Child-Centred Investments to Achieve Targets of Vision 2025 by Department of Women Development and Child Welfare, Government of Telangana

Public Expenditure Analysis Series 8 of 8
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Abbreviations

AAGR	Average Annual Growth Rate
ANC	Ante Natal Care
ASHA	Accredited Social Health Activist
AWC	Anganwadi Centre
AWH	Anganwadi Helper
AWW	Anganwadi Worker
BE	Budget Estimate
BPL	Below Poverty Line
CBPS	Centre for Budget and Policy Studies
CDPO	Child Development Project Officer
CNNS	Comprehensive National Nutrition Survey
CSO	Civil Society Organisations
CSR	Child Sex Ratio
CWC	Child Welfare Committee
DALY	Disability Adjusted Life Years
DCPO	District Child Protection Officer
DCPU	District Child Protection Unit
DNI	Direct Nutrition Interventions
GDP	Gross Domestic Product
GOI	Government of India
GSDP	Gross State Domestic Product
ICDS	Integrated Child Development Services
ICPS	Integrated Child Protection Scheme
IFA	Iron & Folic Acid
IMR	Infant Mortality Rate
JJB	Juvenile Justice Board
JW&CS	Juvenile Welfare and Correctional Services
MMR	Maternal Mortality Rate
NCLP	National Child Labour Project
NFHS	National Health Family Survey
NHE	Nutrition and Health Education
NHM	National Health Mission
NHT	Nutrition and Health Tracking
OBC	Other Backward Classes
PCI	Per Capita Income
PMMVY	Pradhan Mantri Mathru Vandana Yojana

POSHAN	Prime Minister's Overarching Scheme for Holistic Nutrition
RDI	Recommended Dietary Intake
RE	Revised Estimate
RR	Revenue Receipts
SAG	Scheme for Adolescent Girls
SC	Scheduled Caste
SCPCR	State Commission for Protection of Child Rights
SCPS	State Child Protection Society
SDG	Sustainable Development Goal
SDI	Socio-Demographic Index
SNP	Supplementary Nutrition Program
SSE	Social Services Expenditure
ST	Scheduled Tribe
TE	Total Expenditure
THR	Take Home Ration
WD&CW	Women Development and Child Welfare
WHA	World Health Assembly

Chapter 1: Introduction

Telangana is the 29th and the youngest state in India, formed on 2 June 2014[1]. The Telangana region was part of the Hyderabad state from 17 September 1948 to 01 November 1956, until it was merged with Andhra state to form the state of Andhra Pradesh. After a prolonged agitation and movements for a separate state, Telangana emerged as separate state as per the Andhra Pradesh Reorganization Act, 2014 (no.6 of 2014) of Parliament with the city of Hyderabad as its capital. The state reorganised its districts from 10 to 31, on 11 October 2016, and two districts were added in February 2019 to take the number of districts to 33. The division of districts were aimed to bring administration closer to the public and to ensure that the benefits of development and welfare schemes reach the poorest person in the state more effectively and efficiently. The geographical area of the state is 112077 km^2. The state is divided into four agro-climatic zones based on the geographical characteristics such as rainfall, nature of soils, climate etc., viz. (i) Northern Telangana Zone, (ii) Central Telangana Zone, (iii) Southern Telangana Zone, and (iv) High Altitude and Tribal Zone. The climate of the state is mostly hot and dry. Telangana is predominantly an agrarian society with 61% of the people living in rural areas.

The state's population is 3.50 crore[2], with 1.76 crore males and 1.74 crore females; it is the twelfth largest state in terms of both area and size of population in India. The Scheduled Caste (SC) population constitutes 15.45% of the total population, while Scheduled Tribes (ST) constitute 9.07% of the total population. The overall growth of total population during the decade 2001–2011 was 13.58%, whereas it was 18.77% in the preceding decade. The density of population ranges from 170 to 18,172 per km^2, and Hyderabad district has the highest density. The districts of Adilabad, Khammam and Mahbubnagar have lower density of population with 170, 197, and 220 per km^2 respectively, as compared with the state average of 312 per km^2.

The sex ratio for Telangana state was 988 according to the 2011 Census. One distinguishing feature is that the sex ratio in the following districts is over 1,000: Nizamabad (1,040), Adilabad (1,001), Karimnagar (1,008) and Khammam (1,008). Despite a favourable sex ratio of the total population, the sex ratio of children in the age group 0–6 years declined from 957 in 2001 to 932 in 2011. The sex ratio of the SC population at 1008 in 2011 was much higher than the state average of 988 in all

[1] Statistical Year Book, 2017. https://www.telangana.gov.in/PDFDocuments/Statistical-Year-Book-2017.pdf .

[2] Telangana Statistical Abstract 2020.

districts, except in the districts of Ranga Reddy (988), Hyderabad (994), and Mahbubnagar (991). The sex ratio of ST population at 977 is marginally lower than the state average of 988, but it is higher in the districts of Adilabad (1,003), Karimnagar (995), Nizamabad (1,017) and Khammam (1,013). The literacy rate of the state as per Census 2011 is 66.54% and this is lower than the national average of 72.99%.

1.1. Economic Status of Telangana

Telangana's Gross State Domestic Product (GSDP)[3] was Rs 5.06 lakh crore in 2014-15 (at current prices), and it increased to Rs 9.7 lakh crore in 2019-20, exhibiting 0 a growth rate of 12.6% over the previous year. All-India Gross Domestic Product (GDP) was Rs 124.67 lakh crore in 2014-15, and it increased to further to Rs 203.84 lakh crore in 2019-20, recording a growth of 7.5% over the previous year in 2018-19. The state's GSDP performance has been very impressive and has been able to record higher growth than the all-India GDP growth rates since its formation. The share of Telangana's GSDP in the all-India GDP has rose from 4.06% in 2014-15 to 4.76% in 2019-20. The Per Capita Income (PCI) of Telangana is much higher than the all-India average over the years. The PCI of the state increased from Rs 1.24 lakh in the year 2014-15 to Rs 2.28 lakh in the year 2019-20, registering a growth rate of 11.6% over the previous year; the PCI of all-India average increased from Rs 0.86 lakh to Rs 1.34 lakh during the same period.

1.2. Bangaru Telangana-Vision Telangana

Telangana envisaged a comprehensive, inclusive and complete development of its people and by way of achieving the vision of *Bangaru Telangana* (Golden Telangana) by 2024. Government of Telangana has taken up initiatives to accelerate the economic growth, to improve the infrastructure facilities and programmes targeting social welfare, and to facilitate inclusive growth. The government has aligned the state's priorities with Sustainable Development Goals (SDGs) and is focusing on achieving them on time. The state has created a Centre for Sustainable Development Goals at Dr. Marri Channa Reddy Human Resource Development Institute (MCRHRDIT), a premier institute for training civil servants in the state. The Department of Planning together with the Directorate of Economics and Statistics is co-ordinating with SDG centre to enable the state to move towards attaining the SDG goals by 2030. Seventeen SDGs (Table 1.1) with 169 targets of SDG goals are mapped with 40 departments and all the departments were directed to align their

[3] Socio economic outlook 2020 - https://www.telangana.gov.in/PDFDocuments/Telangana-Socio-Economic-Outlook-2020.pdf

existing programmes with SDGs to facilitate monitoring and achievement. An exercise of developing a 7-year strategy and 15-year vision was also envisaged. In July 2017, a state level workshop was conducted focusing on 'Bangaru Telangana & Sustainable Development Goals (SDGs)'. A review of SDGs was done in 2018. As per the latest SDG Index by NITI Aayog[4], the state is among the frontrunners, at the fourth place with a score of 67 (the state of Kerala is ranked first with a score of 70). However, with respect to SDG Goals 2 and 5 the state still stands as aspirant position with score less than 50. The Government of Telangana has a knowledge partnership with United Nations International Children's Emergency Fund (UNICEF) and local resource pool such as Centre for Economic and Social Studies, Hyderabad and Centre for Good Governance, Hyderabad for technical support in developing a framework for planning, implementation and monitoring of the SDGs in the state.

Table 1. 1: Mapping of Departments with SDGs and important Indicators

SDGs	Line Departments	Indicators
1. No poverty	1. Panchayat Raj and Rural Development (PR&RD) 2. Municipal Administration and Urban Development (MA&UD) 3. Backward Classes (BC) Welfare. 4. Minorities Welfare. 5. Scheduled Caste (SC) Development. 6. Tribal Welfare	• Poverty headcount ratio at $1.90 a day (%)
2. Zero Hunger	1. Consumer Affairs Food & Civil Supplies 2. School Education. 3. BC Welfare. 4. SC Development. 5. Tribal Welfare 6. Women Development and Child Welfare (WD&CW) 7. Agriculture and Cooperation. 8. Animal Husbandry and Fisheries. 9. Irrigation and Command Area Development (CAD). 10. Horticulture Department.	• Prevalence of undernourishment (%) • Cereal yield (t/ha) • Prevalence of stunting, children under 5 years of age (under-5s) (%) • Prevalence of wasting, under-5s (%) • Sustainable Nitrogen Management Index (0-1)

[4] https://niti.gov.in/sites/default/files/SDG-India-Index-2.0_27-Dec.pdf

SDGs	Line Departments	Indicators
3. Good health and wellbeing	1. Health, Medical & Family Welfare 2. WD&CW	• Infant mortality per 1000 live births • Under-5 mortality (per 1000 live births) • Maternal mortality (per 100,000 live births) • Institutional Deliveries (%) • Neonatal mortality (per 1000 live births) Physician density (per 1000) • Incidence of tuberculosis (per 100,000) • Traffic deaths (per 100,000) • Adolescent fertility (births per 1,000) • Subjective wellbeing (0-10) • Healthy life expectancy at birth (years) • Infants who receive 2 World Health Organization (WHO) vaccines (%)
4. Quality Education	School Education. 2. Higher Education. 3. SC Development. 4. BC Welfare 5. Tribal Welfare. 6. Minorities Welfare	• Expected years of schooling (years) • Literacy rate of 15-24-year-olds age group (%) • Total Literacy Rate (≥ 7 Years) % • Dropout Rate (classes 1 to 10) • Net primary school enrolment rate (%)
5. Gender Equality	1. WD&CW. 2. SC Development. 3. Minorities Welfare. 4. BC Welfare. 5. PR&RD. 6. MA&UD. 7. Industries and Commerce. 8. Revenue. 9. Tribal Welfare	• Women in national parliaments (%) • Female years of schooling (% male) • Female labour force participation (% male) • Unmet demand for contraceptives (%)
6. Clean water and sanitation	1. PR&RD. 2. Irrigation and CAD. 3. MA&UD	• Access to improved water (%) • Open Defecation Free (ODF) (%) • Access to improved sanitation (%) • Freshwater withdrawal (%)

SDGs	Line Departments	Indicators
7. Affordable and clean energy	1. Energy. 2. Transport. 3. MA&UD	• Access to electricity (%) • Access to non-solid fuels (%) • CO2 from fuels & electricity (MtCO2/TWh)
8. Decent work and economic growth	1. Labour, Employment, Training and Factories	• Growth Rate (Current Prices) • Unemployment rate (%) • Automated teller machines (per 100,000) • Adjusted growth rate (%) • Child labour (%)
9. Industry, Innovation & infrastructure	1. Industries and Commerce 2. Information Technology, Electronic and Communications	• Research and Development (R&D) expenditures (% GDP) • Logistics Performance Index (1-5) • Quality of overall infrastructure (1-7) • Mobile broadband subscriptions (per 100) • Internet use (%)
10. Reduced Inequalities	1. SC Development. 2. BC Welfare. 3. Tribal Welfare. 4. Minority Welfare	• Gini index (0-100)
11. Sustainable Cities and Communities	1.MA&UD. 2. RWS. 3. Environment, Forest, Science & Technology (EFS&T). 4. Housing	• Particulate Matter (PM2.5) in urban areas (μg/m3) • Improved water source, piped (%)
12. Responsible consumption and production	1. Agriculture & Cooperation 2. Agriculture Marketing Department	• Wastewater treated (%) • Municipal solid waste (kg/person/year)
13. Climate Action	1. EFS&T. 2. Irrigation	• CO2 emissions from energy (TCO2/capita) • Climate change vulnerability (0-1) • Forest Cover % of total geographical area
14. Life Below Water	1. Fisheries	• Ocean Health Index - Clean waters (0-100) • Ocean Health Index - Biodiversity (0-100) • Ocean Health Index - Fisheries (0-100) • Marine sites, completely protected (%)

SDGs	Line Departments	Indicators
		• Fish stocks overexploited or collapsed (%)
15. Life on Land	1. EFS&T. 2. Irrigation & CAD 3. Agriculture and Cooperation	• Red List Index of species survival (0-1) • Annual change in forest area (%) • Terrestrial sites, completely protected (%)
16. Peace and Justice -Strong Institutions	1. Home. 2. Information Technology, Electronic and Communications 3. Law	• Homicides (per 100,000) • Prison population (per 100,000) • Feel safe walking at night (%) • Corruption Perception Index (0-100) • Registered births (%) • Government efficiency (1-7) • Property rights (1-7)
17. Partnerships for the Goals	1. Finance Department. 2. Industries and Commerce. 3. Information Technology, Electronic & Communications. 4. Planning	• Official development assistance (ODA) (% Gross National Income–GNI) For high-income countries only • Tax revenue (% Gross Domestic Product–GDP) For low- and middle-income countries only • Health, Education and R&D spending (% GDP)

Sources: Socio Economic Outlook 2017, Telangana.

Chapter 2: Rationale and Objectives of the Study

The Government of Telangana is working towards the development of Vision 2024 and reaching the SDG goals by 2030. The state government has initiated several social development measures to help achieve the SDG's. A few significant initiatives on this front are Aasara Pensions, Arogya Laxmi, Revamped Food Security scheme, Kalyana Laxmi/Shaadi Mubarak, Double–Bedroom housing for poor, Mission Bhagiratha, Mission Kakatiya, and others The Department of Women Development and Child Welfare (WD&CW) is working on SDG Goals 2 and 5 largely focusing on indicators relating to nutrition & child protection. It is imperative to understand the targets set for Vision 2024 with respect to different indicators, periodically assess the progress, and make changes or devise suitable strategy to reach the targets on time. In this connection, this study looks into the goals set for Vision 2024, looks at the progress across different indicators that are being targeted including the expenditure incurred, and analyses the investment requirements for the coming years that would facilitate in realising the goals. The study also conducts a trend analysis from 2014-15 on the investments/expenditure related to nutrition and child protection aligned to SDG goals 2 and 5. This will take the annual projections for population, change in nutrition statistics, and other relevant indicators into account.

2.1. Objectives of the Study

1. Understanding the progress of child development in the state in terms of its Vision 2024 and SDGs through child development indicators and progress of child-centred schemes implemented by the Department of WD&CW.
2. Analysis of expenditures of child-centred schemes of the Department of WD&CW focusing on nutrition and child protection.
3. Estimation of child-centred investment to achieve nutrition and child protection targets by 2024.

Chapter 3: Methodology of the Study

The study involved the following methods:

1. Analysis of indicators of nutrition, health, and child protection across districts of the state to understand the variations and comparison of progress of the indicators against Vision 2024.
2. Literature review to understand the schemes of the Department of WD&CW along with links of nutrition, health, and other social indicators.
3. Budget analysis to understand the investments by the Department of WD&CW over the years.
4. Projections of investment required for the coming years, 2021 to 2024.

Chapter 4: Findings of the Study

4.1. Understanding of Child Nutrition and Protection in Telangana in terms of its Vision 2024 and SDG progress

The draft version of the Vision 2024 for the Department of WD&CW indicated the goals to be achieved by 2024. However, the goals have been now aligned with the Prime Minister's Overarching Scheme for Holistic Nutrition (POSHAN Abhiyaan) as well as targets set by World Health Assembly (WHA) and SDGs for the years 2025 and 2030, respectively and are listed below:

1. To reduce stunting, low birth weight and underweight among children at the rate of 2% every year and to reduce anaemia among women, young children, and adolescents at the rate of 3% every year.
2. By 2024, 90% of the pre-primary age children will receive benefits of Early Childhood Development (ECD) and Early Childhood Education (ECE) programmes by the state through various defined initiatives.
3. By 2024, all adolescents, especially girls, will be aware and informed about safeguards from child marriage, child labour, and all forms of exploitation and violence through the various initiatives of department.
4. By 2024, all children in the state will have access to a safe and protected environment to live and 70% of the children who require care and protection and are in conflict with the law will be de-institutionalised.

The state has proactively focused on combating the malnutrition by implementing schemes like Arogya Laxmi and Supervised Supplementary Feeding Programme. It also has focused on augmenting rural livelihoods by providing income support, cheaper loans, huge investment on irrigation, and road improvement projects, which in turn would fuel the rural economy. In order to understand the nutrition status against the targets for 2024, the nutritional status using the National Family Health Survey-4 (NFHS-4) data was analysed as nutrition and health are acknowledged as the most effective entry points for human development, poverty reduction, and economic development coupled with higher economic returns. A composite index using the NFHS-4 survey (2015-16) statistics comprising of 11 indicators was developed to understand health and nutrition status of different districts[5] of Telangana State. The indicators used for computing the index are presented in the Table 4.1.

[5] The data composed for the erstwhile ten districts.

Table 4. 1: Indicators for Nutrition and Health status analysis across districts of Telangana

Sl. No	Key indicators	Indicators	Year of data considered	Source
1	Marriage and Fertility	Women aged 20–24 years married before age 18 years (%)	2015-16	National Family Health Survey-4 (NFHS-4)
2	Marriage and Fertility	Women aged 15–19 years who were already mothers or pregnant at the time of the survey (%)	2015-16	NFHS-4
3	Nutritional status of children	Children under 5 years of age who are stunted (height-for-age) (%)	2015-16	NFHS-4
4	Nutritional status of children	Children under 5 years of age who are wasted (weight-for-height) (%)	2015-16	NFHS-4
5	Delivery care	Maternal Mortality Ratio	2011-13	Socio-Economic-Outlook-2018
6	Household Profile	Households with an improved drinking-water source (%)	2015-16	NFHS-4
7	Household Profile	Households using improved sanitation facility (%)	2015-16	NFHS-4
8	Maternity care	Mothers who had full antenatal care (%)	2015-16	NFHS-4
9	Delivery care	Institutional births (%)	2015-16	NFHS-4
10	Child Immunisation	Children aged 12-23 months fully immunised (BCG, measles, and 3 doses each of polio and DPT) (%)	2015-16	NFHS-4

Sl. No	Key indicators	Indicators	Year of data considered	Source
11	Nutritional status of children	Total children aged 6-23 months receiving an adequate diet (%)	2015-16	NFHS-4

The district wise indicator values, the index, and the rank of the district are presented in Table 4.2. Hyderabad district ranked first with an index value of 0.93; the district stood first in 7 of the 11 indicators. Ranga Reddy came second with an index value of 0.61, followed by Warangal (0.56), Khammam (0.54), and Medak (0.50). Adilabad ranked lowest among the districts with an index value of 0.24. In Adilabad district, the delivery and maternity care is very low with only 70.8% institutional births, which is lowest among the districts; it was also the lowest in sanitation and highest in stunting percentage and Maternal Mortality Rate (MMR).

Table 4. 2: Nutrition Index: District Wise values of various indicators, index value, and rank (erstwhile ten districts)

Indicators	Adilabad	Nizamabad	Karimnagar	Medak	Hyderabad	Ranga Reddy	Mahbubnagar	Nalgonda	Warangal	Khammam
Women aged 20-24 years married before age 18 years (%)	29.9	24.9	13.4	36.3	12.1	23.0	41.3	40.9	27.6	32.4
Women aged 15-19 years who were already mothers or pregnant at the time of the survey (%)	12.9	8.5	4.4	7.5	6.8	8.6	15.1	15.4	13.7	16.9
Children under 5 years of age who are stunted (height-for-age) (%)	38.3	36.6	24.3	33.4	16.4	26.2	37.1	28.9	26.6	26.5
Children under 5 years of age who are wasted (weight-for-height) (%)	22.1	22.0	19.3	20.7	15.0	14.8	18.6	23.1	16.6	13.7
Maternal Mortality Ratio	152	79	74	90	71	78	98	90	78	99
Households with an improved drinking-water source (%)	85.0	82.3	69.9	85.2	91.0	80.7	71.0	54.4	73.3	84.5
Households using improved sanitation facility (%)	30.7	42.3	53.9	53.3	72.6	51.2	32.8	50.1	46.9	50.3
Mothers who had full antenatal care (%)	30.6	35.1	32.5	30.9	60.6	43.0	36.0	29.2	60.7	45.1
Institutional births (%)	70.8	91.6	95.6	91.0	97.5	95.3	78.4	94.5	96.0	94.2

Indicators	Adilabad	Nizamabad	Karimnagar	Medak	Hyderabad	Ranga Reddy	Mahbubnagar	Nalgonda	Warangal	Khammam
Children aged 12-23 months fully immunized (BCG, measles, and 3 doses each of polio and DPT) (%)	70.0	64.2	84.3	81.4	67.9	68.1	45.0	69.0	67.0	62.4
Total children aged 6-23 months receiving an adequate diet (%)	5.4	4.8	2.9	11.9	26.1	6.3	7.6	6.9	6.5	14.4
CBPS NUTRTION INDEX VALUE	**0.24**	**0.42**	**0.46**	**0.50**	**0.93**	**0.61**	**0.26**	**0.30**	**0.56**	**0.54**
RANK	**10**	**7**	**6**	**5**	**1**	**2**	**9**	**8**	**3**	**4**

Source: Centre for Budget and Policy Studies (CBPS) Nutrition Index has been created through calculations using National Family Health Survey-4 (NFHS-4) district wise report.

Access to safe drinking water, improved sanitation facilities, and a clean and hygienic environment have a positive influence on nutrition status. In Hyderabad and Karimnagar, households having an improved drinking-water source (91.0% and 69.9%, respectively) and sanitation facility (72.6% and 53.9%, respectively) is higher compared to other districts. Among all the districts, the MMR of Adilabad district was comparatively very high at 152 and low institutional deliveries might be one of the reasons (70.8%). Stunting among children aged under five years varied across districts, ranging from 15.7% in Hyderabad to 38.3% in Adilabad. In seven out of ten districts in Telangana, there was a very high prevalence of wasting (higher than 15%). Khammam had the lowest prevalence of wasting (13.7%) and Nalgonda had the highest prevalence of wasting (23.1%). The Antenatal Care (ANC) indicates that the percentage of mothers who had antenatal check-up (during their pregnancy) in the first trimester was highest in Warangal district (60.7%) and lowest in Nalgonda (29.2%). Among districts, the adequate diet for children (aged 6–23 months) was highest in Hyderabad district followed by Khammam and Medak districts. Karimnagar district recorded the highest percentage (84.3%) of immunisation among children. Table 4.3 depicts the ten districts of the state, which are now divided into 33 districts for better understanding.

Table 4. 3: Ranks & Index Value of Telangana Districts Nutrition Index (extended to the present 33 districts)

District	Index	Rank	District	Index	Rank
Hyderabad	0.93	1	Karimnagar	0.46	6
Medchal	0.61	2	Peddadapalli	0.46	6
Ranga Reddy Shamshabad	0.61	2	Rajanna Siricilla	0.46	6
Vikarabad	0.61	2	Kamareddy	0.42	7
Jangaon	0.56	3	Nizamabad	0.42	7
Jayashankar bhupalpalli	0.56	3	Nalgonda	0.30	8
Mulugu	0.56	3	Suryapet	0.30	8
Mahaboobabad	0.56	3	Yadadri	0.30	8
Warangal Rural	0.56	3	Jogulamba Gadwal	0.26	9
Warangal Urban	0.56	3	Mehaboobnagar	0.26	9
Bhadradri Kothagudem	0.54	4	Nagarkurnool	0.26	9
Khammam	0.54	4	Wanaparthy	0.26	9
Medak	0.50	5	Adilabad	0.24	10
Sangareddy	0.50	5	Komarambeem Asifabad	0.24	10
Seddipet	0.50	5	Mancherial	0.24	10
Jagityal	0.46	6	Nirmal	0.24	10

Source: Centre for Budget and Policy Studies (CBPS) Nutrition Index has been created through calculations using National Family Health Survey-4 (NFHS-4) district wise report.

The nutrition indicators were also matched with the reach of nutrition interventions (29) across the erstwhile ten districts of the state using NFHS-4 data (Table 4.3). It was found that the Hyderabad district, which ranked first in terms of index, was last in terms of receipt of nutrition interventions. Ranga Reddy district, which stood second, ranked eighth in terms of nutrition-specific interventions reach. Computation of *Spearman's Rank Correlation Co-efficient* (r= +0.006, a very weak positive correlation) indicated that there was no close correlation found between the nutrition indicator value and the reach of nutrition specific interventions. One has to also consider the time lag between the nutrition interventions and the improvement in the nutrition indicators. However, socio-economic factors play a major role in the improving the nutrition levels and they comes out as an assertion of an individual about the importance of nutrition owing to higher economic independence, which is also found in several nutrition studies.

Table 4. 4: Reach of Nutrition Specific Interventions across the districts of Telangana

State/District	Nutrition specific interventions	TELANGANA	Adilabad	Hyderabad	Karimnagar	Khammam	Mahbubnagar	Medak	Nalgonda	Nizamabad	Ranga Reddy	Warangal
Pre- pregnancy	Demand for Family Planning (FP) satisfied	90.3	86.9	86.0	82.0	94.8	92.4	88.6	96.5	89.1	93.9	86.9
	Iodised salt	94.9	96.6	97.1	98.0	98.7	79.6	97.5	89.0	94.6	98.0	96.3
Pregnancy	Any Antenatal Care (ANC) visits	97.0	94.1	97.5	97.5	98.8	96.8	96.1	98.3	95.2	96.7	98.0
	≥ 4ANC	74.8	68.4	85.4	72.9	79.2	60.2	68.1	72.5	70.1	77.6	84.6
	Received Mother and Child Protection (MCP) card	81.7	74.5	66.8	78.9	92.6	84.0	93.7	88.0	92.7	78.8	87.0
	Received Iron and Folic Acid (IFA) tab/syrup	91.1	81.9	91.7	96.5	95.5	82.1	90.0	96.3	89.9	92.9	92.0
	Consumed IFA 100+ days	53.3	41.8	72.1	49.4	57.2	49.1	36.9	36.5	49.5	54.1	70.6
	Deworming	23.2	26.7	19.9	33.5	21.5	27.8	14.6	23.5	21.1	20.7	25.1
	Weighing	96.3	92.1	97.5	97.5	98.8	94.9	95.2	97.8	94.1	96.2	97.3
	Breastfeeding counselling	49.3	28.4	17.1	47.3	74.1	53.7	63.5	76.2	73.9	33.8	73.9
	Food supplementation	63.6	52.8	25.9	71.9	92.9	73.0	80.1	81.2	81.6	48.8	79.4
	Health & nutrition education	55.8	43.7	18.5	58.8	80.4	69.8	69.6	75.1	75.6	42.6	72.2
	Tetanus injection	89.2	81.6	93.3	92.0	94.4	88.4	81.9	88.7	84.8	89.0	91.7
Delivery & postnatal	Institutional birth	92.7	73.1	98.1	97.4	94.7	82.5	91.9	95.9	95.0	94.3	98.0
	Skilled birth attendant	91.7	79.0	99.8	98.1	96.9	85.9	86.9	93.4	77.2	91.6	96.6
	Postnatal care for mothers	81.6	56.9	80.3	91.2	85.2	70.5	82.3	90.6	87.3	80.4	92.6
	Postnatal care for babies	25.5	30.3	12.3	40.0	21.7	20.9	37.6	45.7	27.6	16.1	21.6
	Food supplementation	59.5	47.4	26.4	61.9	84.9	72.9	69.9	82.3	79.2	41.3	78.1
	Health & nutrition education	50.8	35.4	19.6	49.2	74.0	64.7	57.5	76.1	71.0	34.7	70.1

State/District	Nutrition specific interventions	TELANGANA	Adilabad	Hyderabad	Karimnagar	Khammam	Mahbubnagar	Medak	Nalgonda	Nizamabad	Ranga Reddy	Warangal
Early childhood	Full immunisation	70.0	70.0	75.5	84.3	62.7	49.8	83.3	69.1	62.8	70.6	68.9
	Vitamin A	75.0	71.7	71.6	69.0	81.6	76.7	74.4	80.9	72.2	71.1	87.9
	Paediatric IFA	37.8	43.7	33.1	35.4	35.8	24.4	34.5	54.7	43.1	36.1	46.4
	Deworming	26.7	29.8	20.4	27.6	27.9	27.1	22.2	29.8	32.3	23.8	36.3
	Care seeking for Acute Respiratory Infections (ARI)	76.6	71.9	92.8	75.9	75.5	73.0	67.4	79.9	74.5	83.4	66.7
	Oral Rehydration Solution (ORS) during diarrhoea	55.3	56.6	50.4	67.5	42.2	74.0	38.4	56.2	35.5	58.1	52.4
	Zinc during diarrhoea	31.5	42.4	20.5	26.3	26.9	59.4	37.3	25.2	24.4	33.6	26.0
	Food supplementation	68.3	71.8	36.5	85.1	90.7	82.6	83.3	82.9	79.9	42.1	82.7
	Weighing	51.3	47.6	21.3	55.3	75.3	62.3	68.5	68.8	64.4	33.2	65.9
	Counselling on child growth	32.4	20.4	14.3	32.3	58.8	39.5	45.3	53.9	35.9	12.4	49.3
	INDEX VALUE RANK		**9**	**10**	**4**	**2**	**7**	**6**	**3**	**5**	**8**	**1**

Source: Centre for Budget and Policy Studies (CBPS) calculations using National Family Health Survey-4 (NFHS-4) district wise report.

The study *Major correlates of anaemia among women (15-49 age group) and spatial variation-Evidence from NFHS-4* correlated anaemia among women (aged 15-49 years) with different socio-economic background characteristics across 640 districts of the country. Anaemia among women reported a very meagre decline from 58% in NFHS-3 (2005-06) to NFHS-4 (2015-16). Deficient iron status in adolescent girls is a major cause for morbidity and could adversely impact future reproductive outcomes. Anaemia among women was found to be strongly linked to poor quality diet and lack of food due to poverty. When poorer people gained money to spend on food, they preferred to buy more expensive and processed food that is not necessarily more nutritious. People belonging to lowest wealth quintiles had highest prevalence of anaemia followed by poor- and middle-income groups. The prevalence of severe and moderate anaemia was higher among north, central, and southern regions of India. Women using unimproved sanitation facility were found to be 12% more likely to be anaemic. The anaemic hotspots were found to be the poorer regions of Andhra Pradesh, Bihar, Chhattisgarh, Odisha, West Bengal,

Rajasthan, Gujarat, and Madhya Pradesh. Women with no or very little education had high prevalence of anaemia of all levels (low, moderate and severe). Poorer people were 7% less likely to become anaemic compared to the lowest quintile (poorest) and the chances of anaemia decreases with higher income quintiles.

As per Comprehensive National Nutrition Survey (CNNS), while there is a reduction in prevalence of anaemia across age groups, this level remains very high for children under five years of age. Adolescent girls in Telangana are three times more likely than adolescent boys to be anaemic. Also, CNNS data indicate that anaemia due to micronutrient deficiencies like folic acid and zinc persists, while the anaemia due to iron deficiency has reduced.

An analysis of the nutrition indicators of the state from CNNS (2016–18) was undertaken to understand the status of the state in comparison with the all-India figures (Table 4.4). It can be seen that the state has performed very well in terms of mortality indicators as well as the proportion of children under five years of age who are stunted, wasted, and underweight in comparison with all- India figures. And this also indicates that there is very little or hardly any change between NFHS-4 and CNNS for these indicators in the state. However, the indicators of adolescent nutrition, which was measured for the first time, indicates that the state is lagging behind the national average. The indicators of anaemia and vitamin A deficiency among adolescent boys and girls as well as underweight adolescents were poor than the national average, while obesity among adolescents was higher than the national average.

The 2016–18 CNNS also indicated that adolescent girls were shorter than adolescent boys, whereas boys were thinner than girls, with thinness highest among 10-12-year-olds. One in two adolescents suffered from at least two of the six micronutrient deficiencies. Anaemia affected 40% adolescent girls and 18% boys. Malnutrition in several forms was found to peak in early adolescence. Almost all the adolescents failed to meet their daily requirements for physical activity of their age.

Table 4. 5: Mortality and Nutrition Indicators of Telangana and All India

Indicators	Telangana	India
Total Population 2016 (in thousands)	36,462	1,290,235
Child Population (aged 0–18 years) 2016 (in thousands)	10,724	437,341
Sex Ratio 2016	987	945
Child population 2016 (%)	29.41	33.89
Infant Mortality Rate (IMR) 2018	27	34
Under 5 Mortality Rate (U5MR) 2015–16	32	37
Maternal Mortality Rate (MMR) (2016–18)	63	113

Indicators	Telangana	India
Children under five years of age (under 5) Stunted (%)	29.3	34.7
Children under 5 Wasted (%)	17.9	17.3
Children under 5 Underweight (%)	30.8	33.4
Children under nine years of age (under 9) Stunted (%)	15.5	21.9
Children under 9 moderate/severely thin Body Mass Index (BMI) < -2 Standard Deviations (SD) (%)	28.1	23.0
Children under 9 overweight BMI > +1 SD (%)	4.9	3.7
Adolescents aged 10–14 years who are moderate/severely thin (BMI - 2 SD) (%)	28.6	27.4
Adolescents aged 15–19 years who are moderate/severely thin (BMI for age) z-score < -2 SD (%)	29.1	20.0
Adolescents aged 10–19 years who are moderate/severely thin (BMI for age) z-score < -2 SD (%)	28.8	24.1
Adolescents aged 10-14 years who are overweight/obese (BMI for age) z-score > +1 SD (%)	5.5	5.3
Adolescents aged 15–19 years who are overweight or obese (BMI for age) z-score > +1 SD (%)	5.8	4.3
Adolescents aged 10–19 years who are overweight or obese (BMI for age) z-score > +1 SD (%)	5.7	4.8
Prevalence of Anaemia (aged 1–4 years) Males %	39.3	40.6
Prevalence of Anaemia (aged 5–9 years) Males %	26.9	22.2
Prevalence of Anaemia (aged 10–19 years) Males %	18.5	17.5
Prevalence of Anaemia (aged 1–4 years) Females %	36.5	40.5
Prevalence of Anaemia (aged 5–9 years) Females %	27.7	24.7
Prevalence of Anaemia (aged 10–19 years) Females %	46	39.5
Prevalence of vitamin A deficiency (%) (aged 1–4 years)	26.5	17.5
Prevalence of vitamin A deficiency (%) (aged 5–9 years)	35	21.5
Prevalence of vitamin A deficiency (%) (aged 10–19 years)	19.7	15.6
Prevalence of vitamin B12 deficiency (%) (aged 1–4 years)	12.4	13.8
Prevalence of vitamin B12 deficiency (%) (aged 5–9 years)	13.2	17.2
Prevalence of vitamin B12 deficiency (%) (aged 10–19 years)	29.1	30.9

Source: Census 2011 and Comprehensive National Nutrition Survey (CNNS) factsheet[6].

4.2. Review of schemes of Department of WD&CW

Along with the understanding of the progress and status of various nutrition indicators, it is important to know the efforts of the Department of WD&CW, Government of Telangana towards improving the child health and nutrition indicators as well the indicators of child protection. The Department of WD&CW is

[6] https://nhm.gov.in/New_Updates_2018/Report_Population_Projection_2019.pdf, https://www.popcouncil.org/uploads/pdfs/2019RH_CNNSfactsheet_India.pdf, and https://www.popcouncil.org/uploads/pdfs/2019RH_CNNSfactsheet_Telangana.pdf

the nodal department implementing important schemes meant for the welfare of women and pre-school and adolescent children focusing on health, nutrition and pre-school education aspects. To improve the nutrition level of children, Pregnant and Lactating (P&L) women large-scale Supplementary Nutrition Programmes (SNP), such as Integrated Child Development Services (ICDS), are implemented in the state. The important programmes are discussed below.

4.2.1. Integrated Child Development Services

Integrated Child Development Services (ICDS) scheme, which started on 2 October 1975, is world's largest community-based programme and is one of the flagship programmes of Government of India (GOI) that covers the entire country. The scheme focuses on children up to 6 years of age, P&L women by providing health, nutrition, and pre-school education services under the name of Anganwadi services. There are 35700[7] Anganwadi Centres (AWCs) functioning in the state under 149 ICDS Projects (31,711 main centres and 3,989 mini centres). Under ICDS, six services comprising of supplementary nutrition, immunisation, health check-up, referral services, nutrition and health education, and pre-school non formal education are provided. The state has put in place one of the most robust online monitoring systems[8] to track the nutrition programme to the last detail. Commodities are sent to AWCs through a biometric system. Online food consolidation reports are put in place to track distributions, receipts, utilisations, and balance of commodities at the anganwadi level. A mobile app is used to track supplies of milk and eggs to the AWCs. About 11,398 smart phones are being provided to anganwadi teachers, while another 24,302 are being procured. The pre-school education services are one of the best in the country. A learning curriculum to ensure learning through play is devised and put in place[9]. Anganwadi teachers/ anganwadi workers (AWWs) and anganwadi helpers (AWH) are paid Rs 10,500 and Rs 6,000 per month respectively[10].

[7] Socio Economic Outlook 2018. https://www.telangana.gov.in/PDFDocuments/Socio-Economic-Outlook-2018.pdf

[8] http://nhts.telangana.gov.in/

[9] https://icds.tgwdcw.in/Preschool/

[10] Government of India share of Rs 4,500 and Rs 3,500 for AWWs in main and mini AWCs and Rs 2,250 for AWHs is included.

Following are the schemes currently operational in the state under ICDS:

1) **Arogya Laxmi programme:** Arogya Laxmi Programme which involves spot feeding of "one full meal" for P&L women at the Anganwadi centre along with administration of Iron & Folic Acid (IFA) tablet. The programme was started on 1 January 2013 as Indiramma Amrutha Hastham in the erstwhile Andhra Pradesh. After the state bifurcation, 2015 onwards, it was scaled up to 149 ICDS projects (100%) under the name Arogya Laxmi scheme. Under this programme one full meal is provided for pregnant women. The meal consists of rice, dal with leafy vegetables/sambar, for a minimum of 25 days, boiled egg/fruit and 200 ml milk for 30 days a month. The one full meal is expected to meet 40-45% of the daily calorie and 40-45% of protein and calcium requirement per day of the P&L mothers. Along with the meal, an IFA tablet is administered. Under this programme, a woman can claim the benefits once her pregnancy is confirmed, and this coverage continues after delivery till the infant completes 6 months. About 3.4 lakh P&L women across the state have availed the benefits during the year 2019-20. The cost per meal works out to be Rs 23.50 with Rs 9 from SNP and rest, Rs 14.50, from Arogya Laxmi scheme.

2) **Balamrutham:** Balamrutham is supplementary food introduced on 1 July 2017[11], under ICDS to provide improved supplementary nutrition to children aged seven months to three years and is provided as Take-Home Ration (THR). The food prepared by Telangana Foods, a public sector enterprise, contains a concoction of wheat, chana dal, milk powder, oil, and sugar; it is dense in nutrients and provides 50% of iron, calcium, vitamins, and other Recommended Dietary Intake (RDI) that are essential for children every day. The THR of 2.5 kgs is distributed on the first day of every month which can be provided to children in the form of porridge or laddu. In addition to this, 16 eggs are provided to the mothers of these children as a part of THR. Children aged 3–6 years come to anganwadi and are provided with egg, meals and snacks by 3pm in the afternoon. Malnourished children are provided with one additional egg, 100ml milk, and Balamrutham laddu at the AWCs. About 13.4 lakh children (aged 7 months to 6 years) and 3 lakh malnourished children benefitted from Balamrutham during 2019-20[12]. Nearly Rs 10 per serve (Rs 9.96 and 9.79 for 3-6-year-olds and 0.5–3 years, respectively) is spent under this programme.

[11] https://www.thehansindia.com/posts/index/Andhra-Pradesh/2017-06-17/Balamrutham-to-be-distributed-from-July-1/306969

[12] Statistical Abstract 2020.

In the absence of the potential population to be reached by ICDS, to understand the reach of the ICDS-SPN better, the district wise beneficiaries (children aged 6 months to 59 months) were compared with that of the proportion of Below Poverty Line (BPL) population[13]. The estimates of proportion of BPL population calculated as a part of Multi-dimensional Poverty Index using the health, education and standard of living indicators by Alkire et al.,[14] was used to understand the reach of reach of SNP for the year 2019-20. The estimates of target population, coverage by population of 0-6-year-olds, and target population is provided in the Table 4.6.

Table 4. 6: Coverage of Integrated Child Development Services–Supplementary Nutrition Programme (ICDS–SNP) (children aged 7-59 months) against estimated target population

Districts	Share of BPL Estimated[1]	Estimates of Population			2019-20		
		2019	0–6 years age group	ICDS Target[2]	Beneficiaries (6–59 months)	Actual coverage share (%)	Coverage over BPL (target)
Adilabad	35%	29,15,467	3,29,662	1,13,736	1,64,449	50%	145%
Hyderabad	6%	41,93,540	4,98,894	27,865	67,575	14%	243%
Karimnagar	12%	35,50,336	3,16,818	38,408	1,21,657	38%	317%
Khammam	17%	26,27,687	2,62,609	43,815	1,11,943	43%	255%
Mahbubnagar	30%	37,60,681	4,89,131	1,44,453	1,65,839	34%	115%
Medak	22%	35,16,969	4,17,618	93,831	1,52,676	37%	163%
Nalgonda	21%	37,10,186	3,95,323	84,830	1,21,950	31%	144%
Nizamabad	24%	27,05,050	2,99,136	72,232	1,24,517	42%	172%
Ranga Reddy	7%	61,82,363	7,44,902	48,434	1,80,941	24%	374%
Warangal	17%	40,62,784	3,92,489	68,301	1,32,103	34%	193%
Total	**17%**	**3,72,25,062**	**41,46,581**	**7,35,905**	**13,43,650**	**32%**	**183%**

Note: 1: The Below Poverty Line (BPL) population estimates were used from multi-dimensional poverty estimation using the data of health, education and standard of living dimensions done by Alkire et al., University of Oxford.
2: The target population for ICDS estimated using BPL population proportion (assuming same for 0–6 years age group).

Given the higher levels of poverty in the districts of Adilabad and Mahbubnagar, the coverage was expected to be higher. While the estimated share of the BPL population is 17% for the state, the coverage is almost double the requirement—32% of the population (age group of 0-6 years), which. It is very good to understand that 50% of the target population in Adilabad district is reached under SNP,

[13] Here the BPL population proportion is used for the population of 0-6-year-olds statistics to arrive at a possible target population for ICDS, whereas, in reality, the target population is not confined to BPL families.

[14] https://ophi.org.uk/wp-content/uploads/Table-5a-India-District-MPI-2018-1.xlsx.

followed by Khammam district where it reaches 43% of the population. In some districts, the reach when compared with the target population showed a very high reach such as 374% in Ranga Reddy district followed by 317% in Karimnagar indicating that about 3.74 times and 3.17 times the target (BPL) population is covered under ICDS-SNP in Ranga Reddy and Karimnagar districts, respectively. This higher proportion also indicates the reach cutting across the social categories, which is a good sign and would yield very positive results in the near future.

The birth registrations in the state are high at 97%. There is a need to connect these birth registrations to the recipients of the SNP, so that one could better understand the reach and they can be tracked further for any regional patterns of malnutrition.

4.2.2. National Nutrition Mission/POSHAN Abhiyaan

This scheme (erstwhile ICDS Systems Strengthening & Nutrition Improvement Project [ISSNIP]) was started during 2017-18 with an objective of reducing the stunting, undernutrition, and low birth weight by 2% per annum to reach the objective of reducing stunting from 38.4% to 25% by 2022 (all-India figures). The scheme also aims to bring down anaemia among young children, women, and adolescent girls by 3% per year. In Telangana, stunting is to be reduced from 28.1% to 16.1%, undernutrition from 28.5% to 16.5%, low birth weight from 8.6% to 0%, anaemia among children (aged 0-6 years) from 60.7% to 42.7%, and anaemia among women and adolescent girls from 56.7% to 38.7%. This mission is aimed at addressing malnourishment through the life cycle concept, by adopting a synergised and result oriented approach. It aims to ensure mechanisms for timely service delivery and a robust monitoring as well as intervention infrastructure. It also focuses on training and capacity building activities. The mission has four components (i) focus on first 1,000 days of a child (ii) cross-sectoral convergence, (iii) information and communication technology-enabled real time monitoring, and (iv) community engagement leading to Jan Andolan. This mission will also be monitoring all other nutrition related scheme (Pradhan Mantri Mathru Vandana Yojana [PMMVY], National Creche Scheme, and Scheme for Adolescent Girls [SAG]). This mission had budgeted a total amount of Rs 9,046.17 crore for three years, from 2017-18 till 2019-20; for this, states were expected to share 40% of expenditure (10% for north eastern states). All the districts of the country were covered in a phased manner in the state.

Telangana state received Rs 17.37 crore, Rs 85.95 crore, and Rs 70.03 crore during the years 2017-18, 2018-19, and 2019-20, respectively amounting to a total of

Rs 173.36 crore under POSHAN Abhiyaan, while expenditure till March 2020 was only Rs 46.02 crore, recording a utilisation of meagre 26.5%. The progress report on the POSHAN Abhiyaan by Centre for Policy Research[15] indicated that 54% of the expenditure was on management cost, while 22% of the expenditure was on ICT-Real Time Monitoring (RTM) (of which 88% was used for procuring mobiles for AWWs). Only 24% of the expenditure was incurred on community-based events. The state has a well-monitored Nutrition and Health Tracking (NHT) system which monitors the entire nutrition programmes run by the department tracking the high expenditure incurred in the form of supplementary nutrition and one full meal programme while the POSHAN Abhiyaan which focuses on the real time monitoring is already being achieved by the NHT system[16]. The progress report on POSHAN Abhiyaan also looked into the trends of decline in stunting, wasting, and underweight and the possibility of scaling up of interventions with a modelling analysis using Lives Saved Tool (LiST). Insights from success stories across the states of Gujarat, Chhattisgarh, Odisha and Tamil Nadu where stunting reduced significantly between 2006 and 2016 were also used for analysis.

The results revealed that success in selected cases, in addition to the scaling up of nutrition interventions, and important investments in social determinants, especially related to the status of girls and women, become critical. Education of girls, reducing early marriage and pregnancy, and food security are focal points for the reduction of stunting. Lessons were also available from these states in terms of how the administration facilitated the changes through multi-pronged interventions; taking along multiple partners such as civil society, community, and government systems together and using data to track the progress helped in achieving the desired results. It also stressed the need for addressing the governance challenges of National Health Mission (NHM) and ICDS.

4.2.3. Integrated Child Protection Scheme (ICPS)

Integrated Child Protection Scheme (ICPS) is a Centrally Sponsored Scheme (CSS) of the Ministry of Women and Child Development, GOI; it is implemented in partnership with the state Governments and Civil Society Organisations (CSO). The scheme aims to provide care and protection to children who are in need and to children who are in conflict with law as mandated by the Juvenile Justice (Care and Protection of Children) Act, 2015 and provides institutional and non-institutional care for children. The Department of WD&CW Protection deals with the children in

[15] https://cprindia.org/research/reports/POSHAN-abhiyaan.

[16] http://nhts.telangana.gov.in/#/index.

need of care and the Department of Juvenile Welfare and Correctional Services (JW&CS) serves the children who are in conflict with the law. The scheme aims to establish a system that will efficiently and effectively protect children, based on the cardinal principles of 'Protection of Child Rights' and the 'best interest of the Child'. This scheme provides preventive care, statutory care, and rehabilitation services. The rehabilitation services are for vulnerable children, including those from potentially vulnerable families and families at risk; children of socially disadvantaged groups like migrant families or families living in extreme poverty; families from SCs, STs & Other Backward Classes (OBCs) subjected to or affected by discrimination;, minorities; children infected and/or affected by HIV/AIDS; orphans; child drug abusers; children of substance abusers; child beggars; trafficked or sexually exploited children; children of prisoners street; and working children.

The state has a State Child Protection Society (SCPS) in the WD&CW department. The District Child Protection Unit (DCPU) is present in 31 of the 33 districts, while the statutory bodies like the Child Welfare Committee (CWC) and Juvenile Justice Board (JJB) are present in 10 districts. In 31 districts, DCPUs are functioning with District Collector as the Chairperson. The state has planned to provide a one-stop service for child protection in the district by housing the DCPU, child line, District Probation Officer, and Special Juvenile Police Unit along with National Child Labour Project (NCLP) in one building called the Bal-Raksha Bhavan. One such Bal-Raksha Bhavan was inaugurated in Mahbubnagar and Khammam[17]. The process of setting up of CWCs and JJBs is complete in newly formed 23 districts. Village Child Protection Committees are formed with the Sarpanch as the Chairperson and are being trained to ensure child protection at the village level. Efforts are made to train responsible ex-officio members to create awareness on prevention of child labour, child marriages, and child abuse. An amount of Rs 2,000 per month per child (maximum for two children per family) is provisioned to ensure that the child remains with the family and this is for a period of maximum three years or up to 18 years of age as decided by the District Child Protection Officer (DCPO). A Juvenile Justice Fund is created with a provisioning of Rs 1 crore to assist organisations working with children and two organisations have benefitted Rs 10 lakh each. There are 31 children homes in the state catering to 1,017 homeless children[18].The

[17] https://www.facebook.com/Mahabubnagardistrictofficial/posts/dist-collector-inaugurated-bala-raksha-bhavan-in-padmavathi-colony-all-the-7-chi/2076983549059967/. https://telanganatoday.com/bala-raksha-bhavan-one-stop-centre-for-child-protection-ajay-kumar.

[18] Rajya Sabha reply for question no 3025 by Rajeev Gowda on 19 March 2020.

Bal-Raksha Bhavan is also expected to co-ordinate with the Bharosa centre[19] and Sakhi, the one-stop centre for women (Sakhi) for the cases related to minor girls.

Under the ICPS scheme, two campaigns, viz., 'Operation Muskaan' (in July) and 'Operation Smile (in January) are being conducted throughout the state for all those who are residing on platforms, bus stands, roads, religious places, hotels, shopping malls or are begging, bangle-making, etc., with the coordination of line departments such as police, labour, non-governmental organisations (NGOs), child line, etc. About 3,600 children were rescued during the Operation Smile conducted in January 2020[20], of which 1,618 children were admitted to children homes and 1,982 children were united with their families; 1,292 other rescued children were from other states. During Operation Muskaan in July 2020[21], 627 children were rescued.

Kishore Shakti Yojana: This schemed was introduced by GOI in the year 2000[22]. In Telangana, this scheme is implemented in 23 districts through 106 projects, with SABALA[23] districts (10) being excluded. The main objective of this scheme is to improve the nutritional, health, and development status of adolescent girls aged 11–18 years. It also aims to promote awareness of health, hygiene, nutrition and family care, link the girls to opportunities for learning life skills and for going back to school, help them gain a better understanding of their social environment, and take initiatives to become productive members of the society. Under this scheme, out-of-school girls and school dropouts are identified by concerned Child Development Project Officers (CDPOs) for them skill development and vocational training is provided by Durgabai Mahila Sishu Vikasa Kendrams (DMSVKs) and Vocational Training Providers (VTPs).

4.2.4. Scheme for Adolescent Girls (SABALA)

This scheme is implemented using the platform of ICDS Scheme through AWCs and is implemented in 10 districts. This programme covers adolescent girls (only covered out-of-school girls) in the village. The target group is subdivided into 11-15-year-olds and 15-18-year-olds. This scheme provides nutrition provision, iron and IFA supplementation, health check-up and referral services, and Nutrition and

[19] https://www.thenewsminute.com/article/telangana-police-set-10-new-bharosa-centre-says-swathi-lakra-119062.

[20] https://telanganatoday.com/3600-children-rescued-by-operation-smile-across-telangana

[21] https://www.edexlive.com/happening/2020/aug/03/cybher-and-operation-muskaan-by-telanganas-women-safety-wing-are-focused-on-the-young-and-the-vulne-13548.html

[22] http://wdcw.tg.nic.in/scheme_KSY.html

[23] Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) SABALA

Health Education (NHE), counselling/guidance on family welfare, Adolescent Reproductive and Sexual Health (ARSH), childcare practices and home management, life skill education and accessing public services and vocational training for girls aged 16 and above.

4.2.5. KCR Kit

To reduce Infant Mortality Rate (IMR) and MMR in the state and to promote institutional deliveries, the Government of Telangana introduced a scheme in June 2017[24] called KCR Kit to the pregnant women who were admitted in government hospitals for delivery of the child. Under this scheme, the government provides Rs 12,000 for pregnant women who deliver their child in any government hospital in the state. If a girl is born, an additional Rs 1,000 is given under this scheme. The money is provided in four instalments[25] by way of transfers to bank accounts[26]. First instalment of Rs 3,000 is given on registration followed by at least 2 ANCs. The second instalment of Rs 4,000 (Rs 5,000 for the girl child), and the third (Rs 2,000) and fourth instalments (Rs 3,000) are given after the child's birth, and completion of vaccination schedules for child during the fourth and ninth month, respectively. Apart from this monetary support, at the time of discharge from hospital after delivering the child, the government is also giving a KCR Kit worth Rs 2,000, which contains 16 essential items for the mother and infant like diapers, napkins, baby oil, and towels. About 8 lakh pregnant women (2.4 lakh in 2018-19) have availed the benefit since the beginning of the scheme. The scheme has increased the deliveries in public health facilities from 31% to 60%. It has also had an impact on the reduction of MMR and IMR significantly.

4.2.6. Amma Vodi (Referral Services)

The scheme is meant to be used by pregnant women for visiting hospitals and getting dropped to home, free of cost. An exclusive call number, 102, is used for this service. After the delivery, the mother along with the new born are dropped at home after discharge from that hospital. Presently, there are 299 multi-utility vehicles, GPS-tracked, with a capacity for 10 patients each. Each district is allotted six to eight vehicles. The call centre to avail the service is based in Hyderabad and

[24] https://kcrkit.telangana.gov.in/KCRKIT2.0/loginnew.htm.

[25] https://kcrkit.telangana.gov.in/KCRKIT2.0/Template1/Downloads/DBT_Memo_No2482.pdf.

[26] This includes Rs 6,000 coming from Pradhan Mantri Mathru Vandana Yojana.

works 8 AM to 8 PM every day of the year. Since its inception in 2016, 5.54 lakh pregnant women have benefited[27].

4.2.7. Girl Child Protection Scheme

This scheme for girl child was meant to incentivise secondary education and thereby dis-incentivise child marriage. The single girl child would receive Rs 1 lakh after completing 20 years of age, while two girls each were entitled for Rs 30,000 each. The scheme was operated through a memorandum of understanding the Life Insurance Corporation (LIC) of India. Under the scheme, the girl child studying in classes 9–12 was provided with a scholarship of Rs 1,200 per annum. It also had an insurance component that provided Rs 30,000 for natural death of the child, Rs 75,000 on death due to accident, and Rs 37,500 for partial disability due to accident. About 2.04 lakh girls were enrolled under this scheme, which is now stopped.

4.2.8. Beti Bachao Beti Padhao

This scheme was launched on 22 January 2015[28] in 100 selected districts covering all states and expanded to 61 additional districts in April 2016. The scheme aimed to addresses the decline in Child Sex Ratio (CSR) and related issues of disempowerment of women. The main objective of this scheme is to prevent gender-biased sex selective elimination, ensure survival and protection of the girl child, and increase the girl child participation in education. Hyderabad district was selected for the implementation of this programme because of the low CSR of 914 girls per 1000 boys according to Census 2011. On 5 March 2018[29], in the third annual award function for the Beti Bachao Beti Padhao scheme, Hyderabad received an award for increasing the CSR to a promising figure of 951 girls per 1,000 boys for 2017-18.

4.3. Progress of the indicators of nutritional health and child protection in last 3 years

The WD&CW department[30] listed the indicators that would be used to measure the progress of nutrition, health, and protection among the children for its progress over the years leading up to 2024 (Table 4.7). An assessment of the same was done using the indicators that were measured as a part of SDG and CNNS and Sample

[27] Socio-economic outlook 2020.

[28] Beti Bachao Beti Padhao Implementation Guidelines for State Governments / Ut Administrations, February 2018. http://wcd.nic.in/sites/default/files/Revised%20Guidelines%20BBBP%20-26th%20April%2C%202018_2.pdf.

[29] http://manatelangana.news/national-award-to-hyderabad-in-beti-bachao-beti-padhao/

[30] In the draft vision document.

Registration Survey (SRS) reports. While few indicators could be tracked for progress, few others would require a survey or a purposive data collection to understand the status. Indicators such as 'women aged 15 to 19 who are pregnant or mothers at the time of survey' on the lines of NFHS-4 could not be tracked for progress Barring those for which the data is not available, the indicators for stunting, wasting, underweight or birth registrations were tracked for the progress using CNNS, SRS reports, and SDG index progress report of the state. The state has done phenomenally well in terms of improving the proportion of children who are breastfed within one hour of birth. The proportion went up to 76.1% from 37.1%. Similarly, the state has been able to achieve significant strides in reducing anaemia among children aged 6–59 months.

Table 4. 7: Nutritional Health and Child Protection Indicators for measuring achievements

Sl. No.	Indicators for measuring the achievements by 2024	2016	2019
1	Children under age 3 years of age breastfed within one hour of birth (%)	37.1	76.1
2	Children under age 6 months of age exclusively breastfed (%)	67.3	
3	Children aged 6-8 months receiving solid or semi-solid food and breastmilk (%)	57.1	
4	Children under 5 years of age who are stunted (height-for-age) (%)	28.1	29.3
5	Children under 5 years of age who are wasted (weight-for-height) (%)	18.0	17.9
6	Children under 5 years of age who are underweight (weight-for-age) (%)	28.5	30.8
7	Mothers who consumed iron folic acid for 100 days or more when they were pregnant (%)	52.8	
8	Children aged 9-59 months who received a vitamin A dose in last 6 months (%)	75.3	
9	Children aged 6–59 months who are anaemic (<11.0 g/dl) (%)	60.7	37.8
10	Pregnant women aged 15–49 years who are anaemic (%)	49.8	49.8
11	All women age 15-49 years who are anaemic (%)	56.7	
12	Child sex ratio	933	
13	Birth registrations (%)	73.2	97.3
14	Currently married women aged 20-24 years who are married before 18 years (%)	25.7	
15	Women age 15-19 years who are pregnant or mothers at the time of survey (%)	10.6	
16	Child labour (aged 5–14 years) in lakh	3.07	
17	Percentage contribution to total crime against children in India in 2015 (%)	2.9	2.8
18	Rate of total cognisable crime against children in 2015 (%)	24.1	37.7

Source: National Family Health Survey (NFHS) 4 data, Sustainable Development Goals (SDG) index 2019, Comprehensive National Nutrition Survey (CNNS) 2016-18, National Crime Record Bureau (NCRB).

The achievements in the reducing anaemia among pregnant women and reducing wasting among children under five years of age was minimal. The proportion of children under five years of age who are stunted and who are underweight have increased marginally and this is a matter of concern[31]. This would mean reaching the targets for 2024 would become very difficult.

The Lancet study[32] on burden of child and maternal malnutrition across states of India for the period 1990 to 2017 indicated that malnutrition is a major contributor to disease burden in India. Malnutrition is a predominant risk factor accounting for 68% of deaths of children below five years of age, and 17% of total Disability Adjusted Life Years (DALY). The nutrition DALY was highest among the lowest Socio-Demographic Index ([SDI] a comprehensive index calculated based on per capita income, mean education, and fertility among women younger than 25 years) compared to middle SDI and higher SDI state groups. It stated that in the event of continuation of trends prevalent up to 2017, the National Nutrition Mission (now the POSHAN Abhiyaan) indicators for 2022 would indicate an 8.9% gap with respect to low birth weight, 9.6% for stunting, 4.8% for underweight, 11.7% for anaemia among children, and 13.8% for anaemia among women relative to their respective 2022 targets. The Global Nutrition Report 2020 also indicated that India is likely to miss the global nutrition targets by 2025 with highest rates of domestic inequalities in malnutrition[33].

The birth registration rates have improved significantly from 73.2% to 97.3%, which is a very positive sign, and has the potential to aid in planning of various services across different age group of beneficiaries and across districts. The percentage contribution to total crime against children in the country has reduced marginally from 2.9% to 2.8%. However, the rate of cognisable crime against children has increased from 24.1% to 37.7%, which is a cause for concern.

The non-availability of data for comparison and the surveys that do not take cognisance of the parameters that are being tracked for progress come up with nuanced indicators, which often become limited in their use. Only when there is a coherence among the indicators that are targeted through the schemes with that of

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[31] The numbers are to be examined closely with reference to the survey time (month and year) and the analysis by Sunny Jose questions the magnitude of changes since the period of National Family Health Survey-4 (NFHS-4). *EPW, 2019 vol LIV no* 49.

[32] https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(19)30273-1/fulltext

[33] https://affairscloud.com/india-likely-to-miss-global-nutrition-targets-by-2025-whos-global-nutrition-report-2020/

the indicators that are periodically assessed and measured, there would be constructive feedback for the programme implementation. For example, if adolescent health and nutrition indicators are assessed once, it needs to be followed up with interventions and periodical assessments in the same manner as the first-time assessments. Even if the age group is changed (say 10-14 years, 15–19, or 10–19 etc) or the assessments are changed to capture severity of the indicators, comparisons become very difficult/invalid and would defeat the important purpose of providing feedback to the programme implementation.

4.4. Analysis of Expenditures of child-centred schemes of the Department of WD&CW focusing on nutrition and child protection.

4.4.1. Analysis of State Finances

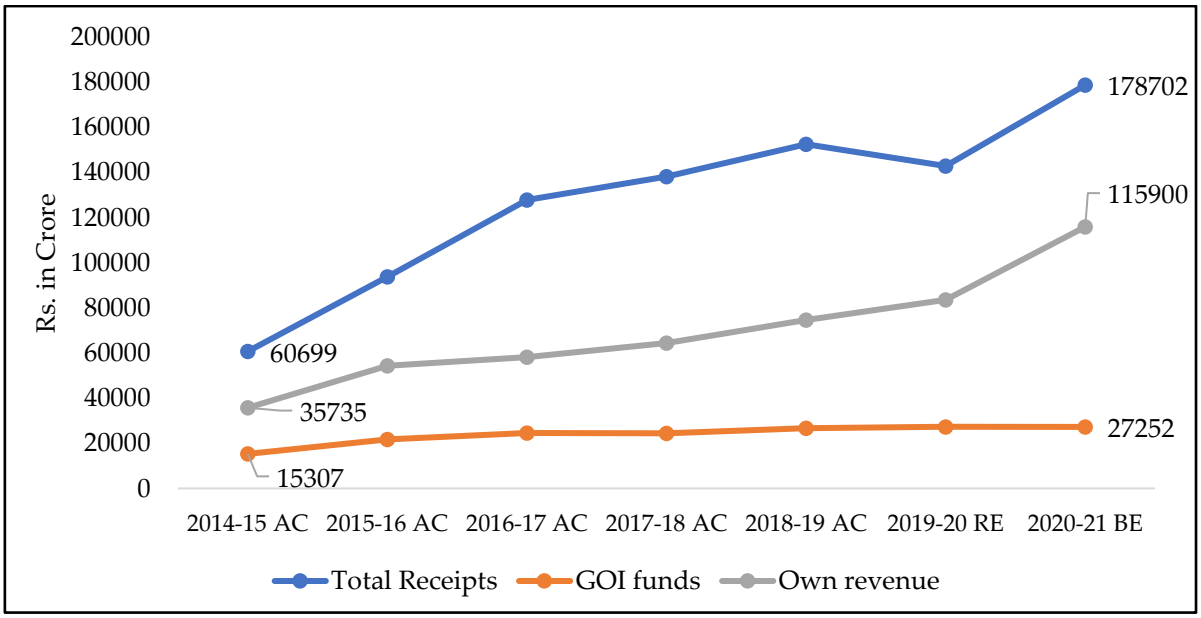
Telangana state has consistently grown at a higher rate than the all-India average since 2014-15[34]. The per-capita income also significantly grew over the period 2014-15 to 2019-20. The finances of the state of Telangana were analysed to understand the growth of finances over years along with the expenditures on social sector. The finances of the state have also been growing steadily over the years. The total receipts of the state grew from Rs 60,699 crore in 2014-15 to Rs 1,78,702 crore in 2020-21, at an Average Annual Growth Rate (AAGR) of 21.34% per annum (Table 4.8 and Figure 4.1). The own revenue of the state (both tax and non-tax) grew from Rs 35,735 crore in 2014-15 to Rs 1,15,900 crore for the year 2020-21, at an AAGR of 22.7% per annum. The receipts from GOI (tax share and grants together) increased from Rs 15,307 crore to Rs 27,252 crore at an AAGR of 11% during the same period. The share of GOI receipts reduced from 25% to 15% of the total receipts, indicating the state's lower dependence on GOI funds. The Total Expenditure (TE) of the state grew from Rs 62,306 crore to Rs 1,82,914 crore at an AAGR of 21.62%. The revenue expenditure grew from Rs 50,673 crore in 2014-15 to Rs 1,38,670 crore in 2020-21 at an AAGR of 19.2% (Figure 4.2), while the capital expenditure grew from Rs 8,873 crore to Rs 22,061 at an AAGR of 33.3% during the same period. The real growth of receipts and expenditure was impressive at an AAGR 16.3% and 15.96%, respectively (Table 4.9). The deficits have been with in the target set by the Fiscal Responsibility and Budget Management (FRBM) Act, except for two years.

[34] Statistical Abstract 2020.

Table 4. 8: Growth of Receipts and Expenditure of Telangana State over years (Rs in crore)

	2014-15 Actuals	2015-16 Actuals	2016-17 Actuals	2017-18 Actuals	2018-19 Actuals	2019-20 Revised Estimates	2020-21 Budget Estimates	Average Annual Growth Rate (%)
Total Receipts (Nominal)	60,699	93,719	1,27,793	1,38,115	1,52,448	1,42,774	1,78,702	**21.34**
Total Receipts (Real)	49,957	75,335	98,602	1,02,605	1,08,503	97,665		**16.30**
Total Expenditure (Nominal)	62,306	97,923	1,33,823	1,43,133	1,57,151	1,42,153	1,82,914	**21.62**
Total Expenditure (Real)	51,280	78,714	1,03,254	1,06,332	1,11,850	97,240		**15.96**
Fiscal Deficit (% of GSDP)	1.86	3.26	**5.36**	**3.55**[35]	3.13	2.26	3.00	

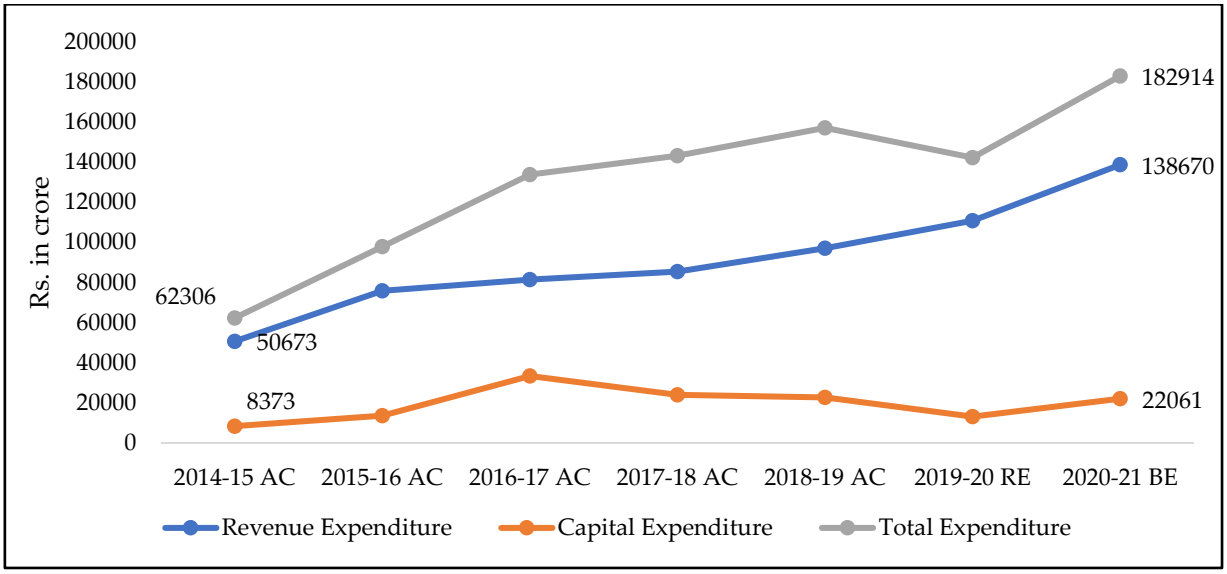
Figure 4. 1: Components of Total Receipts of Telangana State



Note: GOI stands for Government of India, AC stands for Actuals, RE stands for Revised Estimates, BE stands for Budget Estimates.

[35] The fiscal deficit target of 3.5% of GSDP was exceeded in the years 2016-17 and 2017-18 owing to restructuring of finances of DISCOMS (electric distribution companies) under UDAY scheme.

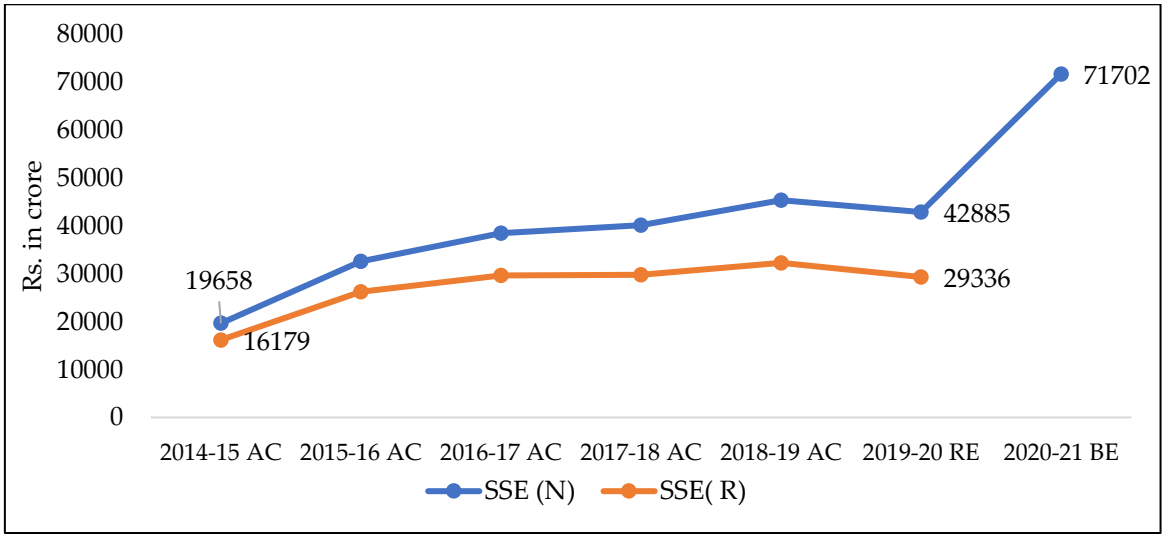
Figure 4. 2: Components of Total expenditure of Telangana State



Note: AC stands for Actuals, RE stands for Revised Estimates, BE stands for Budget Estimates.

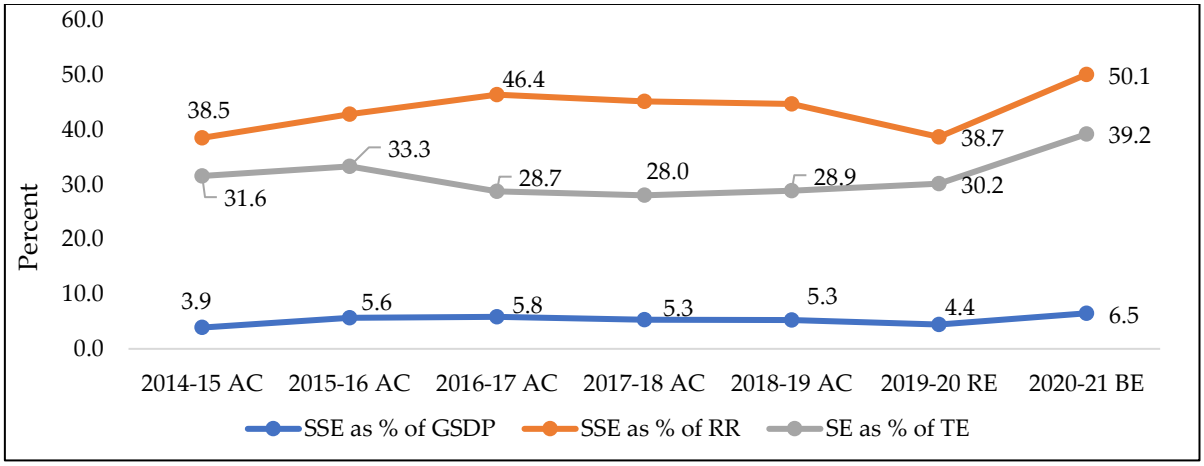
Social sector expenditures are critical for improvement of indicators of health and nutrition across the socio-economic categories of population. Services like clean drinking water, sanitation, education, and primary health services, also called nutrition sensitive, hold the key and public provisioning becomes more critical for the poor to access these services. Social sectors also complement each other in terms of improving the health and nutrition indicators among population, in general, and women and children, in particular. The social sector expenditure (Social Services as depicted in the budget) is a good indicator of the investment in nutrition-sensitive expenditure that complements the core nutrition specific expenditures such as SNP for children and Arogya Laxmi schemes. Social Services Expenditures (SSE) growth over years is presented in Figure 3. It grew from Rs 19,658 crore in 2014-15 to Rs 71,702 in 2020-21 at an AAGR of 27.2% in nominal terms, while the SSE expenditure grew from Rs 16,179 crore to Rs 29,336 crore between 2014-15 to 2019-20 at an impressive AAGR of 15% in real terms. As a proportion of GSDP, SSE increased from 3.9% to 6.5% during the period 2014-15 to 2020-21 (Figure 4.4); as a proportion of Revenue Receipts (RR), SSE increased from 38.5% in 2014-15 to 46.4% in 2016-17, and it again decreased to 38.7 during 2019-20. As a proportion of TE, SSE increased in 2015-16 but again saw a downward trend up to 2019-20 indicating that the SSE had not expanded in line with the expenditure expansion in the state.

Figure 4. 3: Social Services Expenditure (SSE) expenditure over years



Note: N stands for Nominal and R stands for Real.

Figure 4. 4: Share of Social Services Expenditure (SSE) expenditure over years



Note: TE stands for Total Expenditure, Revenue Receipts stands for RR, and GSDP stands for Gross State Domestic Product.

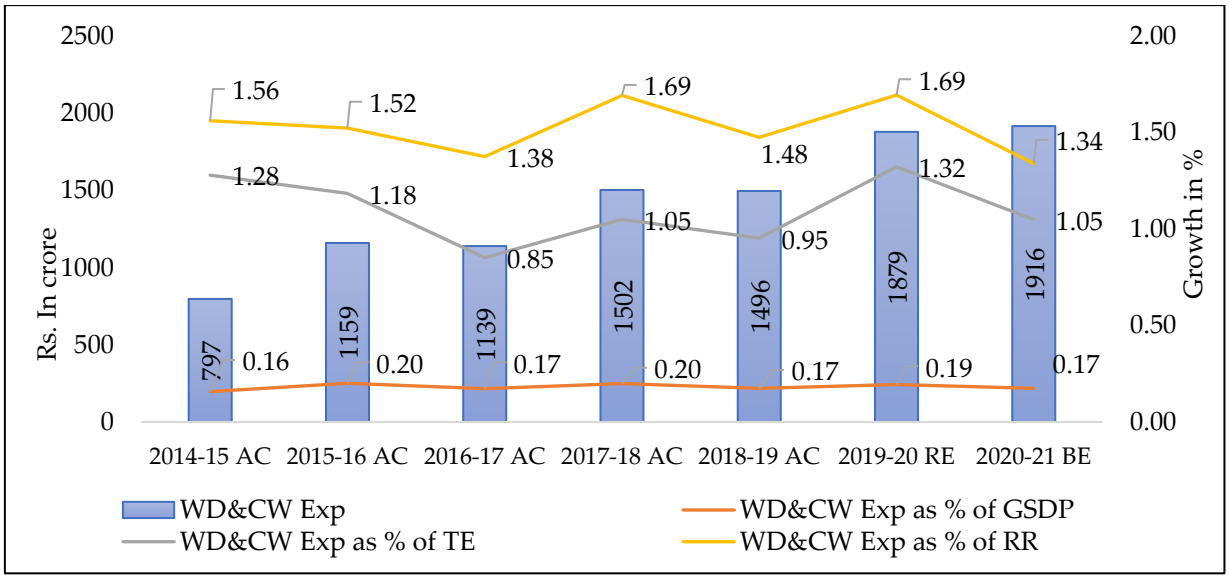
4.4.2. Analysis of Expenditures of Department of WD&CW

The expenditures of Department of WD&CW were analysed. The KCR Kit[36] and Assistance to Adolescent Girls Scheme being run by the departments of health, social welfare, and Tribal welfare are also considered to make the expenditure analysis complete. The expenditures of Department of WD&CW increased from Rs 797 crore in 2014-15 to Rs 1,916 crore in 2020-21 at an AAGR of 17%, while the growth in real terms was 16% for the period 2014-15 to 2019-20 (Figure 4.5). The last two years are Revised Estimates (RE) and Budget Estimates (BE), which are likely to

[36] Indira Gandhi Matritva Sahyog Yojna (IGMSY) was under WD&CW while KCR Kit is under the Health department.

undergo severe changes in the wake of COVID-19. The expenditure as a proportion of GSDP increased from 0.16% in 2024-15 to 0.2 in the years 2017-18 and again decreased to 0.17 for 2020-21. The expenditure as a proportion of TE also saw a decline from 1.28% in 2014-15 to 1.05% in 2020-21. A similar trend was observed for the expenditure as a proportion of RR indicating that though the expenditures of the department have grown, the growth is fluctuating and does not commensurate with the growth of revenues or expenditure of the state.

Figure 4. 5: Expenditures of WD&CW and its share in Total Expenditure (TE), Revenue Receipts (RE), and Gross State Domestic Product (GSDP)



The expenses of Department of WD&CW are largely revenue expenditure, which accounts for about 98% of the expenditure, and only two% was for capital expenditure (Table 4.9). The salary expenditure accounted for 40%, while the non-salary expenditure accounted for the rest 60%.

Table 4. 9: Capital and Revenue Expenditures of Department of Women Development &Child Welfare

(Rs in Crore)

Description	2014-15 AC	2015-16 AC	2016-17 AC	2017-18 AC	2018-19 AC	2019-20 RE	2020-21 BE
Capital	22.92	36.55	31.36	38.22	5.08	2.61	2.61
Revenue	774.11	1,122.80	1,107.86	1,464.22	1,491.04	1,876.32	1,913.77
Grand Total	**797.03**	**1,159.36**	**1,139.22**	**1,502.43**	**1,496.12**	**1,878.92**	**1,916.37**
Non-Salary	626.14	672.65	643.30	796.98	786.12	1,165.25	1,164.34
Salary	170.89	486.71	495.92	705.46	710.00	713.67	752.03

Note: AC stands for Actuals, RE stands for Revised Estimates, BE stands for Budget Estimates.

The Department of WD&CW expenditures were analysed by sector. The nutrition sector accounts for 78% of the expenditure, followed by health sector and child protection. The education expenditure accounts for a very meagre proportion of the total expenditure of the department (Table 11). The nutrition expenditure includes ICDS, Arogya Laxmi, Kishori Shakti Yojana, SNP, POSHAN Abhiyaan, SAG (SABALA), and Anganwadi services. The health sector includes Indira Gandhi Matritva Sahyog Yojna (IGMSY) and KCR Kit. Child protection includes ICPS, State Commission for Protection of Child Rights (SCPCR), services for children in need of care and protection, Juvenile Justice Fund, certified schools and homes, girl child protection scheme, and the Beti Bachao, Beti Padhao scheme.

Table 4. 10: Sectoral share of expenditure in Department of Women Development & Child Welfare (Rs in Crore)

Sector	2014-15 AC	2015-16 AC	2016-17 AC	2017-18 AC	2018-19 AC	2019-20 RE	2020-21 BE	Share (%)
Education	4.57	9.48	10.43	10.16	10.18	9.24	11.30	0.66
Health/maternity benefit	85.22	81.59	4.69	279.89	306.98	473.98	458.01	17.09
Nutrition	664.62	1,027.06	1,084.86	1,175.86	1,098.51	1,308.58	1,359.78	78.06
Child Protection	42.63	41.23	39.25	36.53	80.44	87.12	87.29	4.19
Grand Total	**797.03**	**1,159.36**	**1,139.22**	**1,502.43**	**1,496.12**	**1,878.92**	**1,916.37**	**100**

Note: AC stands for Actuals, RE stands for Revised Estimates, BE stands for Budget Estimates.

Purnima Menon et al., (2020) looked into the nutrition costs required for Direct Nutrition Interventions (DNI) for the year 2019-20[37] to be useful for benchmarking it for expenditures from 2020-21. It was estimated that an expenditure of Rs 38,571 crore was required for the DNI during 2019-20 for the country. The estimates for state-wise requirements were also drawn in that study. The DNI cost estimates for Telangana state were compared with the expenditures of the Department of WD&CW for the year 2019-20. The estimates for the year 2019-20 for Telangana and the expenditure incurred by the WD&CW is presented in Table 4.11. The costs included the counselling cost, which is provided for P&L women. The counselling

[37] The earlier estimates were done by Menon et al., (2016) and Chakrabarti et al., (2017). Insights from ECCE studies by CBPS Jha et al., (2020) are part of costing framework.https://accountabilityindia.in/publication/financing-nutrition-in-india-cost-implications-of-the-nutrition-policy-landscape-2019-20/

is provided both by Accredited Social Health Activist (ASHA) workers as well as AWW by way of providing IFA, monitoring weight gain, ensuring ANCs, etc. The costs of micronutrients and health interventions like immunisations, drugs, etc., is provided by the Department of Health.

Table 4. 11: Cost of Direct Nutrition Interventions (DNI) and Expenditure of Department of Women Development & Child Welfare (WD&CW) (Rs in Crore)

Nutrition Interventions	2019-20 DNI estimates	Department providing services	2019-20 Expenditure of WD&CW
Counselling	34	Health and WD&CW	34
Food Supplements	465	WD&CW	477
Micronutrients	93	Health	NA
Health Interventions	524	Health	NA
Maternity benefits[38]	238	Health	471

The Food Supplement costs (exclusive of dietary charges) provided are slightly higher than the cost estimated for the state. Similarly, for the maternity benefits, the expenditures are significantly higher than the estimates. This is due to the fact that maternity benefits are assumed with PMMVY costs (Rs 6,000, inclusive of Janani Suraksha Yojana [JSY]), while the state is providing Rs 12,000 or 13,000 as maternity benefit. The comparison indicates that the nutrition expenditure incurred by the state is in line with the requirement and the state is not lagging behind in provisioning of DNI, which is a progressive measure.

[38] The IGMSY was with WD&CW while the KCR kit is being administered by Department of Health and Family Welfare.

Chapter 5: Estimation of Expenditures for Reaching the Health, Nutrition, And Protection Targets of the Department of WD&CW by 2025

After taking into account the current expenditure trends, the following assumptions are made for assessing the ***additional*** requirements (over and above the current expenditure) of expenditure by the Department of WD&CW for the next five years. The annual report of the department for the year 2018-19 was considered for the information on the institutions run by the department, the vacancies of different posts, and the expenditure details.

1. The expenditure on SNP has been adequate and needs to be sustained further with adequate provisioning adjusting it for inflation.
2. The expenditure on nutrition together with maternity benefit (health component) accounts for 95.15% of the expenditure of the department, and this is being taken care of with adequate budget provision.
3. Anganwadi centres (AWCs), which are run under rented accommodation (12,750 in number), and without rent (12,636 in number), need new buildings which can be constructed with convergence under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) (building cost at Rs 8 lakh and improvement cost at Rs 4 lakh per AWC without rent) is being assumed for estimating expenditure.
4. The filling of vacant posts (CDPO, anganwadi supervisor, AWW, and AWH) along with an additional nutritional counsellor at the rate of 1 person per three AWCs is being estimated for estimating expenditure. About 10 posts of CDPO, 360 posts of Anganwadi Supervisor, 1200 posts of AWW, and 3100 posts of AWH are assumed to be filled.
5. The construction and maintenance of Bal-Raksha Bhavan (one stop centre for child protection; three have been constructed while 30 remain to be constructed) in all the districts and functioning of CWCs in full is being assumed for estimating expenditure.
6. The children homes (49 in number) run by the Departments of Child Welfare as well as the JW&CS together are considered for estimating the running expenditure.
7. The running expenditure for 11 Shishu Gruhas and 33 CWCs are covered for estimating the expenditures.
8. The childcare institutions (470 in number) taking care of about 7,500 children are being covered for estimating expenditure.

9. An additional cost of about Rs 15 crore per year for children homes, Shishu Gruhas, CWCs, and childcare institutions have been proposed taking into account that 50% of the requirement is being provisioned in the current budget.
10. The costs of the ICPS guidelines of 2014[39] are being used after adjusting it for inflation for the year 2020 for all the calculations (38% increase or 1.38 times the costs).

The current expenditure (for 2020-21 Budget Estimates) along with the additional expenditures due to upgradation, filling of vacancies, and new expenditure formed the basis for future projections. The estimated cost investments are provided in Table 5.1.

Table 5. 1: Projected investments for the period 2021-22 to 2025-26 for Women Development and Child Welfare department (Rs in crore).

	2011	2020	2021	2022	2023	2024	2025
Population	3,50,03,944	3,74,82,948	37,72,500	3,80,18,258	3,83,13,795	3,86,11,630	3,89,11,781
0-6	38,99,166	41,75,308	42,02,270	42,34,937	42,67,858	43,01,034	43,34,468
Integrated Child Development Services (ICDS) Beneficiaries		13,75,737	13,61,536	13,72,119.6	13,82,786	13,93,535	14,04,368
Arogya Laxmi		4,00,000	4,00,000	4,00,000	4,00,000	4,00,000	4,00,000
Current Budget at 8% annual increase		1,916	2,069	2,235	2,414	2,607	2,815
Additional costs (adjusted to inflation at 8%)							
Capital (4 years at 413 crore each year)	413		413	446	482	520	562
Revenue expenditure (195 crore)	195		195	211	227	246	265
Bal Raksha Bhavans (33)	90		20	20	20	20	20
Children Homes (50)	50		4	4	5	5	5
Shishu Gruhas (11)			1	1	1	1	1

[39] http://diu.gov.in/Others/DCPU/PDF/revised-icps-guidelines.pdf

	2011	2020	2021	2022	2023	2024	2025
Child Welfare Committees (33)			4	4	5	5	5
Childcare institutions expenses (470)			5	5	6	6	7
Total costs			**2,711**	**2,916**	**3,147**	**3,398**	**3,668**

The expenditures that would translate into about 1.4%–1.6% of TE of the state or 0.2%–0.22% of GSDP or about 1.7%–1.9% of the RR of the state from 2021-22 to 2025-26 would suffice to meet the required expenditure from the department of WD&CW. However, owing to the increase in stunting and underweight children under five years of age (as per CNNS), there is a greater need for ensuring efficacy of nutritional counselling and complementary nutrition sensitive expenditures of the state.

Chapter 6: Conclusions and Policy Implications

6.1. Conclusions

1. Nutrition index was higher in economically forward districts despite relatively lower levels of DNI reach indicating the importance of the socio-economic development in augmenting the nutrition among women and children. The importance of wealth, followed by sanitation and education, (of girls) in improving nutrition need to be taken into cognisance while designing the solutions for malnutrition.
2. The indicators for adolescent children indicated a greater burden for the state in relation to the all-India indicators. This also indicates the need for a greater and focused intervention targeting adolescents. The nutritional counsellor as envisioned in the ICDS needs to play a bigger role in building awareness about local nutrient-rich foods and the importance of investment on adolescent nutrition for breaking the intergenerational nutrient deficiencies. Co-ordination of the Department of WD&CW with the health department in school health programmes is required.
3. The target indicators of nutrition and child protection (for 2024) have shown mild improvement. They stress on the need for more focused approach to achieve targets. The higher the investment in supplementary nutrition the more likely it is to pay dividends, and indicators are likely to improve in another two-three years as there is a time lag between nutrition investments and improvements in nutritional indicators.
4. The state finances are very stable except for the deviations in fiscal deficit for two years. The priority in social sector expenditure and its growth over years is very impressive. The dependence on GOI for funds (taxes and grants) has reduced over years indicating a higher self-reliance.
5. The expenditure of the department of WD&CW has grown well. However, in relation to the state GSDP and TE of the state, the growth is relatively less.
6. The supplementary nutrition expenditures for P&L women, children aged 7–59 months, and adolescent girls are slightly higher and comparable with that of the International Food Policy Research Institute and Accountability Initiative (IFPRI and AI) estimates for year 2019-20, indicating that the state is spending as per the requirement.
7. An expenditure of 1.5 of the TE of the state or 0.22%–0.23% of GSDP would translate into the required expenditure for the department of WD&CW for the next four years.

6.2. Policy Implications

1. Nutrition expenditures are highly correlated with social determinants relating to status of women and girls, and the socio-economic development reducing the poverty and food security is critical (nutrition sensitive investments) for improving the nutrition indicators. This is echoed by the POSHAN Abhiyaan progress report as well.

2. Nutritional counselling and nutrition education are important components for achieving the improvement in the nutritional status of adolescent girls and women. This is critical for breaking the intergenerational malnutrition cycle. While the state efforts in providing supplementary nutrition are very significant, ensuring that the women, girls, and people, in general, take onus on themselves to prioritise nutrition holds the key. In this age of advertisements that focus on packed foods, snacks and carbonated drinks, people are always at the risk of being in dark about the importance of fresh fruits, vegetables, and locally available low-cost alternatives, which are highly nutritious.

3. The use of biofortified millets[40] developed by International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad along with popularising the local recipes of millet by pooling the knowledge at the community level and nutritional counsellor can play a big role in reducing malnutrition.

4. One of the important observations of nutrition studies as well as POSHAN Abhiyaan was the need to deep dive into the state specific problems to arrive at specific solutions. The POSHAN Abhiyaan also indicated the need for addressing the governance challenges of NHM and ICDS. The POSHAN Abhiyaan expenditure for the three years is a reflection of these challenges. In this case, states can focus on treating the symptom through SNPs, while GOI should be focusing on treating the cause (by focusing on augmenting natural resources and economic development) rather than monitoring the programmes.

5. Use of data should become the norm than exception. The birth registrations are high, at 97%, and this should form the database for all the nutrition interventions. An ID generated at the birth should be used to assess and evaluate periodically for nutritional status achievements. There can be a common, mandatory screening programme at AWC for all children at the age of three years and six years, and participation in this screening can be made a

[40] ICRISAT, Hyderabad has developed jowar and bajra that are biofortified with increased iron.

requirement for school admission. This should, in turn, be effectively used to track and enhance the efforts for child protection, adolescent malnutrition, and issues of child dropout instead of estimating the same.

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Annexures

Table A. 1: Integrated Child Development Services (ICDS) Weekly menu under Arogya Laxmi scheme (Menu of One Full Meal)

Day	Item 1	Item 2	Item 3	Item 4	Item 5
Day 1	Rice	Sambar with vegetables		Egg curry	Milk (200 ml)
Day 2	Rice	Dal	Green leafy vegetable curry	Egg	Milk (200 ml)
Day 3	Rice	Dal with leafy vegetables	Egg curry	Egg	Milk (200 ml)
Day 4	Rice	Sambar with vegetables	100 ml Curd	Egg curry	Milk (200 ml)
Day 5	Rice	Dal	Green leafy vegetable curry	Egg	Milk (200 ml)
Day 6	Rice	Dal with leafy vegetables	100 ml Curd	Egg	Milk (200 ml)

Source: Department of Women and Child Welfare, Government of Telangana.

Table A. 2: Cost and nutrient value of food per woman provided under Arogya Laxmi scheme

No.	Item	Quantity per day	Tentative Cost per day (Rs)	Nutritive Value		
				Energy (kcal)	Protein (g)	Calcium (mg)
1	Rice	150 g	0.60	517.56	10.20	15.00
2	Dal (Red Gram)	30g	2.55	104.40	7.25	22.50
3	Oil	16g	1.10	144.00	0.00	0.00
4	Transport		0.10	0.00	0.00	0.00
5	Cooking		0.30	0.00	0.00	0.00
6	Milk (30 Days) (at Rs5.6 per day)	200 ml	9.85	273.00	10.03	490.00
7	Egg (30 Eggs) (at Rs3.5 per day)	1 No. (50 g)	4.20	100.92	7.76	35,00
8	Vegetables (Leafy Vegetables, Potato, Onion, Beans, etc.,)	50 g	1.50	52.50	1.80	16.06
9	Condiments		0.60	0.00	0.00	0.00
Total			**21.00**	**1,192.38**	**37.04**	**578.56**

Source: Department of Women and Child Welfare, Government of Telangana.

Table A. 3: Composition per 100 g of Balamrutham

Ingredients	Parts (g)	Energy (kcal)	Protein (g)
Roasted Wheat	55	190.3	6.4
Bengal Gram	5	18.0	1.0
Skimmed Milk Powder	10	35.7	3.6
Sugar	20	80	0
Oil	10	90	0
Total	**100**	**414.0**	**11.0**

Source: Department of Women and Child Welfare, Government of Telangana.

Table A. 4: Nutritive value per 100 g in Balamrutham

Sl. No.	Government of India Norms	Available Nutrients in Natural Ingredients	Fortification	Total
1	Energy (kcal)	414	0	414
2	Protein (g)	11	0	11
3	Calcium (mg)	167	200	367
4	Iron (mg)	3.1	6	9.1
5	Vitamin A (µg)	2.5	200	202.5
6	Vitamin B1 (µg)	0.3	0.3	0.6
7	Vitamin B2 (mg)	0.2	0.35	0.55
8	Vitamin C (mg)	0.5	15	15.5
9	Folic Acid (µg)	7.1	15	22.1
10	Niacin (mg)	2.3	4	6.3

Source: Department of Women Development and Child Welfare, Government of Telangana.

Table A. 5: Cost and nutrient value of spot feeding food and Take-Home Ration

Feeding Model	Sl. No	Item	Quantity Per day	Tentative Cost per day (Rs)	Nutritive Value		
					Energy (kcal)	Protein (g)	Calcium (mg)
Take Home Ration (THR)	1	Balamrutham [roasted wheat, Bengal gram, milk powder, sugar, and oil]	100g	4.58	414.00	11.00	367.00
Spot Feeding/ THR	2	Egg (4 per week)	32 g (average per day)	2.24	55.36	4.26	19.2
	3	Transport		0.10			
	4	Fuel		0.20			
Total				**7.12**	**469.36**	**15.26**	**386.2**

Source: Department of Women Development and Child Welfare, Government of Telangana.

Table A. 6: Additional cost estimates for the Department of Women Development & Child Welfare

Additional costs	Number	Costs (Rs in Crore)	Annual cost (Rs in Crore)
Anganwadi Buildings at Rs 8 lakh	12,751	1020	
Improvement at Rs 4 lakh	12,636	632	
		1652	413
Vacancies			
Child Development Project Officer (CDPO)	10	0.60	
Supervisor	360	12.96	
Anganwadi Worker (AWW)	1,205	37.55	
Anganwadi Helper (AWH)	3,106		
Nutritional counsellor (1 for 3 Anganwadi Centres [AWC])	12,000	144.00	
		195.11	**195**

Source: Annual Report, Department of Women Development and Child Welfare, 2018-19.

Table A. 7: Additional cost estimates for the Department for childcare institutions (Rs in Crore)

Expenditure	N0.	2014-unit cost	1.38 factor	Total cost	Total cost (Rs in crore) per year
Children homes	50	5,50,000	7,59,000	3,79,50,000	4
Shishu Gruhas (SAA)	11	8,92.500	12,31,650	1,35,48,150	1
Child welfare committees	33	9,60,000	13,24,800	4,37,18,400	4
Childcare institutions (registered)	470		1,00,000	4,70,00,000	5

Assumptions for estimation of costs of Department of Women Development and Child Welfare

a. Children homes: While the cost of running a children home is about Rs 11 lakh (2014 cost); we assume that 50% of the expenditure is already being provisioned and another 50% needs to be provided for the same and this amounts to about 5.5 lakh per annum (at 2014 cost). At 2021 cost, it comes to an additional cost of Rs 4 crore.
b. Shishu Gruhas: The running cost (at 2014 cost) was Rs 17.85 lakh; we assume that 50% of the expenditure is already being provisioned and another 50% needs to be provided for the same. This amounts to about Rs 8.9 lakh per annum (at 2014 cost). At 2021 cost, it comes to an additional cost of Rs 1 crore.
c. Child welfare committees: Running expenditure in 33 districts in full capacity is Rs 9.6 lakh (at 2014 cost) and this amounts to additional cost of Rs 4 crore (at 2021 cost).
d. Childcare institutions (470): About Rs 1 lakh additional fund per institution for maintenance/ running expenditure is being proposed.

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