DR REKHA HARISH
MD FIAP

PROF & HEAD, DEPT OF PEDIATRICS,HIMSR

Ex PROF & HEAD, DEPT OF PEDIATRICS,GMC JAMM

EB MEMBER CIAP 2010,2012

NATIONAL CONVENER IAP TASK FORCE FOR PREVENTION OF CHILDHOOD OBESITY [2012-2015]

ADVISOR IAP TASK FORCE FOR PREVENTION OF NON COMMUNICABLE DISEASES 2017

NATIONAL CHAIRPERSON- IAP TASK FORCE FOR PREVENTION OF NCDs 2019-21

VICE PRESIDENT NZ INDIAN ACADEMY OF PEDIATRICS 2019

MEMBER NCD TECHNICAL ADVISORY GROUP ASIA PACIFIC PEDIATRIC ASSOCIATION 2020

NEED FOR EFFECTIVE LABELLING TO DISCOURAGE JUNK FOOD CONSUMPTION IN CHILDREN: PEDIATRICIAN'S PERSPECTIVE

CSE 4-3-20

WHY CHILDREN?

WHY DO WE NEED TO EXPAND FROM FSS?

WHAT KIND OF LABEL CAN BE UNDERSTOOD BY CHILDREN?

HOW CAN WE HAVE A CLEAR,CONCISE ,COLORFUL, SIMPLE, EASILY UNDERSTOOD LABEL ON UP FOODS?

ALL NEED TO WORK ON THE GOAL-

CHILDREN REFUSE TO CONSUME JUNKFOOD!

THE CNNS SURVEY FIRST OF ITS KIND

Key findings

- There is a growing risk of non-communicable diseases among children aged 5 to 9 years and adolescents aged 10–19 years in India
- One in ten school-age children and adolescents were pre-diabetic with fasting plasma glucose >100 mg/dl & ≤126 mg/dl or with glycosylated haemoglobin (HbA1c) between 5.7%–6.4%
- One percent of school-age children and adolescents were diabetic with fasting plasma glucose >126 mg/dl
- Three percent of school-age children and 4% of adolescents had high tota cholesterol (≥ 200 mg/dl) and high low-density lipoprotein (LDL) (≥ 130 mg/dl)
- One-quarter (26%) of school-age children and 28% of adolescents had low high-density lipoprotein (HDL) (<40 mg/dl)
- One-third (34%) of school-age children (≥ 100 mg/dl) and 16% of adolescents (≥ 130 mg/dl) had high serum triglycerides
- Seven percent of school-age children and adolescents were at risk for chronic kidney disease (serum creatinine > 0.7 mg/dl for 5–12 years and > 1.0 mg/dl for ≥ 13 years)
- Five percent of adolescents were classified as having hypertension (systolic blood pressure >139 mmHg or diastolic blood pressure >89 mmHg)

MODIFIABLE RISK FACTORS FOR NCDS

2018: WHO- 5x5 framework for tackling NCDs:

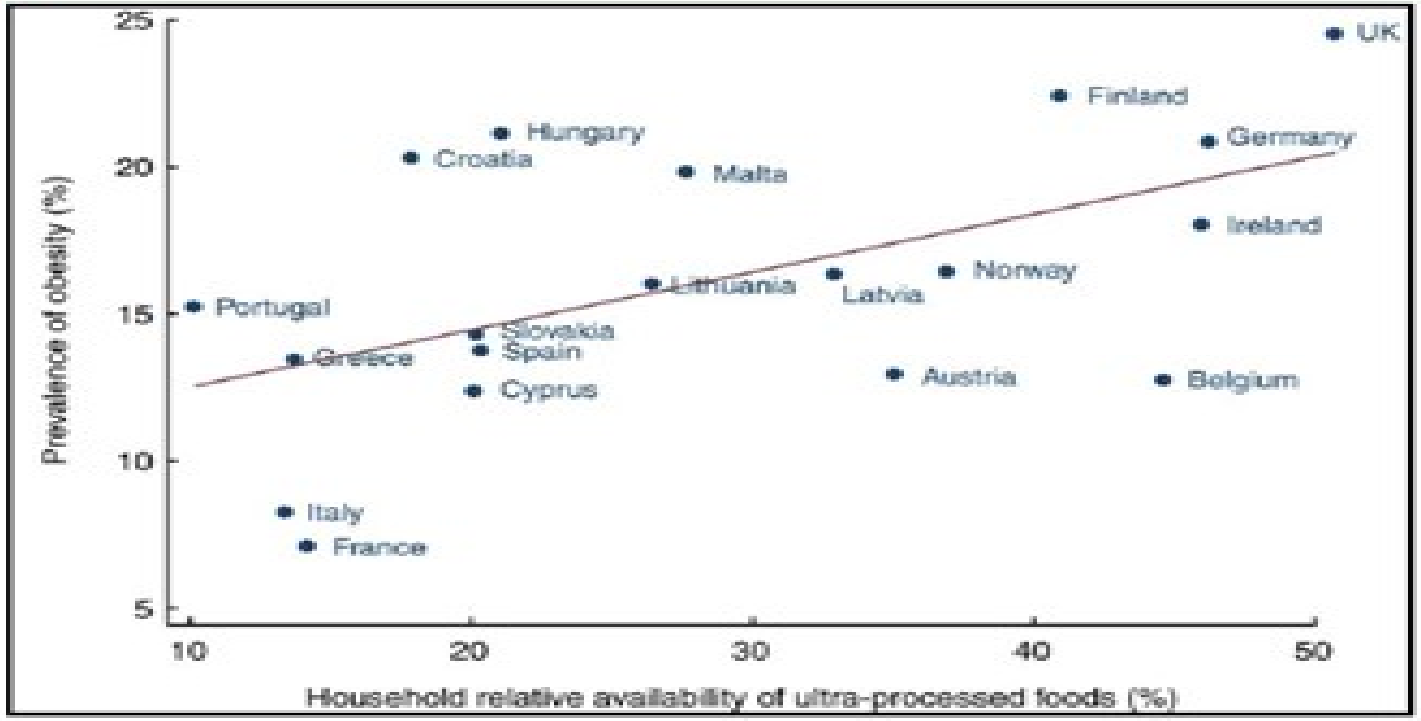
- THE 5 DISEASES : CV disease, chronic respiratory disease, cancer, diabetes, mental & neurological conditions
- THE 5 KEY MODIFIABLE RISK FACTORS: unhealthy diet, physical inactivity, air pollution, tobacco & alcohol.

The NOVA FOOD CLASSIFICATION

- Group 1: Unprocessed or minimally processed foods: edible parts of plants/ animals after separation from Nature or modified/ preserved by minimal processes. No substance has been added
- Group 2: Processed Culinary ingredients: substances extracted from food/ Nature and used to prepare, cook and season Group 1 foods e.g. salt, sugar, oil or fats
- Group 3: Processed foods: group 1 foods modified by adding salt, sugar, oil or fats, to preserve or enhance their sensory qualities
- Group 4: Ultra processed foods: formulations of substances derived from foods plus cosmetic additives, with little if any intact food. These foods are designed to be durable, omnipresent, hyperpalatable and highly profitable.

Dr Paula Goel

UPFs consumption contributes to obesity



Each percentage point increase in the household availability of UPFs resulted in an increase of 0·25 percentage points in obesity prevalence

Cross-sectional and longitudinal studies show that ultra-processed food consumption is associated with obesity, hypertension, dyslipidaemias, metabolic syndrome, heart attacks, stroke, breast cancer and total cancer


PLOS

Ultra-Processed Food Products and Obesity in Brazilian Households (2008–2009)

Daniela Silva Canella[1,2]*, Renata Bertazzi Levy[2,3], Ana Paula Bortoletto Martins[1,2], Rafael Moreira Claro[1,4], Jean-Claude Moubarac[5], Larissa Galastri Baraldi[1,2], Geoffrey Cannon[6], Carlos Augusto Monteiro[1,2]

Abstract


Preventive Medicine

Consumption of ultra-processed foods and obesity in Brazilian adolescents and adults

Maria Laura da Costa Louzada[a,b,1,*], Larissa Galastri Baraldi[a,b], Euridice Martinez Steele[a,c], Ana Paula Bortoletto Martins[b], Daniela Silva Canella[b], Jean-Claude Moubarac[b,c], Renata Bertazzi Levy[b,c], Geoffrey Cannon[b], Ashkan Afshin[d], Fumiaki Imamura[e,f], Dariush Mozaffarian[d,f], Carlos Augusto Monteiro[a,b]


Ultra-processed food consumption and excess weight among US adults

Filippa Juul[a], Euridice Martinez-Steele[a,b], Niyati Parekh[b,c], Carlos A. Monteiro[d,b] and Virginia W. Chang[b,e]


Canadian Journal of Public Health

Consumption of ultra-processed foods and obesity in Canada.

--Manuscript Draft--


Nutrition, Metabolism & Cardiovascular Diseases

Consumption of ultra-processed food products and its effects on children's lipid profiles: A longitudinal study

F. Rauber[a,*], P.D.B. Campagnolo[b], D.J. Hoffman[c], M.R. Vitolo[d]

KEYWORDS
Food processing and ultra-processed foods;
Risk factors;
Child nutrition;


AJCN. First published ahead of print October 12, 2016 as doi: 10.3945/ajcn.116.139634.

Ultraprocessed food consumption and risk of overweight and obesity: the University of Navarra Follow-Up (SUN) cohort study[1,2]


ORIGINAL ARTICLE

American Journal of Hypertension 30(4) April 2017

Ultra-Processed Food Consumption and the Incidence of Hypertension in a Mediterranean Cohort: The Seguimiento Universidad de Navarra Project

Raquel de Deus Mendonça[1,2], Aline Cristine Souza Lopes[2], Adriano Marçal Pimenta[3,4], Alfredo Gea[3,5], Miguel Angel Martinez-Gonzalez[3,6,7], and Maira Bes-Rastrollo[3,8]


BMJ 2018;360:k322 | doi: 10.1136/bmj.k322

OPEN ACCESS

Consumption of ultra-processed foods and cancer risk: results from NutriNet-Santé prospective cohort

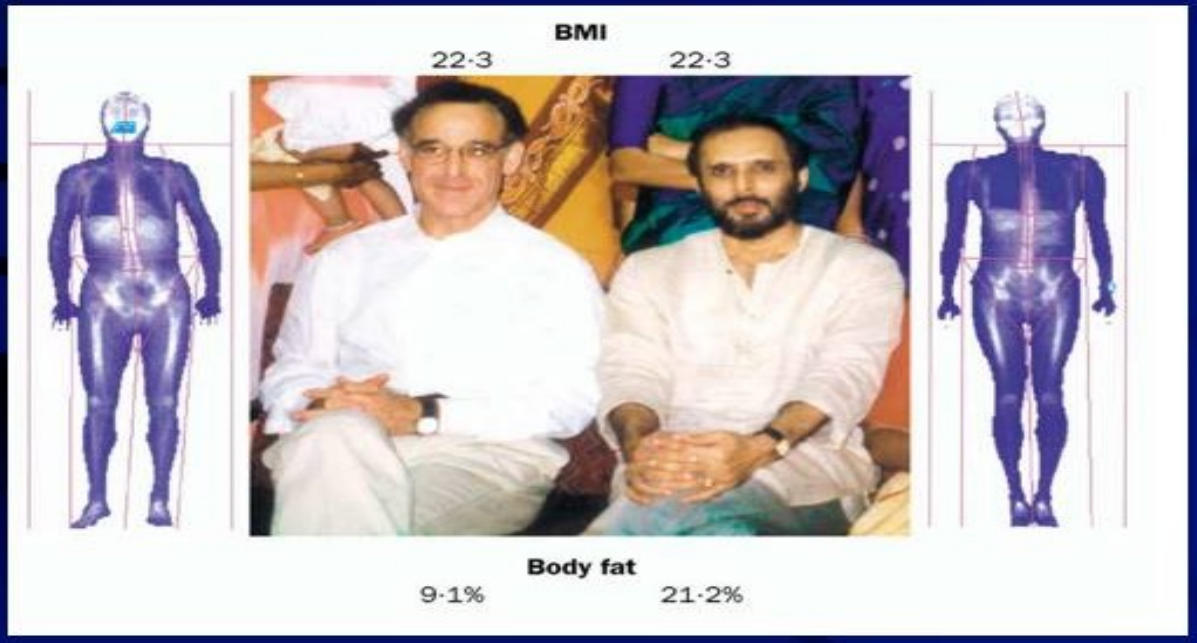
Thibault Fiolet[1], Bernard Srour[1], Laury Sellem[1], Emmanuelle Kesse-Guyot[1], Benjamin Allès[1], Caroline Méjean[1], Mélanie Deschasaux[1], Philippine Fassier[1], Paule Latino-Martel[1], Marie Beslay[1], Serge Hercberg[1,4], Céline Lavalette[1], Carlos A Monteiro[1], Chantal Julia[1,4], Mathilde Touvier[1]

DRS …YUDKIN &YAJNIK !!

The Y-Y paradox

Chittaranjan S Yajnik, John S Yudkin

THE LANCET • Vol 363 • January 10, 2004



National Consultative group constituted by Nutrition Chapter of Indian Academy of Pediatrics

The JUN'CS' Food :

- **J- Junk food (foods high in fats, especially saturated and trans-fats, sugars and salts, and foods lacking in micronutrients/minerals)**
- **U- Ultra processed foods (as defined in the fourth category of NOVA classification)**
- **N- Nutritionally inappropriate foods. Home-made foods can also qualify to be nutritionally inappropriate if prepared in recycled oil, or contain high amount of sugar, fat or salt.**
- **C- Caffeinated/colored/carbonated beverages**
- **S- Sugar sweetened beverages**

THE FIRST JUNK IN HUMAN LIFE-
LABELLING OF INFANT MILK SUBSTITUTE AND INFANT FOOD-

- **“TO BE TAKEN UNDER MEDICAL ADVICE”.**
- **Should be used only on the ~~advice~~ Prescription of a health worker**
- **All should have a picture of a beautiful baby being fed by mother**
- **All infant foods need to have warning too –That home made foods are ideally recommended for infants**

THE MILIEU AND THE CHILD

- Working & Guilty Parents who lack time
- Screen Addicts since infancy/Mobiles in hand
- Money in pocket
- Pumped by advertisements-TV/Movies/video games/internet websites/smart phone apps
- Have Pestering Power From infancy
- Yielding Grandparents
- Free Home Delivery 24x7/Sales
- Schools thrust is on academics
- JUNCS Sales at strategic points around school
- Home is no different from a School Canteen
- Misses breakfast/lunches alone
- Foods are mandatory part of any Celebration/Reward/Punishment

CURRENT FRONT OF PACK LABEL FOR CHILDREN?

- **Daily energy requirement is approximately 2000-2150 kcal for a 10-11 year old**
- **~25% from each main meal (3 meals/day) and 10-12% from snacks (2 snacks/day).**
- **Therefore, thresholds have been calculated on the basis that each 100 g of product provides approximately 230 kcals**
- **Sodium (mg) & energy content (kcal) is equal to or higher than 1:1, the product is considered excessive in sodium. The ratio is derived from a max RDA of 2000 mg of sodium, on an av total daily energy intake of 2000 kcal**
- **Sugar thresholds are based on the rationale that a product is considered excessive in free sugars, if amount of energy (kcal) from free sugars [free sugars (g) x 4 kcal] is equal to or higher than 10% of the total energy (kcal) for the product. A lower threshold of 5% is used for sugar sweetened beverages.**
- **Total fat is considered excessive, if amount of energy (kcal) from total fats [total fats (g) x 9 kcal] is equal to or higher than 30% of the total energy (kcal) and excessive in saturated fats, if in any given quantityof the product the amount of energy (kcal) from saturated fats [saturated fats (g) x 9 kcal] is equal to or higher than 10% of the total energy (kcal).**

- **CHILDREN ARE GROWING UP IN THE "JUNKY" ENVIRONMENT,INSTEAD OF HOME MADE COMPLIMENTARY FEEDING ALSO THEY ARE GIVEN JUNK BOUGHT FROM MARKET**
- **HOW WILL ADULT CUT OFFS BE APPLICABLE TO <10 YRS CHILDREN TOO?**

PEOPLE MUST BE WARNED ABOUT BOTH PACKAGED AND FAST FOOD THROUGH NOTICEABLE WARNING SYMBOLS

- **Easy to notice – Since it comprises of colours and symbols**
- **Easy to interpret – does not require any calculation**
- **Enables consumer to identify unhealthy foods – more than any other FoP label**
- **Helps transcend the literacy and language barriers**

Israel (Proposed)

Israel proposes icons in their warning labels for "High sugar", "High sodium" and "High saturated fats"

WHICH NUTRIENTS SHOULD BE HIGHLIGHTED ON FOP

- **Salt**
- **Sugar**
- **Fat**
- **Trans fat**
- **Calories**

- **Sodium vs Salt**
- **Added sugar**
- **Saturated fat**
- **Trans fat**
- **Calories**
- **Total fat.**

Under the new regulations, companies will have to display nutritional data clearly on front of their product packs

PROVISIONS	CURRENT LAW FSS (Packaging & Labelling) Regulations, 2011	PROPOSED REGULATION Draft FSS (Labelling and Display) Regulations, 2019
NUTRITION LABELLING	• Energy (in Kcal) • Protein (in g) • Carbohydrate with sugar (in g) • Total fat (in g) • Trans fat (in g) [included after law was amended in 2016] • Saturated fat (in g) [included after law was amended in 2016] **These nutrients are to be declared at the back of pack per 100 g or ml or per serve** **Serving size only in case of per serve declaration of nutrients**	• Energy (in Kcal) • Carbohydrate with sugar • Trans fat • Cholesterol • Added sugar • Protein • Total fat • Saturated fat • Sodium **These nutrients are to be declared at the back of pack per 100 g or ml or per serve** **Their per serve contribution to RDA*, considering 2,000 Kcal, 67 g of fat, 22 g of saturated fat, 2 g of trans fat, 50 g of added sugar, and 2,000 mg of sodium will also be declared** **Serving measure and number of servings**

THRESHOLDS FOR FOP LABELLING??

- **Thresholds have been logically defined by the WHO-SEARO nutritional profiling model**
- **This was the basis of thresholds provided by FSSAI in draft labelling regulations of 2018 and 2019.**
- **The FoP labels can be easily based on these thresholds**

THE DEBATE ---AN IDEAL FOOD LABELLING?

- **HOW TO LABEL?**
- **TRAFFIC LIGHT BASED?**
- **WHICH NUTRIENTS SHOULD BE INCLUDED?**

CAN CHILDREN UNDERSTAND SERVING SIZE ?

RATIONALE FOR SERVING SIZE IN A SINGLE USE SMALL PACK?

A POSSIBILITY-IF HE GETS HOLD OF A PACK WITH GREEN LABEL FSS/SERVING SIZE,HE CAN OVER CONSUME IT.

COMMONEST MEAL ORDERED

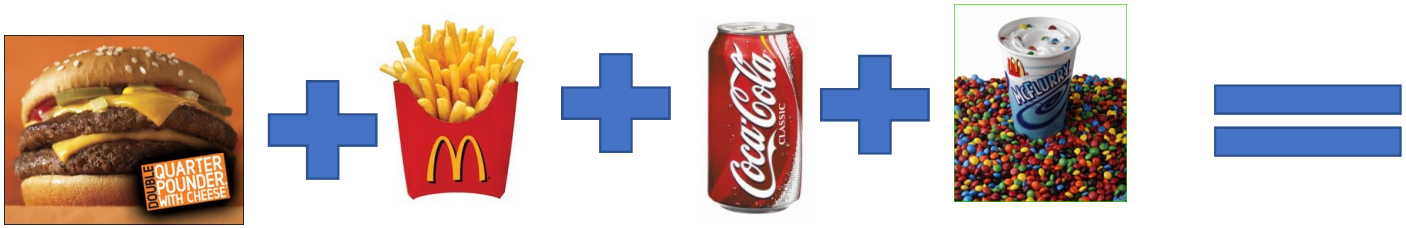
-Hamburger
(Double quarter pounder with cheese)

-Large french fries [FREE]

-A can of coke

-M&M's McFlurry

Nutrition facts



	Total amount	RDA (for an adolescent)
CALORIES	2010 kcl	2000-2500 kcl
TOTAL FATS	85g	70g
SATURATES	36g	18g
CARBOHYDRATES	251g	289g
SUGARS	133g	30g
FIBER	10g	25g
PROTEIN	67g	55g

4.5 HOURS RUNNING
=10.5 MILES RUN
running (5mph)

8.5 HOURS WALK = 21 MILES WALK
(2.5mph)
[leisure walk for 1 hour ~240 calories]

TO SAVE CHILDHOOD:
URGENT NEED FOR-

-SIMPLE
-CLEAR
-COLOR CODED
-INFORMATIVE LABEL
-EASY TO UNDERSTAND

HELPS IN LOGICAL DECISION

PLEA ON BEHALF OF NCD PREVENTION ACADEMY
& INDIAN ACADEMY OF PEDIATRICS

JUNK FOOD NEEDS NO LESS THAN RED ALERT

WHY CANT WE TREAT JUNK FOOD LEGALLY AS TOBACCO ????

LET'S REACH OUR AWARENESS TARGET - NO DEMAND OF JUNK FOOD

04 | metro | hindustantimes

We don't need junk food, say school kids

MOVE HC The court had earlier slammed Centre for delay in enforcing the ban

Harish V Nair

NEW DELHI: On Wednesday, a group of school students joined the growing lobby demanding ban on the sale of junk food in schools and college canteens across the country.

"Uncontrolled consumption of junk food and beverages is leading to obesity... Does the fundamental right of an individual or a group to engage in an economic activity allow him to harm the lives of others?" asked the petition filed by 10 students of Father Agnel School. They also submitted postcards to the bench headed by Acting Chief

JUNK THIS

What uncontrolled consumption of such foods and beverages can do to you

- Biscuits, burgers, colas, fries and chips are the most consumed snacks among children
- Junk food mostly comprises refined sugar and fat that can lead to several health problems
- Their regular consumption leads to excess weight and obesity
- Junk food is a major cause of heart diseases and diabetes as it contains hydrogenated vegetable oils that lead to cholesterol accumulation in arteries
- High cholesterol in junk food puts extra strain on the liver
- High fat may affect brain functions such as concentration and memory.
- Consumption of colas can lead to bone damage, tooth decay, increased risk of kidney stones etc.
- With no fibre, vitamins or anti-oxidants in it, junk food has no or very little nutritional value.

Icons: A BHIMAIYU

We want the government to take "has written" to all state health told the court: "On one hand

THANK YOU

Fat/FA	REQUIREMENT
TOTAL FAT	**20-35 %E**
SFA	**<10% E**
Total PUFA **(LA + ALA + EPA + DHA):**	**6 – 11%E**
n-6 PUFA (LA).	**2.5 – 9%E**
n-3 PUFA (ALA)	**0.5 – 2%E**
TFA	**0%**
MUFA **By difference ~ Total fat [%E] – SFA [%E] – PUFA [%E] – TFA [%E]**	**15 – 20 %E**

DIETARY GUIDELINES

ENERGY FROM FATS : (% OF TOTAL CALORIES)

- Adults -20 -35 %
- Children: 4 to 18 yrs 25 -35 %
  < 4 yrs- 30 to 40 %
- < 10 % saturated fats: replacing them with MUFAs & PUFAs.

➢ Trans fats consumption as low as possible[WHO<1%]

➢ Fats for cooking-

High MUFA canola oil ,olive oil.

High n-3 PUFA alpha-linoleic acid eg. walnut oil, Fish oil/Flaxseed oil.to a lesser extent,soybean oil, are also beneficial.

benefits of n-6 FAs Sunflower/Safflower/Corn Oils–UNCERTAIN??