



A BOOSTER DOSE FOR WOMEN'S HEALTH

AUDIO TRANSCRIPT

Emerging technologies - a shot in the arm for improving women's health outcomes

Women's health empowerment is still a pipedream despite years of progress and government interventions. India continues to have one of the highest maternal mortality rates in the world.

Female life expectancy in India is close to 70 years, compared with 87 years in Japan and 78 years in China. Sex ratio at birth too is adverse toward women: 1.1 males per female compared with just 1.03 in Myanmar and South Africa.

Multiple policies and programs exist to improve health outcomes for women, but they are not delivering the desired results at the pace at which change is required.

The picture becomes clearer when we look at the factors affecting women's health empowerment. Rising income and education play a significant role. So does greater choice in reproduction, which is crucial for increasing women's employment levels and improving their standing in society. Other critical factors are the right to property and higher representation of women in Parliament and government positions.

India already has several progressive policies and programs in place to improve women's health. However, the lack of integration into a holistic model makes it difficult to achieve efficiency at scale. Many programs end up duplicating infrastructure and processes without making a dent in tackling the real challenge. Also, government interventions have almost exclusively targeted care for mothers

and children, often overlooking other stages such as adolescence, which could have a lasting impact on women's health and quality of life.

So, what can be done to truly empower women—to give them the “freedom of choice and action” that could positively impact their health?

The answer lies in emerging technologies and leveraging the power of the health ecosystem.

TECH FOR WOMEN'S HEALTH

Emerging technologies can be a catalyst in empowering women to take control of their health outcomes. By bringing together data and systems and providing actionable insight into specific local contexts, they can help design targeted programs. Moreover, these technologies can assist in reaching the most vulnerable girls by filling the data gaps, addressing the knowledge barriers—the starting point for disempowerment—and enabling cost-effective, real-time interventions.

All stakeholders in the health ecosystem—governments, nonprofits, companies, startups and others—need to collaborate to harness emerging technologies to empower women through all life stages, from birth to motherhood and beyond.

Technologies such as AI, machine learning, IoT, blockchain and edge computing can help develop innovative ecosystems and platforms, and locally relevant, scalable solutions to address specific problems at each stage.

TOWARD A LIFETIME OF GOOD HEALTH

Accenture has been partnering with governments and nonprofits, piloting intelligent solutions developed at Accenture Labs to



address some of the most pressing challenges faced by women in India at various stages of their life. The life stages are:

1. Birth & first 1000 days
2. Early childhood
3. Adolescence
4. Employment & Motherhood

FIRST 1,000 DAYS

Early interventions—prenatal and early childhood—to ensure nutrition and medical care positively impact the health and wellbeing of mother and child. Accenture Labs' innovative enterprise mobility solution is helping increase the efficacy of Integrated Child Development Services (ICDS), one of the world's largest women and children programs, by addressing the operational gaps. The program serves more than 58 million children under the age of six years and 10.23 million pregnant and breastfeeding mothers every year.

Piloted across 5,000 families in Karnataka, the Accenture solution assists with data collection and integration, and helps ensure continuous care—from early registration to antenatal care check-ups and institutional delivery to postnatal care.

The results: A 40 percent reduction in the time taken to register a pregnancy and retrieve relevant medical records; a 100 percent accuracy and usefulness rating from patients and staff; and reduction in the consultation wait time to near zero from 90-120 minutes, nearly doubling each clinic's capacity. What's more, a tracking algorithm determines the level of risk associated with a pregnancy, helping prioritize care for those who need it the most.

EARLY CHILDHOOD

Studies show that midday meals have a much more significant impact on girls than boys—addressing malnutrition, stunting, unhealthily low body weight, and school enrollment and dropout rates. Akshaya Patra, a nonprofit organization and the largest midday meals provider in the world, wants to ensure that no child in India is deprived of education because of hunger. It currently serves nutritious lunches to 1.7 million schoolchildren across 12 states in India.

Accenture is helping Akshaya Patra move closer to its goal of feeding 5 million school children every day by 2020.

Accenture has optimized one of Akshaya Patra's 20 mega kitchens through data collection via intelligence at the edge and IoT-based monitoring of kitchen processes.

The Impact: Akshaya Patra is currently serving 20.5 million additional meals annually using the existing infrastructure.

Replicating the model across Akshaya Patra's 20 kitchens, and building some additional capacity, could make Akshaya Patra's vision a reality.

ADOLESCENCE

Underprivileged girls aged between 10 and 24 years remain vulnerable to child marriage, child labor, child pregnancy and trafficking. Resolving this issue requires a 360-degree view of the individual vulnerabilities of each girl to predict and prevent problems. However, the data requirements and complexity of such analyses can be daunting.

GPower—short for girl power—developed by Accenture Labs and the Child in Need Institute (CINI), leverages cloud computing and smartphones to deliver a holistic solution, affordably.

This award-winning app generates data in the field through intermediate agents. The data is analyzed at two levels—at the edge (on the mobile device) for quick decisions and centrally (via the cloud) to glean insights from millions of records. A vulnerability index for each girl, village and district is then generated based on which community facilitators are informed of the measures to be taken for each girl. Not just that, the app informs them of government schemes the girl is entitled to, along with additional mitigation steps that may be required.

MOTHERHOOD AND EMPLOYMENT

The leading cause of death for girls aged 15–19 years are pregnancy or child birth related complications. And the lack of women's autonomy in reproductive decision making and low involvement of men in reproductive health matters is part of the problem.



Couple Power, a joint effort of Accenture Labs, CINI and the International Center for Research on Women, is helping achieve better maternal health, one couple at a time. Piloted across 64 villages in Jharkhand, Couple Power has Lead Peer Couples educating other couples about family planning and its many health and economic benefits in peer meetings. And program coordinators use machine learning and voice analytics on an app developed by Accenture to evaluate the effectiveness of these sessions and plan interventions.

Another important aspect of women's health empowerment is employment—it can decide the relative bargaining power of women in household decision making and use of resources. However, reentering the workforce after childbirth can be a challenge. Access to high-quality feedback to improve interview skills can help.

Accenture Labs' dynamic interview practice tool provides real-time, actionable insights to job seekers. Piloted with youth@East London Business Alliance (UK) and, Her Second Innings (India), it uses behavioral science, a conversational agent and emotional AI to improve interview success rates for women rejoining the workforce.

ACCELERATE WOMEN'S HEALTH OUTCOMES

There's no doubt that technology-based interventions have real potential to transform every stage of a woman's life. However, there's a need for a more holistic approach. To match the promise of intelligent technologies with women's health empowerment goals, here's an action framework the government can consider:

PROMOTE TRANSPARENCY AND DATA ACCESS

Transparency and data access are critical to drive change. They can guide policymakers to make the right interventions at the right time. However, most current technology implementations are at an operational level and need to go beyond that. The proposed technology backbone with a unified health and social services database is a step in the right direction because it can help fill the institutional gaps that prevent equitable distribution of resources and provide actionable insights.

MAKE TARGETED INVESTMENTS

Instead of replacing or reinventing the government health infrastructure, the idea is to make investments more targeted and effective in meeting the desired goals. Programs need to be informed by intelligent data to improve outcomes. Moreover, a real-time monitoring and risk management system will ensure they are on track.

TAKE AN ECOSYSTEM APPROACH

The sheer complexity of the issues and the need for substantial financial resources imply that the government must build trusted partnerships with businesses, nonprofits and academia. Emerging technologies can act as a bridge to generate a more significant impact. A good example of the power of the ecosystem and the role of technology in orchestrating it is Grameen Guru, a joint effort of Grameen Foundation and Accenture Labs.

The Grameen Guru app uses Artificial Intelligence and Augmented Reality-based technologies to educate women on financial products and services, enabling them to make informed choices. Users can hold their phone over a brochure and the Guru virtual assistant pops up to prompt a conversation in the local language. It empowers more than 1,000 frontline microfinance workers and more than 58,000 women beneficiaries to use digital financial services.

No doubt economic development will ensure gender inequality falls and women's health outcomes improve. However, emerging technologies can accelerate the process—at scale and without decades spent waiting for economic growth. They can transform the current health infrastructure and resources. Harnessing the power of the ecosystem is critical here—it will act as a force multiplier and help ensure sustainability, scalability and affordability.



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