

REPORT OF TASK FORCE ON BALANCED AND HEALTHY DIETS



सत्यमेव जयते

**NUTRITION & IDD CELL
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EXECUTIVE SUMMARY

- The National Health Policy- 2017 ^[1] (para 3.2) has referred to 'Focus on Preventive and Promotive Health Care' and identified seven priority areas for improving environment for health through actions on social determinants of health. One of these areas was "Balanced, Healthy Diets and regular exercise". Subsequently, Task Forces were set up by the Ministry of Health & Family Welfare (MoHFW), Govt. of India for each of these priority areas.
- The "Task Force on Balanced and Healthy Diets" was set up by the Nutrition & IDD Cell, Directorate General of Health Services, Govt. of India, pursuant to the work assigned to it by the MoHFW. The Task Force consisted of Public Health Nutritionists, Senior Faculty of leading Institutions of Nutrition Science in the country and Officials working in the concerned Departments. The detailed constitution of the Task Force is Annexed to the Report.
- **Terms of Reference (TORs) of the Task Force :-**
 - I. To identify strategies for promotion of Balanced and Healthy diets in different sections of society and in various age-groups.
 - II. To work towards an integrated, consistent and proactive approach across all government departments, agencies, public bodies, educational institutions etc. in promoting balanced and healthy diets.
 - III. Identifying supportive measures required by the private sector to take responsibility and be proactive in promoting healthy and balanced diets
 - IV. Encourage the public sector, the private sector, voluntary sector and the community to work in partnership to promote balanced and healthy diets.
 - V. To promote use of 'home-made' as well as 'non-conventional' nutritional foods.
 - VI. Any other matter with the permission of the Chair.

While detailed recommendations of the Task Force have been given TOR wise in the respective Sections, some of the key Recommendations are given below :-

- **Summary of Key Recommendations of the Task Force :-**

(I) An Apex Body for Nutrition at the Centre under NITI Aayog may be constituted soon for coordinating with all the Stakeholders working in the field of Nutrition.

(II) Stakeholder engagement should be ensured through advocacy at the highest level and convergence at various levels including at the grassroots to create an enabling environment for promoting Balanced and Healthy diets.

(III) Settings approach needs to be adopted for sustained nutrition promotion efforts.

(IV) Food Systems approach (from Farm to Fork) needs to be strengthened in our country for ensuring affordability, availability, accessibility, food security, sustainability and resilience in production & promotion of "Balanced & Healthy Diets".

(V) Private sector may be engaged for innovative solutions to promote healthy and nutritious diets.

(VI) A cadre of “Public Health Nutrition” professionals needs to be created urgently in our country to design and implement nutrition specific & nutrition sensitive interventions.

(VII) Nutrition sensitive agriculture & agri-processing need to be promoted with incentives and convergent actions between all the concerned sectors.

(VIII) Kitchen gardens (household gardens) need to be promoted for improving availability of fruits and vegetables at the household level.

(IX) Nutritional quality of diets can be improved by simple processing techniques such as germination, fermentation, making simple modifications to diet and right food combinations.

(X) Mass Media campaigns using the existing social media platforms of all the stakeholders need to be done regularly to disseminate scientific information about “Balanced and Healthy Diets” to the general population.

INTRODUCTION

- India now faces the 'triple burden of malnutrition' i.e. undernutrition and micro-nutrient deficiencies in large sections of the population, along with over nutrition & obesity in a small section of the population (NNMB Surveys [2], NFHS-4 [3], CNNS [4]). Due to strong interdependence of nutrition related various Sustainable Development Goals (SDGs) (11 of 17 SDGs are related to nutrition & diet quality) it is important that nutrition is at the centre of SDG discourse and dialogue. Therefore, it is time to design and implement a comprehensive food and nutrition policy for the country with a whole population approach and not restricted to vulnerable, underprivileged groups. It is well known that since there is involvement of various sectors such as agriculture, women's education, women empowerment, transport, food processing etc. to name a few, thus, a multi sectoral approach is necessary to improve nutrition outcomes of the entire population of the country.

- Para 3.2 of the National Health Policy- 2017 refers to 'Focus on Preventive and Promotive Health Care' and has identified seven priority areas for improving environment for health through actions on social determinants of health. Subsequently, Task Forces were set up by the Ministry of Health & Family Welfare (MoHFW), Govt. of India for each of these priority areas. One of the Task Forces identified was on 'Balanced and Healthy Diets' and the Nutrition & IDD Cell, Directorate General of Health Services, Govt. of India was assigned the work of setting up this Task Force by the MoHFW. The constitution of the Task Force is given as an Annexure to the Report.

- **Terms of Reference (TORs) of the Task Force were :-**
 - I. To identify strategies for promotion of Balanced and Healthy diets in different sections of society and in various age-groups.
 - II. To work towards an integrated, consistent and proactive approach across all government departments, agencies, public bodies, Educational Institutions etc. in promoting balanced and healthy diets.
 - III. Identifying supportive measures required by the private sector to take responsibility and be proactive in promoting healthy and balanced diets
 - IV. Encourage the public sector, the private sector, voluntary sector and the community to work in partnership to promote balanced and healthy diets.
 - V. To promote use of 'home-made' as well as 'non-conventional' nutritional foods.
 - VI. Any other matter with the permission of the Chair.

Definition of Healthy Diet:

Healthy diet helps to protect against malnutrition in all its forms, as well as non communicable diseases such as diabetes, heart disease, stroke and cancer (WHO,2020) [5].

Typical attributes of healthy diets :-

Quantity: Healthy diets provide adequate food energy to support growth, physical activity, achieve & maintain a healthy body weight; sufficient macro- and micronutrients to meet individual nutrition and health needs across all the age groups.

Quality: Healthy diets contain the needed macro- and micronutrients. In addition, they also provide other non-nutrients which boost immunity and protect against diseases. Foods should not contain unspecified or unhealthy ingredients such as trans-fats. Foods can also be processed to remove “anti-nutrients” or components within foods that interfere with the absorption of key nutrients.

Diversity: Healthy diets include a variety of foods from basic food groupings including vegetables & fruits (of different colours), whole grains, cereals, pulses & legumes, dairy foods, animal- & plant-based protein foods and healthy fats. Specific types and amounts of foods within these groups, especially staple foods, will vary depending on geographic location and cultural context.

Safety: Healthy diets contain foods and beverages that are safe to consume. They are handled, prepared and stored in conditions following practices that preserve the quality of food to prevent contamination (physical, chemical, microbiological) and foodborne illnesses.

Balanced and Healthy Diet :-

Balanced diet is meant for meeting the requirements of normally nourished persons taking into account their age, gender, physiological status and physical activity. In order to correct undernutrition, overnutrition and micronutrient deficiencies, safe, sustainable and health promoting diets which can meet the gap between nutrient requirements and current intakes is needed.

If the **basic food group** classification based on the physiological role played by foods is used, a **balanced meal** would include foods from each of the food groups i.e energy giving foods, body building foods and protective or regulatory foods. In traditional Indian diets, one can see this in use where the main meals have a cereal-pulse-vegetable combination (like *roti* / rice with “*dal*” and “*sabji*”).

General guidelines for healthy eating :-

The ultimate goal of any nutrition policy/program/strategy is to improve the nutritional status and bring about positive change in food-related behaviour. Consuming healthy diets can prevent malnutrition and diet-related non-communicable diseases across the life course. These changes need to begin early in life. In addition, healthy diet has to be culturally and regionally acceptable for better compliance.

Eating a **diverse diet** and in **moderation** are two important aspects of eating healthy. The use of dietary diversification as a strategy to improve the nutritional profile of a population can be implemented in the form of improved agricultural production, cultivation of variety of food stuffs, popularising the locally produced foods to the people along with promotion of sound food choices and preparation procedures at the level of families.

For good health, along with a wholesome and balanced diet, it is also important to be physically active, get adequate exposure to sunlight, follow regular timings for meals, eat judiciously and have adequate sleep. Below are some ways to plan healthy diets.

Planning healthy diets :-

- To ensure **good quality protein** in diet, combine cereals with pulses i.e. “khichri”, Idli, dosa, “dhokla” etc. Milk and milk products such as cheese, meat, chicken, fish and eggs are the other sources of good quality protein.
- Always include **vegetables or fruits** in meals to provide vitamins, minerals, fibre, phytonutrients and antioxidants. Consciously include dark green leafy vegetables, orange and yellow coloured vegetables and fruits and Citrus or other vitamin C rich fruits and vegetables of different colours. Half your plate should be filled with fruits and vegetables (400-500 gm/day or five portions) excluding potatoes, sweet potatoes and other starchy foods.
- Include lot of **fibre** by adding whole grain cereals and pulses in the daily menu along with vegetables and fruits. Choose whole wheat flour (*atta*) bread, biscuits rather than those made from *maida*. Soluble fibre in cereals, legumes, fruits and vegetables also protects from diabetes and heart disease by lowering blood sugar & cholesterol and is also good for gut health especially of Colon.
- **Fats and sugars** make food more palatable, but these should be consumed in moderation by all age groups. Choose low fat foods like double toned or skim milk and its products, leaner cuts of meat, chicken without its skin, fish. Consume nuts and oilseeds like walnuts, almonds,peanuts, til, etc. which are a good source of healthy fats. Avoid foods rich in saturated fat, trans-fat and cholesterol as these increase the risk of heart disease.
- Use traditional **spices and condiments** liberally in preparing dishes. Ginger, garlic, *haldi*, red and green chilli, cloves, black pepper, cinnamon etc. have many phytonutrients in them which are beneficial for health.
- Salt is to be added sparingly.
- Ensure minimal use of ultra processed foods.
- Reduce frequency of consumption of foods rich in fat, salt and sugar.
- Choose fortified foods to increase the intake of micronutrients. Standards for fortification of wheat, rice, milk, vegetable oils and salt have been notified by FSSAI. Guidelines for preparation of meals in ICDS (by M/o Women & Child Development) and in Mid- Day Meals in Schools (by M/o Education) envisage mandatory use of Double Fortified Salt (DFS).
- Enhance the nutritional quality of foods by germination and fermentation.
- Cook and process carefully so as to retain maximum nutrients.
- Read labels to keep track of your consumption and to select foods wisely.
- Since most parts of our country get adequate sunshine throughout the year, daily exposure to sunshine for about 30 minutes can prevent Vitamin D Deficiency.

NOTE:- The latest “Nutrient Requirements for Indians - Recommended Dietary Allowances and Estimated Average Requirements” released by ICMR-NIN, Hyderabad in Sept,2020 ^[6] have modified the requirements of all food groups for balanced diet. For example, cereal-legume- milk composition of diet for a moderately active man has been changed to 3 :1 : 2.5, as compared to the earlier 11: 1 : 3 (ICMR,2010) within a given low cost window, to meet daily protein requirements. Since daily requirements are not in the purview of this Task Force, readers are guided to read the above document by NIN for better understanding on requirements.

Ensuring Food Safety:-

Food safety is essential to prevent nutrient loss due to illnesses caused by contaminants and thus ensure optimal nutrition. Contamination of food by microbes, adulterants, natural toxins and chemical residues make foods unsafe for consumption.

- Food items should be purchased after careful examination and from reliable sources to ensure quality, freshness and wholesomeness.
- During storage, non-perishable dry food grains should be protected from moisture and damage by microbes, rodents and insects.
- Personal hygiene measures must be observed while processing, handling and cooking the food.
- The place where food is cooked, stored and served should be free from pests, pets etc. and the utensils used must be kept clean
- Perishable foods as well as cooked foods should be stored at appropriate temperature (refrigeration) to prevent spoilage.
- Cooked and uncooked foods, vegetarian and non-vegetarian foods should be stored separately in refrigerators to avoid cross-contamination
- Stored cooked food should be thoroughly reheated prior to consumption. Once thawed from the refrigerator, it should not be re-stored.
- Levels of surface contamination of harmful pesticide residues in vegetables and fruits can be reduced by washing the foodstuffs thoroughly in running water and then peeling, cutting and/or cooking.

Guidelines for Physical Activity and Healthy Lifestyle:-

Physical Activity

- Maintaining a desirable/ideal body weight is a prerequisite for good health.
- Regular physical activity not only helps in maintaining desirable body weight but also reduces the risk of non-communicable chronic diseases like heart disease, hypertension, diabetes, hyperlipidemia, gallstones, osteoarthritis and certain cancers and improves sense of well-being. The duration of regular physical activity depends on age and physiological condition of the person.

Regular meal timings :-

Depending on the age group and lifestyle of the individual, the number and timing of the meals are worked out. Usually it is recommended that smaller and more frequent meals are consumed. A 4-5 meal pattern fits most work/school schedules. Besides the 3 main meals of breakfast, lunch and dinner, 1-3 small meals of snacks can be introduced between breakfast and lunch (midmorning) and then between lunch and dinner (teatime). A time gap of 2-4 hours can be given between the different meals.

Specific Dietary Guidelines for each age group :-

Every stage of the lifecycle is important from the point of view of breaking the intergenerational cycle of malnutrition. Though some life stages are more vulnerable, people at every stage of the lifecycle need to follow healthy eating habits to ensure that they do not set the stage for ill health and malnutrition in future. Specific Dietary Guidelines for each age group are as follows:-

Infants & Young children (0- 24 months)

- Breast milk is a natural food, nutritionally tailor-made for the infant. It has several advantages both for the infant and the mother.
- Undernutrition can begin in first six months of life, if breast feeding practices are not optimal and exclusive. It could also start after 6 months, if adequate and appropriate complimentary feeding is not initiated timely. Under-nutrition peaks from 18-24 months, if complementary feeding is not given in right consistency, frequency, quantity and quality with food safety.
- Delayed clamping of cord (after 1 minute of birth) needs to be encouraged to facilitate transfer of maximum iron to the child to prevent anemia in first six months of life, when breast milk does not provide enough Iron to the baby.

- Breast-feeding should be started within an hour after delivery. Ensure correct positioning and attachment of baby to breast for establishment of successful breast feeding. Mothers who deliver by caesarian section need to be given special support in maternity care facility for early initiation of breast feeding within one hour.
- Breast feeding should be given on demand, around 8-10 times in the beginning, including night feeds, gradually reducing to 6-8 times once baby is able to successfully breast feed. One breast should be emptied before giving milk from the second breast to give advantage of giving both fore milk & hind milk to the baby (Fore milk is rich in micronutrients hind milk is energy dense).
- Low birth weight babies should be given Kangaroo Mother Care (KMC) i.e. skin to skin contact should be encouraged.
- No pre-lacteal feeds like honey, sugar water etc should be given
- Ensure that the baby is fed Colostrum, the yellowish, viscous milk secreted during the first 3-4 days after child birth.
- Infants should be breast fed exclusively for first six months. Exclusively breast-fed infants do not need additional water even in summer.
- Breast-feeding should be continued as long as possible (at least upto 2 years) along with complementary foods.
- Complementary feeding should be started at 6 months of age as breast-milk alone is not adequate for infants because of progressively increasing nutrition and energy requirements of infants and gradual decline in breast-milk secretion by the mother.
- The complementary feeds should be solid mushy foods in (Consistency, given at least 4 times in breast fed babies and five times in non breast fed babies (Frequency). The quantity of complementary feeds should be increased with baby's age(Quantity) and should be made up of at least 4 food groups out of total 7 food groups (Quality).
- Food consumed by children in the last 24 hours are classified into the following seven food groups according to WHO guidelines: (1) cereals, roots and tubers; (2) legumes and nuts; (3) milk and its derivatives; (4) meat products (meat, poultry, and fish); (5) eggs; (6) vitamin A-rich fruits and vegetables (leafy green vegetables, yellow fruits and vegetables); and (7) other fruits and vegetables. The Dietary Diversity Score (DDS) is defined as the number of food groups consumed by the child the previous day. DDS of four is considered the minimum required DDS. Accordingly, a child with a DDS < 4 is classified as having low dietary diversity; otherwise, child is considered to have adequate dietary diversity [7].
- These feeds can be prepared using commonly used foods such as cereals-pulses-nut-oil and sugar/jaggery combination. By including fruits and well-cooked and mashed vegetables, the micronutrient and fibre content of the complementary foods can be enhanced.
- While preparing and feeding the complementary foods, hygienic practices such as hand washing with soap & water must be carefully followed to prevent the episodes of infection and diarrhoea.
- Do not leave the baby's food standing at room temperature for more than six hours in hot humid seasons since micro-organisms may grow which can make the child ill.

Preschoolers (2-4 year olds)

- Growth continues at rapid rate in preschool years but it is slower than during infancy. Micronutrient deficiencies and undernutrition are common during this age. Hence special attention needs to be paid to feeding.
- Many children may like simply prepared, mild tasting foods that they can easily handle and eat with their fingers.
- Avoid giving refined grains and their products (Bread, Pizza etc) & Bakery foods due to their high trans-fat content, like all preparations using hydrogenated fat (Biscuits, Bread, cakes, cookies, Khari biscuits, Puffs etc). Sugar sweetened beverages, aerated drinks should not be given to children.
- Food preferences can be influenced by parents and friends. It is important to provide a healthy food environment at home.

- Keep healthy foods such as roasted unsalted nuts, cut pieces of fruits & vegetables etc. handy for children to eat between the main meals.
- Do not give the child too large a serving. It is better to offer second helping, if they want later. This helps children to learn not to waste food.
- Introduce new foods at the time when child is really hungry. This increases the likelihood of its acceptance.
- Inculcating a habit of having breakfast before leaving for school is important, as research shows that children who eat breakfast in the morning are able to concentrate better on their studies.
- Food should be attractively served by using natural colours or cut out in different shapes to make it interesting for children
- Green leafy vegetables and other vegetables, which are generally not liked by children can be incorporated in meals by disguising such as kneading into dough to make “*methi/ bathua/ palak parantha* or *poori*”, or given as “*lauki*”/ mint/ onion-tomato *raitas*, or as carrot *halwa*, pumpkin “*kheer*” etc

School age children (5-9 year olds)

It is a period of relatively slow growth.

- Children should be given a variety of nutritious foods as this is a stage when food habits form.
- No meal in the day should be neglected as inadequate nutrition affects school performance and cognition.
- Packed lunch/ tiffin should have healthy and nutritious variety. It is advised to avoid monotony in menu for the week.
- Discourage intake of deep fried, fatty, sugary or very salty foods.
- Introduce variety of nuts & oilseeds in child’s diet such as roasted groundnuts, sesame seeds (Safed & Kala til), pumpkin seeds, other dry fruits etc.
- Ensure availability of healthy snacks at home and avoid giving High Fat,Sugar,Salt (**HFSS**) foods such as chips, chocolates, ice creams, aerated drinks etc. as gifts
- Physical activity for at least one hour a day is a must and screen time should be reduced (not more than 2 hours a day).
- Promote intake of 4-5 portions of fruits and vegetables daily.
- Total avoidance of aerated & sugar sweetened beverages to avoid childhood obesity.

Adolescents (10-19 years)

Adolescence is the period of rapid growth and development and brings about manifold changes in physical parameters such as height, weight, and body composition, which increase the requirement of nutrients. This period is also characterized by sexual maturity, changes in the psycho-social behavior and eating habits. Onset of puberty is earlier in girls as compared to boys. Growth spurt occurs in the age group of 10-13 years in girls and 12-15 years in boys. The rapid growth spurt in this phase increases the demand for nutrients making it critical for adolescents to include nutritious foods in their diet.

- A healthy diet throughout adolescence is important for adequate physical growth and cognitive performance.
- Adolescents choose their foods as per taste and convenience.
- Poor and unhealthy food choices can have a profound impact on their growth and development.
- Discourage irregular meal times and skipping of meals particularly breakfast
- Weight dissatisfaction among adolescents is a common concern.Girls should be encouraged to eat healthy and adequate diet and maintain healthy weight (zero figure, fad diets to be discouraged).
- Parents/ guardians and elders should take an active role in shaping food behavior of adolescents.

- Anemia is a common problem especially among adolescent girls. Meals should include foods rich in iron, folic acid, vitamin B12 and vitamin C.

Adults & Elderly

Adulthood is the stage of life where physical growth and maturation completes. A well balanced nutritious diet is needed at this stage of life for maintenance of physical, mental and social well-being during these years. Adequate nutrition and sufficient physical activity during adulthood will not only ensure good health but will also prevent chronic degenerative diseases and disability in the years ahead.

- Maintain healthy weight by intake of balanced food in adequate quantities and being physically active.
- Prefer whole cereals, pulses and millets over refined grains
- Consume a variety of fruits and vegetables
- Choose low fat, protein rich foods such as lean meat, fish over red meat to cut down the fat intake, saturated fat and cholesterol.
- Low fat dairy products can also be used to reduce the intake of total fat, saturated fat and cholesterol.
- Gradually reduce salt in your food to a total of less than 5g (1 teaspoon) in a day.
- Avoid consumption of High Fat, Sugar, Salt (**HFSS**) foods.
- Limit the intake of free sugars (Avoid if overweight & obese)
- Besides light aerobic activity, muscle-strengthening activities should be done involving major muscle groups on two or more days in a week.

Pregnancy & Lactation

Pregnancy and lactation are physiologically and nutritionally demanding periods. In order to meet these nutritional demands, pregnant/lactating women should eat adequate quantity and a variety of foods. Pregnant/lactating women are however advised to take daily supplements of calcium, iron and folic acid.

- In the early months of pregnancy many women have complaints of nausea and vomiting commonly known as morning sickness. Special care needs to be taken to ensure that food intake is not compromised.
- The eating pattern during the second and third trimester of pregnancy should comprise of five to six meals. This pattern should include the three major meals i.e. breakfast lunch and dinner, along with in between healthy nutritious snacks two-three times a day.
- To meet the increased protein requirements high biological value protein sources such as milk, milk products, eggs, meat, poultry, fish, soyabean along with pulses and groundnuts are good options.
- To fulfill the extra calcium demands milk is a good choice for expectant mothers. Milk and milk products such as whole milk, toned milk, double toned milk, buttermilk, curd, *paneer*, yoghurt and flavored yoghurts can be included to meet the calcium requirements. Other calcium containing food sources are spinach, soyabean, *til* seeds, almonds, etc.
- Diet of an expectant mother should include plenty of fluids (8-10 glasses). The fluids should include adequate quantity of water.
- There are no food restrictions during lactation except restricting strongly flavoured and spicy foods, smoking, alcohol and drug abuse as they may pass into breast milk. Also, any medications if required should be taken under strict medical supervision only as they may also pass into breast milk.
- Food consumed by woman in the last 24 hrs are classified into the following food groups according to FAO Guidelines: (1) cereals, roots and tubers; (2) legumes and nuts; (3) milk and its derivatives; (4) meat products (meat, poultry, and fish); (5) eggs; (6) dark green leafy vegetables (7) Vitamin A-rich fruits and vegetables (Dark yellow fruits and vegetables); (8) other fruits (9) other vegetables and (10) nuts & seeds. The Dietary Diversity Score (DDS) is

defined as the number of food groups consumed by the woman in the previous day. A DDS of five is considered the minimum DDS. Accordingly, a woman with a DDS < 5 is classified as having low dietary diversity; otherwise, woman is considered to have adequate dietary diversity [8].

Pursuant to thorough discussions covering all the TORs and subsequent communications between the members, the Task Force arrived at various recommendations which are given, TOR wise, in subsequent Sections.

SECTION – I

TOR- I :- To identify strategies for promotion of Balanced and Healthy Diets in different sections of society and in various age-groups.

Consumption of healthy and balanced diets is not just a factor that needs to be addressed at the individual level but there is a need to create enabling environment for promoting healthy food choices and physical activity as well as lifestyles. Promotion of healthy diets can only be successful if “food systems approach” is implemented to make healthy diets accessible and affordable for the most marginalised populations. “Food-based approach” is best suited for populations. Food-based approaches are preventive, cost-effective and a sustainable long-term strategy to combat malnutrition. Globally, now there is a movement for making Dietary Guidelines available in “food-based approach” instead of in “nutrient based approach”. All avenues for nutrition promotion should be explored. Strategies suggested for promotion of Balanced and Healthy Diets in different sections of Society and across the lifecycle are as follows :-

(I) Stakeholder engagement:- It is important to ensure that all stakeholders have a uniform understanding of what constitutes balanced and healthy diet. This is possible through advocacy at the highest level and convergence at various levels including at the grassroots. This can be achieved in a number of ways including awareness campaigns in multi-media platforms and regular & reinforcing messages on social media. On the lines of the convergence model proposed in the “POSHAN Abhiyaan’ to promote nutrition, it is important to engage different Departments and Stakeholder groups including Industry in a series of workshops from time to time at various levels – National, Regional, State and Local levels - to describe the components of the healthy diet, its promotion followed by each of the stakeholder groups identifying their role in promoting healthy diets, identifying their sectoral targets & indicators and review them periodically within each sector and at regular intervals via joint review with other concerned departments.

(II) Adopting the settings approach (as proposed by WHO):- The following can be considered for sustained nutrition promotion efforts:-

1) Nutrition friendly educational institutions: Creation of health & nutrition policies which encourage Educational Institutions (EIs), School Management Committees and Parent-Teacher Associations (PTAs) to ensure provision of healthy/balanced food options in canteens and mess. The recent “Food Safety and Standards (Safe Food and Balanced Diets for children in school) Regulations, 2020” by FSSAI bans sale of HFSS foods within and 50 metres around schools. The following activities/ initiatives are suggested to encourage healthy eating habits among students:-

- a. Appointing a school/university/college level “Nutrition and Health Committee” which is trained on principles of healthy diets and monitors healthy eating among the students closely.
- b. Introducing “Nutrition Report Cards” in tune with the Hon’ble Prime Minister’s suggestions, this would greatly help tracking the nutritional status of children and adolescents from time to time and opening possibilities of micromanagement of nutritional concerns and targeted actions.
- c. Nutrition should be an essential credit/non-credit compulsory course linked to the promotion of the students to the next grade.

- d. Curricula should have all aspects of nutrition & healthy diets with practical training on planning & preparing healthy diets (basics) and even on development of kitchen/balcony/terrace gardens wherever possible.
- e. A nutritionist or a nutrition trained teacher can be made incharge of these activities and these teachers should be provided training from time-to-time.
- f. Like various Societies/ Committees in a school, Students' Nutrition Clubs such as "Sehat Club" of Eat Right School Programme run by FSSAI may be formed in each school to conduct various activities related to promoting "Balanced and Healthy Diets".
- g. Children should be encouraged to take up certificate courses or free e-learning modules (like the ones currently being run by ICMR-National Institute of Nutrition and POSHAN Abhiyaan - <http://nin.res.in/paelm.html>) .
- h. Competitive spirit could be built among schools by awarding 'Nutrition Friendly Schools' every year during the National Nutrition Month (September).
- i. Discouraging unhealthy snack options and promoting only healthy snack/fruit options during all celebrations in the educational institutions.

2) Workplace Nutrition and Wellness Programmes :-

- a. Encourage corporates and companies to see beyond occasional wellness camps, health check and provision of health insurance to employees. They should be encouraged to make the workplace a wellness hub by encouraging only healthy food options and physical activity guidelines.
- b. Create workplace health & nutrition policies which encourage workplaces to ensure provision of healthy foods in canteens and food service at workplaces, Industries, Labour organisations etc. could together draft workplace nutrition health policies & monitor its implementation across all small, MSME & large Industries including corporates, Call Centers, Banks etc.
- c. Encourage formation of "Workplace Nutrition Health (wellness) Committee" to monitor all nutrition health initiatives to optimize resources.
- d. Expand the scope of medical centers currently focusing on occupational health to identify dietary, nutritional, NCD risk factors in their staff and manage them (both undernutrition, overweight/obesity, micronutrient deficiencies, tobacco use, alcohol use, fruits & vegetable intakes, hypertension, diabetes etc.) Link adherence to counselling for retention/reimbursement/insurance policies of employees, as is done in Airlines/Armed forces etc.
- e. Ministry of Women & Child Development and M/o Health & Family Welfare, Industries & FSSAI may jointly design and organize Certificate courses for graduates/postgraduates in home science/foods & nutrition/medical doctors to become certified "Workplace Nutrition Health Counsellors" who could then be appointed in each workplace. Just as it is mandatory to have social worker appointed in an Industry, a "Workplace Nutrition Health Counsellor" could also be appointed in workplace settings and this position be made mandatory in every workplace setting.
- f. Workplaces should be encouraged to go for Accreditation as "Nutrition Friendly Workplace", similar to "Eat Right Campus Initiative" by FSSAI.
- g. Workplace programs should have regular training of employees on all aspects of nutrition & healthy diets.
- h. Grow your own food in gardens by growing fruits & vegetables. Vertical gardening could be encouraged with trainings from agriculture/horticulture experts to give solutions specific to workplaces/homes (in pots, on terraces, vertical gardening and so on) with hands-on trainings.

3) Nutrition friendly Restaurants / Hotels, Hospitals, Old Age Homes :-

- a. Nutrition information on diets provided with some markings for healthy food could be put on menu cards to encourage selection of healthy foods from menu.
- b. Course curricula of hotel management/catering technology courses should be strengthened to plan and deliver healthy diets low in salt, sugar, no trans-fat etc in hospitality menus by just suitably modifying the menus.
- c. Regular training programmes for cooks and caregivers in the catering service sections of hospitals, hostels and old age homes etc.
- d. At least one trained Nutritionist can be hired by Restaurants / Hotels, Old Age Homes etc. for planning Balanced, Healthy and Tasty food items.

III) Piggybacking nutrition messages in public health emergencies, epidemics, pandemics etc. In situations such as the current COVID-19 pandemic, when there is a heightened perception of risk among the people, the demand for food and nutrition-based solutions has also increased. These events can be effectively utilized as an opportunity to instill nutrition knowledge through various media and interpersonal communication platforms.

Key Recommendations: TOR- I

(I) Stakeholder engagement should be ensured through advocacy at the highest level and convergence at various levels including at the grassroots to create an enabling environment for promoting Balanced and Healthy Diets.

(II) Settings approach needs to be adopted for sustained nutrition promotion efforts. Some examples of such settings are:-

1) Nutrition friendly educational institutions.

2) Workplace Nutrition and Wellness Programmes.

3) Nutrition friendly Restaurants / Hotels, Hospitals, Old Age Homes.

(III) Balanced & Healthy Diets need to be promoted through various media at all times and even during public health emergencies, epidemics, pandemics etc.

SECTION II

TOR-II :- To work towards an integrated, consistent and proactive approach across all government departments, agencies, public bodies, Educational Institutions etc. in promoting balanced and healthy diets.

Nutrition is multi-sectoral in nature and all the concerned sectors (both in government and non-government) play an important role to provide food and nutrition to the general population. Para 3.2 of National Health Policy- 2017 gives emphasis to institutionalize inter-sectoral co-ordination at National and Sub-National levels to optimize health outcomes, through constitution of bodies that have representation from relevant non- health ministries.

While the matters related to Nutrition Policy, National Nutrition Mission (POSHAN ABHIYAN) including ICDS are dealt by the Ministry of Women and Child Development, those related to the effects of Malnutrition and its complications in Severe Acute Malnutrition (SAM) in under-five children, various Disease Control Programmes, Nutrition Research, Food Safety and Standards etc. are dealt by the Ministry of Health and Family Welfare. Other concerned Ministries/Departments are:- M/o Agriculture & Farmers Welfare, Deptt. of Food and Public Distribution, M/o Food Processing, Deptt. of School Education & Literacy (M/o of Education), Indian Council of Agricultural Research (ICAR), Food Safety and Standards Authority of India (FSSAI), ICMR-National Institute of Nutrition, CSIR-Central Food Technology Research Institute, M/o Information and Broadcasting etc. Apart from these, various Food and Home Science/ Agricultural Science Colleges / Universities, Public Health / Nutrition Institutions in Government and Non- Government sectors are playing an important role in their respective areas of work in the field of Nutrition.

In view of the vast multiplicity of such Ministries/ Departments/ Govt. and Non Govt. Organisations dealing with Nutrition, there is an urgent need to work towards an integrated, consistent and pro-active approach among all the stakeholders to promote “Balanced and Healthy Diets” among the entire population of our country. Therefore, the Task force makes following recommendations :-

I) Formation of an Apex Body for Nutrition at the Centre under NITI Aayog, for coordinating with all the Stakeholders.. - Nutrition being multi-sectoral in nature, an Apex Body for Nutrition at the Central level under NITI Aayog is required which shall lead to designing “Food and Nutrition Policy” of the country. The last National Nutrition Policy was formulated in 1993 and in the year 2017, NITI Aayog released National Nutrition Strategy which focused mainly on achieving National Nutrition Targets related to reducing underweight & anemia in vulnerable underprivileged groups. Poor nutrition & unhealthy diets cut across all the socio-economic groups of all ages, therefore, whole population approach is required for foods & nutrition.

II) Strengthening of Food Systems approach (from Farm to Fork) for ensuring affordability, availability, accessibility, food security, sustainability and resilience in

production & promotion of “Balanced and Healthy Diets”. All the concerned sectors such as government departments, agencies, public bodies, educational institutions etc. need to work together at appropriate levels for this approach. Learnings from other middle income countries using the Food Systems approach should be used to strengthen and scale up our country’s capacities in this regard.

III) Setting up of a Technical Group in one of the concerned Ministries/ Institutions along with participation of Experts on a continuous basis to coordinate and follow up the Recommendations made by this Task Force needs be done. This will aid meaningful action, regular coordination and follow up which is essential for promotion of “Balanced and Healthy Diets”.

IV) An Action Plan needs to be devised with responsibilities and timelines assigned to different stakeholders, based on their area of work/ coverage.

Key Recommendations: TOR- II

(I) An Apex Body for Nutrition at the Centre under NITI Aayog may be constituted soon for coordinating with all the Stakeholders working in the field of Nutrition.

(II) Food Systems approach (from Farm to Fork) needs to be strengthened in our country for ensuring affordability, availability, accessibility, food security, sustainability and resilience in production & promotion of “Balanced & Healthy Diets”.

(III) A Technical Group may be set up in one of the concerned Ministries / Institutions along with participation of Experts on a continuous basis to coordinate and follow up the Recommendations made by this Task Force.

(IV) An Action Plan needs to be devised with responsibilities and timelines assigned to different Stakeholders, based on their area of work/ coverage.

SECTION- III

TOR- III :- Identifying supportive measures required by the private sector to take responsibility and be proactive in promoting Healthy and Balanced Diets.

The role of the private sector is critical to influencing consumer choices. It often structures and markets its products aligned to the needs of the consumer or builds the need in them. At present, there is limited regulatory control on various aspects of healthy foods & diets which makes it difficult to engage effectively with private sector. The Food Safety & Standards Authority of India (FSSAI) has been engaging with private sector to voluntarily reduce sugar, salt & fat in their products and increase nutrients to be included for food labelling. However, much more needs to be done to identify and provide supportive measures to the private sector.

Various recommendations, which may assist in providing guidance to the Food Industry to proactively promote Healthy and Balanced Diets are as under:-

I) Promotion of Healthier food options – Healthy food is one that delivers appropriate nutrients to maintain good health and increased immunity to fight diseases and infections. It should be adequate in energy, proteins, vitamins and minerals. The healthier food options must include all aspects of health targeting food borne diseases and Non-Communicable Diseases(NCDs) that may affect the health of the population in a cost-effective manner. Fruits and vegetables which not only boost immunity being rich in antioxidants, also containing minerals like Potassium, Iron, Phosphorous & Calcium etc. and having anti-inflammatory properties may be promoted. The importance of ensuring adequate intake of vegetables in every meal is critical to combat micronutrient deficiencies.

The food sector should also take into consideration the portions or serving sizes. This strategy may also provide the food industry with the first movers advantage. A logo for healthy food may be conceived and industry may be allowed to use the same on their label after getting approval from the Regulatory Authority. The permissions to set up food chains in the country must be given when healthier options are also provided in the menu. The Menu labeling should be promoted which can assist consumers to make healthier choices. Some incentives/ awards may also be considered for private sector entities promoting healthy food options

II) Nutrition Education/ Communication – The product communication should be simple, crisp and scientific evidence based. It is essential that the consumers are educated about the products that a company is offering and the benefits or hazards associated with its consumption. Credible information supporting healthier food choices and appropriate portion sizes by the industry must be looked at by engaging with various public health nutrition experts or by conducting targeted mass awareness campaigns to focus on healthy and balanced diets. Mislabeling should be discouraged. It is important that consistent and correct messages go across to the people and at the same time many

false nutritional claims need to be refuted. FSSAI can continue to play an important role in the area of consumer education.

III) Advertising & Marketing for promoting healthy foods - Promotion of healthier food options and responsible retail practices by food retailers and e-commerce players is of vital importance. Advertising of unhealthy food items targeted towards children and fraudulent claims may influence food choices of the consumers and need to be discouraged. Strict adherence to the WHO Guidelines on marketing of foods for children needs to be followed. Moreover, labelling regulation needs to be strengthened to avoid misleading claims and information. The provisions of Infant Milk Substitute (IMS) Act, 1992, must be adhered to in letter and spirit including the violations through online modes and surrogates advertisements.

IV) Innovative solutions to promote healthy and nutritious diets – The private sector may be engaged for innovative solutions to promote healthy and nutritious diets. Healthy food choices must also be cost-effective. The food industry must proactively look at options beyond fortification. India is a number one producer of vegetables, however, their consumption is rather low. This is attributed to high cost and seasonal variations in availability. Solutions may include usage and promotion of dehydrated or frozen fruits and vegetables. There are various technologies already available for the same, that may be leveraged. ICAR, Deptt. of Science & Technology and Deptt. of Biotechnology have supported many research projects for demonstrating the feasibility, economic viability of processing vegetables by dehydration technology, which need to be scaled up by the private sector. Further, with the resources of large conglomerates, proactive solutions of food transport and packaging must be developed to sustain and ensure food security during critical times like drought, floods, epidemics, pandemic etc.

V) Research and Development of new food products/ technologies- Development of new food products, food technologies, researching various phytonutrients or natural food ingredients for their health promoting properties, incorporation into developed food products needs to be encouraged. Traditional knowledge from AYUSH may be substantiated by application of modern techniques.

VI) Building Skilled Work Force in Public Health Nutrition - There is an urgent need to create a cadre of “Public Health Nutrition” Professionals to design and implement nutrition specific & nutrition sensitive interventions and they should play the decisive role in Food and Nutrition Policy making and its implementation.

Key Recommendations: TOR- III

(I) Food industry should make healthy food options available in markets and reduce aggressive marketing of High Fat, Sugar and Salty (HFSS) foods.

(II) Proper communication of healthy food and nutrition messages by food retailers and e-commerce companies through responsible advertisement and marketing is needed on regular basis.

(III) Private sector may be engaged for innovative solutions to promote healthy and nutritious diets.

(IV) A cadre of “Public Health Nutrition” professionals needs to be created urgently in our country to design and implement nutrition specific & nutrition sensitive interventions.

SECTION -IV

TOR-IV :- Encourage the public sector, private sector, voluntary sector and the community to work in partnership to promote Balanced and Healthy Diets.

At present, the importance of engagement between the public and the private sector in various government programmes like POSHAN Abhiyaan, Eat Right India, MNREGA has been emphasised. However, due to various challenges in Programme implementation, nutrition outcomes are still sub-optimal. One of the major constraints in implementation is the disconnect between demand and supply of healthy and nutritious food to the entire population. For example, even though the demand for a particular food item may have been proactively created e.g. the use of Double Fortified Salt (DFS) has been made mandatory for ICDS and MDM cooked meals since 2011, the private sector may not be aware of this or may not be using the opportunity provided to produce and supply DFS in the required quantity. Despite repeated Guidelines being sent by the Ministry of Women & Child Development and Deptt. of School Education, even at present many States still do not procure and distribute DFS to ICDS and MDM Schemes. This may be leading to non-utilisation of established industry units resulting in losses because there is no off-take of the DFS from these units.

In order to influence consumer awareness, mindsets and attitudes around healthy eating, a convergent and collaborative action by the public sector, private & voluntary sector and the community is needed to work in partnership. Various recommendations through which partnerships between various stakeholders can be established to promote balanced and healthy diets are as follows :-

1. **Promotion of nutrition sensitive agriculture & agri-processing** - Healthy foods have to be made available and affordable to all sections of society, therefore, promotion of nutrition sensitive agriculture & agri-processing is required and should be incentivized with convergent actions between agriculture / horticulture / livestock / aquaculture & nutrition sectors. Considering the need of present times, climate smart agriculture and climate smart food supply systems should be promoted.
2. **Creating Engaging Environments** - WHO's settings approach should be used to promote healthy foods in settings like educational Institutions, workplaces etc. which may be accredited or labelled as "Nutrition Friendly". FSSAI has various programmes targeting above mentioned areas which may be integrated with relevant programmes under line Ministries targeting the beneficiaries.
3. **Expanding the existing Nutrition and Food Safety Based Programmes** - The scope of "Poshan Abhiyaan", Mid- Day Meals Scheme, Eat Right India, "Anaemia Mukta Bharat" etc. needs to be expanded to encourage partnerships to promote healthy diets in all age groups and to control overweight, obesity, rising burden of diet related non communicable diseases etc..

4. **Ensuring access and availability to Healthy Foods:-** This involves many stakeholders at different levels from agriculture, food processing, transport, Public Distribution System(PDS), health and nutrition, consumer affairs, education etc.
5. **Recognition of services provided by Stakeholders–** The stakeholders can be provided with some recognition or incentives for their contribution to encouraging consumption of healthy and balanced diets. This can include innovative ideas like awards started by Ministry of Women & Child Development, FSSAI or NITI Aayog to recognize the efforts undertaken by various stakeholders. Recognition for industry and incentives can be organised for voluntary and community sectors. Engaging with and mentoring start-ups that work within the realm of food and nutrition will encourage more players in this field.
6. **Identification of scope for Partnerships/Collaborations –** Areas/ programmes can be identified which work as per the Public-Private Partnership (PPP) model or provide platforms for promotion of healthy and balanced diets. The strengths of the private sector can be used to leverage the public sector programmes e.g. media and communication expertise could be used to design appropriate IEC programmes, logistics of transporting food stuffs pan India could be used to ensure delivery of rations to poorly accessible areas. Networks of Professional Associations or Committees have been created by various government bodies or the industry. These Committees and networks can be leveraged to promote the messages on nutrition and health. Home Science/ Food & Nutrition Science Colleges may be approached for their contribution for innovations in the field of food and nutrition. The Confederation of Indian Industries (CII) has mapped various nutrition interventions under CSR of major companies, this can be leveraged to create synergies between Programme implementation and resources at State/City/District levels. The initiatives of voluntary organizations / non-profit NGOs to mobilize private sector around POSHAN Abhiyaan's "*Jan Andolan*" may be used as platforms for promotion of Balanced and Healthy Diets.
7. **Training and Capacity Building –** Skill development is essential for promotion of preventive health. On-going trainings may be expanded to include the aspect of Health and Nutrition Communication. Besides mass communication, effective counselling at individual level needs to be prioritised and suitable trainings designed. Voluntary Organizations / non-profit NGOs with the requisite expertise could be roped in for Lactation Counseling, Diet Counseling etc. Expertise of the private sector in R & D, product formulation, marketing, media communication could be used by organising short trainings.
8. **Mass Communication Campaigns –** High level and collaborative communication campaigns may be organized or existing platforms like Anaemia Mukh Bharat, POSHAN Abhiyaan or Eat Right India may be used to disseminate scientific and credible information for promotion of healthy diets. Social media platforms of all the

key stakeholders, line Ministries/ Deptts., influencers etc. may be targeted for organic and mass dissemination of messages to promote healthy and balanced diets.

9. **Community Participation** - Community level participation at grass root level with simple slogans and posters can be encouraged in regional languages. Civil Societies may be engaged to conduct door-door campaigns, "nukkad nataks" or include the right messages in their consumer awareness campaigns. Resident Welfare Associations(RWAs) may be utilized to hold camps. Anganwadi, Village Health Sanitation and Nutrition Day (VHSND) , "Poshan Maah" etc. may be used to mobilize the community at large.

10. **Involvement of Panchayati Raj Institutions (PRIs) and Urban Local bodies** for nutrition initiatives is also essential. Promoting availability of green leafy vegetables and locally available seasonal fruits through encouragement of gardens, wherever feasible, both in rural and urban areas. Subsistence farming, animal husbandry activities to improve supply of milk and eggs in rural households, etc. are the activities for which PRIs can work in convergence with the different concerned Departments and contribute significantly in alleviation of malnutrition. PRIs and Urban Local bodies also need to be actively involved in storage and processing of the food items.

Key Recommendations: TOR- IV

(I) Nutrition sensitive agriculture & agri-processing need to be promoted with incentives and convergent actions between all the concerned sectors.

(II) The strengths of the private sector can be used to leverage public sector Programmes on Nutrition.

(III) Mass Media campaigns using the existing social media platforms of all the stakeholders need to be done regularly to disseminate scientific information about “Balanced and Healthy Diets” to the general population.

(IV) Training and capacity building as well as community participation to be encouraged to generate awareness for Balanced & Healthy Diets.

(v) Panchayati Raj Institutions (PRIs) and Urban Local bodies need to be involved in taking nutrition initiatives and also in storage and processing of food items.

SECTION -V

TOR- V:- To promote use of 'home-made' as well as 'non-conventional' nutritional foods.

To improve the nutritional status of the population and reduce the triple burden of malnutrition (undernutrition, overnutrition and micronutrient deficiencies), it is important to improve home food environments and household food security. Appropriate media needs to be used to communicate the right information to the community. Along with knowledge, there is a need for skill enhancement of the community to enable them to put the information into practice. The local food environment also needs to be enabling for the people to adopt right eating habits. Efforts are needed at multiple levels – household, community, government, industry and research/academia to achieve this. Therefore, the following recommendations are made for Region Specific Diets :-.

I) Improving availability of fruits and vegetables at the household level

Even though India is among the largest producers of fruits and vegetables, the per capita consumption is very low. Most fruits and vegetables are costly and not within the reach of many families. One of the solutions to this problem is to promote kitchen gardens (household gardens). Rural homes have some space around them for growing fruit trees or vegetable patches. In urban areas, space may be a constraint, therefore, terrace gardening, growing vegetables in pots or hydroponic farming may be encouraged. Green leafy vegetables are easiest to grow and are a storehouse of micronutrients.

Social marketing approach can be used by the government to promote the cultivation of fruits and vegetables in homes. The necessary information and skills required to tend to horticultural crops needs to be communicated to the community by agricultural scientists. Common community spaces can be used for planting fruit trees which can be facilitated by the local government/Panchayats. The fruits grown can be shared among people of nearby homes.

Cultivation and consumption of lesser known micronutrient rich fruits and vegetables of each region should be promoted by the local governments. Identification and documentation of these crops needs to be done in each region by agricultural universities. There may not be a commercial market for these but families can be encouraged to share produce and use within communities.

II) Improving availability of different sources of protein

Vegetarian plant-based diets are healthy as they are associated with a reduced risk of diet related chronic degenerative diseases or mortality ^[9]. Vegetarians, however, need to improve protein quality of their diets by eating a cereal-pulse combination in ratio of 3:1. Consumption of good protein quality is critical for tissue synthesis and growth especially in

children, pregnant and lactating women. Inclusion of protein rich foods like milk, milk products, egg, lean meat, chicken, fish and other seafood (for non-vegetarians) will improve the protein quality of the diet. As these foods are expensive to purchase on a regular basis, families can be encouraged, at least in rural and peri-urban areas, to keep poultry and small animals at home. Those who own milch animals should be encouraged to keep aside sufficient milk for the family's consumption. Community ponds can be created and used for pisciculture and the fish shared among homes near each pond. In coastal areas aquaculture can be promoted for home consumption.

III) Increasing consumption of other micronutrient / phytonutrient rich foods

Several other local and seasonal foods can improve the nutritional quality of diets. Millets, which are rich sources of several micronutrients, need to be promoted in diets by improving their availability through the PDS network and by sharing recipes with the community. As these have disappeared from diets of most families, they may not be aware of how to incorporate millets in recipes which suit their palate. Regional Home Science / Food & Nutrition Science Colleges can develop flavorful recipes keeping in mind acceptability by the local population. These recipes can also be used in feeding programmes by State Govts.

Inclusion of local nuts, seeds, spices and herbs should also be promoted as these are rich in both micronutrients and bioactive compounds (phytonutrients) which act as antioxidants and have other health benefits like lowering blood glucose or blood cholesterol, reducing inflammation and improving immunity. Revival of indigenous plant foods which people used to consume earlier would help in improving diet diversity as well as tapping into local natural resources.

Novel foods or non-conventional foods which are nutrient dense like spirulina, red palm oil, insects, fish eggs, etc. or formulated functional foods may be promoted depending on regional acceptability, ease of availability and cost. These need to be identified by local Home Science Colleges/ Agricultural Universities and the food industry.

IV) Reducing food and nutrient losses

A lot of food, especially fruits and vegetables, is lost during transport and storage in our country. India has diverse climatic conditions. In some seasons, there is a glut of certain fruits and vegetables, while in others there may be a scarcity. Some strategies are specific for the food industry like maintaining cold chain, food processing units being closer to farms and availability of technology to process and preserve foods. At the household level, families can adopt certain steps to preserve and store food for future consumption. Among simple preservation techniques which families can follow at the household level are freezing, drying and pickling. For instance, when fruits and vegetables are in good supply, cut vegetables, shelled peas can be blanched and frozen; pureed tomatoes can be frozen for future use in homes where refrigeration facility is available. Drying of green leafy vegetables, small fish, some fruits and vegetables can be done at home for use later. One of the reasons for low consumption of greens is the labour involved in washing, cleaning and chopping. Pre-cleaned and dried greens can be easily incorporated into dishes for reducing cooking time.

Dehydration can be done by sun-drying or in-home ovens if available. Skill development in the best methods of dehydration is needed for families as traditional knowledge may not have been passed down the generation. Food processing and preservation could be promoted as a cottage industry which would also provide employment to a large population.

In addition to reducing food losses, families need to be made aware about appropriate cooking and pre-preparation methods which will reduce losses of nutrients while preparing foods at home. Washing before cutting vegetables and not after, retaining soaking and cooking water, reducing cooking time, cooking in minimum water, not using soda for cooking lentils, etc. are some simple precautions which will reduce nutrient losses. The water that is left after boiling pulses or vegetables can be used in some other preparations like soups, curries, kneading the dough etc. Foods should be cooked covered rather than in the open vessel. Steaming / pressure cooking should be preferred over deep frying/ roasting (high temperature cooking).

V) Enhancing nutritional quality of diets

Home diets can be made more nutritious by some simple processing techniques like germination and fermentation. Both sprouting of cereal and pulse grains as well as fermenting cereals, pulses, milk and other foods, increases the nutritional value. Minerals and vitamins which are in a bound form in grains are released, complex starches and proteins are broken down into simpler molecules, anti-nutrient substances are reduced and the digestibility of grains improves.

In addition, families need to be informed about how diet diversity is beneficial and can be achieved by making simple modifications to the diet. For instance, a *chutney* made of local greens can be consumed along with meals, pureed vegetables like pumpkins could be used to thicken gravies, greens could be kneaded into the dough of *chapatis*, etc. This will increase intake of micronutrients, especially by children who dislike vegetables. As no one food has all the nutrients, it is important to promote consumption of a variety of food groups as well as a variety of foods from each food group. Eating multiple types of whole grains, colourful fruits and vegetables, variety of cooking oils, spices and herbs should be encouraged to increase diet diversity and hence quality. Fortified food ingredients like wheat flour, rice, salt, oil and milk should preferably be consumed by households to supplement micronutrient intake.

The right food combinations can also help to improve nutrient bioavailability. Consuming vitamin C rich foods like citrus fruits, capsicum, guava, *amla*, etc. with iron rich meals will help in improving absorption of iron. Consuming tea/coffee with meals can decrease iron absorption. Consuming pulses with cereals can improve the protein quality of each meal.

Families would also need to be made aware about reducing consumption of high fat, salty and sugary (HFSS) foods as these can increase the risk of obesity and associated co-morbidities. Traditional home cooked foods can also be HFSS. Use of saturated fats and

trans-fats at the household level should be discouraged by spreading awareness about sources of these fats and their harmful effects.

VI) Reducing contamination in foods

' Food which is not safe is not food at all ' was the theme of "World Food Safety Day" observed on 7th June,2019. Consumption of food which is contaminated leads to foodborne illnesses which further worsen the nutritional status. Simple household precautions need to be followed to reduce contamination in foods. These include thorough washing of all raw food before cooking, preventing cross-contamination between foods, cooking thoroughly to destroy all germs (and also reduce levels of chemical contaminants like pesticides), storing food at appropriate temperatures, reheating thoroughly before consuming stored food, and using safe water for cooking and cleaning utensils. All personal hygiene measures such as hand washing etc need to be adhered.

Cooking oils should not be repeatedly reheated to avoid formation of peroxides and free radicals. Similarly, foods especially flesh foods should not be cooked at very high temperatures which cause charring as harmful substances are formed.

Note: For information on reducing food contaminants and keeping food safe at home, resources of Food Safety and Standards Authority of India can be used, especially the **Pink Book** ^[10] (eating safe and nutritious food at home) and the **DART Book** ^[11] (detecting adulterants using simple tests which can easily be performed at the household level).

VII) Ensuring skill enhancement for growing and processing food at home/community level

It is not enough to make people aware about healthy eating practices. People should also have an enabling environment and the necessary skills to be able to act on the advice. Enabling environments need to be created by the government, especially at the local level, by providing the right impetus to home and community gardening, small animal rearing/poultry farming/ pisciculture and formation of self-help groups for processing and preserving local foods. As a part of extension education, universities and colleges can do capacity building of the local communities in horticulture, using appropriate food combinations, home cooking and processing to enhance quality of diets, reducing nutrient losses during cooking at home as well as reducing the level of contaminants in foods by appropriate techniques. Industry through their CSR projects can help in skill building of self-help groups in simple food processing and entrepreneurship at community level as well as in marketing their products.

Key Recommendations: TOR- V

(I) Kitchen gardens (household gardens) need to be promoted for improving availability of fruits and vegetables at the household level.

(II) Simple cooking and preservation techniques need to be adopted and promoted to reduce food and nutrient losses.

(III) Nutritional quality of diets can be improved by simple processing techniques such as germination, fermentation, making simple modifications to diet and right food combinations.

(IV) Contamination in foods should be reduced by simple household precautions.

(v) Skill enhancement needs to be done at the local level for growing, processing and preserving foods.

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(III) Settings approach needs to be adopted for sustained nutrition promotion efforts. Some examples of such settings are:-

1) *Nutrition friendly educational institutions.*

2) *Workplace Nutrition and Wellness Programmes.*

3) *Nutrition friendly Restaurants / Hotels, Hospitals, Old Age Homes.*

(IV) Balanced & Healthy Diets need to be promoted through various media at all times and even during public health emergencies, epidemics, pandemics etc.

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(XV) Training and capacity building as well as community participation to be encouraged to generate awareness for Balanced & Healthy Diets.

(XVI) Panchayati Raj Institutions (PRIs) and Urban Local bodies need to be involved in taking nutrition initiatives and also in storage and processing of food items.

(XVII) Kitchen gardens (household gardens) need to be promoted for improving availability of fruits and vegetables at the household level.

(XVIII) Simple cooking and preservation techniques need to be adopted and promoted to reduce food and nutrient losses.

(XIX) Nutritional quality of diets can be improved by simple processing techniques such as germination, fermentation, making simple modifications to diet and right food combinations.

(XX) Contamination in foods should be reduced by simple household precautions.

(XXI) Skill enhancement needs to be done at the local level for growing, processing and preserving foods.

Annexure

Constitution of the “Task Force on Balanced and Healthy Diets”

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|--|----------------------------|
| 1. Dr. Geeta Trilok Kumar,
Director, Institute of Home Economics,
(Delhi University), New Delhi. | Chairperson |
| 2. Dr. G.S. Toteja,
Sr. DDG/Scientist ‘G’&
Head Nutrition, ICMR(Hqrs), New Delhi. | Member |
| 3. Dr. Ajay Khara,
(former) Dy. Commissioner (CH), MoHFW | Member |
| 4. Director,
National Institute of Nutrition, Hyderabad. | Member |
| 5. Director, Central Food Technology Research
Institute, Mysore (Mysuru).. | Member |
| 6. Nominee of Food Safety & Standards Authority
of India (FSSAI), New Delhi. | Member |
| 7. Prof. Meenakshi Mehan,
Deptt. of Food & Nutrition,
MS University of Baroda, Vadodra. | Member |
| 8. Dr. Seema Puri,
Associate Professor, Deptt. of Nutrition,
Institute of Home Economics, New Delhi. | Member |
| 9. Dr. Pulkit Mathur,
Asstt. Professor, Deptt. of Food & Nutrition,
Lady Irwin College, New Delhi. | Member |
| 10. Dr. Prema Ramachandran, Director,
Nutrition Foundation of India, New Delhi. | Member |
| 11. Nominee of Indian Academy of Pediatrics
(Nutrition Chapter). | Member |
| 12. Nominee of Public Health Foundation of India. | Member |
| 13. Ms. Rekha Sharma,
(former) Chief Dietician ,AIIMS, New Delhi. | Member |
| 14. Ms. Kumkum Marwah,
(former) Sr. Consultant (Nutrition), Dte.GHS. | Member |
| 15. Dr Pradeep Saxena, Addl. DDG, Nut. & IDD Cell,Dte.GHS. | Member cum Convener |

Nominees of Ministry of Women and Child Development; Deptt. of School Education Literacy; Ministry of Food Processing Industries; Ministry of Agriculture & Farmers Welfare; Deptt. of Food and Public Distribution; IARI-Pusa Institute, Delhi; ICMR- Regional Medical Research Centre, Dibrugargh; ICMR- Regional Medical Research Centre, Bhubaneswar and Prof.A.V.Kurpad from St. John’s Medical College, Bengaluru.

-- **Co-opted members.**