



International Sugar Organization

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EXECUTIVE DIRECTOR

**Press Release(17)11
(English only)**

2 March 2017

**Presentation from Philippe Reiser from CEDUS
“Sugar Image and its Impact on Health Policies and Food Industry”**

The Executive Director would like to call your attention to the attached presentation given by Philippe Reiser, Director of Scientific Affairs, at CEDUS (Centre d'Etudes et de Documentation du Sucre) at the 2nd ISO-APS Sugar Conference in Marrakesh last week.



INTERNATIONAL
SUGAR
CONFERENCE
MOROCCO



Sugar image and its impact on health policies and food industry

Philippe REISER

Scientific Affairs – CEDUS, France



Sugar image and its impact on health policies and food industry

The image of sugar

- where are we now ?
- why ?
- what are the trends in food policies ?
- How do the food sectors respond ?

Sugar image and its impact on health policies and food industry

The image of sugar

- **where are we now ?**
- **why ?**
- **what are the trends in food policies ?**
- **How do the food sectors respond ?**

Where are
we now ?



?

Media on sugar

Aujourd'hui
LE MAROC

ACTUALITÉ POLITIQUE SOCIÉTÉ ECONOMIE CULTURE SPORTS FAITS-D

LASH INFO: on d'une famille fait deux morts et deux blessés > Solaire Expo Maroc 2017 - Noor Taftalet, Noor Atlas et T

Accueil Actualité

Les Marocains accros au sucre

Publié par ALM | Date: juillet 29, 2013 | dans:Actualité | Laisser un commentaire | 1897Vues

Partage f o t g+ o in o p o e

the guardian

Thursday 5 January 2017

The long read

Is sugar the world's most popular drug?

It eases pain, seems to be addictive and shows every sign of causing long-term health problems. Is it time to quit sugar for good?
by Gary Taubes

The Sydney Morning Herald

NEWS SITE OF THE YEAR

FEBRUARY 1 2017

We need a war on secondhand sugar

Michael I. Goran and Emily Ventura

SHARE TWEET MORE

If you saw a pregnant woman smoking, you would undoubtedly be concerned about the health of her child. But if you saw a pregnant woman drinking a soft drink, would you bat an eye? The comparison may seem extreme, but the parallels between tobacco and sugar are deeper than you might imagine.

There is no debate that secondhand smoke is harmful. Now we are discovering similar risks of "secondhand sugars" in infants and children, specifically that our high-sugar environment can impair children's development and their long-term health.

SHARE

FROM LAURIE DAVID PRODUCER OF AN INCONVENIENT TRUTH AND KATIE COURIC

Congress says pizza is a vegetable.

FED UP

"The movie that will change the way people think about sugar."

IN THEATERS MAY 9

Sugar Coated

FROM MICHELLI NOSTER

HOW THE FOOD INDUSTRY SEDUCED THE WORLD ONE SPOONFUL AT A TIME

Expresso

ÚLTIMAS OPINIÃO ECONOMIA EXPRESSO CURTO PODCASTS

CULTURA

Guerra ao açúcar

15.01.2017 às 14h00

The Washington Post

Opinions

Secondhand sugars are the new secondhand smoke — and they're harming children

Sugar. (Deb Lindsey/For The Washington Post)

By Michael I. Goran and Emily Ventura January 27

Michael I. Goran is professor of preventive medicine and pediatrics at the University of Southern California and co-director of the school's Diabetes and Obesity Research Institute. Emily Ventura is a

TIMES OF MALTA

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Sunday, January 29, 2017, 12:07 by Kathryn Borg

Sugar, not fat, real cause of obesity

THAT SUGAR FILM

"A DEFINITE MUST-SEE!"

"BINGE ON THAT SUGAR FILM AND TRANSFORM YOUR LIFE!"

THIS WILL CHANGE THE WAY YOU THINK ABOUT HEALTHY FOOD

thatsugarfilm.com #thatsugarfilm

Sugar image and its impact on health policies and food industry

The image of sugar

- where are we now ?
- **why ?**
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- In 2014, about **13%** of the world's adult population is **obese (BMI>30)** and over **38%** of adults were **overweight (BMI>25)**
- Prevalence of obesity **more than doubled between 1980 and 2014**
- ***WHO : "The fundamental cause is an energy imbalance between calories consumed and calories expended"***
- ***Calories from High fat or high carbs/sugars diets ?***

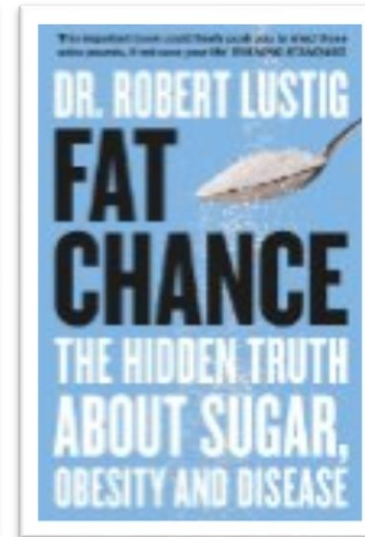
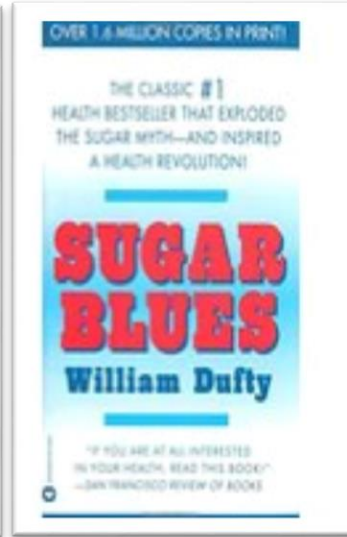
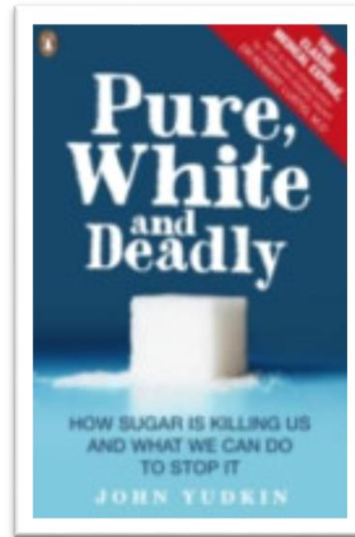
Nutrition Research

1960s

1980s

2010s

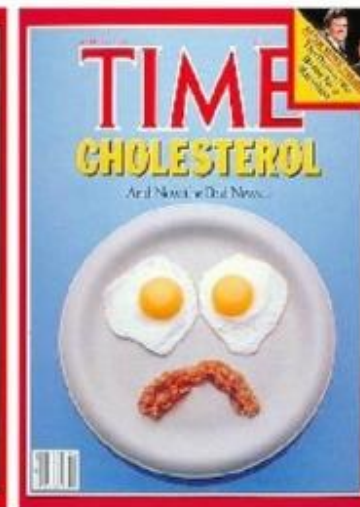
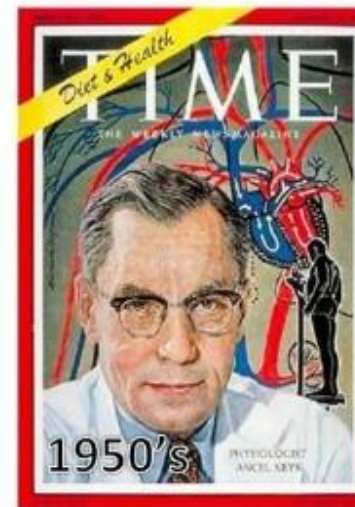
SUGAR



No news...

Vs

FAT



« Rehab »

« Sugar » became the (new) ideal culprit

1. *Too much* sugar (« explosion » of our sugar intakes)
2. Sugar is *everywhere* (« hidden » and hard to avoid)
3. Sugar is *good* (addictive ?)

COMMENT

SCIENCE How elephants could reduce fire risk in Australia **p.30** | **NEUROSCIENCE** The source of the self in the brain's wiring **p.31** | **LITERATURE** How Charles Dickens drew on science, but left room for wonder **p.32** | **HEALTH** Philip Lawley and the discovery that DNA damage can cause cancer **p.38**



The toxic truth about sugar
Added sweeteners pose dangers to health that justify controlling them like alcohol, argue Robert H. Lustig, Laura A. Schmidt and Claire D. Brindis.

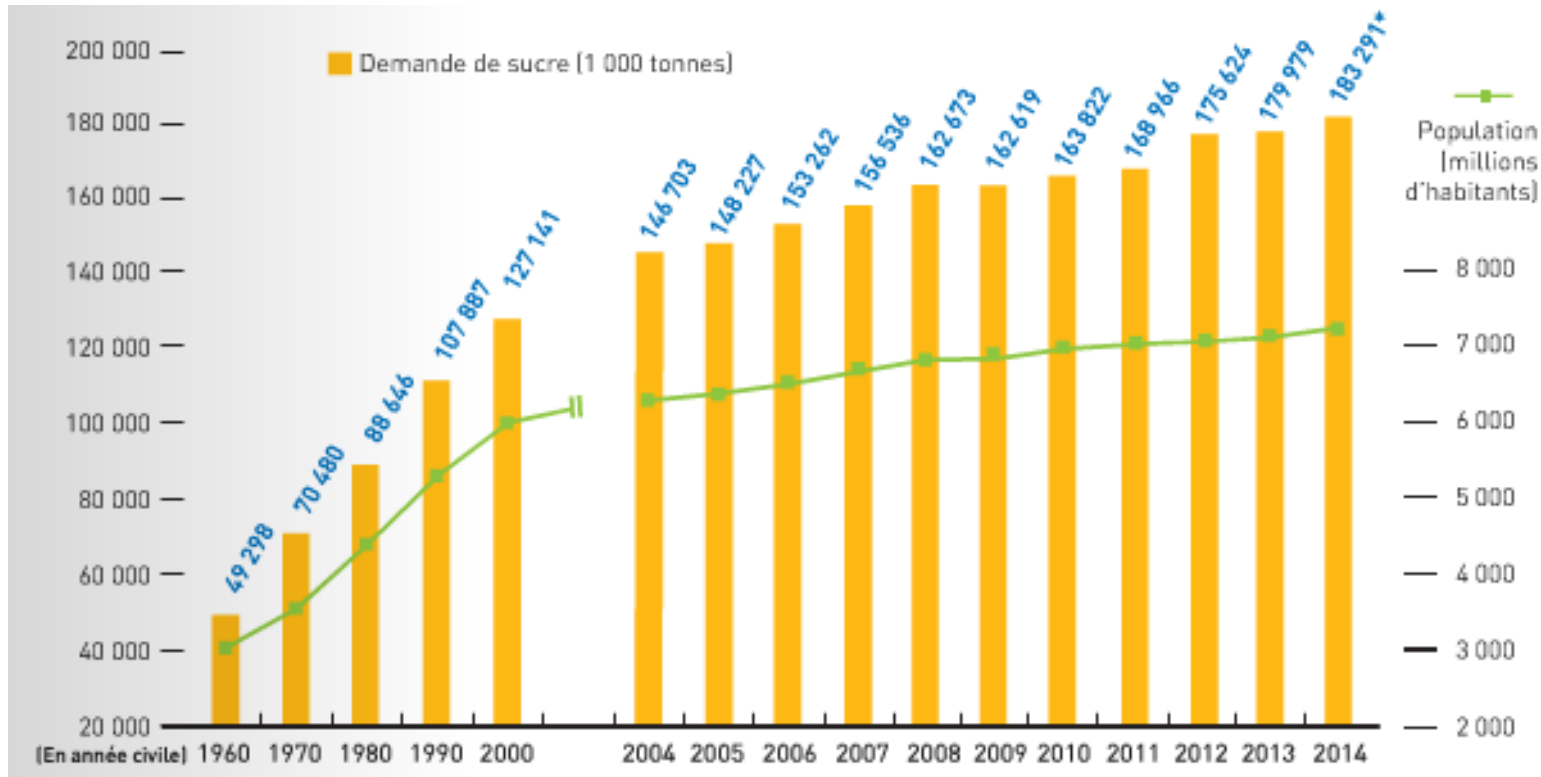
Last September, the United Nations declared that, for the first time in human history, chronic non-communicable diseases such as heart disease, cancer and diabetes pose a greater health burden worldwide than do infectious diseases, contributing to 35 million deaths annually. This is not just a problem of the developed world. Every country that has adopted the Western diet — one dominated by low-cost, highly processed food — has witnessed rising rates of obesity and related diseases. There are now 30% more people who are obese than who are undernourished. Economic development means that the populations of low- and middle-income countries are living longer, and therefore are more susceptible to non-communicable diseases: 80% of deaths attributable to them occur in these countries. Many people think that obesity is the root cause of these diseases. But 20% of obese people have normal metabolism and will have a normal lifespan. Conversely, up to 40% of normal-weight people develop the diseases that constitute the metabolic syndrome: diabetes, hypertension, lipid problems, cardiovascular disease and non-alcoholic fatty liver disease. Obesity is not the cause; rather, it is a marker for metabolic dysfunction, which is even more preventable. The UN announcement targets tobacco, alcohol and diet as the central risk factors in non-communicable disease. Two of these three — tobacco and alcohol — are regulated by governments to protect public health, leaving one of the primary culprits behind this worldwide health crisis unchecked. Of course, regulating food is more

SENTENCE
• Sugar consumption is linked to a rise in non-communicable disease
• Sugar's effects on the body can be similar to those of alcohol
• Regulation could include tax, limiting sales during school hours and placing age limits on purchase

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Nature, Lustig et al, feb 2012

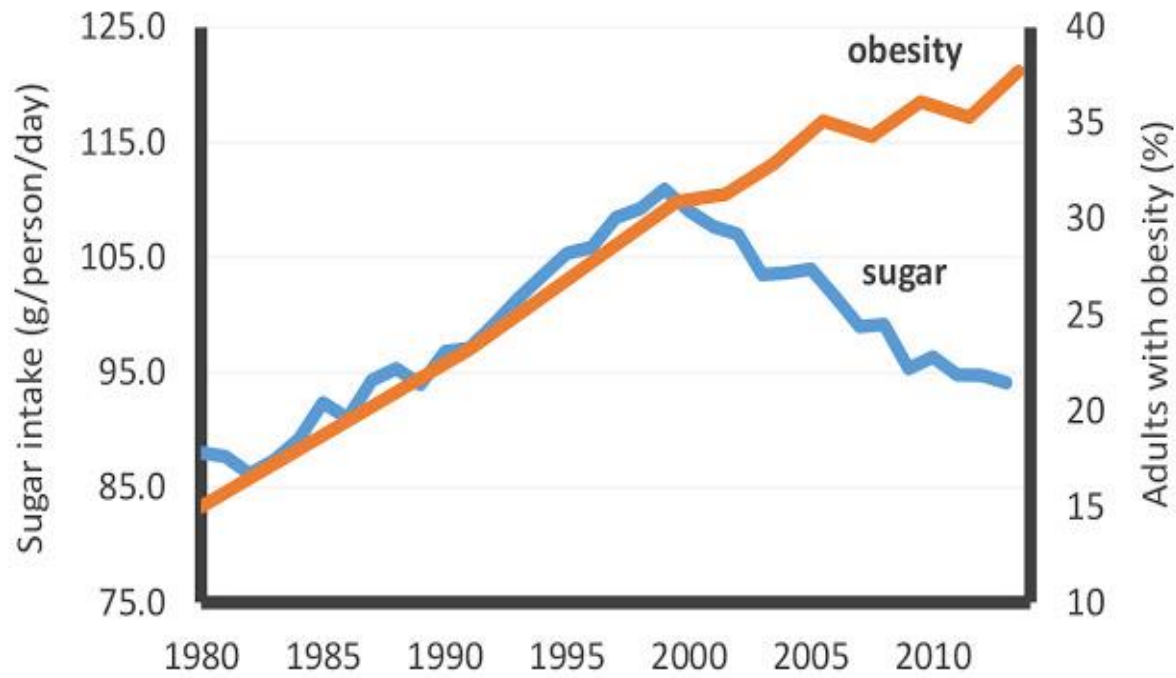
1. *Too much* sugar ? Explosion of our intakes ?



Source ISO

- Yes, increase in volumes
- Globally not increasing per capita and not an « explosion »
- **Various trends between countries in % energy :**
 - Increasing : Chile, El Salvador, India, Mexico, Thailand, the Netherlands, Pakistan
 - Stable : Costa Rica, Colombia, Dominican Republic, New Zealand, Germany, China, Argentina, Spain, France, Italy and Swaziland
 - Decreasing : Australia, Brazil, Canada, Denmark, Finland, Mauritius, South Africa, Sweden, UK, and USA). Source WSRO

US Sugar Intake vs. Obesity Prevalence, 1980-2013



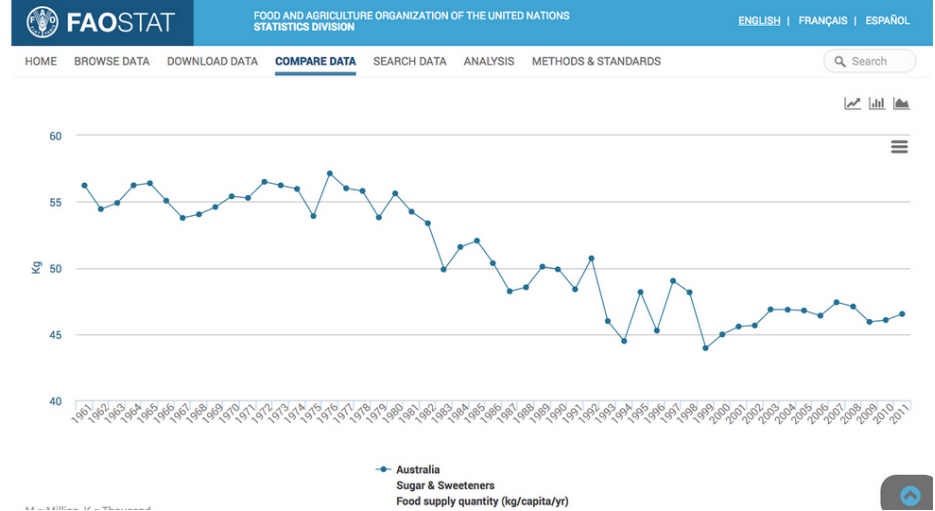
Sources: USDA Economic Research Service, CDC NHANES surveys

Prepared by Stephan J. Guyenet

The Australian Paradox: An inconvenient truth

Professor Jennie Brand-Miller and Dr Alan Barclay

The Australian Paradox



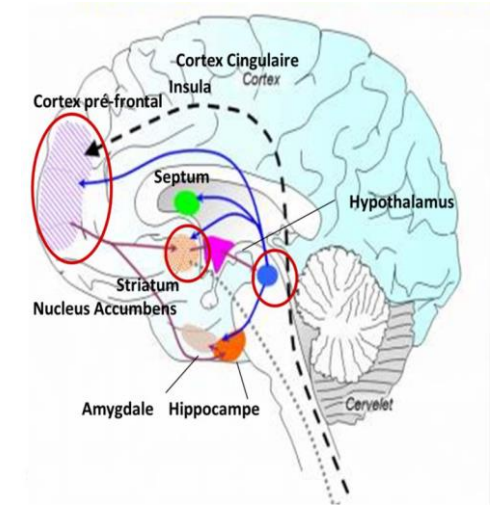
Sugars intakes are not a marker of obesity !

2. Sugar is *everywhere* / *Hidden*

- 90-95 % of added sugars are used in *sweet* products
- Sugar in sweet products : from 5% to 98%
- Sugar in salty products : 0,5 to 3% in average

Sugar is mainly added to ...sweet products

3. Sugar is *good* / addictive ?



- Experiments on rodents : trained rats prefer sugar to cocaïne !
- OK, Reward circuits are the same for sugars and drugs.

But

- Extrapolation to human environment ??
 - Probably some dysregulation among certain obese people
- « Sugar addiction is not a valid concept to explain obesity »

Neurofast, 2014, Ziauddeen et al, Eur J Nutr, 2016

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WHO guidelines on sugars

March 2015

- Strong Recommendation : limit « free sugars » < 10 % energy
- Additional recommendation : < 5 % (caries)

General idea : limit added sugars ! But how ?

BMJ

BMJ 2012;345:e7492 doi: 10.1136/bmj.e7492 (Published 15 January 2013) Page 1 of 25

RESEARCH

Dietary sugars and body weight: systematic review and meta-analyses of randomised controlled trials and cohort studies

OPEN ACCESS

Lisa Te Morenga *research fellow*^{1,2}, Simonette Mallard *research assistant*¹, Jim Mann *professor*^{1,2,3}

¹Departments of Human Nutrition and Medicine, University of Otago, PO Box 56, Dunedin 9054, New Zealand; ²Riddet Institute, University of Otago; ³Edgar National Centre for Diabetes and Obesity Research, University of Otago

CLINICAL REVIEW

P.J. Moynihan^{1*} and S.A.M. Kelly²

Effect on Caries of Restricting Sugars Intake: Systematic Review to Inform WHO Guidelines

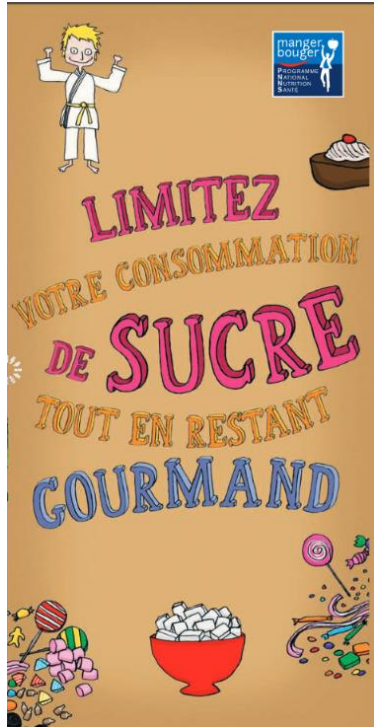
J Dent Res 93(1):8-18, 2014

ABSTRACT
A systematic review of studies in humans was conducted to update evidence on the association between the amount of sugars intake and dental caries and on the effect of restricting sugars intake to < 10% and < 5% energy (E) on caries to inform the updating of World Health Organization guidelines on sugars consumption. Data sources included MEDLINE, EMBASE, Cochrane Database, Cochrane Central Register of Controlled Trials, Latin American and Caribbean Health Sciences, China National Knowledge Infrastructure, Wanfang, and South African Department of Health. Eligible studies reported the absolute amount of sugars and dental caries, measured as prevalence, incidence, or severity. The review was conducted and reported in accordance with the PRISMA statement, and the evidence was assessed according to GRADE Working Group guidelines. From 5,990 papers identified, 55 studies were eligible – 3 interventional, 8 cohort, 20 population, and 24 cross-sectional. Data variability limited meta-analysis. Of the stud-

INTRODUCTION
Historically, numerous independent expert and consensus reports have concluded that sugars are the most important dietary factor in the development of dental caries (Sheiham, 2001; WHO/FAO, 2003). However, recommendations have not yet been developed through systematic review of the evidence.
In 2010, the World Health Organization (WHO) launched a Guideline Development Process defining a protocol for the process of revising and issuing dietary recommendations for populations (WHO, 2010). To update the recommendations for sugars through this process, WHO commissioned a systematic literature review. The objectives were to systematically review all available published data relating to the amount of sugars consumption and levels of dental caries and to report the findings for both adults and children. The WHO guideline development group formulated questions relating to the effects of sugars on dental caries (Table 1). These questions pertained to whether increasing or decreasing the amount of sugars intake affected measures of dental caries and whether the evidence supports a threshold for intake.

METHODS

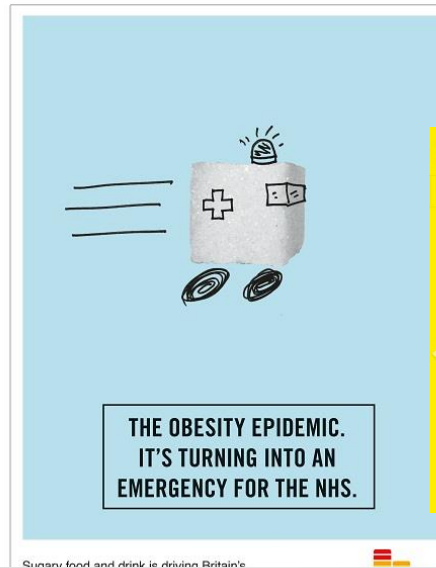
Prevention campaigns



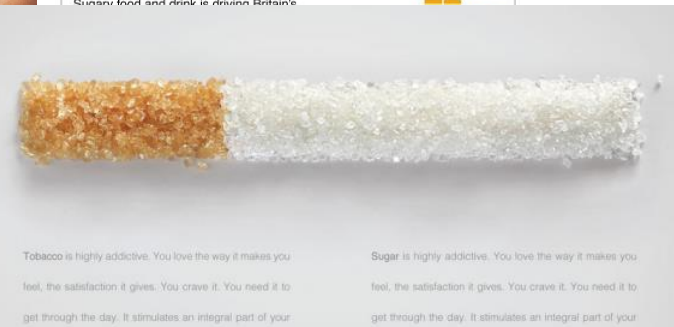
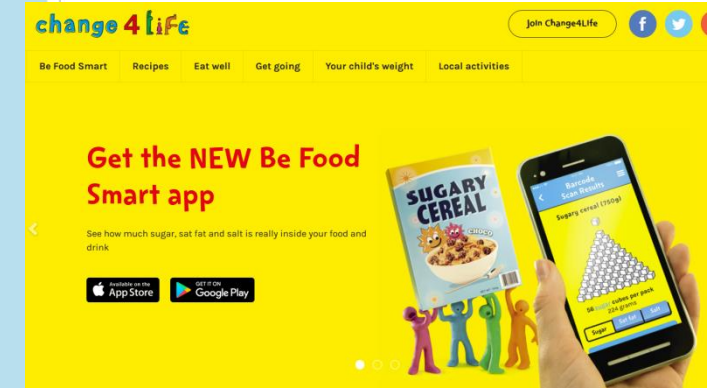
Extra calorías en bebidas cargadas de azúcar pueden causar diabetes, enfermedades del corazón y algunos tipos de cáncer.



Juice drinks can destroy teeth, cause obesity and lead to type 2 diabetes.



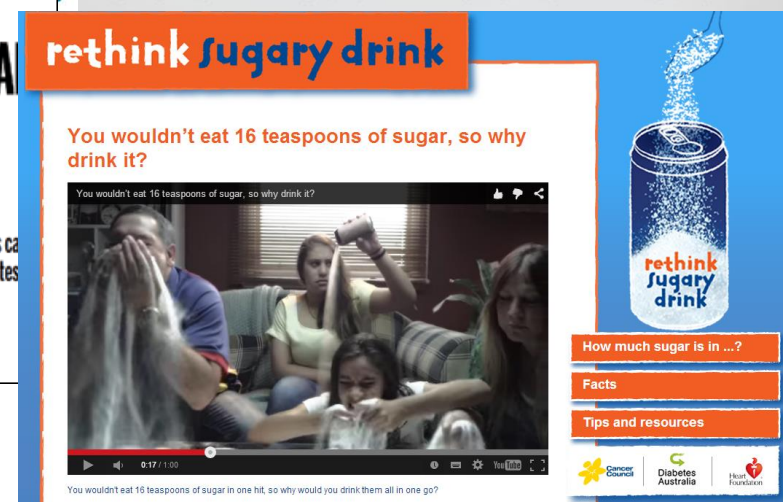
Sugary food and drink is driving Britain's obesity epidemic.



Sugar is highly addictive. You love the way it makes you feel, the satisfaction it gives. You crave it. You need it to get through the day. It stimulates an integral part of your brain.



All those extra calories can add up to bring on obesity, diabetes and heart disease.



You wouldn't eat 16 teaspoons of sugar, so why drink it?

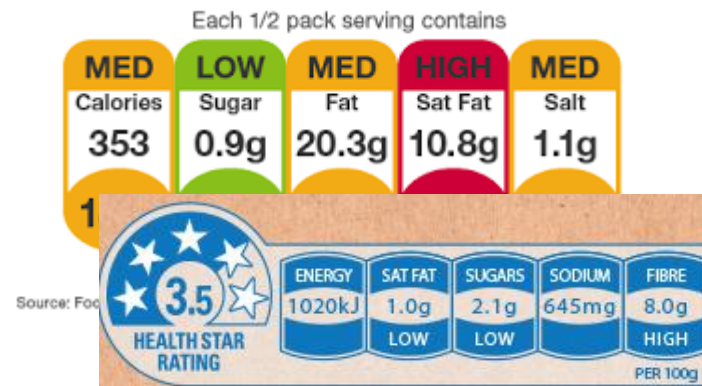


You wouldn't eat 16 teaspoons of sugar in one hit, so why would you drink them all in one go?



Information to consumers

- Regulation of food advertising to young people
- Mandatory health messages on ads
- Mandatory labelling of added sugars
- Implementation of nutritional front of pack logos



| Nutrition Facts | |
|---------------------------------|-------------------------|
| 8 servings per container | |
| Serving size | 2/3 cup (55g) |
| Amount per 2/3 cup | |
| Calories | 230 |
| % DV* | |
| 12% | Total Fat 8g |
| 5% | Saturated Fat 1g |
| | Trans Fat 0g |
| 0% | Cholesterol 0mg |
| 7% | Sodium 160mg |
| 12% | Total Carbs 37g |
| 14% | Dietary Fiber 4g |
| | Sugars 1g |
| | Added Sugars 0g |
| | Protein 3g |

Regulation/ban

- Ban of vending machines inside schools
- Ban of free refill for sugary drinks in restaurants/food catering
- Zoning to restrict fast food outlets



Food taxation

- Food taxes on soft drinks
5% to 10% higher prices per liter
- Food taxes on caloric density
Mex : 8% tax on foods >275 kcal/100g
- « Incentive » to reduce sugars
UK, 2018 : >5% sugar and >8% sugar



HEALTH NEWS | Thu Aug 18, 2016 | 11:35am EDT

Britain launches soft drinks sugar tax to fight obesity



A detail of a can of Coca-Cola is seen in London, Britain March 16, 2016. REUTERS/Stefan Wermuth

Does it work ?

- Education campaigns and information to consumer : mixed picture of the effects
- Taxes : it works for money !

Impact on sales ?

- At least the first years
- More water ? More fruit juices ?
- France : -3 liters/y/pers = -1 g sugar /d



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- where are we now ?
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Actions of food industries

No action

Reformulation

- Less sugars by « quiet » reformulation
- Less sugars by addition of intense sweeteners

Marketing

development of the share market for light versions

Smaller portion sizes



News

Mars bars, KitKats and Dairy Milk chocolates to get smaller in new sugar crackdown

share

28 Comments



And for the sugar producers ?

- Information and responsibility

Recall the positive aspects of sugar


- natural (vegetal) origin, source of pleasure
- clean labelling, common ingredient in the kitchen
- **Sugar is food, it is not the new tobacco !!!**

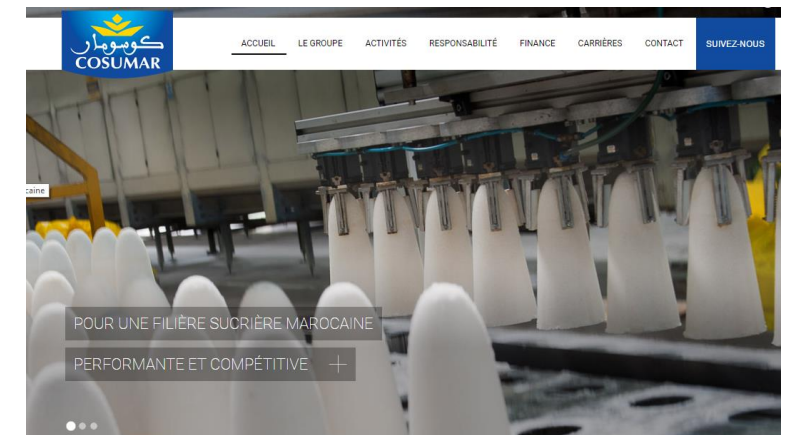
Responsability

- sugar is only part of the complex equation of well being and health
- **avoid excessive calories from sugars, although the scientific basis for restrictive guidelines is far from settled.**

**Future ? New results, new controversies,
but sugar will stay a central ingredient**

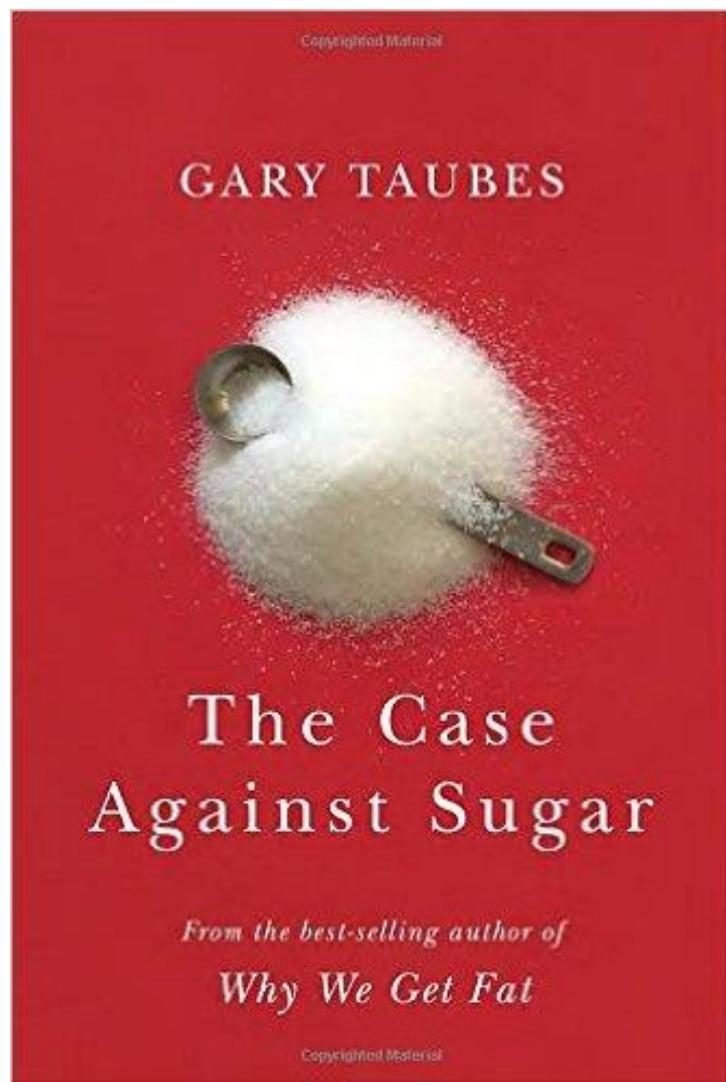


 Sense Of Sugar @senseofugar · about 19 hours 19 minutes ago
The smallest change, such as walking more, can lead to a healthier lifestyle. Get hints & tips on burning #calories... <https://t.co/9ZHtB4Fse9>



UN ACTEUR HISTORIQUE

- Thank you for your attention !



The New York Times

The Case for Sugar

By PAUL RUDNICK FEB. 4, 2017



Hudson Christie