

# Promotion of “My Plate for the Day” and physical activity among the population to prevent all forms of malnutrition and NCDs in the country



**icmr** | **NIN**  
INDIAN COUNCIL OF  
MEDICAL RESEARCH | NATIONAL INSTITUTE  
OF NUTRITION

Dr. Hemalatha R, Director  
ICMR- NATIONAL INSTITUTE OF NUTRITION  
DHR, MoHFW, GoI

## PROBLEM STATEMENT

Survey from NIN-NNMB showed that a major segment of population was consuming far more cereals than recommended. In addition, more than 10% of total calorie intake was contributed by ready to eat foods such as chips, biscuits, chocolates, sweets and juices and less protective foods such as legumes, milk, nuts, vegetables and fruits. Population across urban and rural areas suffer from many forms of malnutrition and non-communicable diseases (NCDs) due to unhealthy dietary habits.

High proportion of urban (31%) and rural (16%) adults are overweight/obese and abdominal obesity is prevalent in 53.1% and 18.8% of urban and rural adults respectively. Anaemia and chronic energy deficiency (CED)/ under-nutrition are also prevalent equally. The increased availability of inexpensive staple cereal crops has reduced hunger, but at the expense of diet diversity, displacing locally available foods. Unhealthy dietary habits and low physical activity are major concerns that contribute not only to overweight and obesity, but also to a significant proportion of the disease burden (NCDs) in the country. Many schools do not possess play grounds and do not follow the required routine physical and training period on a regular basis during the academic year.

## SUMMARY

Keeping these above critical points in view ICMR-NIN has developed 'My Plate for the Day', designed on the basis of 'Dietary Guidelines for Indians' and 'Nutrient Requirements for Indians' to encourage and promote healthy dietary practices among the community. The model plate is aimed to provide dietary diversity with a proper balance in macro and micro nutrients for a healthy individual of any gender.

My plate for the Day provides different food groups and also variety within food groups to meet specific nutrient requirements criteria. The plate recommends sourcing of macro and micro nutrients from a minimum of 10 food groups with vegetables, fruits, green leafy vegetables, tubers and roots forming essentially half of the plate per day. The other major portion is occupied by cereals/millet followed by pulses, nuts and oils.

The requirement of the energy is dependent on the body weight and physical activity of an individual. Nevertheless, the proportion of vegetables, fruits, milk and milk products remain the same even if the energy requirement changes depending on their body weight and physical activity. Most schools do not offer nutrition education and do not have enough space for play grounds. Where nutrition education is offered, it often focuses on increasing pupils' knowledge of good nutrition, with less emphasis on motivation and establishing good eating practices. With this background, the idea of initiating nutrition/physical activity clubs called **Oorja clubs** 'Eat Right - Keep Moving' in schools for school going children while for adults at the Community Health Centres (CHC) and Health and Wellness Clinics across India.

### Need for the development of My Plate concept

India has had a healthy dietary tradition that is rapidly being replaced by controlled diets. The traditional practices of season specific, diverse food intake are fading away. Population across India source their nutrients from not more than 4 to 5 food groups per day. For good health, nutrients must be sourced from a minimum of 8 to 10 food groups in a day. Dietary diversity is lacking among the population. This transition in the food habits has resulted in various NCDs among the population, including the younger generation and farming community. Therefore, creating awareness and implementation of My Plate for the Day policy at the household and community level is the need of the hour.

MY PLATE FOR THE DAY



Food groups (2000 Kcal)	Foods to be consumed raw weight (g/day)	% of Energy from each food group/day	Total E from each food group/day (Kcal)	Total protein from each food group/day (g)	Total fat from each food group/day (g)	Total Carbs from each food group/day (g)
Cereals (incl. nutricereals)	250	42	~843	~25	~5	~172
Pulses*	85	14	~274	~20	~3	~42
Milk/ Curd (ml)	300	11	~216	~10	~13	~16
Vegetables+ green leafy vegetable (GLV)	400	9	~174	~10	~2	~28
Fruits#	100	3	~56	~1	~1	~11
Nuts & Seeds	35	9	~181	~6	~15	~6
Fats & Oils <sup>§</sup>	27	12	~243	-	~27	-
<b>Total</b>	<b>~1200</b>	<b>-</b>	<b>~2000</b>	<b>15 %E</b>	<b>30 %E</b>	<b>-</b>

Note: One may consume sugar, but it must be restricted to 25 to 30 grams per day. To adjust the total calories cereals must be reduced if sugar is taken.

\* Eggs/fish/meat can substitute a portion of pulses

+ Prescribed amount of vegetables (excluding potato) may be consumed either in cooked form/ salad

# Prefer fresh fruits (avoid juices)

§ Use different varieties of cooking oils, vegetables, fruits, nuts etc., to obtain a variety of phytonutrients, vitamins, minerals and bioactive compounds

## INTERVENTIONS

- Promotion of My Plate concept by using nutrition students as change agents at the community level to create awareness on food groups, food diversity and the benefits of food diversity.
- The ration at the PDS should be strengthened to supply diversified food groups including variety of millets and pulses.
- Importance of nutrition education and physical activity by integrating the component in the public health system as part of the public health communication at the Health and Wellness Clinics.
- Healthy diet and adequate physical activity are the only strategies for halting or preventing the development of type 2 diabetes, coronary heart disease, stroke, etc.
- Consumption of proportions of food groups indicated in “My plate for the Day” helps prevent hidden hunger, ensures adequate intake of all micronutrients (vitamins and minerals), bioactive compounds, functional foods, antioxidants, etc.

## ADVANTAGES OF MY PLATE

For an individual who is on 2000 Kcal/day, ‘My plate for the day’ suggests different food groups in right proportions to meet the required amounts of essential amino acids, fatty acids, minerals, vitamins and other bioactive compounds. Consumption of 350g of vegetables that includes 150g green leafy vegetables (GLV) and 200g of other vegetables with 150g of locally available seasonal fruits not only provides dietary fibre (prebiotic), micro-nutrients which include vitamins and minerals, bioactive compounds and anti-oxidants, but also ensures optimal functioning of various metabolic processes in the body and improves the immune function and resistance to fight infections. Whole grains, nuts, vegetables and fruits are good sources of prebiotics that would help maintain good/beneficial gut flora with anti-inflammatory properties that would also confer many health benefits including optimal immune function.

## RECOMMENDATIONS

- To promote healthy life style through Health and Wellness Clinics in the country and food habits at the community level, the following strategies should be considered using multi-disciplinary approach through the implementation of policy.
- Regulatory authorities like FSSAI should actively promote implementation of “Eat Right” through my plate model and provide food recipes using locally available foods by following dietary guidelines at all food vending shops.
- Regulation on serving size and mandatory inclusion of vegetables or fruits with all foods high in fat and sugar (HFSS) respectively by implementing sugar tax and fat tax system in the country.
- Periodical monitoring of food products for adding permissible levels of sugar and salt following WHO Guidelines/Dietary Guidelines for Indians.
- Displaying ill effects of excess salt, sugar and fat consumption on all the commercial processed food packets and also in advertisements.
- Promotion of Behavioral Change Communication (BCC) through Government agencies like Anganwadi Centres, Public Health Centres (PHC)/Health and Wellness Centres, Schools and certain events like village health days may be used as education settings to promote my plate concept and also the regional diet charts and the importance and benefits of the physical activity.
- Improvement in supply chain to minimize wastage of fruits and vegetables to promote availability to all at affordable prices.
- Promotion of community kitchen gardens or individual kitchen gardens for growing leafy vegetable, fruits like papaya, guava also help the community to have adequate micro-nutrients.

## POLICY BRIEF

- Establishment of walking tracks in the rural and urban areas and playgrounds for school children in the schools with proper creation of awareness camps.
- Encouraging family-based activities to participate in the Health and Wellness Clinics in order to understand the importance of ‘My Plate for the Day’ while realizing the benefits of the physical activity simultaneously to reduce overweight and obesity among the adults.
- Supporting local schools to adopt an ‘active school’ approach and to sustain evidence-based and promising healthy eating and physical activity models within schools. Oorja clubs would also assist in establishing an effective nutrition education programme that encourages behavior change.
- An educational activity in the school club promoting healthy eating and nutrition information with physical activity could be made popular with students.
- The intervention design can be integrated across nutrition, physical education and behavior components through school-wide communication strategies.

## OUTCOMES

- Implementation of policy brief on ‘My plate for the Day’ concept through convergence between the different stakeholders and government agencies including,
  - Ministry of Human Resource and Education for implementing the policy to provide playgrounds for school children to reduce the overweight and obesity among the school going children.
  - Ministry of Urban and Rural Development for developing walking tracks and gyms in parks for the physical activity would result in reducing the overweight and obesity among the adults.
- Implementation of the policy through FSSAI would sensitize the entire country population on 'Eat Right' using ICMR-NIN My plate model to reduce NCDs and maintain good health.

## SUGGESTED CITATION

- R. Hemalatha. Promotion of ‘My Plate for the Day’ and physical activity among the population to prevent all forms of malnutrition and NCDs in the country, 2023, ICMR-NIN, Hyderabad.