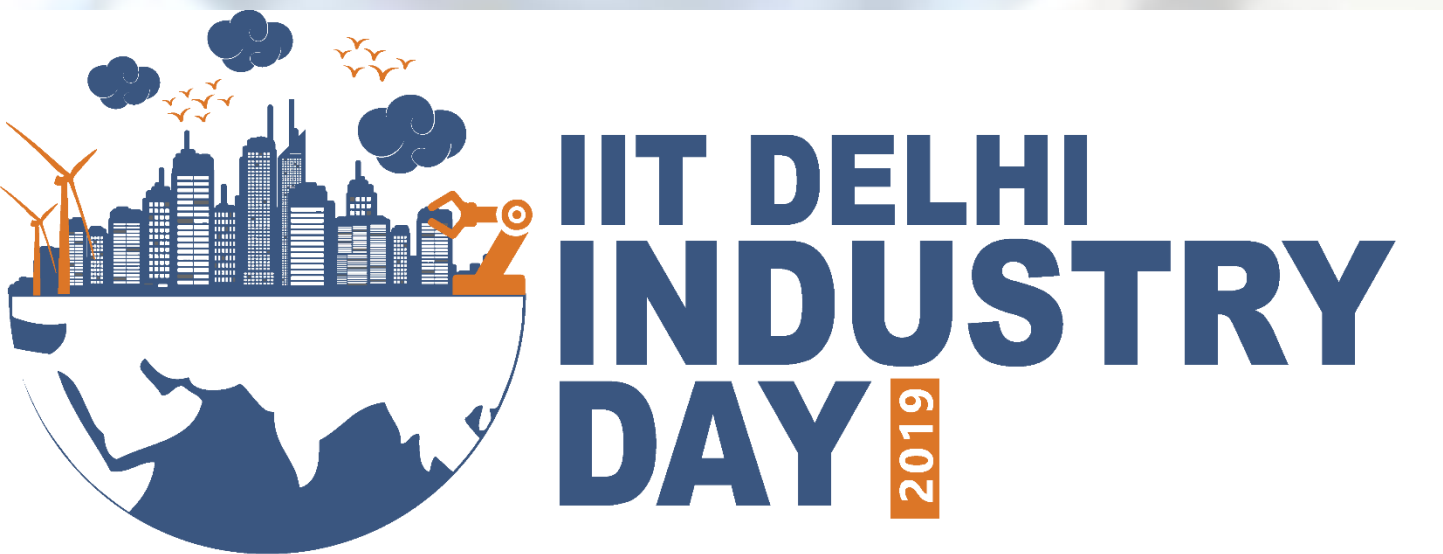




Industry Day Theme # {Sustainable Medical Technologies}



Addressing Malnutrition in India through CSR: ICTs for Development

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Abstract

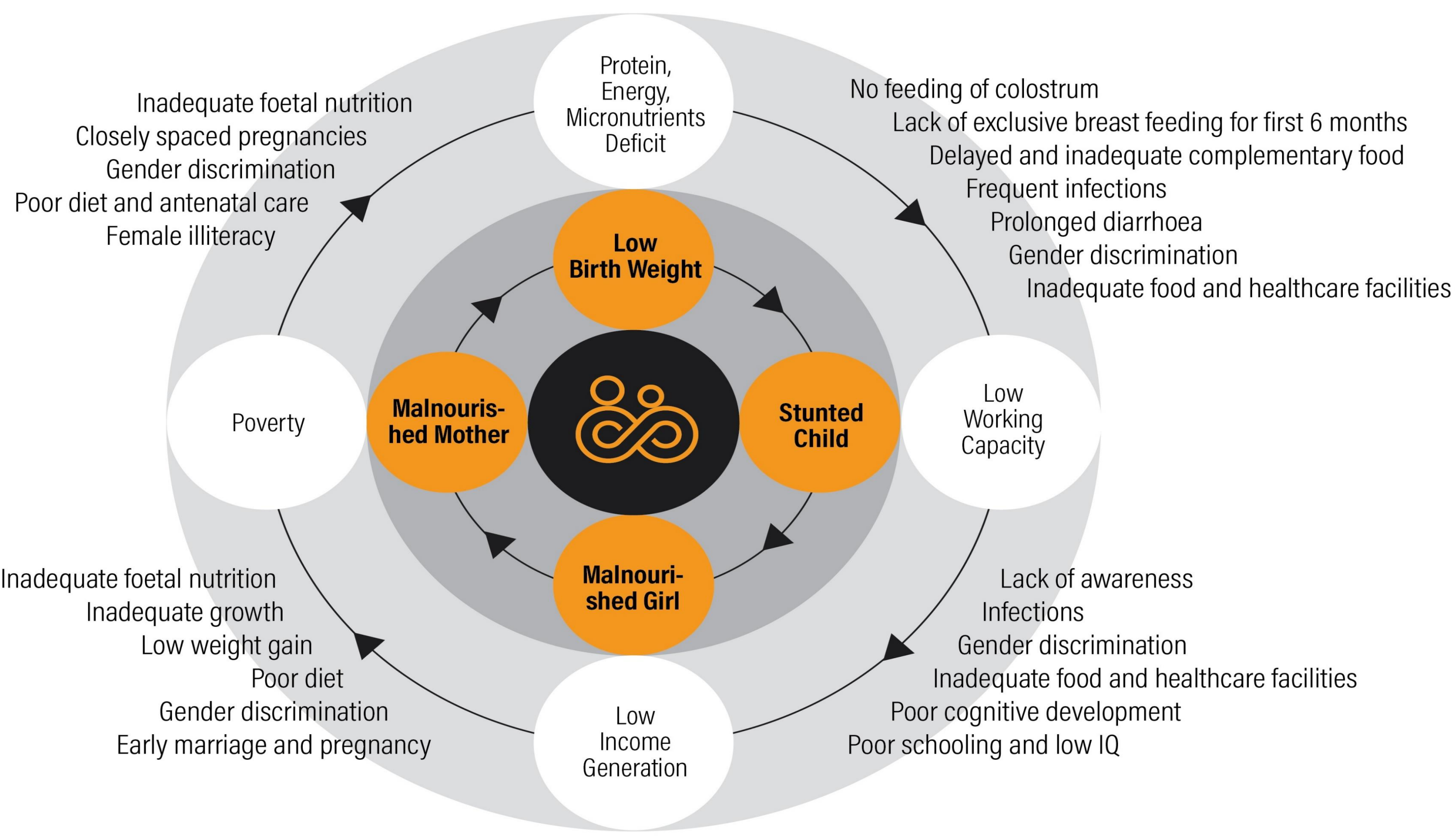
The economic toll on nations, particularly developing like India, due to malnutrition among children has impeding effects on adult productivity. The current focus of Sustainable Development Goals (SDGs) - 2030 on food security and improved nutrition (SDG 2) and promoting good health and well being (SDG 3), has presented new avenues to reduce malnutrition in all forms by 2030, particularly in developing countries, by adopting a life cycle approach for preventing malnutrition in all forms. On the other hand, Indian government has been encouraging companies to initiate CSR projects in addressing malnutrition in the country. With such ambitious targets, it is imperative that in the process of 'revamping', strategic interventions through ICTs are introduced such that resources are optimally used, and deliverables are visible as an 'on ground change'. One of the keys to achieving this is to have achievable targets and chase the desirable in parallel. Through this poster, we devise a systematic methodology based on Information and Communication Technologies (ICT) platforms for addressing myriad implementation inadequacies of government schemes devised for abatement of malnutrition in India, by directing attention to appropriate target prioritisation. We propose an effectively executable, ICT based "system process re-engineering" model to strategically complement existing processes for robust management of regional resources. The foundation of this system rests on building capability to provision for accommodating emergencies and catering to local needs of any region. This model shall set a precedent for CSR projects targeted towards Health Sector of Schedule VII of Companies Act, 2013, by utilising an ICT system for efficacious process revamping of current solutions addressing a complex multidimensional problem — malnutrition.

Keywords: Malnutrition, ICT, SDG, CSR, India

Introduction

INTERGENERATIONAL TRANSMISSION OF UNDERNUTRITION

Energy deficit and poverty - Problematics



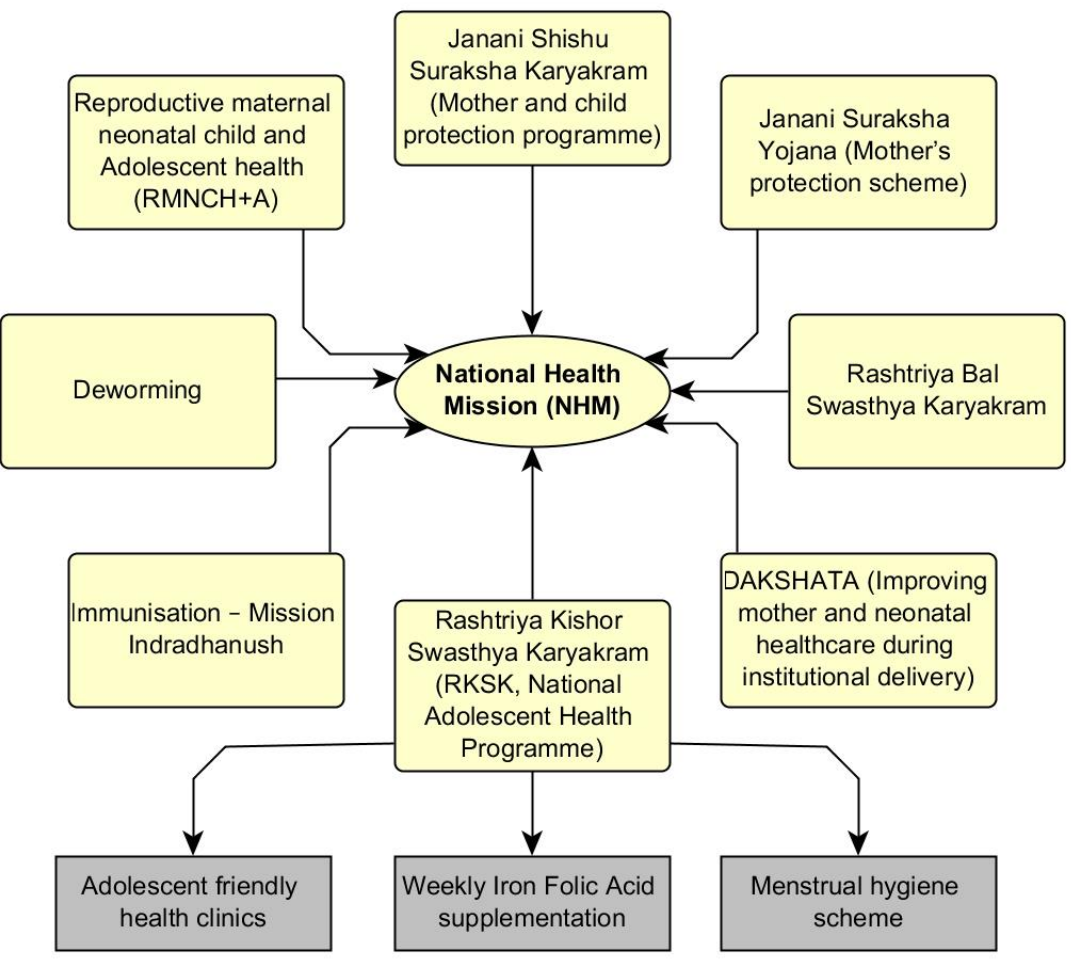
Economic losses to India
*In 2006-07 India lost US \$712 billion (4% of India's GDP)

Materials and Methods

In this paper, we devise a systematic methodology based on Information and Communication Technologies (ICT) platforms for addressing myriad implementation inadequacies of government schemes devised for abatement of malnutrition in India, by directing attention, for corpora target prioritisation and promoting equitable distribution of resources:

The current focus of Sustainable Development Goals (SDGs) - 2030 on food security and improved nutrition (SDG 2) presents new avenues to reduce malnutrition in all forms by 2030, particularly in developing countries like India, by adopting a life cycle approach for preventing malnutrition in all forms.

Semi-structured interviews were carried out to map the 'As-Is processes' and understand the challenges at various levels in the execution of the interventions.



CONCLUSION

EMANCIPATING HUNGER & MALNUTRITION
CSR can play a leading role in achieving the SDG 2 and 3

ICT can enable
(Feeding where the mouth is)

Malnutrition and growth fallout; a cliché:
Time for action

ICT is a powerful tool that has impacted the corporate sector
can be gainfully integrated in health, child growth and development sector (CSR)

CSR projects targeted towards ICT based solutions provide a platform that are easily reproducible, modifiable, and replicable. There is an urgent need to create a balance between resources, nutrition and development. With a highly heterogeneous demographic profile, tackling malnutrition is foundational to converting India's young population into a competitive advantage.

Industrial Significance: Pre-positioned and planned CSR projects help Companies with competitive advantage. Rather than investing in ad hoc projects it helps companies invest in planned projects with larger reach and allows goodwill penetrate deep in the business eco-system

Technology Readiness Level:
Level 2 – Potential Application Validated
Level 1 – Basic Principles Observed and Reported

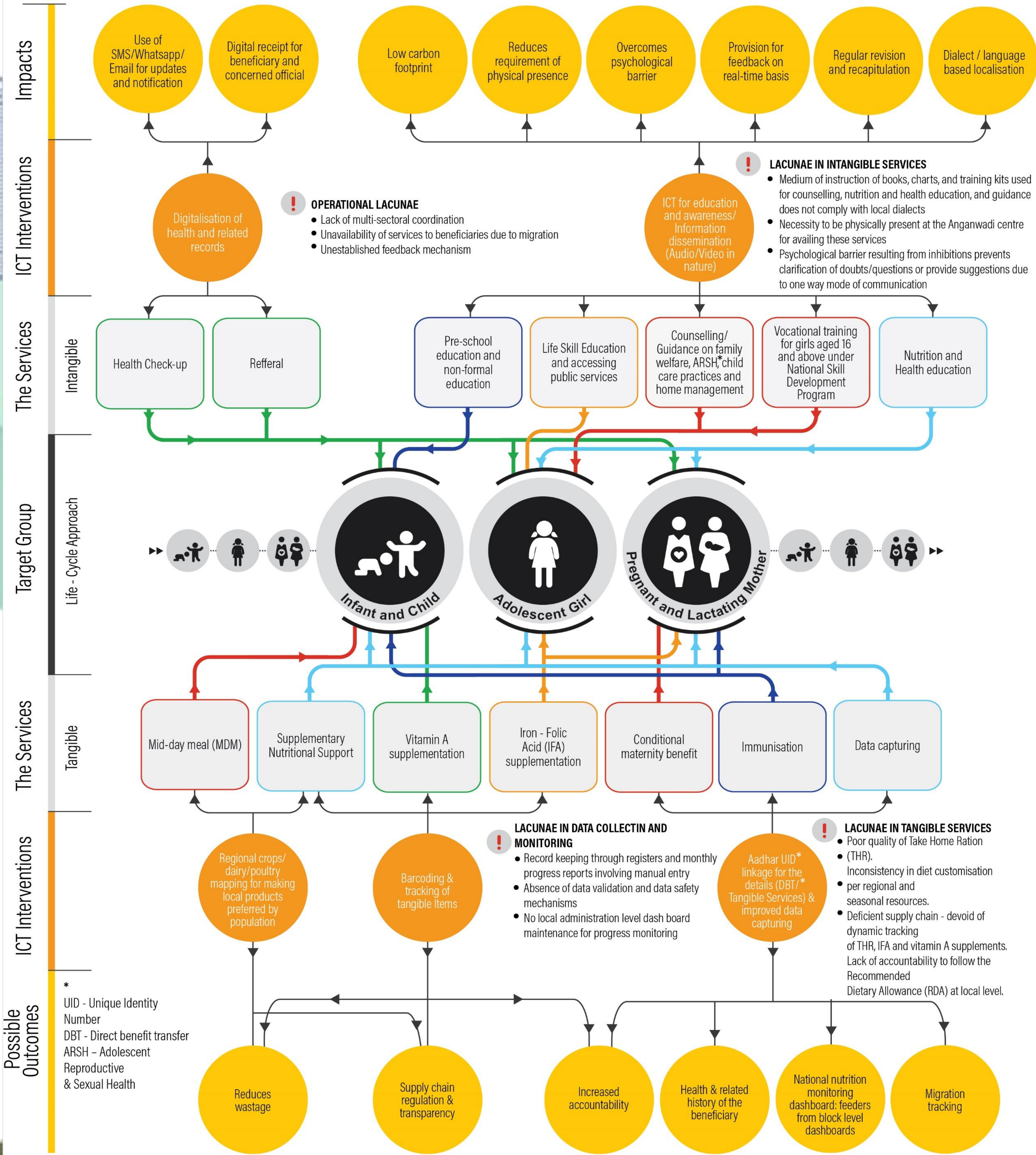
Result

Pre-positioning of CSR projects in Health sector at the grass root level:

- We identify three **key challenges** for Nutrition Mission functionaries to work towards through corporate CSR:
- i. "first-mile" problems of penetration of all malnutrition abatement schemes to beneficiaries, for e.g. efficient delivery of 'mid-day meal scheme' (MDMS) at schools in a timely, efficient, and transparent manner;
 - ii. "last-mile" problems of real-time tracking of individuals (mothers, infants, children, and adolescent girls) irrespective of fragilities like migration; and
 - iii. "beyond-the-last-mile" challenges of inclusion of the excluded (Mathew & Goswami, 2016).

System Re-engineering

THE POWER OF ICT - Sustainable game changer



Above figure provides a detailed overview of the tangible and intangible services that various target groups are eligible for as per various schemes outlined. Each service's delivery has then been associated to an appropriate ICT intervention (encircled in orange). Following which the possible outcomes expected have been mentioned (encircled in yellow). The process architecture diagrams follow a life cycle approach of including the child, an adolescent girl, and mothers as target groups.

Limitations and future work

The present work does not include data driven/empirical specifications to analyse the impact of each ICT intervention on the delivery and outreach of the schemes/services. Subsequent exercises would involve selection of a block in a district, and introduce a sub-set of these interventions with dynamic data monitoring of anthropometric measurements and other maternal and child health indicators.

References

Agnihotri, S. B. (2015). Tackling child malnutrition in India: achieving the doable or chasing the desirable? In S. Desai, L. Haddad, D. Chopra, & A. Thorat, Undernutrition and Public Policy in India (pp. 237-257). London: Routledge India.

Grantham-McGregor, Sally M., Lia C. Fernald, and Kavita Sethuraman. (1999) "Effects of health and nutrition on cognitive and behavioural development in children in the first three years of life. Part 1: Low birthweight, breastfeeding, and protein-energy malnutrition." Food and nutrition Bulletin 20.1 : 53-75.

Horton, Susan and Jay Ross. (2003) "The economics of iron deficiency." Food policy 28.1 : 51-75.

Mathew, A., & Goswami, D. (2016). Doing More with Less. Economic and Political Weekly, 51 (17) 111.

Rao, Veena. (2011) "Commentary: Cultural change is essential." BMJ 343 : d7242.

Sachs, J., Schmidt-Traub, G., Kroll, C., Durand-Delacre, D. and Teksoz, K. (2016): An SDG Index and Dashboards – Global Report. New York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN)

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