

Current Status of NPM and Pathway for India

Future of “Strong Nutrition Profile Modelling (NPM)”
for Healthy Food System in India to prevent NCD
Burden



NAPi

K.Madhavan Nair
Former Scientist, ICMR-NIN
nairthayil@gmail.com

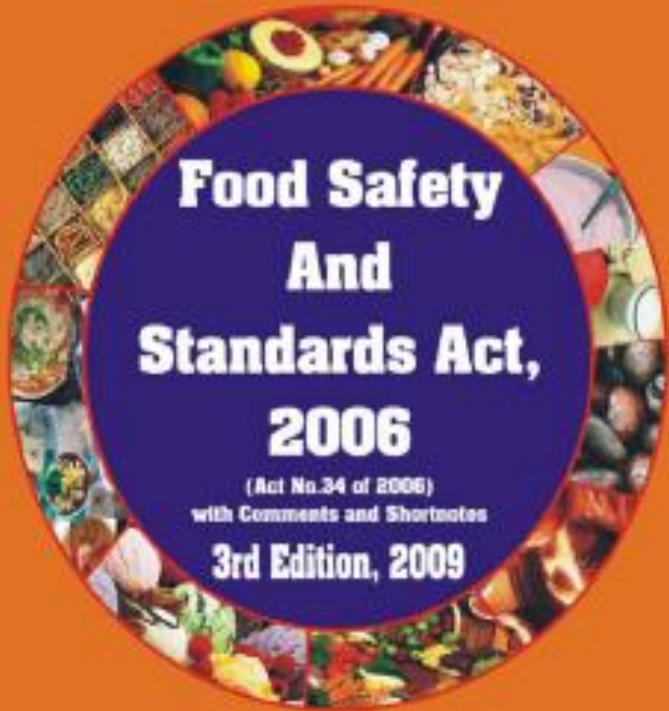
4th May, 2021

Overview

Current status

- Food Safety and standards (Labelling & Display) Regulation 2020
- Nutrition labelling process in pre packaged foods
- Detailing of Nutrition information
- Nutrient Profile Model development process for India

Pathway



Act No 34 of 2006
15 years
12 years of functioning of
Scientific Committees and
Scientific Panels (8 to 21)

Section 23 :Packaging and labelling of foods-----No person shall manufacture ----- any packaged food products which are not marked and labelled in the manner as may be specified by regulations

Chapter III

General Principles of Food Safety

(1)(a) endeavor to

protection of human life and health and the protection of the consumer's interest

(f) In case where there are reasonable grounds to suspect that a food may present a risk for human health, then, depending on the nature, seriousness and extent of that risk, the Food Authority shall take appropriate steps to inform the general public of the nature of the risk to health, identifying to the fullest extent possible the food or type of food, the risk that it may present, and the measures which are taken or about to be taken to prevent, reduce or eliminate that risk

- Ensure protection of interests of consumers and shall provide a basis for consumers to make informed choices in relation to the foods they consume.

Current FSS (Labelling and Display) Regulations

- 2009- 2011 FSS (Packaging and Labelling) Regulations 2011
- **Initiated discussion on HFSS**
- 2018-FSS (Packaging) Regulations,
- **FSS (Labelling and Display) Regulations (notified along with HFSS thresholds) 2018**
- FSS (Labelling and Display) Regulations 2020
- 17 th November2021- FBOs shall comply

The FSS (Labelling and Display) Regulations 2020

रजिस्ट्री सं. डी.एल.- 33004/99

REGD. No. D. L.-33004/99



भारत का राजपत्र The Gazette of India

सी.जी.-डी.एल.-अ.-10122020-223635
CG-DL-E-10122020-223635

असाधारण
EXTRAORDINARY

भाग III—खण्ड 4
PART III—Section 4

प्राधिकार से प्रकाशित
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NEW DELHI, WEDNESDAY, NOVEMBER 18, 2020/KARTIKA 27, 1942

भारतीय खाद्य सुरक्षा और मानक प्राधिकरण

अधिसूचना

नई दिल्ली, 17 नवम्बर, 2020

These regulations prescribe the labelling requirements of pre-packaged foods and display of essential information on premises where food is manufactured, processed, served and stored.

Food Labelling

- Labelling is the most significant and influential piece of legislation in this area
- The labelling of foodstuffs must include compulsory information and the particulars indicated on products must be easy to understand, visible, legible and indelible. In addition some of them must also appear in the same field of vision and must not be positioned on different parts of the label.

Labelling Panels

Principal display panel/Front of pack panel and Information Panel

PDP-The part of the package most likely to be seen first by the consumer on the retail shelf. If two or more surfaces qualify for this definition, they both are considered alternate PDPs.



Information Panel

The panel directly to the right of the PDP as seen by the consumer. If this panel is unusable (e.g., gusseted box, folds, flaps, etc.), then the Information Panel is the next panel immediately to the right.



LABELLING REQUIREMENTS

- (1) The Name of Food
- (2) List of Ingredients
- (3) Nutritional information**
- (4) Declaration regarding Veg or Non veg
- (5) Declaration regarding Food Additives
- (6) Declaration of name and complete address
- (7) FSSAI logo and license number
- (8) Net quantity, Retail Sale Price and Consumer Care details
- (9) Lot/Code/Batch identification
- (10) Date Marking
- (11) Labelling of Imported Foods.-FSS (Import) Regulations, 2017
- (12) Country of Origin for Imported Foods
- (13) Instructions for use
- (14) Declaration regarding Food allergen
- (15) Every package of food material sold in retail but which is not meant for human consumption example Pooja

Nutritional information & Nutrient profile model

NUTRITION INFORMATION

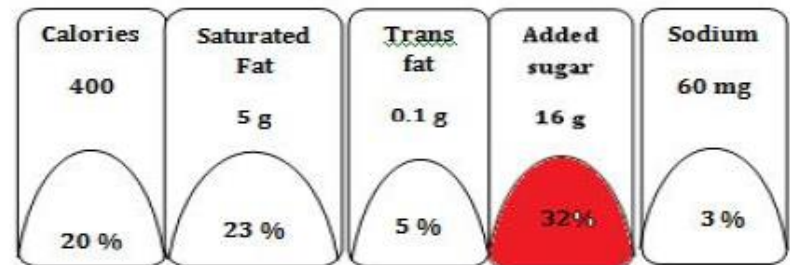
Servings per package: 20

Serving size: 5g

Average Quantity per serving Average Quantity per 100g

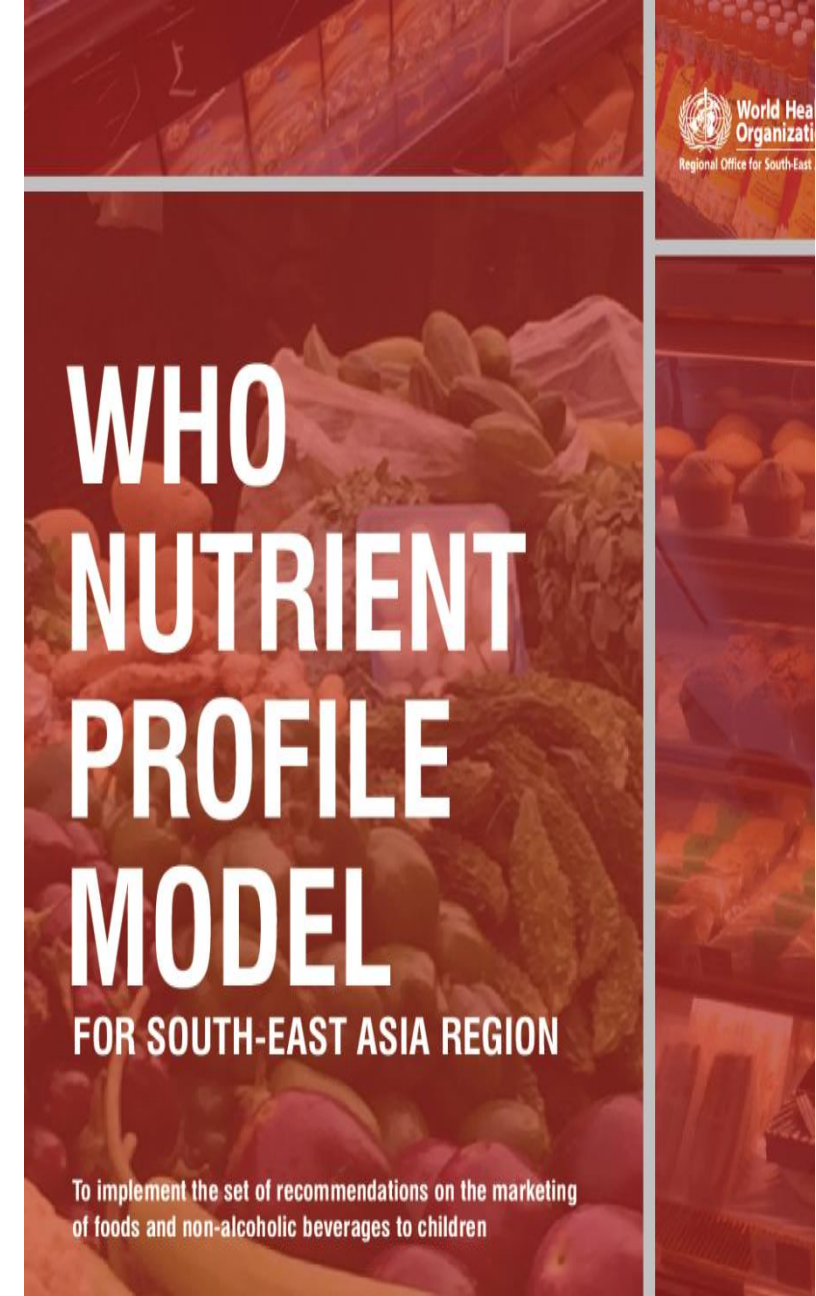
Energy	12.5kcal / 52kj	250kcal / 1045kj
Protein	1g	20g
Fat Total	0.5g	10g
- of which Saturated Fat	0.1g	2g
Monounsaturated Fat	0.1g	2g
Polyunsaturated Fat	0.3g	6g
Trans Fat	0g	0g
Cholesterol	0mg	0mg
Carbohydrate, total	1g	20g
- of which Sugar	0g	0g
Fibre	0g	0g
Sodium	100mg	2000mg

Pictorial representation



Note: Calculated based on reference daily energy intake value of 2000 kcal;

Ensure protection of interests of consumers and shall provide a basis for consumers to make informed choices in relation to the foods they consume



WHO NUTRIENT PROFILE MODEL

FOR SOUTH-EAST ASIA REGION

To implement the set of recommendations on the marketing
of foods and non-alcoholic beverages to children



World Health
Organization
Regional Office for South-East

WHO SEARO NUTRIENT PROFILE MODEL

It is a set of recommendations to classify food as healthy or unhealthy for marketing to children.

Based on the WHO Population Nutrient Intake Goals and global population health data for preventing NCDs.

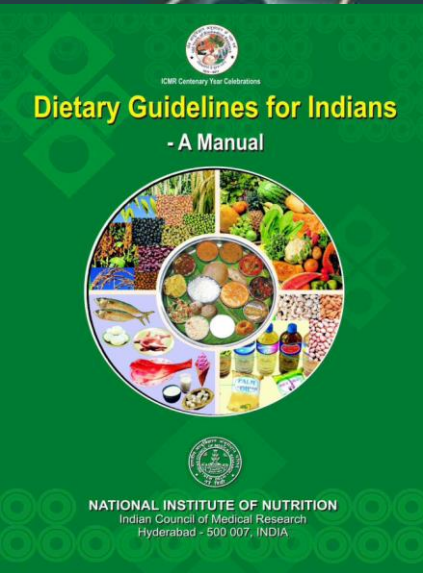
The thresholds for 18 food categories to define excessive nutrients [sodium, total and added sugars and total fat, saturated fats]

NUTRIENT PROFILE MODELS

- Objective **method of differentiating/categorizing** between foods and non alcoholic beverages that are more likely to be part of healthy diet from those that are less likely (notably those foods that may contribute to excess consumption of energy, saturated fats, sugar or trans fats, salt).
- It is a scientific method for categorizing food and beverage items according to their **nutritional composition**
- Nutrient profile models vary in complexity and detail and are based on a **categorical or scoring** system.
- Category specific models are considered easier to adapt or modify than models based on scoring.

NUTRIENT REQUIREMENTS AND RECOMMENDED DIETARY ALLOWANCES FOR INDIANS

A Report of the Expert Group of the
Indian Council of Medical Research



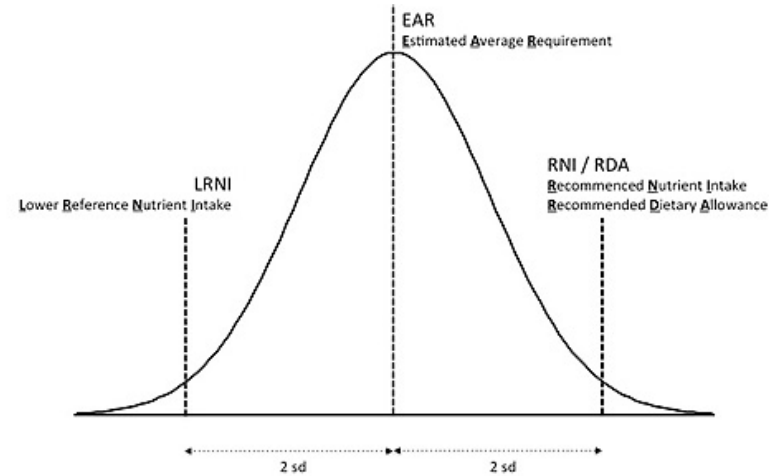
NUTRIENT REQUIREMENTS FOR INDIANS



For the purpose of these regulations, RDA values as provided in **ICMR Dietary Guidelines for Indians** shall be applicable. If Indian RDA is not available for any nutrient, values provided in Codex/WHO Guidelines shall be applicable.

NUTRIENT STANDARDS -NPM

- Are intake levels of nutrients established by experts for healthful eating of healthy individuals.
- Is based on the scientific evidences on the distribution of nutrient requirements and characteristics of the population's diet.



- EAR Estimated Average Requirement (mean)
- Recommended dietary allowances (RDA)= $EAR + 2SD$ sufficient for maintaining good health of 97–98% healthy individuals in a particular life stage and gender group
- TUR -Tolerable upper limits
- Acceptable Macronutrient Distribution Range (AMDR)

(3) Nutritional information-Indian

Acceptable Macronutrient Distribution Range (AMDR)

Defined as a proportion of total energy intake from CHO, proteins and fats suggested for individuals based on evidence from epidemiological studies and intervention trials for their association with reducing the risk of chronic disease in the long run and ensuring sufficient intakes of other essential nutrients and physical activity to maintain energy balance.

Consideration for cultural aspects, changed scenario of physical activity levels as well as cost

- 55-60 En% from CHO may be more advantage
- proteins contributing 10-15 En% and
- fats contributing 20-30 En%

Table 1. Ranges of population nutrient intake goals¹¹

WHO NUTRIENT PROFILE MODEL

FOR SOUTH-EAST ASIA REGION

To implement the set of recommendations on the marketing of foods and non-alcoholic beverages to children

Dietary factor	Goal (% of total energy, unless otherwise stated)
Total fat	15–30%
Saturated fatty acids	<10%
Polyunsaturated fatty acids (PUFAs)	6–10%
n-6 Polyunsaturated fatty acids (PUFAs)	5–8%
n-3 Polyunsaturated fatty acids (PUFAs)	1–2%
Trans-fatty acids	<1%
Monounsaturated fatty acids (MUFAs)	By difference ⁱ
Total carbohydrate	55–75% ⁱⁱ
Free sugars ⁱⁱⁱ	<10%
Protein	10–15% ^{iv}
Cholesterol	<300 mg per day
Sodium chloride (sodium) ^v	<5 g per day (<2 g per day)
Fruits and vegetables	≥400 g per day
Total dietary fibre	From foods ^{vi}
Non-starch polysaccharides (NSP)	From foods ^{vi}

ⁱ This is calculated as: total fat - (saturated fatty acids + polyunsaturated fatty acids + trans-fatty acids).

ⁱⁱ The percentage of total energy available after taking into account that consumed as protein and fat, hence the wide range.

ⁱⁱⁱ The term “free sugars” refers to all monosaccharides and disaccharides added to foods by the manufacturer, cook or consumer, plus sugars naturally present in honey, syrups and fruit juices.

The daily energy requirement ~2000 kcal for 10-15 y old , moderately active female and male child

Table 4.24: Energy requirement (kcal/d) as proposed by ICMR 2020

**E
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G
Y**

Age group	Category	ICMR 2020	ICMR 2010 ¹³	Difference
		Kcal/d		
Adult Men	Sedentary work ^a	2110	2320	-210
	Moderate work ^a	2710	2730	-20
	Heavy work ^a	3470	3490	-20
Adult Women	Sedentary work ^a	1660	1900	-240
	Moderate work ^a	2130	2230	-100
	Heavy work ^a	2720	2850	-130
	Pregnant	+ 350	+ 350	--
	Lactating (0-6m)	+600	+600	--
	Lactating (7-12m)	+520	+520	--
Infants	0-6 months	550	520	+30
	6-12 months	670	670	--
Children	1-3 y	1010	1060	-50
	4-6 y	1360	1350	+10
	7-9 y	1700	1690	+10
Boys	10-12 y	2220	2190	+30
Girls	10-12 y	2060	2010	+50
Boys	13-15 y	2860	2750	+110
Girls	13-15 y	2400	2330	+70
Boys	16-18 y	3320	3020	+300
Girls	16-18 y	2500	2440	+60

FSS (Labelling & Display) 2020

NUTRITION INFORMATION

(b) Nutritional Information per 100g or 100ml of the product and per serve **percentage (%) of daily energy requirement** calculated on the basis of

- 2000 kcal energy
- 30%E or 67 g total fat
- 10%E or 22 g saturated fat
- 1E% or 2 g trans fat
- 10%E or 50 g added sugar
- 1 mg/kcal sodium or 2000 mg of sodium for 2000 kcal (5 g salt)

for average adult per day, shall be given on the label

(3) Nutritional information-examples

NUTRITION INFORMATION

Servings per package: 20 Serving size: 5g

	Average Quantity per serving	Average Quantity per 100g
Energy	12.5kcal / 52kj	250kcal / 1045kj
Protein	1g	20g
Fat Total	0.5g	10g
- of which Saturated Fat	0.1g	2g
Monounsaturated Fat	0.1g	2g
Polyunsaturated Fat	0.3g	6g
Trans Fat	0g	0g
Cholesterol	0mg	0mg
Carbohydrate, total	1g	20g
- of which Sugar	0g	0g
Fibre	0g	0g
Sodium	100mg	2000mg

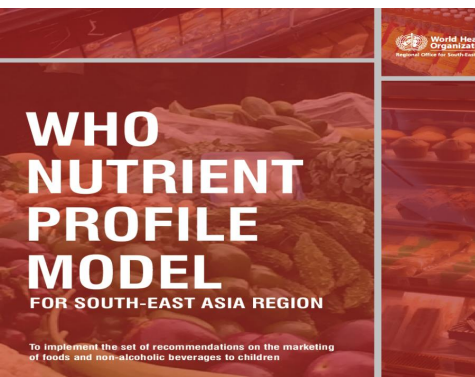
Nutritional Information*
Serving Size: 1 Tbsp (20 g)

	% GDA** / SERVE	PER SERVE
ENERGY (kcal)	3%	57
PROTEIN (g)		0.1
CARBOHYDRATE (g)		14.2
OF WHICH SUGARS (g)	15%	13.6
DIETARY FIBRE (g)		0.1
FAT (g)	TRACE	TRACE
SATURATED FAT (g)	0%	NIL
TRANS FAT (g)		NIL
SODIUM (mg)	<1%	3.9

*TYPICAL VALUES
**% OF AN ADULT'S GUIDELINE DAILY AMOUNT (2000 kcal diet)

Indian Nutrient Profile Model for unhealthy food

- Total Fat : $\geq 30\%$ of energy
- Saturated fatty Acids: $\geq 10\%$ of energy
- Trans fatty acids: $\geq 1\%$
- Sugar : $\geq 10\%$ of total energy and $\geq 5\%$ for SSB
- Sodium 1mg/kcal



Considered the following two assumptions

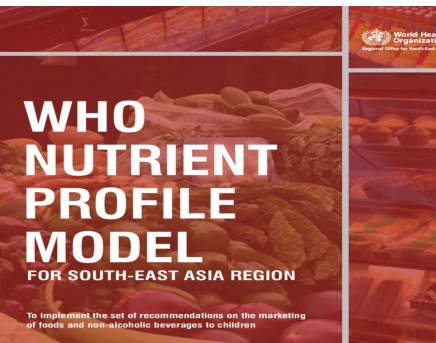
1. The daily energy requirement ~2000 kcal for 10-15 y old , moderately active female and male child/ adult
2. Approximately 25 % energy requirement is met from each meal (3 main meals/day) and 10-12% from snacks (2 snacks /d)

Energy contribution from a snack ~230kcal and therefore thresholds have been calculated on the basis that each 100g of snack product provides 230kcal

WHO Technical Report series No 916, 2003; The nutrient threshold for total fat, saturated fat, total sugars, added sugars and sodium are based on the WHO Population Intake goals for preventing Obesity and NCDs.

Indian Nutrient Profile Model

- 16 product categories specified under Food Category System 2016 vs 18 WHO-SEAR categories
- Food category wise thresholds of nutrients finalized based on WHO SEAR document
- The list of exempted food categories are broadly based on their use as ‘culinary ingredient’ or ‘fresh products /raw ingredients’ or ‘products that are not consumed directly



FSSAI- High fat, sugar, salt (HFSS) food

Means a processed food product which has high levels of saturated fat or trans fat or added sugar or sodium.

The declared values of these ingredients are such that the product; does not satisfy the value of energy (kcal) from added sugar less than 10 % of total energy, or energy from trans fat less than 1 % of total energy;

or has saturated fat or sodium above the thresholds specified under Schedule –I of these regulations.

12. The provision of these regulations shall supersede, if repugnant to labelling requirement prescribed in any regulations made under the FSS Act, 2006.

Schedule – I

(See regulation 5 (4) (d))

Nutrient Thresholds for Food Categories

Cat No.	Category	Sub-Categories included	Total fat (g / 100 g or ml)	Sodium (g / 100 g or mL)
1.0	Dairy products and analogues, excluding products of food category 2.0			
1.1	Milk and dairy-based drinks	1.1.2: Dairy-based drinks - flavoured milk and/or fermented	7.0	No threshold
1.6	Cheese and analogues	1.6.1: Un ripened cheese 1.6.2 Ripened cheese 1.6.2.1 Ripened cheese, includes rind 1.6.2.2 Rind of ripened cheese 1.6.2.3 Cheese powder 1.6.3 Whey cheese 1.6.4 Processed cheese 1.6.4.1 Plain processed cheese 1.6.4.2 Flavoured processed cheese, including containing fruit, vegetables, meat etc. 1.6.5 Cheese analogues 1.6.6 Whey protein cheese	20.0	0.60

The list of exempted food categories are broadly based on their use as ‘culinary ingredient’ or ‘fresh products /raw ingredients’ or ‘products that are not consumed directly’

Schedule – II

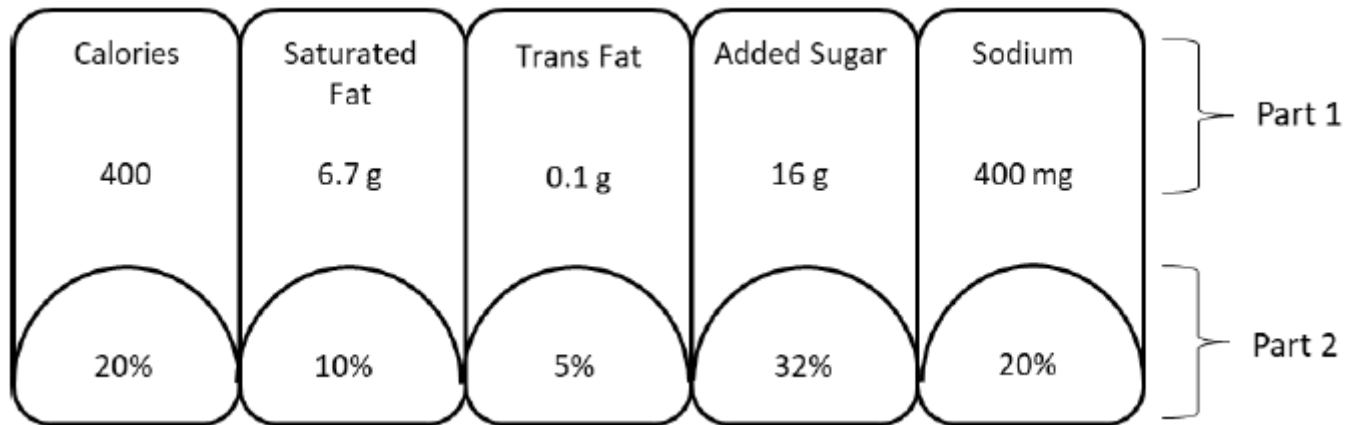
(See regulation 5(4) (d))

Exempted Food categories

Category No.	Category
1.1.1	Milk and buttermilk (plain)
1.1.1.1	Milk (plain)
1.1.1.2	Buttermilk (plain)
1.2	Fermented and renneted milk products (plain), excluding food category
1.2.1	Fermented milks (plain)
1.2.1.1	Fermented milks (plain), not heat-treated after fermentation
1.2.1.2	Fermented milks (plain), heat-treated after fermentation

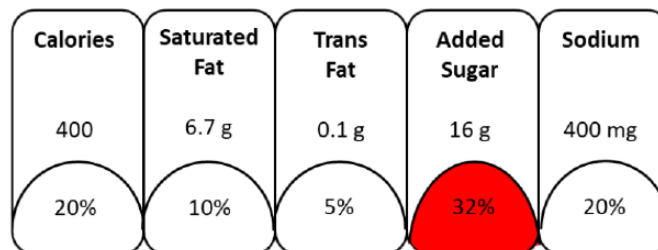
FOPL – PROPOSED

Per serve contribution of energy, saturated fat, trans fat, added sugar and sodium to RDA as per format given below:



Part 1: Declares the amount of energy, saturated fat, trans fat, added sugar and sodium per serve;

Part 2: Declares the per serve percentage (%) contribution to RDA as provided under regulation 4.2 (3) (b)



PATHWAY and TIME LINE

Timeline	Allowance
From the date of compliance of these regulations i.e. for 1 st year	As depicted under regulation 5 (4) (c)
After one year from the date of compliance of these regulations	Threshold values* plus 30% of the threshold values*
After two year from the date of compliance of these regulations	Threshold values* plus 15% of the threshold values*
After three year from the date of compliance of these regulations	Threshold values*

* As specified in clause (d) of sub-regulation 4 of regulation 5 for added sugar and trans-fat and schedule –I of these regulations for sodium and saturated fat.

However, the specified threshold values and timeline for their implementation may also be revised by Food Authority based on any scientific

- (5) For the HFSS labelling of “Proprietary products” the threshold values of nearby category shall apply.
- (6) Food Authority may introduce colour coding system in addition to marking of foods as ‘Red’ within the specified thresholds from time to time.
- (7) In premises where the food with red mark is served, message on healthy eating shall be displayed/screened in a manner as may be specified by the Food Authority from time to time.
- (8) The Food Authority may from time to time issue further guidelines on nutrient profiling of food products.
- (9) HFSS food products shall not be advertised to children in any form.

DRAFT FSS (Labelling and Display) Regulations 2018

As per Section 16(2)(h) & 16(3)(g) of the FSS Act, 2006, the Food Authority may by regulations 'specify food labelling standards including claims on health, nutrition, special dietary uses and food category systems for foods' and is mandated to 'take all such steps to ensure that the public, consumers, interested parties and all levels of panchayats receive rapid, reliable, objective and comprehensive information through appropriate methods and means'. In line with these provisions of the Act, the draft Food Safety and Standards (Labelling and Display) Regulations, 2018 have been framed which inter-alia includes threshold levels for High Fat, Sugar, Salt in foods and labelling provisions for High Fat, Sugar, Salt (HFSS) Foods.

2. In this regard, FSSAI has received several representations from stakeholders highlighting that the thresholds for HFSS foods proposed in draft Food Safety and Standards (Labelling and Display) Regulations, 2018 are to be reviewed.

Pathway for India

- We need successful consultative process
- Establishing thresholds and format for FoPL
- Pilot testing of draft NPM to identify healthy vs unhealthy prepackaged foods at point of sale, particularly among children
- Time frame of implementation of the Gazetted NPM for India
- Sensitization of all stakeholders
- Implementation
- Benchmarking foods sold in school canteens
- Compliance and Monitoring and reformulation
- Impact on NCDs

Conclusions

- The scientific basis on nutrient intakes is an important guiding principle for nutrition profile and labelling
- FSS (Labelling and Display) Regulation 2020 is ready and to be complied by the FBO from 17th November 2021.
- There is no gold standard formats of FoPL indicating healthfulness and therefore opting unhealthy appear more effective in guiding consumers to nutritionally favourable products
- The FOP nutrition label format should be interpretive-, use words, colours and/or symbols to make judgments and be understandable to all population subgroups in our country.

Thank you