



# The Danish Trans Fat Ban

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## The rules – Order on TFA

- Trans fatty acids maximum level: 2 % of fat content
- Focus on oils and fats – limit at the source
- Only industrially processed trans fatty acids
- Applied from 1 January 2004



# Scientific Background – DNC Reports

## *Well-established link between trans fatty acids and cardiovascular disease*

- Increase of 5 g TFA/Day = 25 % increased risk of cardiovascular disease
- Intake of 20 g TFA/Day = 2,5 times higher risk of cardiovascular disease
- Risk related to TFA 4-5 times higher than risk related to saturated fats
- US estimate (1997): 30-40% of deaths related to cardiovascular disease due to TFA (>30.000 deaths a year); average TFA-intake 5 g/Day



# Recommendations from scientific bodies

- WHO 2004: ” ... Towards the elimination of TFA”.
- Institute of Medicine 2002: ”Keep intake as low as possible while consuming a nutritionally adequate diet”
- AFSSA 2005: ”Intake  $>2$  E% increases risk of CVD.”  
Maximum of 1 %.



## Why maximum level ?

### Maximum level

- Protection of citizens
- Simple and efficient way of reducing intake
- Enforceable, controllable and technologically feasible

### Labelling

- Empowering of citizens
- Reduces intake ?
- Labelling not understandable for citizens
- Unpacked food products
- Massive public information required



# Why only IP-TFA ?

## IP-TFA

- Added in the production process – comparable to additives or contaminants
- Level potentially high – no safe upper level
- No benefits
- Reduction technologically possible
- Distinction by analysis possible

## Natural TFA

- Naturally occurring TFA integral part of product
- Level of naturally occurring trans fatty acids low
- No evidence of health risk related to naturally occurring trans fatty acids
- Beneficial nutrients in animal products



## The Result

Surveys on target products 2002-03 and 2004-05:

- Significant decrease in products  $>2\%$  TFA
- Low level of transgression (2-6 %)
- Replacement of removed TFA: Both monounsaturated and saturated fats. New methods of production developed – solid and semi-solid 'speciality fats'
- No increase in prices
- No decrease in product variability



# The MacDonald's Case

## – Fat content

### *Pre-regulation*

- 55 % Monounsaturated
- 8 % Polyunsaturated
- 20 % Saturated
  
- 8 % Transfats

### *Post regulation*

- 70 % Monounsaturated
- 15 % Polyunsaturated
- 15 % Saturated
  
- NO Transfats !





# The 'High Trans Menu'

## IP TFA in High Trans Menu (Denmark):

2001: Approx. 30 g per serving

2006: Below 1 g per serving

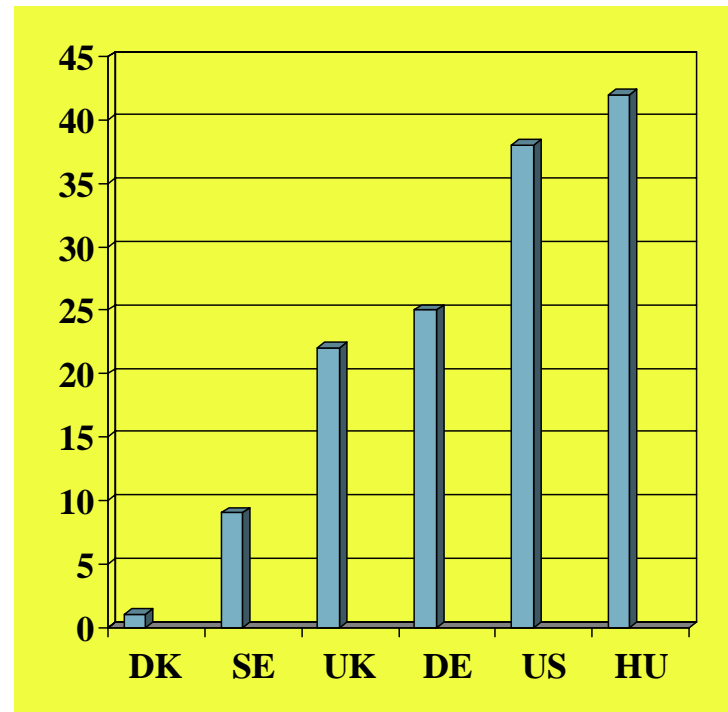
## Other countries (2006):

From 9 g to above 40 g per serving



## Exposure in 'High Trans Menus'

- Stender et al 2006, NE Journal of Medicine
  - At random TFA in fast food, 25 countries (14 EC)
  - French fries, chicken, biscuits, popcorn etc.
  - Average content per serving





# Health impact ?

- Difficult to 'isolate' TFA-impact in health studies
- Studies conducted by Danish Obesity Research Center
  - Epidemiologic survey
  - Intervention study
- Further information: [www.DanORC.dk](http://www.DanORC.dk)