



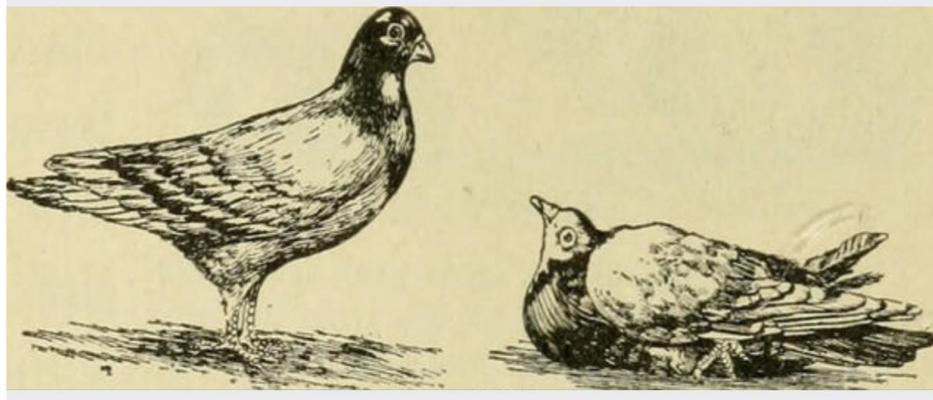
Dr R Hemalatha, Director, ICMR-NIN
ICMR, DHR, MoHFW



- **‘Beri-Beri’** enquiry unit: single room laboratory at the Pasteur Institute, Coonoor, Tamil Nadu.
- White refined rice- vitamin B1 deficiency caused Beri Beri neuropathy, cardiomyopathy.
- The **“burning feet syndrome- Grierson-Gopalan syndrome”**
- B vitamins, Pellagra- niacin deficiency
- **IDD, renal stones**



1918, Coonoor



1958 NIN Hyderabad

Mandate: (1) To generate high quality evidence for tackling important public health nutrition problems, epidemiological and implementation research

- Developed nutrition norms for nutrition programs
- The Schedule II of the National Food Security Act is being revised with MoCA, F&PD
- Coverage studies on iodized salt in endemic areas paved way for Universalization of fortified salt program to prevent IDD
- NIN fixed the dose and frequency of vit A prophylaxis program for children
- Maternal food supplementation and IFA during pregnancy & IFA prophylaxis
- Jowar replacement with rice- reduced Pellagra in endemic areas
- Epidemiological studies: formulation of health and nutrition policies for tribal population.



Mandate (2): Extending technical support to food regulatory and standard making bodies in the country lead to Policies and regulations

- **Aflatoxin** contamination level and prevention
- **Kesari dal toxin & neurolathyrism**
- **Mustard oil adulteration with Argemone oil**
- **Fluorosis** and heavy metals in ground water
- **Pesticide** exposure and safety- FSSAI
- **TFA regulation:** fixing standards for vegetable oils/fats
- **Pre-clinical toxicology center:** safety of GMO foods
- Upper limit for iron in tea, lead exposure from toys

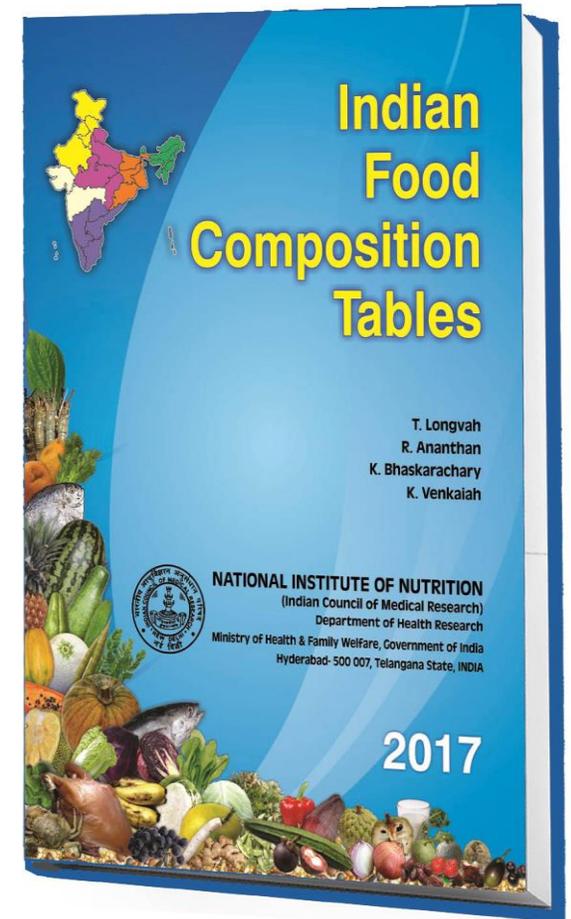
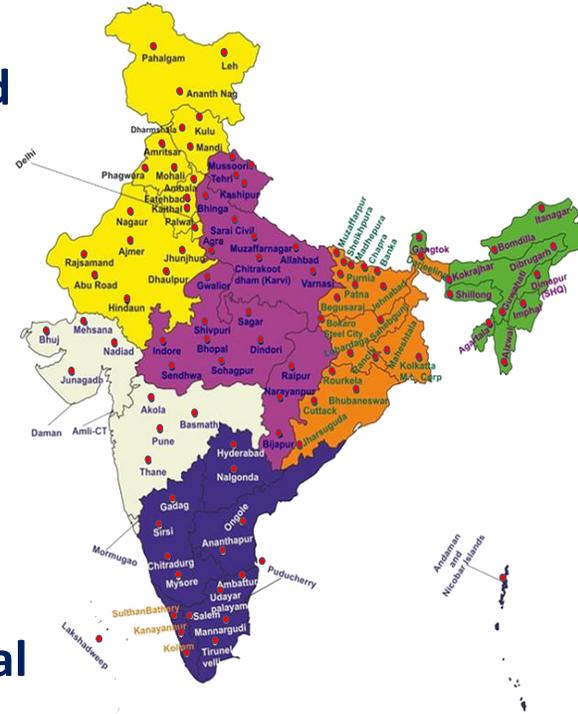


Mandate (3): Data Base on Nutritive values of Indian Foods : IFCT, 2017 Food Chemistry Division

- ✓ Evaluated 151 Nutrients for 528 key food approach
- ✓ An exhaustive database on vitamins, minerals, AA and fatty acid profiles of various foods
- ✓ FAO uses this database

Policy implications:

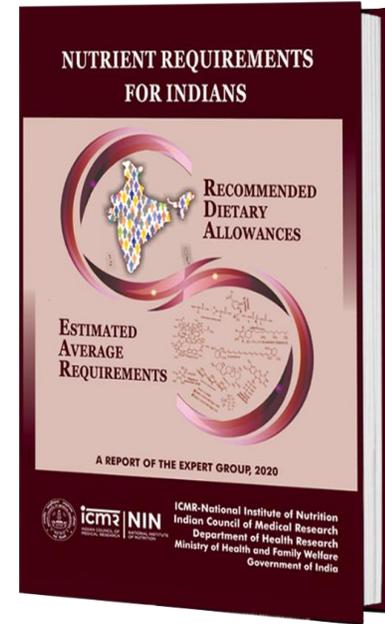
- To calculate nutrient intake, adequacies.
- Health, agriculture, trade, food science, environmental sciences
- Food industry – for nutrient information, labelling



Mandate (4): Establishment of Dietary requirements/Reference Values, Recommended Dietary Allowances, and Dietary Guidelines for Indians- the RDA, EAR, TUL

Policy implications:

- Guidance for national regulatory bodies like FSSAI
- Fixing of minimum wages of workers
- Supplementation programs - population nutrient requirements
- Advisory to police, army, sports, space scientists,
- Developing fortification strategies, used in Food Labelling
- Dietitians, nutritionists: diet planning for Individuals
- Planning food production through agriculture
- Planning import of food to meet the gap in the food needs of our population



Mandate (5): Conducting innovative basic science research of high translational value, on nutrient metabolism, interactions, requirements and responses, DR-NCDs, technology development



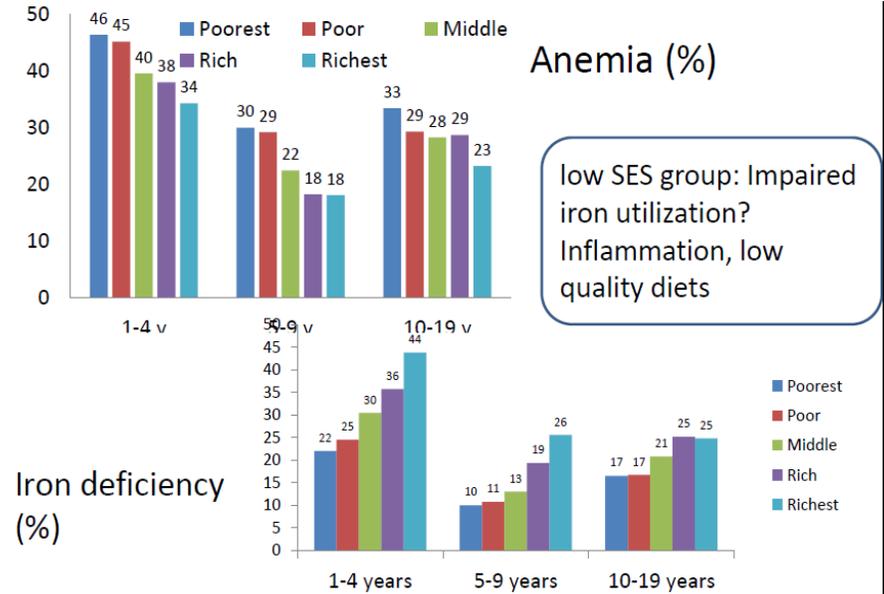
Infection free colony



FORTIFIED RICE KERNELS



Fortification technology salt and Trials with fortified rice, atta, salt





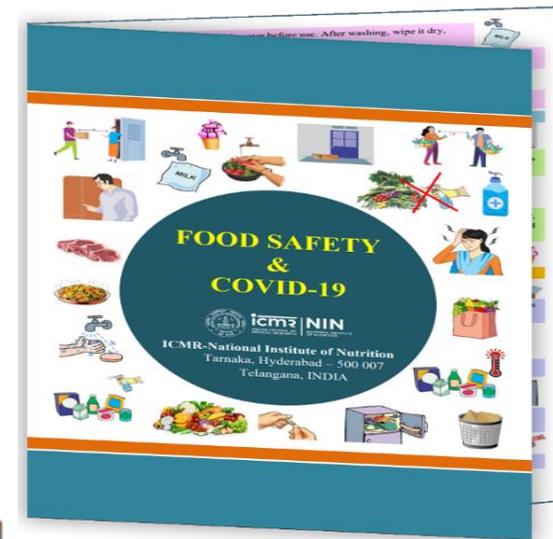
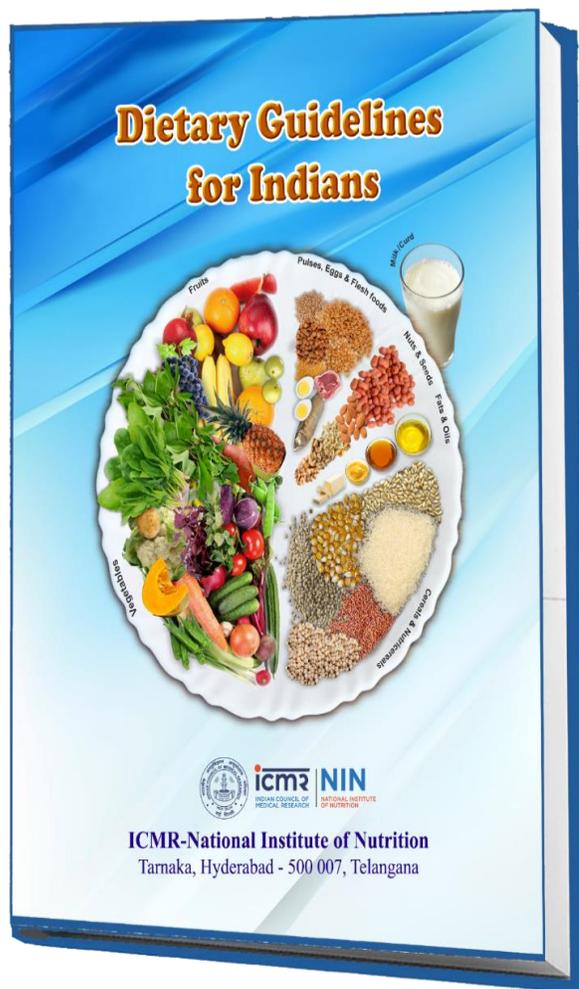
Mandate (6): Developing human resources, capacity building and training in nutrition

1. Orientation of CDPOs of states on malnutrition, Knowledge and Awareness building at Community level
2. Hands on Training programme on 'food & nutrient data Analysis
3. Training programme on Nutrition methods, research methodologies
4. National Program for Prevention and Control of Fluorosis TOT
5. Animal experiment training programs
6. Two MSc course (2 years) and a Certificate course 3 months in nutrition
7. PhD scholars



Mandate (7): Disseminating evidence-based nutrition knowledge to the community

- Nutrition and Food Systems courses on Nutrition Education for India-FAO
- E-learning modules on Nutrition & Health under POSHAN Abhiyaan



Pre-conception period
(planning for pregnancy)

Women should be at least 21 years old when planning for pregnancy

Ensure optimal weight before conception

Test & treat anaemia and Ensure deworming

Blood pressure, blood sugar and thyroid function must be tested and treated for any abnormalities

Take all steps to prevent malaria to avoid Low birth weight babies

Folic acid is the most important micro-nutrient during the first 28 days after conception, when most neural tube defects occur. But most women may not realise that they have conceived, hence folic acid should begin before conception and continue throughout your pregnancy.

Your Good Health and Nutrition will Ensure Health of Your Future

Points to ponder if planning for pregnancy

- Age at pregnancy
- Ideal weight
- Free from anaemia
- Optimal Health
- Water, Sanitization & Hygiene (WASH)
- Knowledge of infant feeding practices

Good health of your family and your future generations is in your hands





ICMR-NIN Current Studies

- **Diet and Nutrition Biomarkers Survey in India- DABS-I**
- **Dietary Guidelines for Indians ready in few months**
- **FoPL Warning Labels to discourage processed food products consumption in India. A study on formats, acceptability and potential use**
- **Evaluation of effectiveness of rice fortification**
- **Anemia Mukht Bharat- DFS, Guava fruit in ICDS, PoC sprinkles, STAR trial**
- **Multidisciplinary approach to reduce stunting**
- **Preventing NCDs through dietary approach intervention**



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INDIAN COUNCIL OF
MEDICAL RESEARCH

NIN
NATIONAL INSTITUTE
OF NUTRITION

R Hemalatha



E-Learning About **Dashboard** Feedback Contact Signup Login



786,473

Certificates Generated



137,402

Total Registered Users



50,946

Number Of Females



86,230

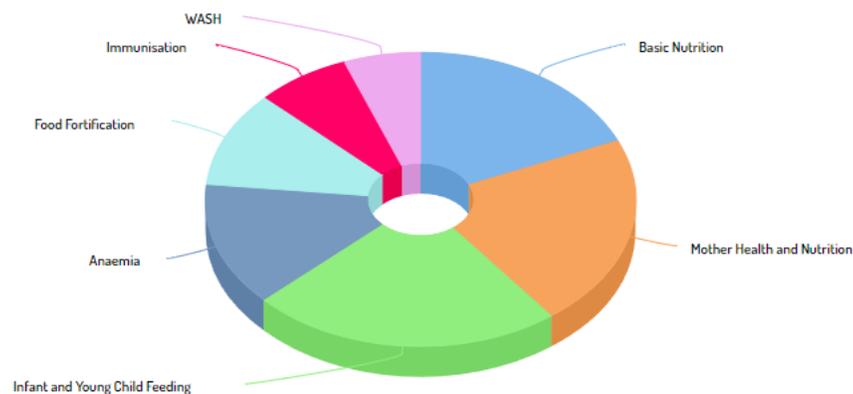
Number Of Males

State	Registered Users
Andaman and Nicobar Islands	3082
Andhra Pradesh	3348
Arunachal Pradesh	88
Assam	2793
Bihar	9593
Chandigarh	340
Chhattisgarh	2315
Dadra and Nagar Haveli	51
Daman and Diu	36
Delhi	10623
Goa	311
Gujarat	5006
Haryana	4876
Himachal Pradesh	915
Jammu and Kashmir	1396
Jharkhand	2612
Karnataka	3668
Kerala	3280
Lakshadweep	13
Madhya Pradesh	6245

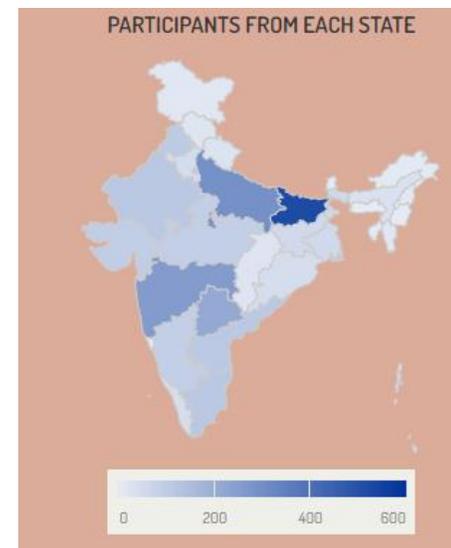
State	Registered Users
Maharashtra	18264
Manipur	155
Meghalaya	118
Mizoram	36
Nagaland	52
Orissa	3073
Pondicherry	170
Punjab	2829
Rajasthan	7343
Sikkim	77
Tamil Nadu	5676
Telangana	4238
Tripura	490
Uttar Pradesh	21678
Uttaranchal	1831
West Bengal	10276

Link of e-learning modules <https://www.nin.res.in/paelm.html#>

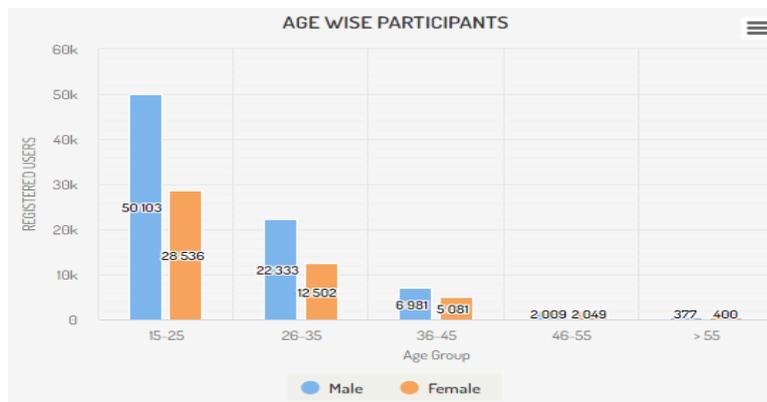
PARTICIPANTS CERTIFIED FOR EACH MODULES



PARTICIPANTS FROM EACH STATE



AGE WISE PARTICIPANTS



919,844

Visitors Counter

<https://www.nin.res.in/paelm.html>

<https://www.poshan-abhiyaan.nin.res.in/index.php?r=site%2Fdashboard>

Diet and Biomarkers Survey in India (DABS-I)

1. National and State level diet and nutrients intake data - covering 28 states and 8 Uts, among all age groups (paperless real-time data collection)
2. Precise estimation of anaemia burden and other nutritional biomarkers
3. Regional data on cooked food/recipe-based nutrients and food contaminants
4. Food/nutrition policies in the country (PDF, ICDS, MDM, Fortification etc)

