CHILD AND NUTRITION

NUTRITION IMPACT REPORT 2017

DECEMBER, 2017

ACKNOWLEDGEMENT

The Nutrition Impact Report 2017 is a team effort. It would not have been possible without the contribution and commitment of our team and partners.

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"We are guilty of many errors, many faults, but our worst crime is abandoning the children, neglecting the foundation of life. Many of the things we need can wait. The child cannot! Right now, is the time her bones are being formed, her blood is being made and her senses are being developed. To her we cannot answer "Tomorrow". Her name is "Today"."

Gabriele Mistral, 1948

Often we use the term 'overall development of the child'; that is the interpersonal growth, psychological and behavioral development, and of course physical development. While discussing the overall development of any child, a healthy diet forms a fundamental part of the process.

In India, unfortunately, children live in the company of malnutrition. Malnutrition is the lack of nutritious food intake; it is a part of a vicious circle that includes poverty and disease. These three parts of the circle are interlinked in such a manner that each contributes to the presence and permanence of the others.

It is essential to break the cycle. According to the WHO Global Database on Child Growth and Malnutrition, 1997, socioeconomic and political conditions that improve health and nutrition can break the cycle; as can specific nutrition and health interventions.

Additionally, the WHO Database states that malnutrition in children is the consequence of a range of factors that are often related to poor food quality, insufficient food intake, and severe and repeated infectious diseases, or frequently a combination of the three. These conditions, in turn, are closely linked to the overall standard of living and whether a population can meet its basic needs, such as access to food, housing and health care.

Growth assessment, thus not only serves as a means for evaluating the health and nutritional status of children, but also provides an indirect measurement of the quality of life of an entire population.

In order to tackle the problem of malnutrition, the Government of India launched the Mid-Day Meal (MDM) Scheme in 1995. It is a nationwide school meal program designed to improve the nutritional status of school-going children.

WHO defines Malnutrition as deficiencies , excesses or imbalance in a person's intake of energy and / or nutrients. The term malnutrition covers 2 broad groups of conditions. One is 'undernutrition' – which includes stunting (low height for age), wasting (low weight for age and micronutrient deficiencies or insufficiencies (a lack of important vitamins and minerals). The other is overweight, obesity and diet-related non-communicable disease (such as heart disease, stroke, diabetes and cancer).

The MDM program supplies free meals to children of primary and upper primary sections on school days. Serving 120,000,000 children in over 1,265,000 schools and Education Guarantee Scheme centers, it is the largest such program in the world, as per the data mentioned on the MDM scheme website maintained by Ministry of Human Resource Development.

An article published in The Times of India on May 31, 2017, reported data, accessed through Right to Information and analyzed by Praja Foundation as regards nutritional status of children attending Municipal Corporation of Greater Mumbai (MGCM) Schools. Praja Foundation reported that one out of every three children studying in MCGM Schools is malnourished. The number of malnourished children increased from 11,831 in 2013-14 to 53,408 in 2014-15, and further to 64,681 in 2015-16. Malnourishment affected more girls (35%) than boys (33%) in 2015-16. The Organization was trying to highlight the fact that despite the presence of schemes like Integrated Child Development Scheme (ICDS) and other nutrition/health related schemes, malnutrition is increasing which in turn is affecting the overall health status of children. It is, therefore, very essential for us to take a stock of the above-mentioned data and initiate immediate action on reducing the ill-effects of poor nutrition.

MALNUTIRITION IN CHILDREN: IN CONTEXT OF THE RED-LIGHT AREA

If we were to consider the issue of malnourishment with regards to a red-light area setting, we would find that the situation is ten times worse.

In Prerana's 30 years of working with women and children in the red-light areas of Mumbai, we have witnessed varied instances where women victims of commercial sexual exploitation and trafficking undergo severe struggle to ensure the health and wellbeing of their children.

These mothers live in absolutely sub-human conditions and have low to no resources to address their and their children's nutritional needs. The women neither have the place nor the time to cook food in the brothel, as the brothel keepers want them to use most of their time entertaining customers. In some cases, the brothel keeper arranges for food, but gives no considerations to nutrition. Women have no space to call their own. Her 'space' is a bed in a brothel, under which some women store their utensils and other possessions to cook a meagre meal.

A brothel consists of a number of beds (the number varies depending on the size of the room) and a woman uses these beds to entertain her customers. The space under these beds is used by the woman to store items and her belongings. This space also doubles up as a make-shift kitchen. To sum up, that particular bed and the space beneath it, is what a victim in a red-light area considers her 'home'.

A woman surviving in the red-light area has no storage facility. Therefore, she is forced to buy supplies that last her merely a day. She utilizes these to cook her meal for the day. She has no money to buy fresh vegetables, milk, fish,

meat, etc. every day; so on most days she has to rely on the local restaurant food that is spicy, oily, unhygienic and often stale. Breakfast is usually watery tea and pav/bun that is slathered with butter (*maska*).

Women in the red light areas lack access to health facilities, information regarding health and the availability of health facilities. The prevalence of quacks who treat health problems without the proper training and the salesmen at pharmacies who dole out prescription drugs with the objective of making a profit, make matters worse. These salesmen also provide 'advice' to women regarding treatment of various medical disorders and in this transaction sell costly drugs to the unsuspecting women.

A very common sight in the red light areas is small clinics which claim to treat skin and venereal disease. Qualifications of the doctors are just some abbreviations which appear to denote medical degrees. In all probabilities, these 'so called' doctors, do not hold the requisite degrees in medicine or might hold diplomas/certificates in alternative medicine which does not qualify them to prescribe the drugs that they dispense through their clinics.

The daily routine of women living in the red light areas is not normal. They tend to customers all night and at times they also solicit all day, which leaves them considerably less time to spend with their children. Most days, they have no option but to feed their children restaurant food, which has a low nutritive value. When women do not have the time to purchase food they hand over some money to their children. Children, then, end up eating junk food like – crisps, chips and deep-fried savories made in road-side stalls – which are very low in nutrient content, sod in unhygienic conditions and at times inedible.

The mothers are barely in any position to monitor what their children are eating. There are also instances where you will find that men (very often men who also serve as pimps) cook food for the women, their children and themselves, so that the women can devote all her time soliciting and attending customers.

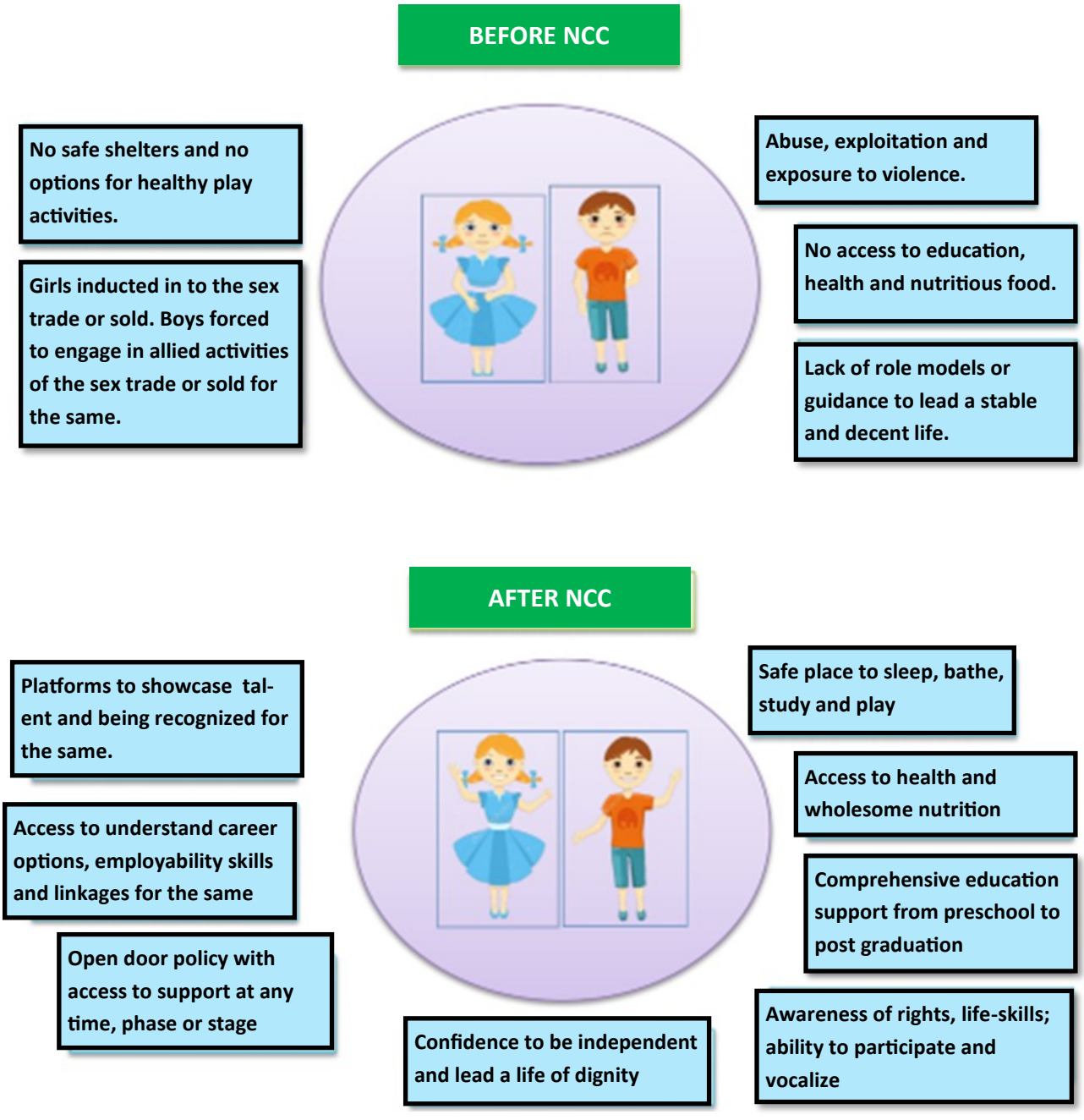
Children seldom get to eat food prepared by their mothers. When the mothers have the time and money, they try to cook "good" food for their children; although this is a rare event.

Since years, Prerana has been running Night Care Centers (NCC) at Kamathipura, Falkland Road and Turbhe Red-Light Areas for the children of these mothers.
At the NCCs, we also provide the children with nutritious food.

HEALTH AND NUTRITION IN NIGHT CARE CENTER (NCC)

The first NCC was set up in 1988. It was the first program of its kind worldwide. Presently, Prerana operates four NCCs, two located in Kamathipura, one at Falkland Road and another in Vashi-Turbhe area. These centers provide a safe space for children of prostituted women during the night hours, where they are protected from the dangers and traumatizing influences of the red light area.

The NCC provides a comprehensive set of services such as safe shelter, wholesome nutrition, medical care, educational support, recreational facilities and psycho-social counseling, all designed and delivered professionally. The NCC is also the base for Prerana's Educational Support Program (ESP).



This year Prerana decided to conduct an assessment of children who receive nutritious diet as a part of the services offered in the NCCs, namely Kamathipura (NCC 1), Falkland Road (NCC 2) and Vashi-Turbhe (NCC 3) centers. For the same, Body Mass Index (BMI) of 56 children between the age group of 6 to 18 years was measured. 15 out of 60 children from NCC 1, 22 out of 86 children and 18 out of 38 children, who have been receiving nutritious diet for the last two years, were selected through simple random sampling.

WORLD HEALTH ORGANIZATION (WHO) DEFINES BODY MASS INDEX AS,

Body Mass Index (BMI) is a simple index of weight-for-height that is commonly used to classify underweight, overweight and obesity in children and adults. The computation of BMI is done by considering the weight in kilograms which is divided by the square of the height in meters (kg/m^2). For example, a child who weighs 30 kg and whose height is 1.25m will have a BMI of 19.2. In accordance with the above explanation the following example will clarify the formula used to compute and arrive at the BMI of an individual:

$$BMI = 30\ kg / (1.25\ m^2) = 30/ 1.56 = 19.2$$

The BMI is thus calculated and interpreted as per the BMI percentile, which we have shared in Annexure 1 and 2. The BMI is interpreted as per the age of the child have a particular BMI and the BMI is then measured as per the percentile. Similarly, a BMI of these 56 children were calculated. The results are shared below on page numbers starting from 7 to 13.

As per the **GLOBAL DATA BASE FOR BODY MASS INDEX**, the indicators measured are as follows:

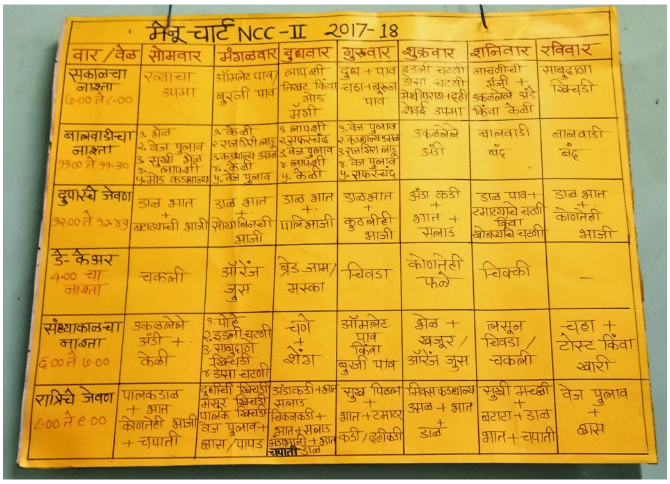
- Severely Underweight = <16.00 BMI
- Low weight for height – Underweight/ Wasting = <16.01 - <18.49 BMI
- Acceptable Weight = 18.50 – 24.99 BMI
- Weight for height – Overweight = ≥ 25.00
- Severely Overweight = ≥ 25.00 - ≥ 29.99
- Obese = ≥ 30.00

- The NCC program provides 3 meals a day to every child - an evening snack, dinner and breakfast in the morning (NCC timings are from 5:30 pm in the evening to 10.00 am, the next day morning).

- The Nutrition Menu is discussed with the Pediatrician, revised and finalized along with children's participation, every 4 months.

- NCC staff conducts a health session every month and a session on nutrition once in a year, for the NCC children and their mothers.

- If the child is ill, a special diet is provided to the child, as prescribed by the in-house Pediatrician.



- The outreach workers conduct daily outreach. During the outreach, if the outreach worker finds a sick child, she informs the mother to take the child to a qualified doctor or accompanies the mother to the qualified doctor. If there is no doctor available, then the mother is informed about the Pediatrician's visit at Prerana's NCC and asked to bring the child during the visit, which would be in the subsequent day. If the condition of the child is serious then the child is taken to the nearby government hospital for treatment and follow up on the same is done by the Outreach Worker, not only ensuring that the mother is involved in the care but that the mother is informed of all outcomes.

- Some children run errands in the red light during their free time (when not in school and not in the NCC) for which they get paid. They use this money to eat, which is often junk food with non-nutritive value.

- There are some children who eat 'Junk snacks - empty calories' before coming to the NCC resulting in the skipping of nutritious snacks served in the evening. A few children are very "picky" about the food they eat resulting in the fact that they do not consume the balanced diet given to them. Bringing change in their dietary habits/attitudes is a slow process.

- Some children eat their dinner early (prepared either by the mother or the pimp) and come to the NCC, eat the snack served (if it is their favorite snack) and then skip having dinner.

CHALLENGES AS SHARED BY THE NCC TEAM

- There are times when children don't attend the NCC for a period of one day to sometimes a month due to festive celebrations (Ganapati, Dandiya, Ramadan, etc.) in the brothel or the building in which the brothel is located. The child wants to participate in the activities that take place late in the evening till midnight. Other times the mother goes to her native village and takes the child with her.

- There are times when a child is ill and the mother refuses to follow the prescribed diet and medicines suggested by the doctors. She keeps the child with her in the brothel and relies on pharmacies who dole out prescription drugs. This sometimes backfires and the child's health deteriorates to a point where the mother agrees to follow the prescription suggested by the doctor. By this time, the child has experienced a significant amount of weight loss.

- If the child is suffering from diarrhea, some mothers don't send the child to NCC but keep the child with themselves. Even if a mother wants to take care of the child, she might not have information or resources available with her. Thus, the child's health deteriorates rapidly. If the same child was at NCC, the care taker would administer Oral Rehydration Solution (ORS), take the ill child to the doctor and provide the child with appropriate nutrition and required treatment.

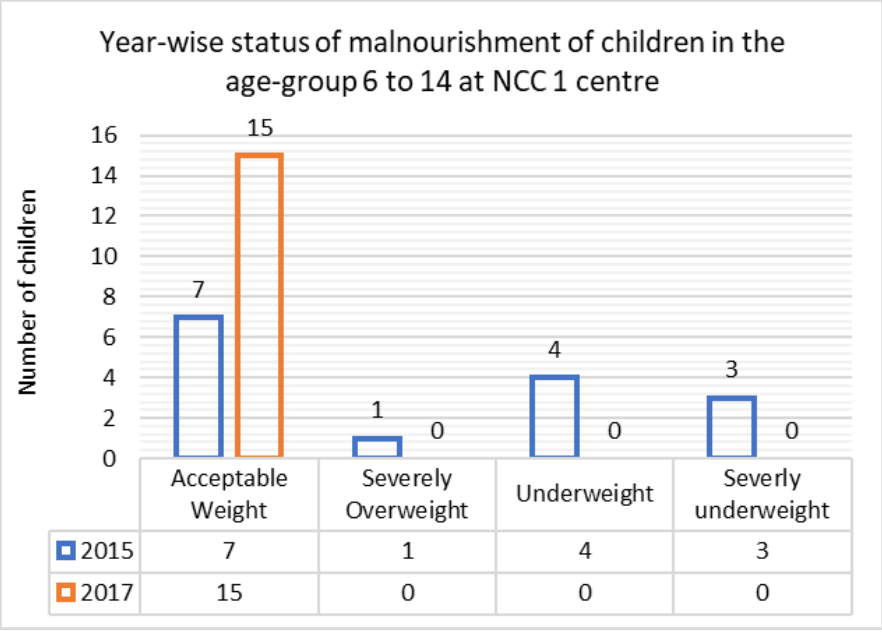
- There are superstitions around certain illnesses, and the cultural treatment of these illnesses requires that particular food be consumed. For example, mother will take the child who is suffering from Jaundice to Godmen (babas) and believe in religious dogma.

STATUS OF MALNOURISHMENT OF CHILDREN AT KAMATHIPURA/ NCC 1

Table 1: Status of malnourishment of children at Kamathipura/NCC 1 Center (Age Group: 6 to 18 years)

Sr. No	Name of the child	Sex	Age	BMI	BMI status as per percentile	Age	BMI	BMI status as per per-centile
			2015			2017		
1	SK	F	4	15.09	Underweight	6	14.88	Acceptable Weight
2	DD	F	5	9.58	Underweight	7	14.24	Acceptable Weight
3	AA	F	8	14.86	Underweight	10	16.52	Acceptable Weight
4	SS	F	10	16.87	Acceptable Weight	12	20.74	Acceptable Weight
5	RS	F	12	14.07	Severely Underweight	14	18.61	Acceptable Weight
6	TS	F	14	21.84	Acceptable Weight	16	20.74	Acceptable Weight
7	TB	M	4	13.94	Underweight	6	14.79	Acceptable Weight
8	AAS	M	5	30.38	Severely Overweight	7	18.52	Acceptable Weight
9	ASW	M	6	15.94	Acceptable Weight	8	14.04	Acceptable Weight
10	SD	M	7	11.30	Severely Underweight	9	14.78	Acceptable Weight
11	PH	M	8	17.54	Acceptable Weight	10	16.39	Acceptable Weight
12	ASF	M	9	14.34	Acceptable Weight	11	16.22	Acceptable Weight
13	AV	M	14	20.40	Acceptable Weight	16	20.90	Acceptable Weight
14	ARS	M	14	18.08	Acceptable Weight	16	17.71	Acceptable Weight
15	AHS	M	15	10.45	Severely Underweight	17	18.13	Acceptable Weight

Diagram 1.1: Status of malnourishment of children at Kamathipura/ NCC 1 Center (Age Group: 6 to 18 years)



The graph shows the number of children and their weight for age. In the year 2015, 7 out of 15 (46.67%) children were acceptable weight, 1 out of 15 (6.67%) children was severely overweight, 4 (26.67%) out of 15 (100%) children were underweight, and 3 out of 15 (i.e. 20.00%) children were severely underweight. There is a drastic increase in the year 2017 in the number of children of acceptable weight. It can be seen that all 15 children (100%) are of acceptable weight at 'Weight for Age' parameter.

STATUS OF MALNOURISHMENT OF CHILDREN AT FALKLAND ROAD/ NCC 2

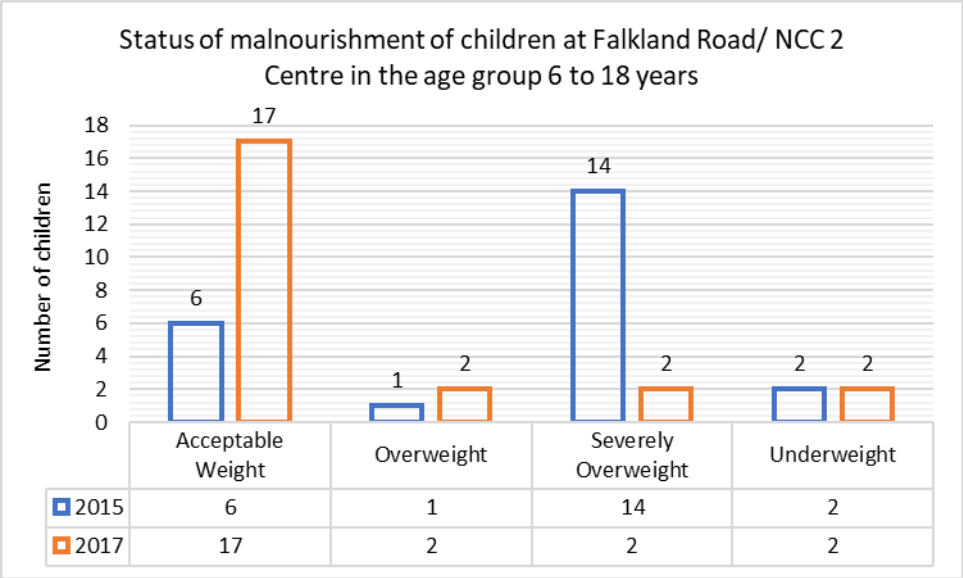
Table 2: Status of malnourishment of children at Falkland Road/ NCC 2 Center (Age Group: 6 to 18 years)

Sr. No	Name of the child	Sex	Age	BMI	BMI status as per percentile	Age	BMI	BMI status as per percentile
			2015			2017		
1	SSH	F	6	17.63	Severely Overweight	8	13.17	Acceptable Weight
2	**SIB**	**F**	**7**	**24.41**	**Acceptable Weight**	**9**	**20.41**	Overweight
3	MSH	F	5	15.26	Severely Overweight	7	17.12	Acceptable Weight
4	RG	F	4	18.85	Acceptable Weight	6	15.98	Acceptable Weight
5	SS	F	5	36.62	Severely Overweight	7	15.94	Acceptable Weight
6	GV	F	6	39.06	Severely Overweight	8	14.97	Acceptable Weight
7	SK	F	14	31.69	Acceptable Weight	16	16.92	Acceptable Weight
8	PS	F	9	33.95	Severely Overweight	11	21.53	Acceptable Weight
9	YV	F	10	24.42	Severely Overweight	12	14.60	Acceptable Weight
10	SM	M	5	36.63	Severely Overweight	7	15.08	Acceptable Weight
11	SGA	M	8	27.16	Severely Overweight	10	15.13	Acceptable Weight
12	EDB	M	8	26.57	Underweight	10	22.86	Acceptable Weight
13	**ASK**	**M**	**6**	**20.82**	**Severely Overweight**	**8**	**14.31**	Underweight [1]
14	JY	M	8	34.18	Severely Overweight	10	21.50	Acceptable Weight
15	ACK	M	7	27.10	Severely Overweight	9	15.46	Acceptable Weight
16	BW	M	5	13.92	Severely Overweight	7	14.78	Acceptable Weight
17	AG	M	11	14.57	Acceptable Weight	13	19.12	Acceptable Weight
18	SW	M	6	19.13	Severely Overweight	8	22.18	Acceptable Weight
19	JK	M	8	15.70	Acceptable Weight	10	21.98	Acceptable Weight
20	MP	M	4	23.24	Severely Overweight	6	25.12	Acceptable Weight
21	RR	M	12	41.50	Underweight	14	24.56	Acceptable Weight
22	KG	M	5	21.50	Overweight	7	13.00	Acceptable Weight
23	**NS**	**M**	**8**	**25.28**	**Overweight**	**10**	**9.55**	Underweight [2]

[1] ASK, age 8 years (in 2017) was enrolled in the NCC on March 5, 2012. His mother Teena took ASK to her village for summer holidays in mid May 2017. Upon his return, ASK tested positive for Dengue. Prerana staff member took ASK to the nearby government hospital and he was treated for the same. His prescribed medication and a special diet to recover was monitored by the NCC staff. While we conducted the process of measuring BMI, ASK was recuperating from Dengue. This impacted his statistics and it showed an underweight status.

[2] NS, age 10 stays on the street of Falkland Road Red Light Area. His mother Shaba took him to Rey Road (relative's place) in May 2017. He fell sick and for a month didn't attend the NCC. During the outreach to Rey Road, staff of Prerana found out that he was ill and needed to be treated immediately. He was soon provided with necessary treatment and brought back to NCC by the end of June 2017.

Diagram 2.1: Status of malnourishment of children at Falkland Road/ NCC 2 Center (Age Group: 6 to 18 years)



The above graph shows the number of children and their 'Weight for Age' at the NCC 2 Center at Falkland Road. In the year 2015, 6 out of 23 children (26.09%) were of acceptable weight, 1 out of 23 children (4.35%) was overweight, 14 out of 23 children (60.87%) were severely overweight, and 2 out of 23 children (8.70%) were underweight. None of the children were severely underweight.

In 2017, there has been a drastic increase in the number of children of acceptable weight; 17 out of 23 children (73.91 %) are of acceptable weight. 2 out of 23 children (8.70%) are overweight, 2 out of 23 children (8.70%) are severely overweight and 2 out of 23 children (8.70%) are underweight. The number of children who were severely overweight in the year 2015 has decreased phenomenally in the year 2017.

STATUS OF MALNOURISHMENT OF CHILDREN AT VASHI-TURBHE/ NCC 3

Table 3: Status of malnourishment of children at Vashi-Turbhe/ NCC 3 Center (Age Group: 6 to 18 years)

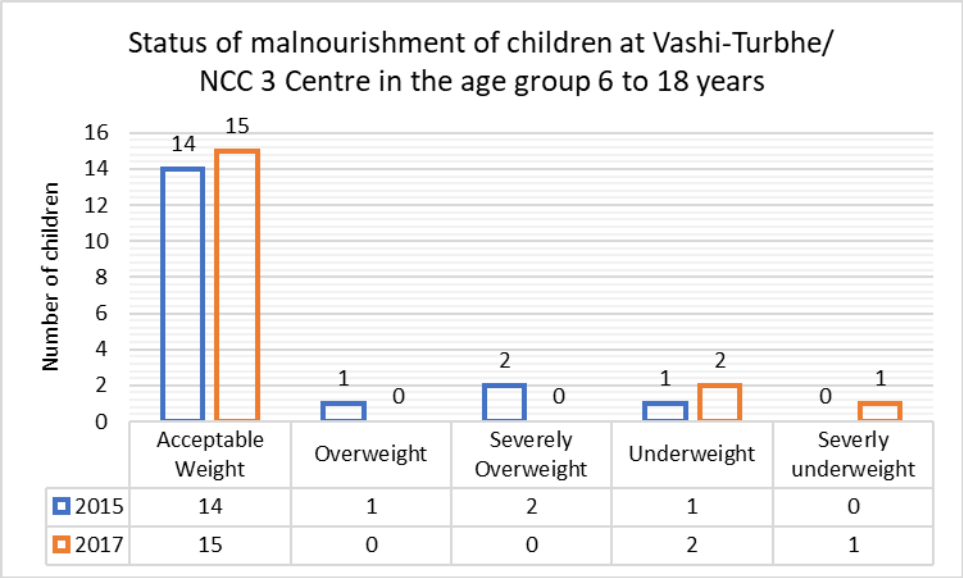
Sr. No	Name of the child	Sex	Age	BMI	BMI status as per percentile	Age	BMI	BMI status as per percentile
			2015			2017		
1	MG	F	13	20.95	Acceptable Weight	15	19.56	Acceptable Weight
2	SK	F	7	16.79	Acceptable Weight	9	16.67	Acceptable Weight
3	PG	F	10	16.81	Acceptable Weight	12	16.27	Acceptable Weight
4	IK	F	10	23.51	Overweight	12	21.52	Acceptable Weight
5	**MK**	**F**	**9**	**14.90**	**Acceptable Weight**	**11**	**14.72**	**Severely Underweight [3]**
6	**SS**	**F**	**6**	**17.28**	**Acceptable Weight**	**8**	**13.88**	**Underweight [4]**
7	**NG**	**F**	**11**	**17.28**	**Acceptable Weight**	**13**	**14.94**	**Underweight [5]**
8	SG	M	11	16.98	Acceptable Weight	13	17.82	Acceptable Weight
9	PBA	M	5	15.82	Acceptable Weight	7	15.54	Acceptable Weight
10	TSA	M	12	24.05	Acceptable Weight	14	18.49	Acceptable Weight
11	MK	M	9	16.27	Acceptable Weight	11	17.16	Acceptable Weight
12	ST	M	5	15.67	Acceptable Weight	7	14.37	Acceptable Weight
13	MJ	M	13	18.14	Acceptable Weight	15	16.60	Acceptable Weight
14	IM	M	7	14.05	Acceptable Weight	9	22.25	Acceptable Weight
15	SG	M	12	15.48	Acceptable Weight	14	18.61	Acceptable Weight
16	SA	M	7	26.70	Severely Overweight	9	17.05	Acceptable Weight
17	FK	M	11	32.26	Severely Overweight	13	21.43	Acceptable Weight
18	SA	M	11	14.01	Underweight	13	18.35	Acceptable Weight

[3] MK, age 11 years lives in the Turbhe Red Light area. Her mother Heena is stunted and MK's height and weight for age show an imbalance. During the month of June and July 2017 (when the BMI measurement was conducted), MK was suffering from viral fever which had an impact on nutrient/diet intake. This was compounded by her below normal status of height and weight for age owing to which the computation brought forth that MK is severely underweight. She stayed at NCC 3 (Vashi-Turbhe) and received treatment for the same. Her mother was also instructed about the do's and don'ts.

[4] SS, age 8 years, did not attend NCC 3 for the last 2 years. In the year 2015, SS was placed in a child care institution. In the month of December 2016, SS's mother Shikha took custody of the child and in the month of January 2017, the mother re-enrolled SS at NCC 3. Even after enrolling her in NCC 3, SS remained irregular. The weight and height for the age was measured in the month of July 2017. Thus, the measurement specifies her as underweight.

[5] NG, age 13 years, has not been attending NCC 3 in the month of April and May 2017. She was also suffering from skin disease/ infection and viral fever. During this period, her mother Malika had taken NG to the village. NG came back in the month of June and availed NCC 3 services regularly.

Diagram 3.1: Status of malnourishment of children at Vashi-Turbhe/ NCC 3 Center (Age Group: 6 to 18 years)



The above given graph shows the number of children and their weight for age. In the year 2015, 14 out of 18 children (77.78%) were of acceptable weight, 1 out of 18 children (5.56%) was overweight, 2 out of 18 children (11.11%) children were severely overweight, 1 out of 18 children (5.56%) were underweight, and 0 child or no child out of 18 children was severely underweight.

In the year 2017, 15 out of 18 children (83.33%) are of acceptable weight at 'Weight for Age' parameter, 2 out of 18 children (11.11%) are underweight, and 1 out of 18 children (5.56%) is severely underweight. There was no child severely underweight in the year 2015, however there is 1 child who is severely underweight in the year 2017. There is no child who is over-weight or severely overweight in the year 2017.

RECOMMENDATIONS

- *The nutrition session with the children and mothers to be conducted once every quarter. The highlight should be on balanced diet practices.*
- *Review the nutrition menu with the Nutri-tionist, minimum twice in a year.*
- *Continue the practice of recording the weight of the children on a monthly basis and the height of the children to be measured once in six months.*
- *Conduct a session with the mothers and children discussing and informing them about superstitions surrounding illness and the effects it has on health. This should be conducted twice year.*
- *Work with children on money management and financial literacy. Organize sessions to encourage them to save. Come up with some matching funds to motivate them to start.*

CONCLUSION

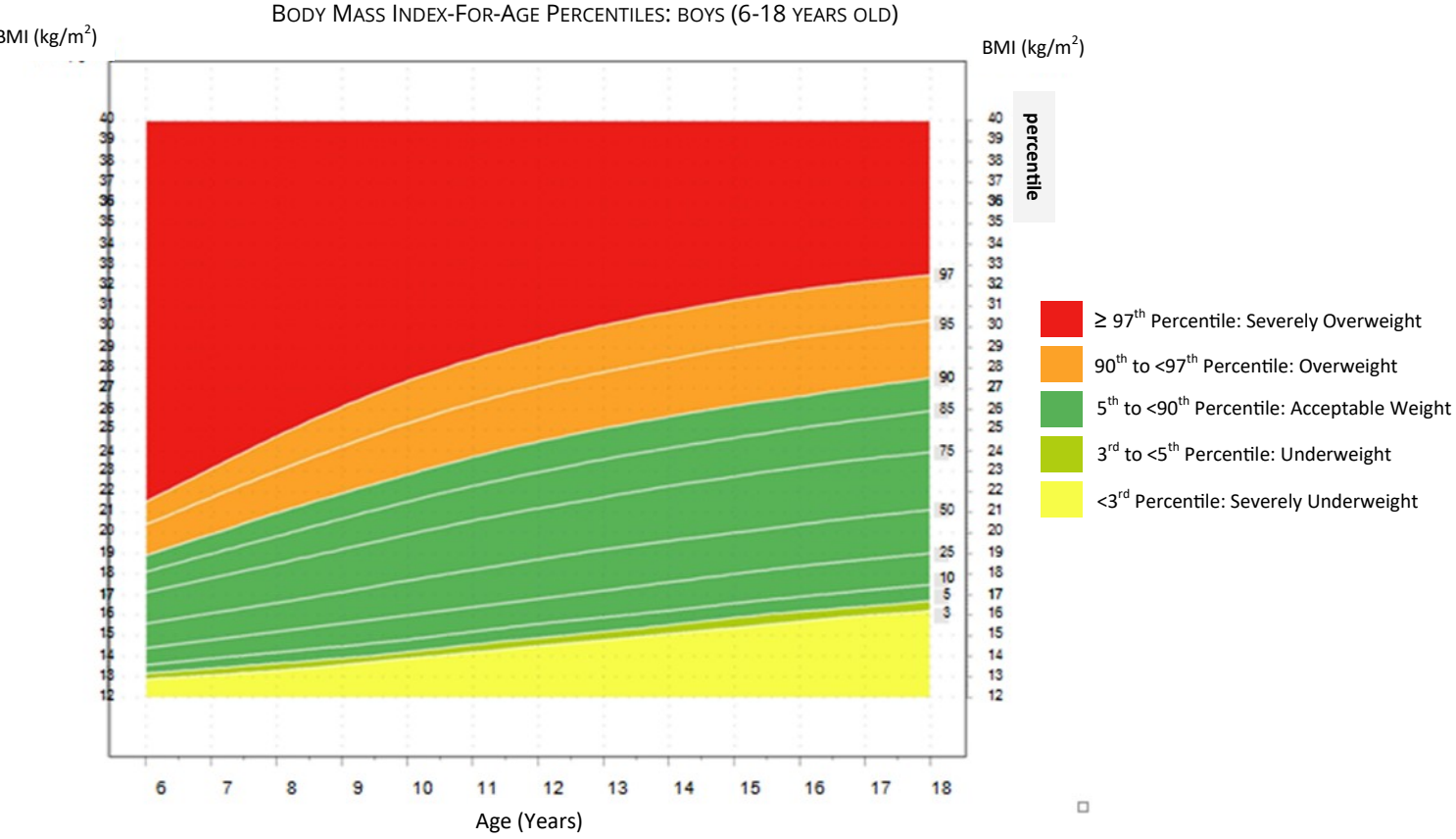
There are several factors that affect the nutritional status of an individual. The influences could be cultural, social and economic, to name a few. With Prerana's primary constituency – the women victims of red light areas and their children – the unique situation of women plays a major role on the nutritional status of both, women and children.

When an individual lacks control over important aspects of her life, she is quite unable to be efficient and effective in maintaining even a minimum standard of living. Prerana's focus has been to design an intervention that addresses the specific needs of this population, which is aided by an in-depth knowledge and awareness of their world and the rules that this world functions under.

There are several challenges which Prerana has encountered while delivering these services, which include the unpredictable mobility of mothers and children, as well as their absence for indefinite periods of time. We also have faced strong obstacles in maintaining a continuum in monitoring care and follow-up. We have therefore, adopted a realistic and doable approach that considers a broad spectrum of options delivered linearly, which manage the addressing of the overall nutritional needs of children.

ANNEXURE 1

BODY MASS INDEX-FOR-AGE PERCENTILES: BOYS (6-18 YEARS OLD)



ANNEXURE 2

BODY MASS INDEX-FOR-AGE PERCENTILES: GIRLS (6-18 YEARS OLD)