AWCs where malnutrition levels were high were identified, and medical camps were held by a team of doctors and health workers. The children were given the required attention.

In just two weeks, the power of data with a coordinated effort made the cycle detection-to-treatment efficient and effective. This experience was an important learning as to how close coordination between multiple departments can transform the management of malnutrition.

3. Elements of the SNEHA Platform

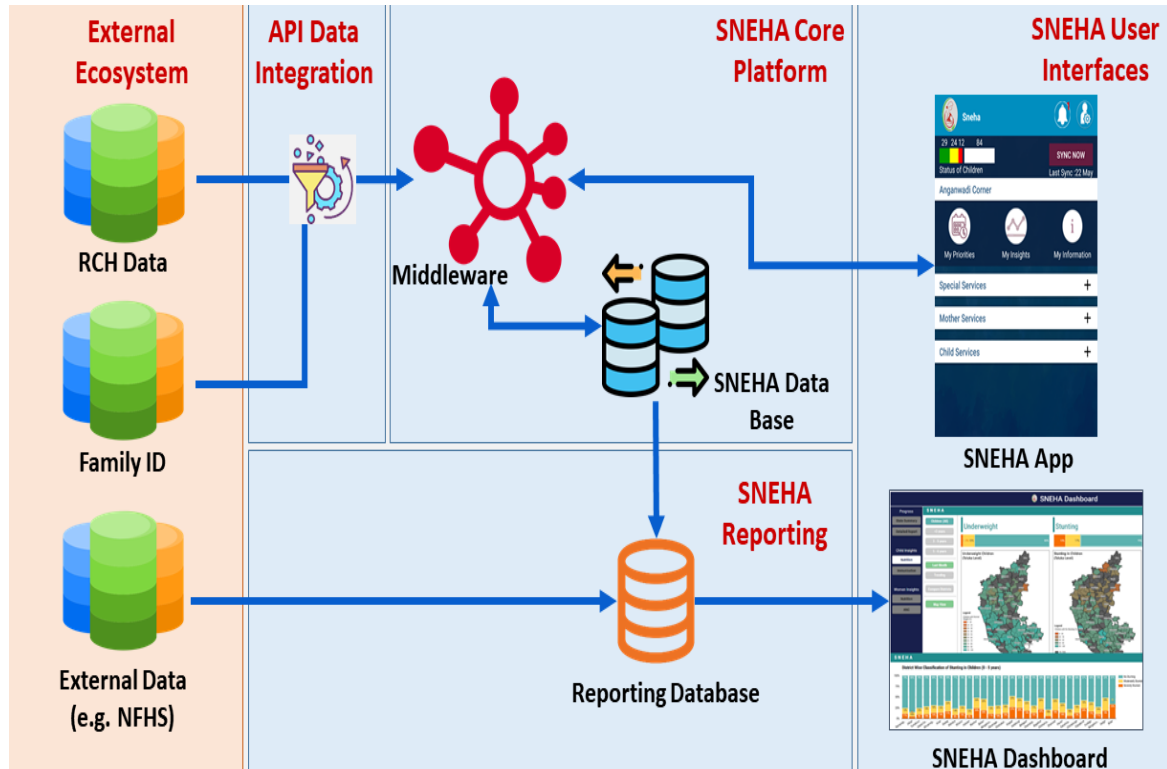


Figure 5: Representation of elements of SNEHA platform and data transfer between them.

SNEHA is a complex platform with a combination of series of data systems, platforms, and interfaces. The above image depicts all elements of SNEHA and interactions between them. Data is pulled from external data sources through APIs to SNEHA backend systems. Integrated and collected data is analysed and can be visualised through SNEHA user interfaces.



4. Integrating Data and Processes

Maternal and child health need to be tracked in a coordinated way. To enable this, the data on child and women malnutrition and health must be consistent and accessible through the health management cycle.

Track of child nutrition and women health within SNEHA

With SNEHA, providing Anganwadi services to children is effortless and well tracked. Children missing services can be easily identified, helping AWWs to take proactive measures. The AWW does not have to fill numerous registers for various services provided, as they are all integrated into the SNEHA platform. It facilitates the early detection of malnutrition. SNEHA auto-generates the growth chart as followed by the state (given by WHO).

The use of SNEHA leads to an increase in accurate, immediate detection of malnutrition and lifts off significant workload from the fieldworkers. The growth details of a child can also be backtracked up to a year, allowing easy monitoring of progress. The health and nutrition records of pregnant and lactating women are also tracked within SNEHA.

This information can be fetched by relevant departments (such as the NRC, PHC, and Education Department) through an API.



Adoption of uniform child and women IDs across departments

As part of the SNEHA initiative, both the DWCD and HFWD have collaborated to streamline the management of health and malnutrition. A single unique ID has been adopted across the two departments. The HFWD already has an RCH ID for women and children, and DWCD Karnataka agreed to adopt the same ID.

The use of RCH ID as a common ID makes it possible to fetch information directly from the RCH database, keeping the data consistent. It allows tracking of health and nutritional status across departments.

Despite many inconsistencies, we have been able to link 6.4 Lakh children from the DWCD data to the historical RCH data.

Single Version of Truth: Immunisation and ANC data

In the current system, the AWC manually replicates data derived from the services provided by HFWD, such as details on ANCs, birth weight of the child, and immunisation. This information is stored in the RCH portal database by the HFWD. Manual entry by the AWWs often leads to data loss and inconsistency.

Uniform ID across multi departments helps end-to-end tracking.

The HFWD stepped in with help from National Informatics Center (NIC), Karnataka, to make available from RCH the child and women demography data, immunisation records, and ANC records. Based on the RCH ID, this data is synchronised with SNEHA. This ensures that health and malnutrition data across the two departments are consistent, representing a single version of the truth.

Single version makes planning credible and operations at the field effective.

Authentication with Family ID (Kutumba)

Both the DWCD and HFWD are service-oriented and inclusive by design. As a result, the data is largely declared and not verified. There is a need for implementing verifiability of the data. The Government of Karnataka has thereby introduced a Family ID, adopted from ration cards.

With data integrity, the ground is set for collaboration with more departments.

SNEHA is linked to the Family ID, allowing AWWs to fetch beneficiary demography details from the family id database. A child or a mother can be registered using a ration card id, ensuring that the basic demography details are verified. This reduces errors, inconsistencies, and duplications.

Around 17.5 lakh children registered in SNEHA have been linked to their verified and validated Family ID (RC ID).

Joint Health and Nutrition Survey

One of the key activities in both departments is conducting a family health survey, a cornerstone for planning. However, there is a lot of duplication of effort between what AWWs and ASHA personnel do for the HFWD. Often, the data does not match due to the process being manual.



The DWCD and HFWD have worked with CSTEP to design a joint family-health survey platform. This platform not only includes the survey of women and children, but also includes 12 additional health surveys. The platform is called SAMEEKSHE.

The first of its kind digital survey, SAMEEKSHE was launched in March 2021. It is being executed through 1 Lakh fieldworkers and is likely to cover a five crore population.

Integration to external reporting systems

The SNEHA team believes that a locally designed system works best for the grassroots, but quality data should be available for the central monitoring platforms. SNEHA has been kept open to integration with any dashboards or reports needed at the state or central level.

The state officials have echoed this commitment formally to the Central Government.

5. Inclusive for Women and Fieldworkers

Management of mothers' health

Maternal healthcare is largely provided by the HFWD through its network of Sub-Centres (SCs) and PHCs. During the SNEHA fieldwork, it was discovered that pregnant women sometimes find it hard to go for ANC done by ANMs at the SCs because of long distances and lack of family support. But they visit AWCs regularly for hot meals. The ANMs visit the AWCs at least once a month for immunisation services.

Through the SNEHA initiative, it was proposed to conduct ANCs at the AWCs to improve maternal healthcare access. Karnataka has around 12,000 PHCs and SCs, while there are around 65,000 AWCs. Making maternal healthcare available at AWCs increased healthcare access over five times.

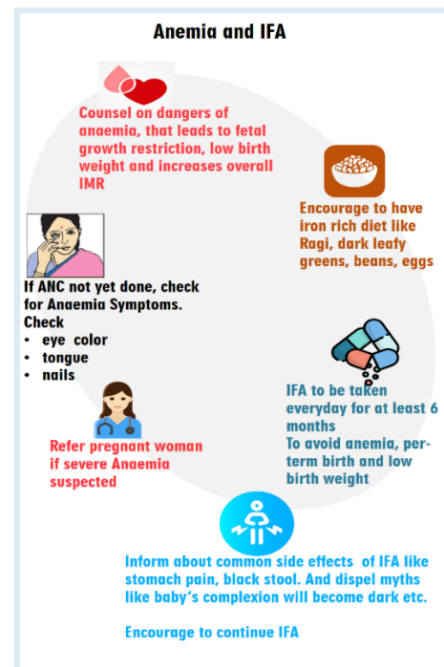


Along with integrated ANC data, SNEHA allows full tracking of maternal health. It provides AWW information based on which they can give the required attention to a mother, mobilise her for missed services, or counsel her and her family.

Facilitation of Behavioural counselling

Interpersonal counselling to support good nutrition practices among pregnant and lactating mothers is essential to bring nutritional improvement. Poorer and less educated women have less exposure to social and behaviour change communication platforms, such as media and advertisements; hence, home visits are important counselling tools.

SNEHA has a special feature for home visits to convey the right messages. The aim is to help frontline workers convey essential information and counselling and plan for visits as they are time-critical. Informative cards specific to counselling themes for a particular visit are provided to help AWWs cover all important points. It is designed so that it nudges AWWs to counsel according to the responses given. Behaviour practised throughout home visits can be monitored by the AWW.

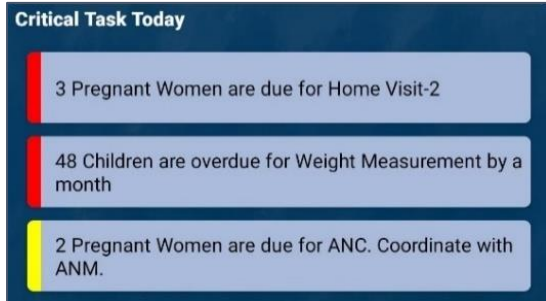


This feature helps carry out effective behavioural counselling and helps track behavioural changes, thus allowing us to understand the efficiency of home visits.

Inclusive – actionable insights to fieldworkers

AWWs are the key stakeholders in malnutrition management, and they are the frontline warriors in the fight against malnutrition. Making them an

Well - informed field workers are the front line warriors to fight malnutrition.



integral part of the solution was one of the core design principles of SNEHA. The relation between AWW and SNEHA is more than just data entry. SNEHA helps them in their day-to-day activities, from providing services to detecting malnutrition, to managing each case of severe malnutrition.



By using SNEHA, AWWs are empowered with data that will allow them to take proactive measures. Alerts are given when malnutrition is detected. Reminders about services such as weight measurements, immunisation, ANC, home visits help AWWs in the timely mobilisation of children or mothers. Actionable insights for the fieldworker

improve activity prioritisation, thus increasing the effectiveness and management of service delivery. SNEHA also provides the AWWs with a platform to voice their grievances and opinions, which will be presented to their supervisors for further action.

SNEHA builds a sustainable ecosystem for ground-level corrective actions. It makes the fieldworker a part of the solution by facilitating their active involvement in solving the problems at hand. Also, effort spent on filling numerous service registers is reduced, shifting the focus on improving child health rather than recording activities.



6. The Power of Data

Early analysis: malnutrition and water quality

In 2018, malnutrition data were manually analysed from the monthly progress reports (MPRs).

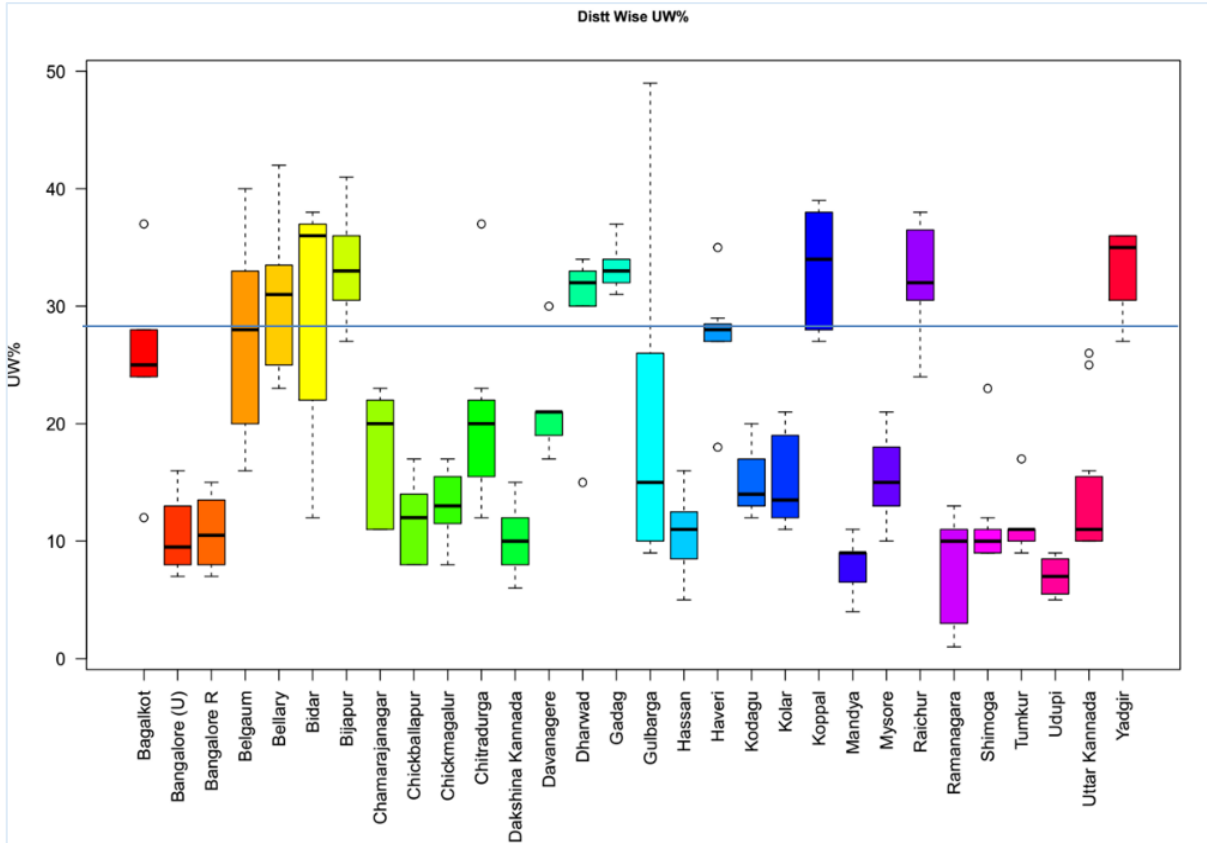


Figure 6: Comparison of percentage of underweight children in districts of Karnataka

The above box plot provides useful insights. It can be seen that some districts are poor across all the blocks (talukas), while some are a mixed bag (e.g., Gulbarga).

Further analysis showed that a significant number of blocks with high malnutrition were in districts that were otherwise showing healthy trends. Out of the 28 worst blocks, 13 were from relatively better-off districts. Gulbarga had the two worst malnutrition-hit blocks. It was found that many of these blocks suffer from poor water quality due to reasons ranging from stone mining, sugar mills, to chemical factories and other pollutants.

This was an informal study based on monthly reports and web research on water quality. But the indicative conclusions were presented to the senior officials and were duly noted. Officials were able to corroborate some of the analysis readily.

It was heartening for the SNEHA team to learn that many AWCs are now equipped with Reverse Osmosis water filters. The above analysis may not have been the only contributor to this decision, but it demonstrates the power of timely and meaningful analysis.

Insightful SNEHA dashboard

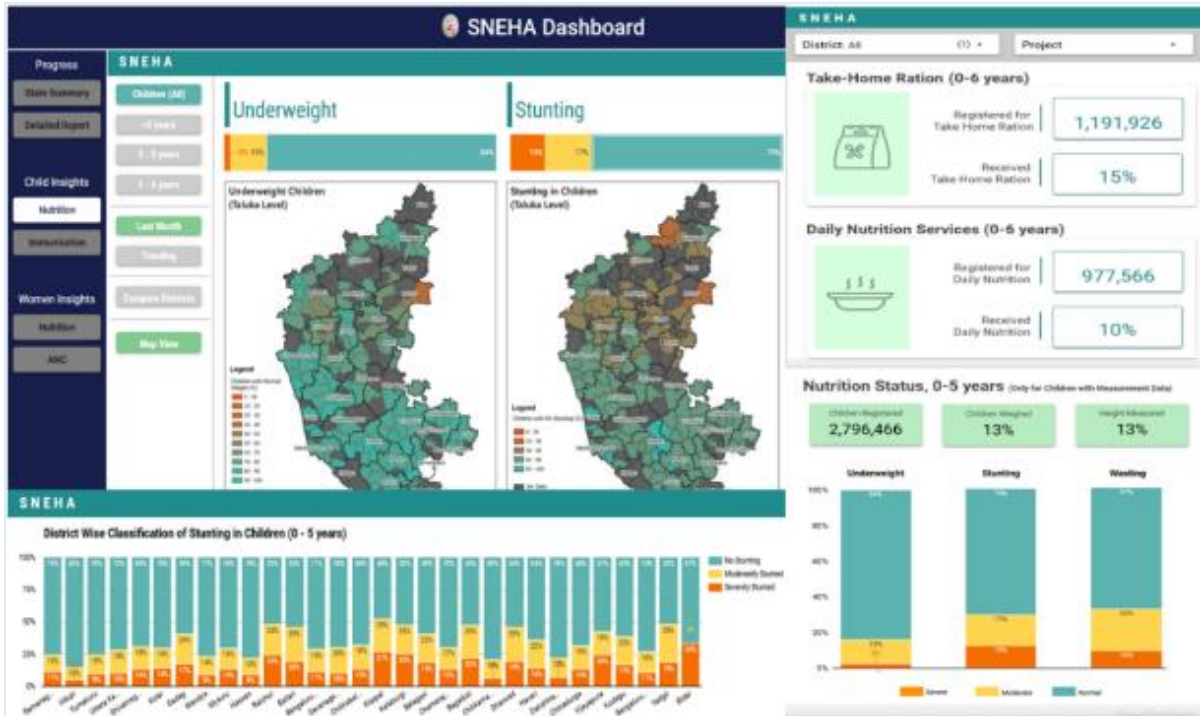


Figure 7: SNEHA dashboard for visualisation of service coverage and malnutrition data

SNEHA has now reached an adoption stage. A SNEHA dashboard has been launched to track the coverage of services and key malnutrition data. The information provides analytical insights that can help identify specific problem areas, causes, and potential actions that can be taken.

Insights are displayed as charts and graphs with drill-down facility based on region and gender. Information on the malnutrition levels and services provided can be viewed from the Anganwadi centre level to the district level. A comparative analysis between districts is also possible.

Currently, the focus of the dashboard is on an early indication of malnutrition operations and coverage. After the adoption reaches a health level of 90% or more, insights will include coverage (how many children/women per AWC, how many children with malnutrition detected), efficiency (e.g., how timely is the immunisation or ANCs), and effectiveness (e.g., how many malnourished children recovered).

Moving towards Evidence and Accuracy through AI

Once the basic service process is established, the focus changes to accurate and evidence-based data. This is critical for tracking the health and nutrition of children and women. CSTEP’s SNEHA team has also piloted a solution called SNEHA Vision to capture height and infant length through mobile images. The team is also finalising a solution for capturing attendance through mobile group images. These solutions will be launched after a healthy adoption of SNEHA has been achieved.



7. Deployment at Scale

The pilot that paved the way

Before launching SNEHA across Karnataka, it was piloted in 34 AWCs covering approximately 3,000 children and 530 mothers.

STORY 3: Yelahanka Pilot and the increase in efficiency

A SNEHA pilot was conducted in Yelahanka Circle between January and April 2019. It included all AWCs under this circle. Around 3,000 children and 500 women were part of the pilot.



Figure 8: SNEHA pilot at Yelahanka

The pilot was done over three months, during which the SNEHA platform was used by the AWWs for routine activities, such as service delivery and taking weight measurements. During the pilot, the AWWs continued to maintain their manual registers as well.

The growth data collected during the pilot was analysed. From the height and weight measurements collected using SNEHA, 76 children were detected to be severely underweight, and 315 were moderately underweight.

There was under-detection of malnutrition levels when done manually without SNEHA. In the Anganwadi register, only 9 children were recorded as severely underweight, and 169 children were recorded moderately underweight.

The CSTEP team visited the pilot AWCs regularly to check how well the AWWs were adapting and if there were any roadblocks faced in using SNEHA. Feedback on the usage and features provided was taken and incorporated.

The pilot proved some of the design principles of SNEHA effectively. It showed that the use of SNEHA increases the accuracy and speed of detection, thus increasing the efficiency and productivity of the AWC.

Capacity building through extensive hands-on-training

An important part of SNEHA deployment was effective training of the frontline workers. The training module was structured to get the required information and have hands-on experience using the platforms during the training sessions.



Figure 9: State-wide training of SNEHA

For state-wide training of SNEHA, a train-the-trainer method was adopted. Through this method, a series of training sessions were conducted across the state. Master trainer and assistant trainer training sessions were conducted to build up the capacity to train the AWWs so that every AWW gets the required attention while training.

The Master trainers comprised supervisors and project-level officers. A training application/environment with training data was set up so that every trainee could log into the platform and explore it during the training sessions, rather than just attain theoretical knowledge. This ensured the sessions were interactive, captured trainees' attention throughout the session, and enhanced participation and learning.

Pre-emptive data loading for convenience

Very often, apps are handed over to the fieldworkers with the expectation of filling out the base data. This is a tedious process as bulk data entry on a mobile is not convenient.

To make the platform ready for use as soon as it was live, pre-emptive loading was done. Profiles of the AWCs were collected from the DWCD and created on the SNEHA platform. Details about existing beneficiaries were collected from the AWCs, which was then loaded onto the SNEHA platform.

This resulted in a reduction in the AWWs' efforts in registering their existing beneficiaries onto SNEHA. Data loading was done for all 65,000 AWCs. Once SNEHA was rolled out, AWWs had to carry out their routine activities and only register new beneficiaries, if any.

8. Current Status of Deployment

Current Adoption

The SNEHA platform was launched in December 2019, and all AWWs were encouraged to use the platform. Across more than 65,000 AWCs, SNEHA has 36 lakh children registered under 'Take Home Ration' (THR) and 'Early Childhood Education', and 8 lakh pregnant and lactating women registered. Currently, approximately 15,000 AWWs are using SNEHA regularly.

Current challenges in adoption

As COVID-19 hit in early 2020, AWCs were closed to ensure the safety of the beneficiaries and follow the government's guidelines. As a result, usage of SNEHA declined. Take Home Ration has been the only service delivered during the pandemic. The use of SNEHA to record THR distributed has increased over the past months.

We need to increase the adoption of SNEHA. However, a few more initiatives are being pursued to achieve all the perceived benefits.

Next Step 1: Platform Homogenisation (Integration with Poshan Tracker)

SNEHA was conceptualised and piloted before other platforms came into existence. It was designed to meet the multi-sectoral needs of the State of Karnataka. The fieldworkers now need to work on an alternative platform recommended by the Poshan Abhiyan scheme of the government.

Discussions are ongoing to integrate SNEHA with the Poshan Tracker platform. Maternal and child health will be managed by SNEHA, while the rest of the data—such as on facilities, stock, etc.—will continue to be managed by Poshan Tracker. The integration will be such that duplication of data entry will not take place. The best advantages of both the platforms will be leveraged.

Next Step 2: Data Homogenisation

When SNEHA was being deployed, the need arose to integrate it with 'Kutumba', the Family ID in Karnataka. Kutumba is a powerful concept that will allow various schemes and benefits for each family and individual to be managed with verifiability. It will also make the identification and demography data more robust. SNEHA is incorporating changes to be compliant and consistent with Kutumba ID.

Next Step 3: Dashboard and Analytics

A basic dashboard is already in place. However, advanced analytics and correlations can make the monitoring and decision process more meaningful and efficient as the adoption grows. The design of a powerful analytics-based dashboard is currently being studied.







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