CHAPTER I

INTRODUCTION

Globally, undernutrition is responsible for 50% of all deaths occurring in children below 5 years of age. “The interaction between undernutrition and infection can create a potentially lethal cycle of worsening illness and deteriorating nutritional status (UNICEF, 2019)”.

The UNICEF’s conceptual framework apprehends the manifold cause of undernutrition. Food, Health, and Care are three factors that influences nutritional status (UNICEF, 2013). Optimal nutritional status is a result of dietary diversity, appropriate IYCN practices, maternal care practices, availability of adequate health services and a healthy environment including safe water, sanitation and good hygiene practices. These factors directly influence nutrient intake and the presence of diseases.

Early life Undernutrition has devastating repercussions on future educational, income and productivity-related consequences. The broader understanding of the aftermath of undernutrition on morbidity and mortality is built on established evidence. The impact of stunting and other forms of undernutrition on social and economic development and human capital formation has been supported and expanded by researchers (Victora, et al., 2008; Martorell R., et al., 2010). Stunting is associated with poor school achievement and poor school performance (Wolde et al., 2019).

Child Malnutrition can manifest itself in several ways. “Malnutrition in all its forms remains unacceptably high across all regions of the world (Global Nutrition Report, 2018)”. “In May 2012 the 65th World Health Assembly (WHA) endorsed a Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition that included six global targets (WHO/UNICEF discussion paper, 2019)” (Figure 1.1). “Global targets were established to identify priority areas, inspire ambition at the country level and develop accountability frameworks (https://data.unicef.org/resources/who-unicef-discussion-paper-nutrition-targets/)”.

"The WHA targets were then considered in the development of the 2030 development agenda and are referred to in target 2.2 of the Sustainable Development Goals, to end all forms of malnutrition" (https://data.unicef.org/resources/who-unicef-discussion-paper-nutrition-targets/), However, ending all forms of malnutrition is not only linked to SDGs but can play a multifaceted role towards sustainable development in all sectors.

Figure 1.1: Global Nutrition Targets 2025

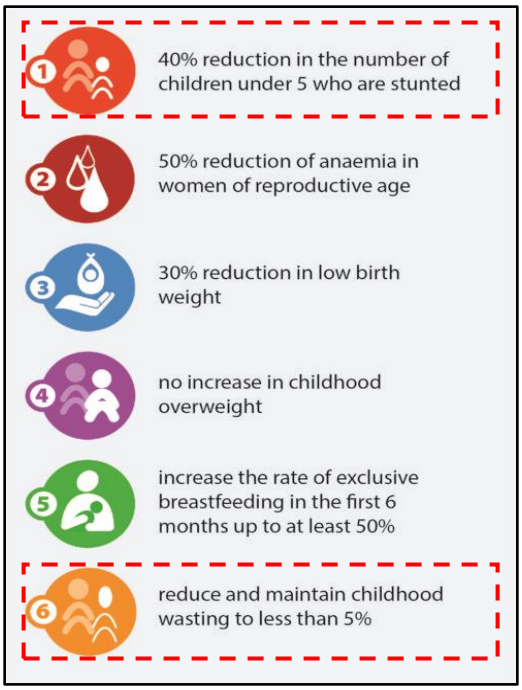


Figure 1.2: Sustainable Development Goals (SDG's) 2030

The progress made against undernutrition will give way to momentous results towards improving health and towards ending poverty. The present study attempted to accomplish Target 1 and Target 6 thereby SDG in decreasing the rates of undernutrition using Public-Private Partnership in urban households.

Developing multi-stakeholder partnerships especially public-private partnerships (PPPs) sharing knowledge, expertise, technology and financial support are critical for the overall success of the SDGs (UNDP, 2018). UNICEF's approach aims to achieve sustained results at scale which means maintaining and expanding support from both the public and private sectors – as well as non-

governmental organizations, civil society organizations, development agencies and United Nations partners (UNICEF2018).

Nutrition policy making and program interventions in developing countries continue to bring together several sectors that contribute to nutrition improvement (Development Initiatives 2017).

Globally high prevalence of undernutrition is documented with 150.8 million and 50.5 million children under the age of 5 years being stunted and wasted respectively. It is estimated that 20 million newborns are of low birth weight worldwide (Global Nutrition Report, 2018). Based on the current statistics, Annual Average Rate of Reduction (AARR) in stunting is 2.3% whereas required AARR is 3.9% in order to meet the targets set by World Health Assembly. If these trends continue, it is estimated that additionally 30 million children above the target of 100 million will be stunted by 2025. Global prevalence of wasting was 7.3% in 2020 which was 7.5% in 2017, compared with 7.9% in 2012, demonstrating negligible progress towards the 5% target for 2025 (Global Nutrition Report 2018). Intensified actions and efforts are needed to break the global status of inertia in wasting and lower the rate in the direction of the 5% target by 2025 (Global Nutrition Report, 2017).

Due to extensive data availability on the burden of malnutrition and evidence-based interventions to help reduce malnutrition, yet progress in translating is very slow. Neither single country is on course to meet all ten 2025 Global Nutrition Targets. “Only 8 countries out of 194 are on track to meet four targets (Global Nutrition Report, 2020)”.

“Almost a quarter of all children under 5 years of age are stunted (Global Nutrition Report, 2020)”. “The goal acknowledges that efforts to combat hunger and malnutrition have advanced significantly since 2000 (https://www.powerofnutrition.org/nutrition-and-the-sustainable-development-goals/)”. However, ending hunger, food insecurity, and malnutrition for all will require continued and focused efforts, especially in Asia and Africa (Global Nutrition report 2020).

The latest available global estimates indicate that 135 million people were in crisis or worse in 2019 which indicates worsening acute food insecurity (FAO, 2020). More than 38 million acutely food insecure people are in the Middle East and Asia. Estimates for 2014–16 suggest that about

281 million people are undernourished within the region, marking only a small reduction from the amount in 1990-92 (FAO, IFAD and WFP, 2015).

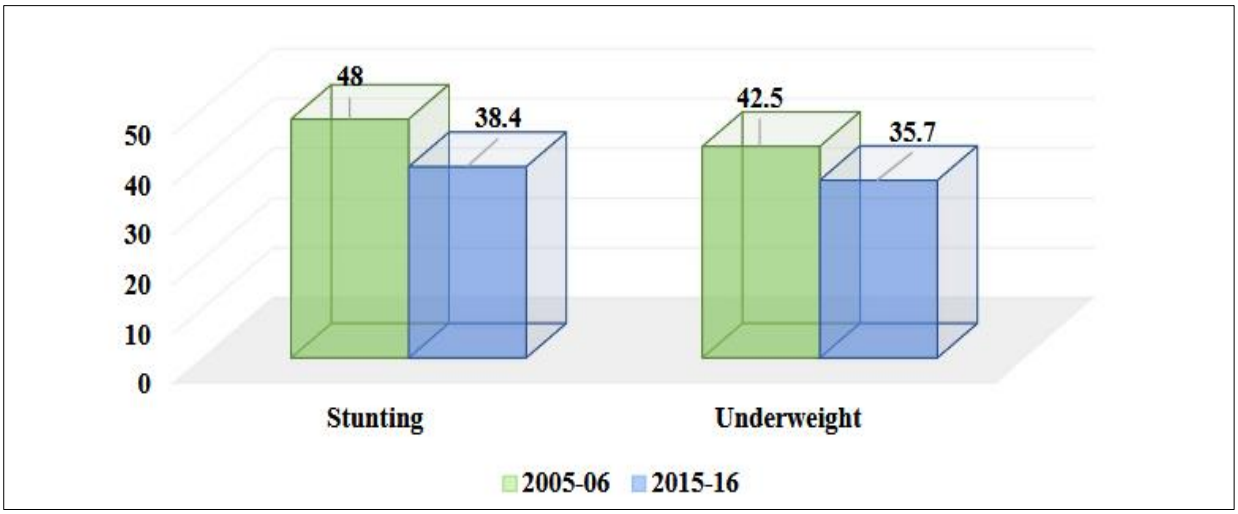
"Regionally, Asia has declined from 38.1% to 23.2% but South Asia remains to be home to 38.9% of the world's stunted children, having the highest burden of the regions". "Wasting and stunting are associated with increased mortality, especially when both are present in the same child (Global Nutrition Report, 2018)".Long standing wasting will eventually result into chronic malnutrition paving its way for stunting and vice versa. Malnourished children with compromised immunity are at a risk of increased morbidity with frequent infections leading to higher mortality. Wasting still affects 50.5 million children under five with quite half the world's wasted children, 26.9 million, living in South Asia. "Looking deeper at disaggregated figures, stunting is most prevalent in low and lower-middle-income countries as compared to high-income countries (Global Nutrition Report, 2018)". Out of the three countries with the largest number of children who are stunted and wasted; India ranks highest with 46.6 and 25.5 million respectively followed by Nigeria and Pakistan (National Nutrition Report, 2018).

According to a study conducted by UNICEF done in 2013 globally, out of 22 million newborns babies, around 16% of babies are suffering from low birth weight (UNICEF, 2013). According to WHO, an estimated 15 million preterm birth take place across the world every year (Lancet, 2016). Over 60% of preterm births occur in Africa and South Asia (WHO, 2018& Lancet, 2019). India accounts for 3.5 million preterm births, in the world, followed by China (1.17 million births) and Nigeria (0.77 million births) (Lancet, 2019).

According to the Global Nutrition Report 2018, India is facing a major malnutrition crisis as it holds almost a third of the world's burden for stunting with the highest prevalence, is home to 38.7% of stunted children (RSOC, 2014). The burden of wasting is also highest in India, which has more than 15.1% wasted children (RSOC, 2014). Though India has made progress towards the international hunger targets, it still has the second-highest estimated number (194.6millions) of undernourished people in the world (FAO 2015). Notable advancements have been made to improve food and nutrition security but, challenges remain. For instance, a substantial reduction in stunted and underweight children has been achieved between 2005-06 and 2015-16. But the absolute levels of stunted and underweight children remain high. ICDS program has emerged from small beginnings in 1975 to become India's flagship nutrition program (ICDS-WCD, 2015) and

caters to the nutritional requirements of over 83 million young children and 19 million pregnant and lactating mothers in the country. The Mid-Day Meal Program delivers nutritious cooked meals to 100 million children in primary schools (UN, 2017). The memorable phrase Sabka Saath Sabka Vikas, translated as "Collective Effort, Inclusive Development" and enunciated by the Prime Minister, forms the cornerstone of India's national development agenda. To fast-track this agenda, NITI Aayog, the premier think tank of the Government of India, has recently released a draft Three-Year Action Agenda covering the years 2017-18 to 2019-20 (https://sustainabledevelopment.un.org/content/documents/India.pdf).

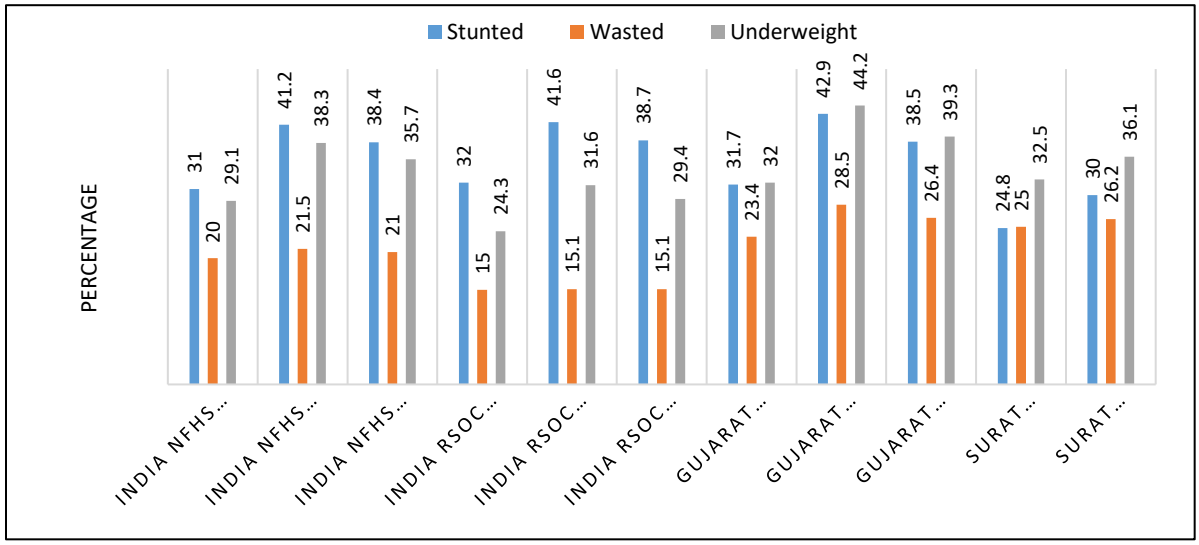
Figure 1.3: Changes in Nutritional Indicators of Children Under 5 Years (%)



Source: *Voluntary National Review Report, United Nations, 2017*

Despite positive economic growth trends, India continues to struggle with malnutrition manifested in terms of high rates of child stunting and wasting that are substantially higher than other countries with similar economic growth experiences and at similar stages of structural transformation (Pingali et al., 2019). It still stands far behind in terms of underweight children in the world compared to other developing countries with 38.4% stunted, 21% wasted and 35.7% underweight children (NFHS 4, 2015-16). Whereas according to RSOC, 2014 report 38.7% under 5 children were stunted, 17.3% severely stunted, 15.1% wasted, 4.6% severely wasted, 29.4% underweight and 9.4% severely underweight in India.

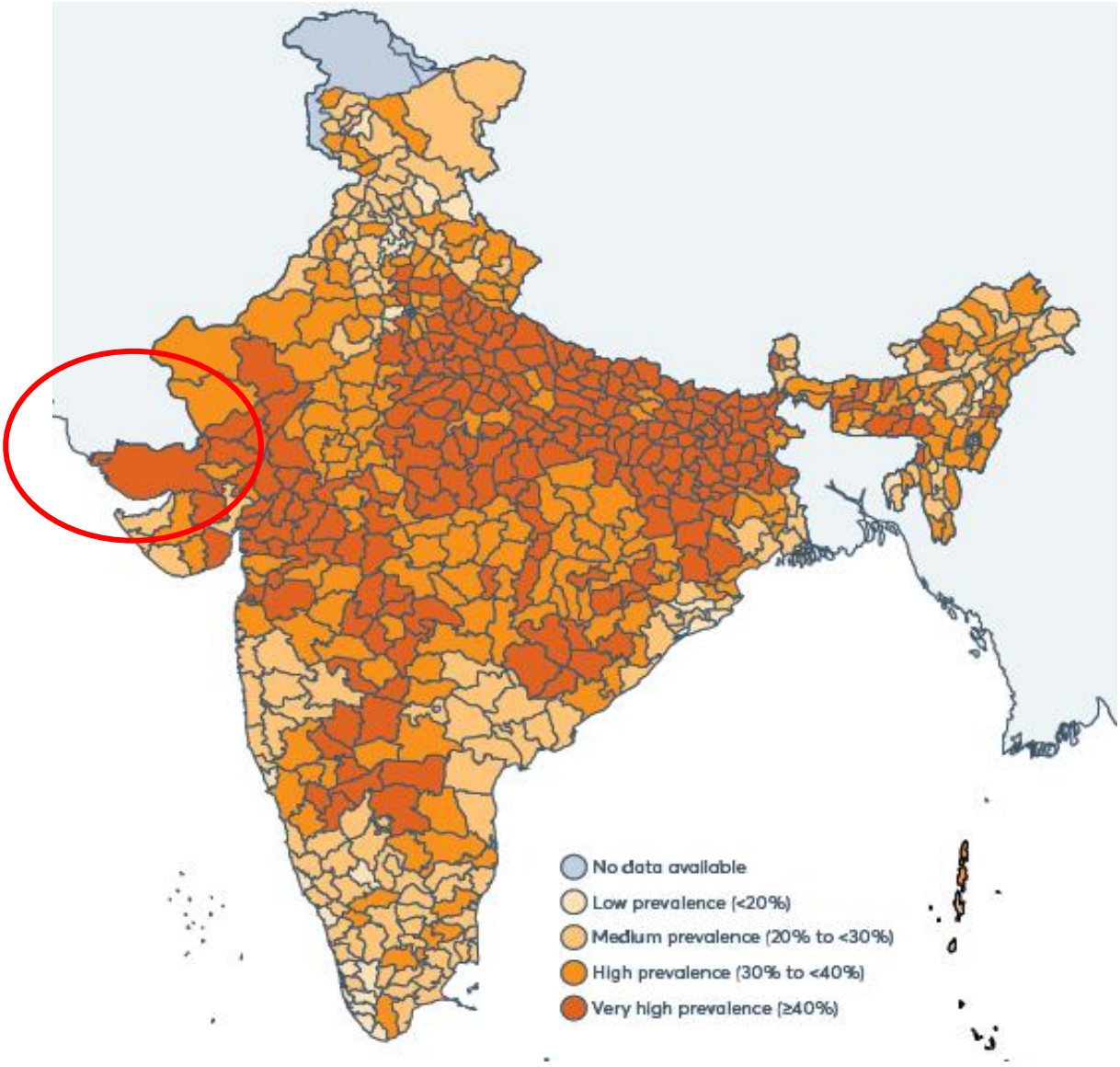
Figure 1.4 Prevalence of Undernutrition in Children Under 5 Years



Reference: NFHS – 4 (Gujarat, Surat Factsheets), RSOC (2014)

Gujarat is also battling with malnutrition in more than 15 out of 33 districts with a very high prevalence (≥ 40%) of stunting (Figure 1.5). In this state 38.5% of under 5 children were stunted, 26.4% were wasted and 39.3% were underweight (NFHS, 2015-16 report) and RSOC (2014) data showed similar prevalence. The city of Surat, is also facing a grave problem of malnutrition with 24.8% stunted, 25% wasted and 32.5% underweight children (NFHS 4, 2016) (Figure 1.4).

Figure 1.5: Map of Prevalence of Stunting in Indian Districts (2015-16)



Source: Menon P., Heoday D., Awla R. & Nguyan P. H., 2018

With strong government commitment and political will, the ICDS program has emerged from small beginnings in 1975 to become India's flagship nutrition program (ICDS-WCD, 2015). Integrated Child Development Program adopts a comprehensive approach towards child well-being through health, education, and nutrition interventions. It is implemented through a network of Anganwadi centers (AWCs) at the community level. Under ICDS, Anganwadi Worker (AWW) along with Anganwadi Helper (AWH) cater to community members based on certain

predetermined criteria (Sahoo et al., 2016). The main objective of the program was to improve the nutrition and health status of the children below 6 years, by providing supplementary nutrition & immunization; laying the foundation for proper psychological, physical and social development of the child through preschool education; reducing the incidence of disease burden through proper referral; and enhancing the capacity of mothers to take care of themselves as well as their children through health education (ICDS, 2014).

Although four decades have passed since the launch of this program, till today, the rates of malnourishment among children under five remain alarmingly high (Sahoo et al., 2016). It's undebatable that instead of all the efforts and investments, ICDS has not delivered desired results. The fundamental problem could be due to infrastructural issues, poor service utilization, faulty supervision, and monitoring mechanisms, or corruption in food supplies (PEO, 2018).

Some of the programs that have been recently launched by the Government of India to address the issue of maternal and child nutrition were Poshan Abhiyan, Mother Absolute Affection (MAA), Janani Sishu Suraksha Karyakaram (JSSK), Janani Suraksha Yojana (JSY), Pradhan Mantri Matru Vandana Yojana (PMMVY) and others (http://nhm.gov.in/).

At the state level, the Gujarat government has started planning and implementing programs to tackle the problem of malnutrition. Some of the programs in managing maternal and child health are Chiranjeevi Yojana, Kartuba Poshan Sahay Yojana, Mamta Abhiyan, Mission Balam Sukham, Baal Sakha Scheme, Mamta Taruni Abhiyan, Mukhya Mantri Amrutum (MA) Yojana (https://nhm.gujarat.gov.in/conceptnhm.htm).

Given increasingly limited public resources, childhood malnutrition appears resistant to local or single-sector solutions (Hoddinott et al., 2016). Transformative approaches are needed to ensure deeper engagement by multi-sector stakeholders (Popkin et al., 2012).

Behavior change communication (BCC) is the strategic use of communication to promote positive health outcomes, based on proven theories and models of behavior change (CDC, 2018). Social factors including caregivers 'poor knowledge on nutrition and lack of knowledge on food diversity in their environment may correlate with poor feeding practices. Such factors may result in low dietary diversity, low feeding frequency, and low food and energy intake for children (Geng, 2018). Nutrition education to the caregivers' can help erase the misconceptions based on culture

and tradition and can help improve their nutritional knowledge. Nutrition counseling also improved caregiver's knowledge in food preparation and healthy feeding behaviors (Zaman et al., 2008). Therefore, behavior change communication regarding health care, Infant and young child nutrition practices (IYCN), and hygiene and sanitation practices BCC can be effective in the improvement of the overall nutritional status of the children.

The United Nations has encouraged governments, health jurisdictions, and civil society to engage with the private sector through public-private partnerships (PPPs) to address malnutrition (Drewonski, 2018). The government is doing its bit to tackle the burning issue of malnutrition but the fact remains that malnutrition cannot be resolved by just the ongoing strategies, it needs a 360-degree approach. In recognition of the ambition of the nutrition goals and the high economic and human development costs of failure, several efforts have emerged to accelerate progress. These include advancing Public-Private Partnerships (PPP) which has also been proposed as one of the sustainable strategies to reduce the rates of malnutrition (Global Nutrition Report, 2017).

RATIONALE

Surat, being the 2nd largest city of Gujarat, has a population of 4,467,797 (Census 2011). Recent available NFHS data on the prevalence of malnutrition among children reveal that among 6.58 lakh undernourished children (under 5 years) in Gujarat, Surat ranks second with 54,696 children (NFHS III). Considering the paucity of data, the present study was planned on request by Surat Municipal Corporation. The study was carried out with an objective to identify the gaps in the services delivered by ICDS and plan to enhance the capacities of those involved in ICDS functioning to improve the nutritional status of the beneficiaries.

HYPOTHESIS

Null Hypothesis –. Strategies to improve nutritional status and behavior change communication using PPP in Surat city may not reduce the burden of undernutrition.

Alternate Hypothesis – Strategies to improve nutritional status and behavior change communications using PPP in Surat city may reduce the burden of undernutrition.

BROAD OBJECTIVE:

To improve the nutritional status of the children enrolled in the ICDS (Surat city) through Public-Private Partnerships (PPP).

SPECIFIC OBJECTIVES:

1. To understand the situational analysis of anganwadi functionaries of ICDS in Surat city
2. To map the prevalence of undernutrition among children under 5 years enrolled in ICDS in Surat city.
3. To strengthen the functioning and infrastructure of ICDS through PPP and assess its impact on the nutritional status of children under 5 years enrolled in ICDS in Surat city.