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Weighed the Right Way!

What do Alexa and Echo have in common with weighing machines in remote labour rooms of southern Rajasthan? The answer is the Internet of Things (IoT). Essentially, IoT connects everyday objects to the internet, gives them a digital identity and allows them to relay real-time data.

Almost 28% of all babies are born with low birth weight in India. This number may understate the prevalence of low birth weight as UNICEF reports that nearly one-third of newborns are not even weighed across the world. In India, Data is sourced from the Health Department MIS, an extensive system powered by its frontline workers. A facility staff weighs a newborn, jots down the weight manually in the labour room register and then the data entry operator digitises this data on the MIS. Usage of analogue machines heightens the error of “rounding up”, leading to delayed low birth weight case discovery, missed referral opportunities, and lack of follow-ups with such babies after discharge.

RajPusht, in collaboration with its IT partner OneKey Care Private Ventures Limited, has developed a unique Digital Weighing Machine (DWM) as an e-solution to this problem. The custom-made machine has a weighing tray, a camera to automatically capture images of the child, an integrated keyboard to allow for the addition of gender, and PCTS ID/hospital registration details. Once a baby is weighed, the details are saved and transferred to a cloud server. The details thus captured are un-editable; data is relayed as it is, down to the last gram.

A supportive National Health Mission-Rajasthan took up this idea enthusiastically; DWMs have been installed in 150-odd high delivery load labour rooms of Banswara, Dungarpur, Pratapgarh, Baran and Udaipur. The facility staff have eagerly taken to the machines. In Dungarpur, most analogue weighing scales at public health facilities with electricity back-up have been banished to the storeroom since the deployment of DWMs. Says Ms Kamala Pargi, Labour room staff at CHC, Simalwara, “We get the child’s birth weight correct to the third decimal point. The machine is easy-to-use and improves our work efficiency. In most instances, we report the PCTS ID as the child identifier.” Labour room staff is encouraged to add mothers’ PCTS IDs to child records to ensure FLW-led village-level tracking of borderline LBW cases to prevent growth faltering.

“Mr Brij Raj Singh, Labour room staff at Pohari Khaturat PHC
We use this machine as often as possible. It is only when there is an electricity outage and the machine is without charge, that we use the old analogue weighing scale. The records are definitely more accurate on the digital weighing machine.”



Digital Weighing Machine (DWM)



Ms Surya Parmar, labour room staff at CHC, Sabla

“The machines are linked with an app; I can triangulate my register records with it. This has helped our team avoid data errors, specifically in identifying a child’s gender.”



Ms Sadhana Panchal, labour room staff at CHC, Genji

“The machine is very easy to use. In case of any doubts, we immediately call the RajPusht field staff for support. We have stopped using the other machine as this is convenient for us to record accurate birth weight.”

Handwashing, a Lifeguard!



Ms Suneetha Sapur, Health and Nutrition Expert, INREM Foundation



October 15 is globally recognised as Global Handwashing Day to promote the importance of handwashing with soap as an effective and affordable way to prevent diseases. Unsafe drinking water consumption and/or poor sanitation and hygiene cause diarrhoeal diseases, which lead to malnutrition and a significant number of under-5 child deaths globally.

Ms Suneetha Sapur is a qualified clinical nutritionist who has worked on water, nutrition and health linkages for over a decade. She is affiliated with the Indian Natural Resource Economics and Management (INREM) Foundation, a research institution closely working with government and communities across Indian states in the fields of water, water quality, public health, agriculture and the environment.

Why is hand-washing important?

India has the highest number of malnourished children, stunted people, and under-5 child diarrhoeal deaths despite the presence of good medical facilities. The reason is that India fares poorly in hygiene and sanitation.

Generally, a diarrhoeal episode is misunderstood as a single episode of loose motion. However, it can be life-threatening for a severely malnourished child. Access to health facilities can save the child, but there continues to be a heightened risk of severe health issues as the mucosa of the intestines, which absorbs nutrients, gets damaged and reduces the calorie and nutrient absorption after diarrhoea. Eventually, the child becomes malnourished and more prone to infections. At this stage, a single infection or another episode of diarrhoea pushes the child to illness again, further damaging her health. This develops into a vicious cycle of macro and micronutrient deficiencies.

What are the consequences of improper hygiene practices, especially for expecting mothers and

children below 5 years?

Diarrhoeal consequences can be lethal as a series of intensified diarrheal episodes can cause severe child wasting or even mortality if not addressed on time. Repeated incidences of infection and diarrhoea reduce weight and cause stunting in the longer term. This stunting is not just in terms of height but also a child's cognitive development and propensity to contract non-communicable diseases later in life.

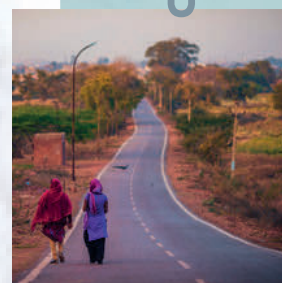
Bacterial contamination in drinking water and prevalent practices like Open Defecation (OD) increase the density of contaminants in surroundings, leading to Environmental dysfunction or Environmental Enteropathy.

Maternal hygiene knowledge is equally important as diarrhoeal transmissions among under-five children are often influenced by mothers' poor hand-washing practices. Hygiene and child faecal management become even more crucial for children below 12 months of age.

Suboptimal child feeding practices majorly contribute to the poor nutritional status of children. According to Rajasthan's NFHS-4 data, only 28.4% of newborns are breastfed within one hour of birth despite 84% institutional deliveries. 58.2% of infants are exclusively breastfed and only 30% of infants receive timely complementary food. Thus, suboptimal feeding practices make children vulnerable to infections and diseases due to the lack of nutrients in the body.

What are your insights on the status of Water, Sanitation & Hygiene (WASH) in Baran, Banswara, Dungarpur, Pratapgarh and Udaipur districts of Rajasthan? What are the key challenges?

Rajasthan is a dry state with high dependence on groundwater. Access to safe drinking water is a challenge due to the scarcity of water and water contamination. In the districts you mention, the annual rainfall is higher than the state's average. It is the lack of functional household tap water coverage that puts the social burden of fetching drinking water on women in rural pockets.



They have to walk far to fetch water, even when pregnant. A look at Jal Jeevan Mission's water contamination data suggests a high prevalence of fluoride contamination in Banswara and Dungarpur, nitrite in Baran and Pratapgarh and bacterial contamination in Baran. Lack of knowledge around hygiene, water contamination and its impacts is a challenge. While the government is now actively taking actions to improve the WASH situation in the country with a series of programmes, the onus of acceptance and willingness to ensure access to safe water and hygiene lies with the people. Promotion of handwashing with soap becomes vital in areas with unreliable clean water access as it could have major health impacts.

What steps can be taken at the household/ community level to ensure access to clean and safe drinking water?

Access to safe drinking water and sanitation are prime requirements being fulfilled by nationally driven schemes like Jal Jeevan Mission (piped water supply to all households) and Swachh Bharat Mission (improves sanitation by building toilets). States also have their own programmes. For instance, Telangana has 'Mission Bhagiratha', which aims to give piped water to each household. Similarly, Indira Gandhi Jal Nahar Yojana can be clubbed with Jal Jeevan Mission to ensure piped water supply in Rajasthan.

Appropriate water storage, water testing and tank cleaning can be ensured with regular monitoring at the district level and the active involvement of Panchayati Raj institutions, frontline workers and Self-Help Groups at the community level. There is a need to create awareness of hygiene and hand-washing practices while fetching, handling, and storing water at the household level.

How does INREM contribute to improving WASH practices?

INREM has contributed immensely to

focusing the Government's attention on the impact of fluoride through its academic and medical research. The idea of fluoride water contamination causing anaemia due to reduced iron absorption in the human body was not really thought about. INREM engaged with UNICEF and the All India Institute of Medical Sciences (AIIMS) to create awareness about anaemia management in fluorosis-endemic areas and the importance of fluoride-free water to address anaemia. Alongside, INREM has been directly supporting field-level testing by the Public Health Engineering Department (PHED) under Jal Jeevan Mission across India. 'Speaking Walls' were introduced at the community level. QR codes were put up on the walls of Anganwadi Centres (AWCs). These could help people access dynamic content on fluoride-related problems, nutrition and village-level water-quality information.

At the state level, INREM ensured piped water supply under Mission Bhagiratha in Nalgona, a fluoride-affected district in Telangana. Considering the time spent by children and mothers at AWCs and Child Development Project Officers of the ICDS department were trained by experts on 'Water, Nutrition and Food Security' as master trainers so that they could train women and children regarding hygiene & sanitation. In coordination with the Rural Water Supply & Sanitation Department and ICDS, water was tested for bacterial contamination in all AWCs of Nalgonda. Based on the results, INREM engaged with Sarpanches to clean water tanks. Regular scheduling of water tank cleaning was also encouraged with community involvement and the convergence of departments like ICDS, PHED and PRI.



Jan Aadhar enrolment at the "Administration with the villages" camp in Ratadia GP, Dungarpur



Heralding Diwali in RajPusht's Pratapgarh office



PC Yugal Panchal counselling beneficiary using job aid in Talwara village, Banswara



PC Tulsiram Prajapat monitoring weight of beneficiary associated with Daanta 5th AWC, Baran



Godbharai ceremony in Chhoti Sadri project, Pratapgarh

Learning Through Fun, Games & Discussions

Participatory Learning & Action (PLA) technique-based community meetings enable communities to identify and resolve issues together

An ASHA takes a bundle of sticks and asks women seated in a circle to try to break it. They find that while one stick alone is easy to break, a whole bunch of sticks is much more resistant. In another activity, some women stand in line and then move forward based on the ASHA's prompts on the services they've received from local governance institutions. The participating women then ponder on their own status vis-à-vis others. In yet another game, women are paired up – some walk together, some piggyback on their partner. Each pair reflects on partnering with the government in different ways. These activities and games are punctuated with discussions on a range of topics.

It is this engaging combination of activities and discussions that make community meetings using the Participatory Learning & Action (PLA) technique so effective. That's why RajPusht has incorporated these meetings in its Behaviour Change Communication strategy to create an enabling environment for improved maternal and child nutrition.

We began these meetings, known as POSHAN Varta, across Udaipur district in November 2018. By March 2020, we had conducted 11,000 PLA meetings and trained 2,300 ASHAs to lead the sessions. Two ASHAs, Nisha Choubisa and Shanta Bai were recognized as "Nutrition Warriors"

by the Vice-President of India, Shri Venkaiah Naidu, in 2019 for mobilizing the community to improve nutrition indicators in their villages. These changes were evident throughout the district. Pregnant and breastfeeding women who had participated in PLA meetings were more likely to have a diverse diet, follow recommended pregnancy care, breastfeed within one hour of the child's birth and use contraceptives.

The National Health Mission (NHM)-Rajasthan took note of the uptake of POSHAN Varta in Udaipur with great interest. They have planned to reinvigorate the largely dysfunctional Village, Health, Sanitation & Nutrition Committees (VHSNC) at the village level using PLA-based meetings as a catalyst. The proposal was accepted as part of NHM – Rajasthan's Program Implementation Plan for 2021-22 and the training of trainers was completed in October 2021. VHSNC meetings using the PLA technique will be rolled out in the tribal districts of Banswara, Baran, Dungarpur, Pratapgarh and Udaipur.

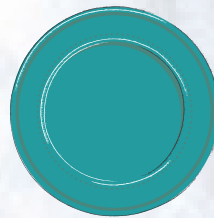
Over the next month, these master trainers will equip ASHAs to conduct VHSNC meetings. Through the cycle of 18 VHSNC meetings, ASHAs will steer discussions on maternal and child nutrition, build consensus on prominent issues and develop action plans, while successfully reviving an essential community platform.



The Plate Politics



Divakar Jharbade
Block Programme Manager,
Salumber



"In what order do people eat at home?" I posed this question to women who had congregated at the Jamubuda Anganwadi Centre in Udaipur District. A clear trend emerged: first the male breadwinners of the family had food, then the elders and children and at last, came their turn.

A young mother said, "Even when I was pregnant, I made sure that no member of my family went hungry. So, I always ate at the end. Sometimes vegetables or rotis would get over, but I had to make do with what was left." When dinner gets over before their turn comes, some kill their hunger with tea. "I can go without food all day, but not without tea," said a woman. A pregnant lady added, "I know that too much tea is bad for my health, but when I don't have it, I don't feel like doing anything."

Another common custom is eating without a plate. Women just take rotis in their hand, occasionally scooping vegetables on it and using it as a plate of sorts. For some, it's a matter of habit—they have grown up seeing their mothers eat this way and continue the tradition. For others, it reduces the number of plates to be washed or allows them to simultaneously do chores or have a quick bite on their way to their workplace or fields. Poverty is also a reason. Rotis with onions and chilies are a common meal for families with limited resources and they don't bother with plates for such basic meals. This habit also carries into the introduction of complementary foods for infants. Instead of feeding the child themselves, parents give them a roti, expecting them to eat as they play.



While this might seem like an innocuous practice, it contributes to poor nutrition. Without a plate or bowls, women can't eat watery preparations like dal and kadhi—both crucial sources of protein, especially for vegetarians. Even runny preparations of vegetables are ruled out. Combined with the custom of eating last and having meals on the go while working, it leads to poor dietary diversity and inadequate calorie intake. If parents don't introduce complementary foods properly in the child's diet, she could become malnourished.

Multiple studies, including [Eat More, Eat Better](#), commissioned by CIFF, point to the role of societal attitudes and practices in shaping pregnant and lactating women's nutritional intake. Our team of POSHAN Champions, with the support of ASHAs and Anganwadi Workers, strive to change customs detrimental to nutrition. We engage with not just mothers, but also husbands, in-laws and other family members, and regularly counsel them to ensure that women receive adequate nutritious food during pregnancy and breastfeeding



PC Narayan Lal Ninama counselling women at the DWCD stall set up in the "Administration with the villages" camp, Banswara



BPMs Akash Meena and Bhupendra Shakyawal supporting the Lady Supervisor and Anganwadi Workers in verifying IGMPY beneficiaries, Baran



Training of master trainers in Pratapgarh on October 29. The master trainers will train ANMs to counsel pregnant and lactating women on good dietary practices



PC Yatindra Chaudhary counselling a pregnant woman at Asnawar-1 Anganwadi Centre regarding nutrition and government schemes, Kishanganj Block, Baran

RAJ PUSHTKA

पोषित माँ, सुपोषित चैम्पियन

This Diwali, give your loved ones the gift of nutrition!



Team RajPusht wishes you

**Happy
Diwali!**