EUROPEAN PARLIAMENT

DIRECTORATE-GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT A
ECONOMIC AND SCIENTIFIC POLICY

Economic and Monetary Affairs

Employment and Social Affairs

Environment, Public Health and Food Safety

Industry, Research and Energy

Internal Market and Consumer Protection

Workshop on Trans Fats

MEETING DOCUMENT

EN

2013

Workshop on Trans Fats / Meeting Document

DIRECTORATE GENERAL FOR INTERNAL POLICIES
POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY

WORKSHOP

Trans Fats

Brussels, 5 November 2013

MEETING DOCUMENT

ЕВРОПЕЙСКИ ПАРЛАМЕНТ PARLAMENTO EUROPEO EVROPSKÝ PARLAMENT EUROPA-PARLAMENTET
EUROPÄISCHES PARLAMENT EUROOPA PARLAMENT ΕΥΡΩΠΑΪΚΟ ΚΟΙΝΟΒΟΥΛΙΟ EUROPEAN PARLIAMENT
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EUROPOS PARLAMENTAS EURÓPAI PARLAMENT IL-PARLAMENT EWROPEW EUROPEES PARLEMENT
PARLAMENT EUROPEJSKI PARLAMENTO EUROPEU PARLAMENTUL EUROPEAN
EURÓPSKY PARLAMENT EVROPSKI PARLAMENT EUROOPAN PARLAMENTTI EUROPAPARLAMENTET

Organised by the Policy Department A-Economy & Science for the Committee on the Environment, Public Health and Food Safety (ENVI)

Workshop on Trans Fats

Tuesday, 5 November 2013 from 15.30 to 17.30
European Parliament, Room A1E-2, Brussels

AGENDA

15.30 - 15.35
Welcome and opening by Co-chairs of the Health Working Group, Glenis WILLMOTT and Alojz PETERLE, MEPs

15.35 - 15.45
Presentation of the EU Platform for Action on Diet, Physical Activity and Health
Ms Stephanie BODENBACH, Unit Nutrition & Nutrition Related Aspects of Labelling, DG SANCO, European Commission

Part 1
Trans Fats effects on health

15.45 - 15.55
Overview on EFSA opinion on trans fatty acids
Dr Valeriu CURTUI, Head of Nutrition Unit, EFSA

15.55 - 16.05
Adverse effect of Trans Fats in the cardiovascular system
Prof Dr Steen STENDER, Chief physician and Lab Director at the Department of Clinical Biochemistry, Copenhagen County Hospital in Gentofte, University of Copenhagen

16.05 - 16.25
Q&A

Part 2
How to proceed?

16.25 - 16.35
Regulation of Trans Fats in Denmark
Søren Langkilde, Ministry of Food, Agriculture and Fisheries, Denmark

16.35 - 16.45
Title tbc
Dr. Donald PRATER, Deputy Director of the FDA office at the U.S. Mission to the European Union

16.45 - 17.25
Open Discussion

17.25 - 17.30
Conclusions

17.30 Closing

SHORT BIOGRAPHIES OF EXPERTS

Ms Stephanie Bodenbach

Ms Stephanie Bodenbach joined the European Commission in 2006, where she is dealing as a policy officer with nutrition labelling and related nutrition issues. She is also responsible for the implementation of the White Paper on a Strategy for Europe on Nutrition, Overweight and Obesity related Health Issues, specifically focusing on reformulation.

Previously, she held positions as researcher and scientific coordinator in the coordination office of the Public Health Association of Saxony and as technical and scientific consultant in the European sales branch of a Japanese pharmaceutical and fine chemicals company.

Stephanie Bodenbach holds Master degrees in Nutritional Science from Bonn University and Public Health from the University of North Carolina at Chapel Hill.

Dr. Valeriu Curtui

Dr. Valeriu Curtui is Head of the Nutrition Unit at the European Food Safety Authority (EFSA), which provides scientific and administrative support to the EFSA Scientific Panel on Dietetic Products, Nutrition and Allergies. Prior to his appointment in February 2013, he worked, from 2008 onwards, as a scientific officer in EFSA's Dietary and Chemical Monitoring Unit on subjects such as chemical occurrence in food and dietary exposure assessments.
From 2001 to 2008, Dr. Curtui was an Assistant Professor at the Institute of Veterinary Food Science of the Justus Liebig University (Giessen, Germany), and from 1991 to 2001 he was an academic member of staff in the field of toxicology and medicinal plants at the University of Agricultural Sciences and Veterinary Medicine of Timisoara (Romania). His research activity was focused on chemical food safety.
Dr. Curtui was awarded a degree in Veterinary Medicine from the University of Agricultural Sciences and Veterinary Medicine of Timisoara (Romania) in 1991, and received a PhD in Toxicology from the same University in 1998. His scientific formation included scholarships at Universities in France, Germany and the UK.

Prof Dr Steen Stender

Steen Stender is Professor, Chief physician and Lab Director at the Department of Clinical Biochemistry, Copenhagen County Hospital in Gentofte, University of Copenhagen. He graduated as a medical doctor from the University of Copenhagen in 1973 and embarked on a research career that spanned more than 30 years. Steen Stender has published more than 100 peer-reviewed scientific articles in international journals, mostly focused around the biochemistry of atherosclerosis (hardening of the arteries).
A major achievement has been the development of a method for measuring the in vivo transfer of various types of lipoproteins from the blood into the arterial wall of humans. Stender has been a member of the Danish Nutrition Council since the early-1990s, and the chairman of several sub-groups, including the sub-group dealing with trans fatty acids and health.

STEEN STENDER made trans fats history. As Chairman of the Danish Nutrition Council's subgroup dealing with trans fats and health, he lobbied for – and successfully achieved – a ban on trans fats in Denmark. Denmark approved the ban in March 2003 and it came into effect on 1 January 2004. The ban made it illegal for any food to contain more than 2 percent trans fats. Offenders face hefty fines and could even be jailed. As of January 2007, Denmark remains the only country in the world to have banned foods with more than 2 percent trans fats content. Source: http://www.stop-trans-fat.com/steen-stender.html

Mr Søren Langkilde

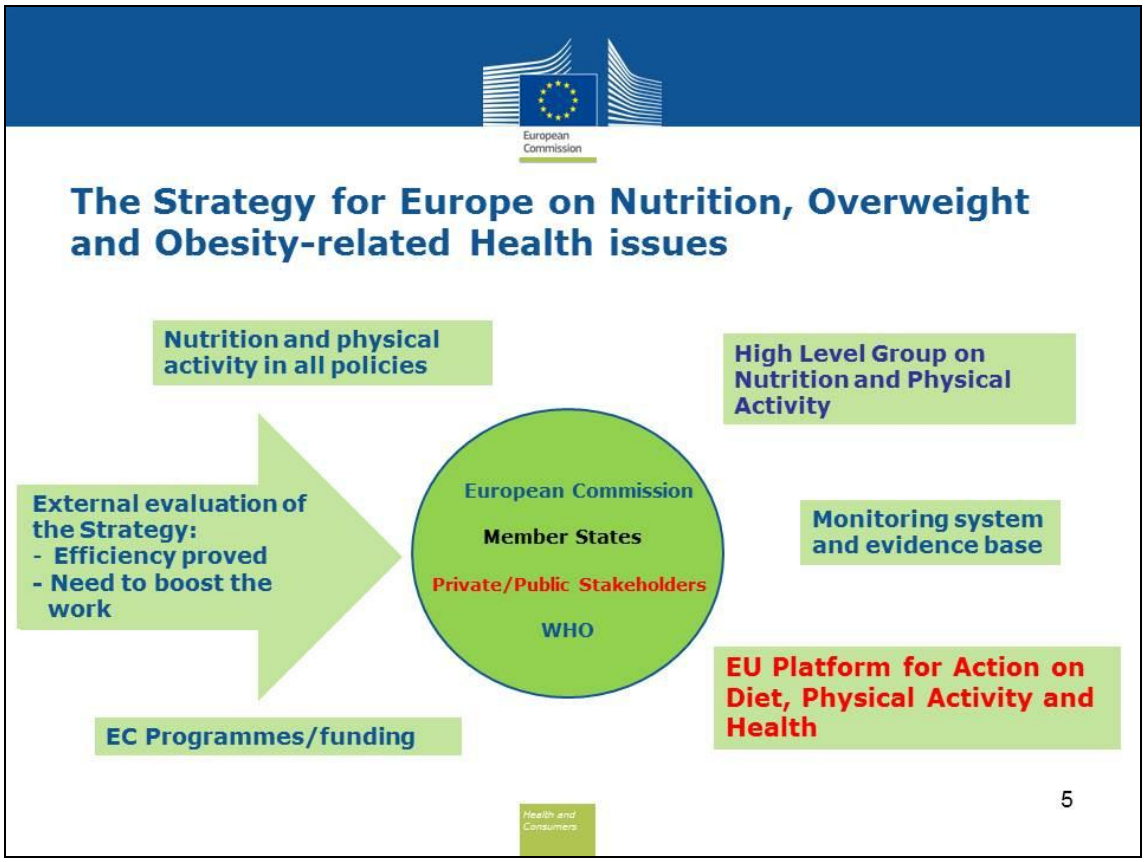
Søren Langkilde works as a scientific adviser at the Ministry of Food, Agriculture and Fisheries of Denmark since 2007. His work involves legal and scientific matters related to various areas such as trans fatty acids in foods, food supplements, fortified foods, nutrition and health claims and dietetic foods (PARNUTS) at the national and EU level. The key objective of his work is to fascilitate proper conditions for the food business operators in Denmark and to ensure safe and high quality foods on the market, thus promoting safety, health and quality from farm to table. Dr Langkilde finished his Master degree in Biology at the University of Copenhagen in 2003 and his PhD in Food Toxicology and Risk Benefit Analysis at the Danish Technical University in 2007.

PRESENTATIONS

Presentation by Ms Stephanie Bodenbach

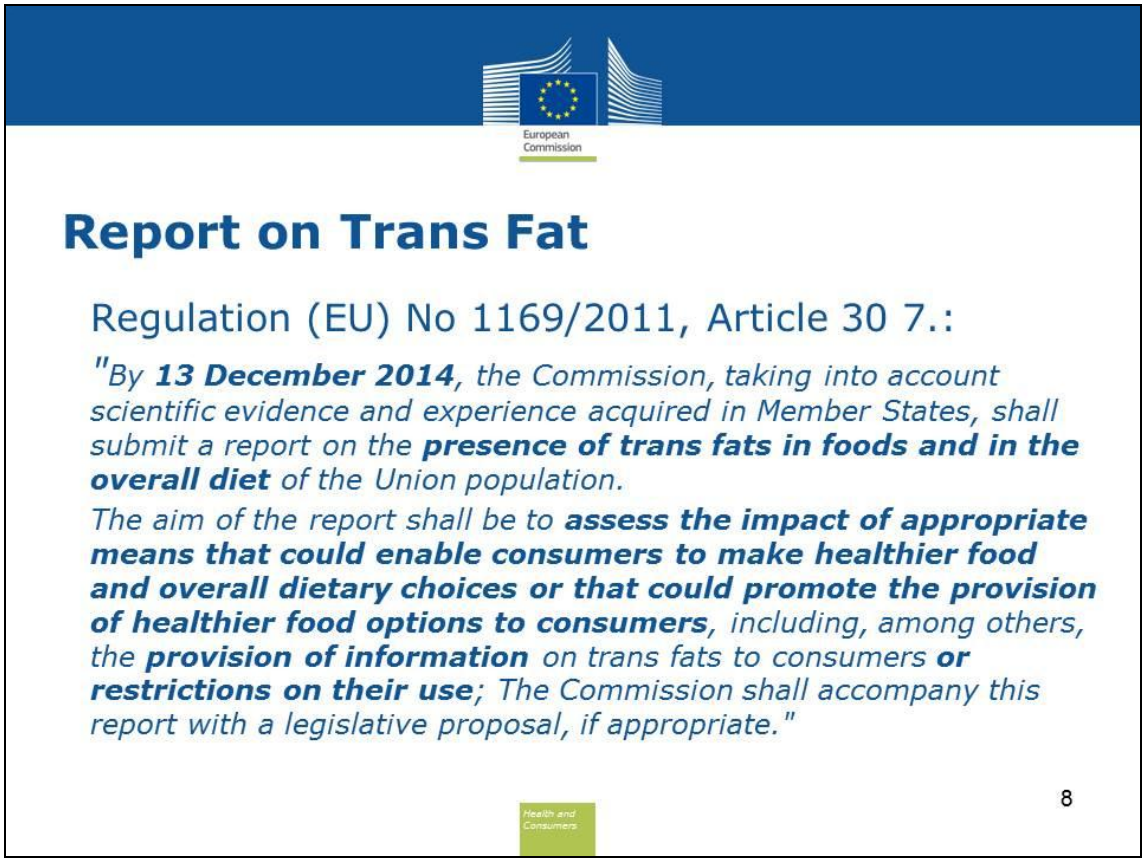

European Commission
The EU Platform for Action on Diet, Physical Activity and Health
• 256 commitments (123 active, 133 non-active)
• 6 activity types
1. Consumer information, including labelling
2. Education, including lifestyle modification
3. Physical activity promotion
4. Marketing & advertising
5. Composition of foods (reformulation), availability of health food options, portion sizes
6. Advocacy & information exchange
Health and Consumers


European Commission
White Paper on a Strategy for Europe on Nutrition, Overweight and Obesity Related Health Issues
• 2007
• Builds on initiatives undertaken (EU Platform)
• Partnership approach for developing action at European level
• Platform activities: key tool to implement strategy
• Commission will set up High Level Group, focus: nutrition & physical activity related health issues
liaison with governments
effective exchange of policy ideas, best practice
liaison with EU Platform
Health and Consumers


European Commission
The Strategy for Europe on Nutrition, Overweight and Obesity-related Health issues
Nutrition and physical activity in all policies
High Level Group on Nutrition and Physical Activity
External evaluation of the Strategy:
- Efficiency proved
- Need to boost the work
European Commission
Member States
Private/Public Stakeholders
WHO
Monitoring system and evidence base
EU Platform for Action on Diet, Physical Activity and Health
EC Programmes/funding
5
Health and Consumers


European Commission
Trans Fat: EU Platform Commitments
Reformulation commitments: 19 active
Examples, EU wide:
• remove all TFA from partially hydrogenated fats (Nestlé by end 2012, Unilever by 2012, Ferrero by 2006)
• reduce trans fats to <0.5% by end 2009 (Mars)
• reduce trans fats in cooking oil to max. 2% (McDonald's by 2008)
Examples, limited geographical coverage
• remove partially hydrogenated vegetable oils from own brand products (UK British Retail Consortium (8 members) by end 2007, Spain EROSKI by end 2009 (affected 229 products), France Casino (37 products) by end 2007)
Health and Consumers


European Commission
Strategy: Reformulation
• Interest in composition of foods
➔ reformulation to make diets healthier
• Commission to facilitate roll out of salt reformulation campaigns + campaigns aimed at improving nutrient content of manufactured foods in the EU more generally
➔ EU Framework for National Salt Initiatives mid 2008
➔ EU Framework for National Initiatives on Selected Nutrients 2/2011
(energy, fat, saturated fat, trans fat, added sugars, portion sizes, consumption frequency)
Annex I: saturated fat 2/2012
Health and Consumers


European Commission
Report on Trans Fat
Regulation (EU) No 1169/2011, Article 30 7.:
"By 13 December 2014, the Commission, taking into account scientific evidence and experience acquired in Member States, shall submit a report on the presence of trans fats in foods and in the overall diet of the Union population.
The aim of the report shall be to assess the impact of appropriate means that could enable consumers to make healthier food and overall dietary choices or that could promote the provision of healthier food options to consumers, including, among others, the provision of information on trans fats to consumers or restrictions on their use; The Commission shall accompany this report with a legislative proposal, if appropriate."
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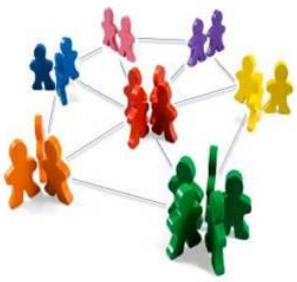
Health and Consumers

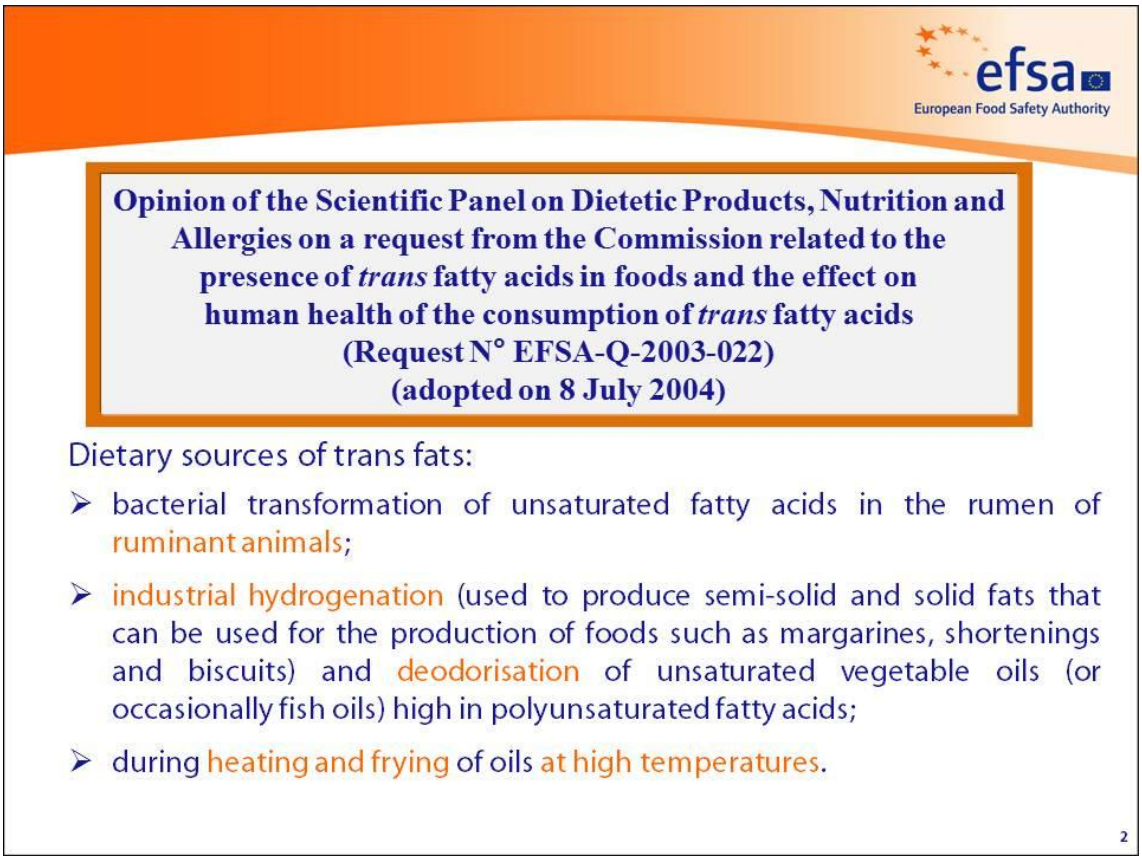
European Commission

THANK YOU !



Health and Consumers

Presentation by Dr. Valeriu Curtui



DIETARY INTAKES

efsa European Food Safety Authority

- TRANSFAIR study (1995-1999):
  - ✓ Mean intakes of trans fatty acids (TFA) In the EU: from 1.2 to 6.7 g/d and 1.7 to 4.1 g/d among men and women, corresponding to 0.5-2.1 % and 0.8-1.9 % of total energy intake, respectively;
  - ✓ Mean intakes of saturated fatty acids (SFA) ranged from 10.5 to 18% of total energy intake;
  - ✓ Isomers of 18:1 (oleic acid) contributed 54-82% of the total TFA, and TFA from ruminant fat ranged from about 30 to 80% of total TFA, corresponding to 0.3-0.8% of total energy intake.
- More recent dietary surveys indicate that the intakes of TFA have decreased in a number of EU countries, mainly due to reformulation of food products, e.g. fat spreads, to reduce the TFA content.

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HEALTH EFFECTS

efsa European Food Safety Authority

- Consumption of diets containing TFA, like diets containing mixtures of SFA, consistently increases serum LDL cholesterol (LDL-C), compared to consumption of diets containing *cis*-monounsaturated or *cis*-polyunsaturated fatty acids.
- The effect shows a linear dose response with serum LDL-C indicating that effects are proportional to amounts of TFA consumed.
- Elevated LDL-C has been causally linked to coronary heart disease; thus, higher intakes of TFA may increase risk for coronary heart disease (CHD).
- The available evidence does not provide a definitive answer to the question of whether TFA have an effect on LDL-C different to a mixture of SFA on a gram-for-gram basis.
- Evidence for a possible relationship of TFA intake with other adverse health effects (e.g. cancer, type 2 diabetes or allergy) is weak or inconsistent.

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Scientific Opinion on Dietary Reference Values for fats, including saturated fatty acids, polyunsaturated fatty acids, monounsaturated fatty acids, *trans* fatty acids, and cholesterol (Request N° EFSA-Q-2008-466) (adopted on 4 December 2009)

- TFA are not synthesised by the human body and are not required in the diet. Therefore, no Population Reference Intake, Average Requirement, or Adequate Intake is set.

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DIETARY INTAKES

efsa
European Food Safety Authority

- Intake of TFA in the EU has decreased considerably over recent years, owing to reformulation of food products.
- UK: average intake of TFA has been halved to < 1% of total energy intake.
- France: intakes have decreased by 40 % and are, on average, 1 % of total energy intake in adults (0.6 % from ruminant sources and 0.4 % from other sources).
- Average intakes of TFA in Denmark, Finland, Norway and Sweden have decreased to around 0.5 to 0.6 % of total energy intake.

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HEALTH EFFECTS

efsa European Food Safety Authority

- Same for LDL-C as in the 2004 Opinion.
- Consumption of diets containing *trans*-monounsaturated fatty acids also results in reduced blood HDL cholesterol concentrations and increases the total cholesterol to HDL cholesterol ratio.
- TFA from ruminant sources have adverse effects on blood lipids and lipoproteins similar to those from industrial sources when consumed in equal amounts.
- Evidence is insufficient to establish whether there is a difference between ruminant and industrial TFA consumed in equivalent amounts on the risk of coronary heart disease.

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DIETARY RECOMMENDATION

efsa European Food Safety Authority

- Dietary TFA are provided by several fats and oils that are also important sources of essential fatty acids and other nutrients, thus:
  - ✓ there is a limit to which the intake of TFA can be lowered without compromising adequacy of intake of essential nutrients;
  - ✓ intake of TFA should be as low as possible within the context of a nutritionally adequate diet.
- Limiting the intake of TFA should be considered when establishing nutrient goals and recommendations.

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Scientific Opinion on the substantiation of a health claim related to "low fat and low *trans* spreadable fat rich in unsaturated and omega-3 fatty acids" and reduction of LDL-cholesterol concentrations pursuant to Article 14 of Regulation (EC) No 1924/2006
(Request N° EFSA-Q- 2009-00458)
(adopted on 13 May 2011)

Request:

- Replacing SFA and TFA by *cis*-monounsaturated fatty acids (cis-MUFA) and *cis*-polyunsaturated fatty acids (*cis*-PUFA) decreases blood LDL-cholesterol concentration.

9

SCIENTIFIC SUBSTANTIATION

- The evidence provided by consensus opinions/reports from authoritative bodies and reviews shows that there is consensus on the role of *trans*-MUFA in increasing total and blood LDL-cholesterol concentrations compared to *cis*-MUFA or *cis*-PUFA.
- Foods containing TFA typically contain high amounts of SFA, which are likely to have similar effects to TFA on LDL-cholesterol concentrations on a gram-for-gram basis.
- The effects of replacing marginal amounts of TFA in foods high in SFA may be small as compared to the effects of replacing SFA in those foods.

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CONCLUSION

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- A cause and effect relationship has been established between the consumption of mixtures of dietary SFA and an increase in LDL-cholesterol concentrations,
- Replacement of significant amounts of mixed SFA by *cis*-MUFA and/or *cis*-PUFA in foods or diets on a gram-per-gram basis reduces LDL-cholesterol concentrations.
- The claim applies to the replacement of SFA.

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OVERALL CONCLUSIONS

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- Consumption of diets containing TFA consistently increases serum LDL cholesterol.
- Consumption of diets containing trans-MUFA also results in reduced blood HDL cholesterol concentrations and increases the total cholesterol to HDL cholesterol ratio.
- Intake of TFA should be as low as possible in the context of a nutritionally adequate diet.
- The intake of TFA should be lowered without compromising the adequacy of intake of essential nutrients.

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efsa

European Food Safety Authority

European Food Safety Authority
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43126 Parma
ITALY
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Presentation by Prof Dr Steen Stender

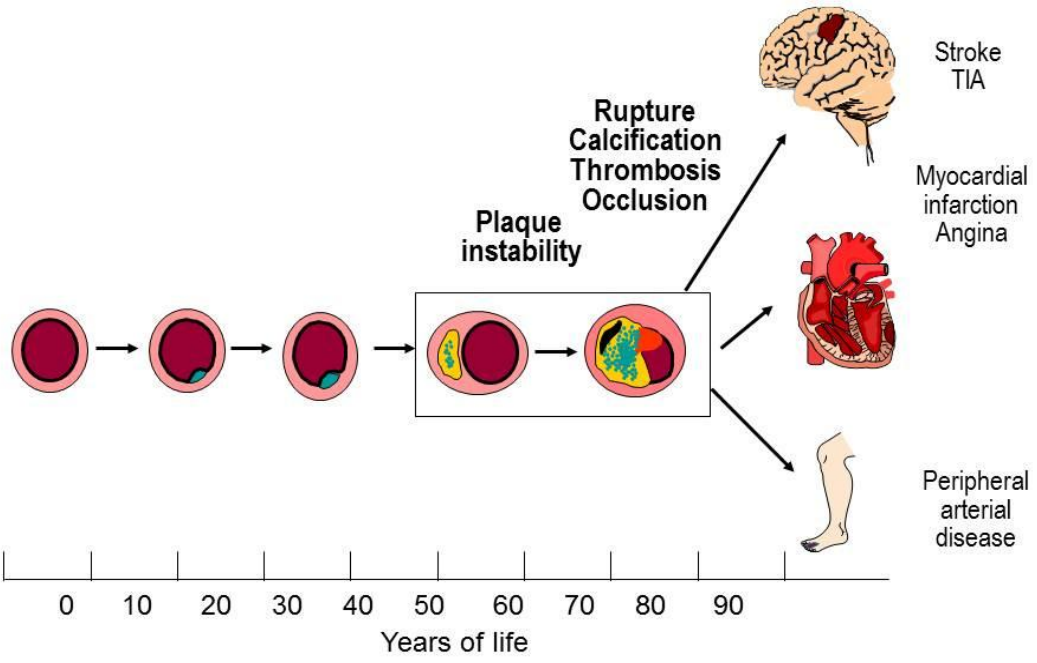
Adverse effect of trans fats in the cardiovascular system- a health issue in Europe

by

Steen Stender
Professor, MD, Lab Director
Department of Clinical Biochemistry
Copenhagen University Hospital, Gentofte
Denmark

5th of November 2013, European Parliament, Brussels Belgium

Atherosclerotic Plaque Development

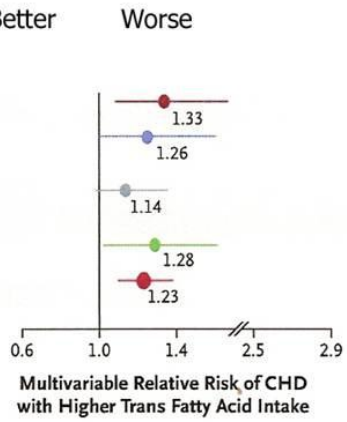


Fatty acids in the diet and cholesterol in the blood

Cholesterol in blood	LDL (Lousy)	HDL (Healthy)
Saturated fatty acids in diet	↑	↑
Unsaturated fatty acids in diet	↓	↓
Trans fatty acids in diet	↑	↓

Isocaloric substitution of 2E% carbohydrates with trans fat ~ 5 gram/day

Type and Year of Study	No. of Subjects	No. of Events
Prospective cohort studies		
Nurses' Health Study, 2005	78,778	1766
Health Professionals Follow-up Study, 2005	38,461	1702
Alpha-Tocopherol Beta-Carotene Cancer Prevention Study, 1997	21,930	1399
Zutphen Elderly Study, 2001	667	98
Pooled prospective studies		



Mozaffarian et al. NEJM 2006;354(15):1601-13

Comparison with other risk factors for coronary heart disease

- 5 gram trans fat daily increases risk of heart disease with ~25%
- Lowering of plasma cholesterol with statins decreases risk of heart disease with ~25%
- Smoking 5-10 cigarettes daily increases risk of heart disease with ~20%

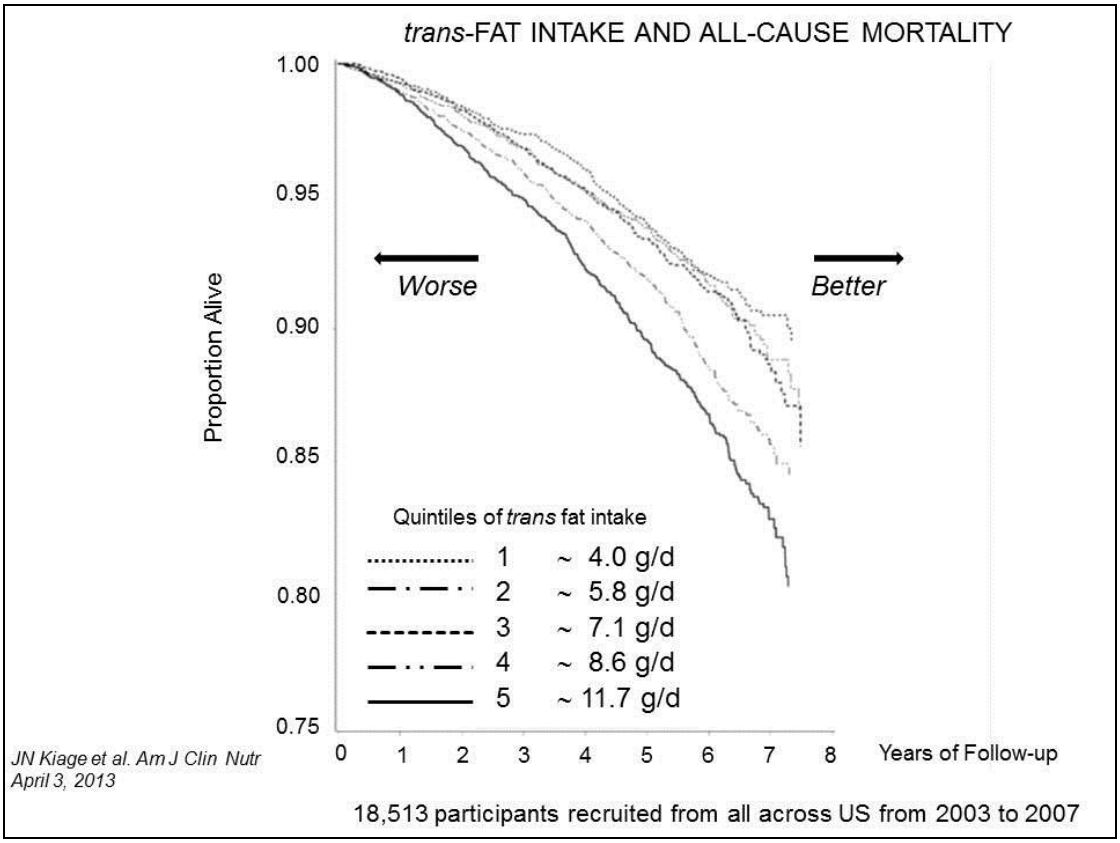
FOOD productiondaily.com | europe

WHO recommends global phasing out of trans fats

By Anthony Fletcher

29/09/2006 - The World Health Organization (WHO) has recommended that governments around the world phase out partially hydrogenated oils if trans-fat labeling alone doesn't spur significant reductions.

http://www.foodproductiondaily.com/news



OPEN ACCESS Freely available online
PLoS one

Trans Fat Consumption and Aggression

Beatrice A. Golomb[1,2*], Marcella A. Evans[1¤], Halbert L. White[3], Joel E. Dimsdale[4]

1 Department of Medicine, University of California San Diego, San Diego, California, United States of America, 2 Department of Family and Preventive Medicine, University of California San Diego, San Diego, California, United States of America, 3 Department of Economics, University of California San Diego, California, United States of America, 4 Department of Psychiatry, University of California San Diego, California, United States of America

Conclusion: This study of 1000 subjects provides the first evidence linking dietary trans fatty acids with behavioral irritability and aggression. Although confounding is a concern, several relationships add weight to the prospect of a causal connection.

The results may have relevance to public policy determinations regarding dietary trans fats.

March 5, 2012

The Dutch statement

REVIEW

Trans fatty acids and cardiovascular health: research completed?

IA Brouwer[1], AJ Wanders[2] and MB Katan[1]

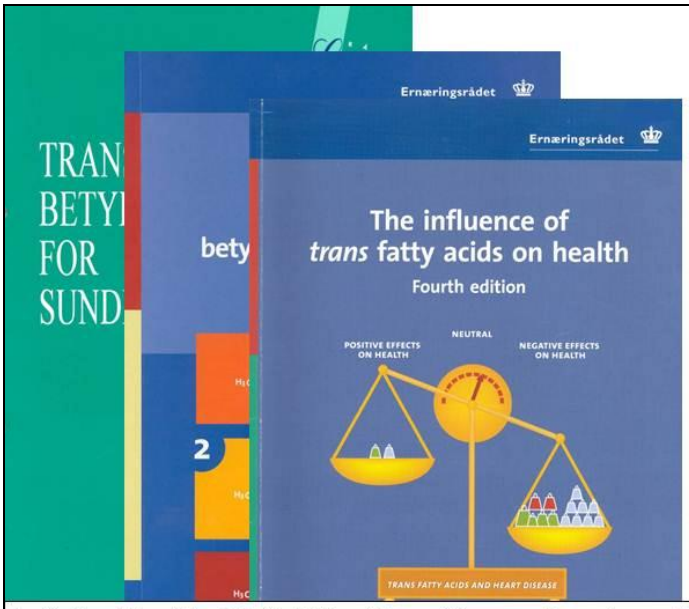
This review asks the question if further research on *trans* fatty acids and cardiovascular health is needed. We therefore review the evidence from human studies on *trans* fatty acids and cardiovascular health, and provide a quantitative review of effects of *trans* fatty acid intake on lipoproteins. The results show that the effect of industrially produced *trans* fatty acids on heart health seen in observational studies is larger than predicted from changes in lipoprotein concentrations. There is debate on the effect of ruminant *trans* fatty acids and cardiovascular disease. Of special interest is conjugated linoleic acid (CLA), which is produced industrially for sale as supplements. Observational studies do not show higher risks of cardiovascular disease with higher intakes of ruminant *trans* fatty acids. However, CLA, industrial and ruminant *trans* fatty acids all raise plasma low-density lipoprotein and the total to high-density lipoprotein ratio. Gram for gram, all *trans* fatty acids have largely the same effect on blood lipoproteins. In conclusion, the detrimental effects of industrial *trans* fatty acids on heart health are beyond dispute. The exact size of effect will remain hard to determine. Further research is warranted on the effects of ruminant *trans* fatty acids and CLA on cardiovascular disease and its risk factors.

European Journal of Clinical Nutrition advance online publication, 27 March 2013; doi:10.1038/ejcn.2013.43

"In conclusion, the detrimental effects of industrial *trans* fatty acids on heart health are beyond dispute."

The use of industrial trans fat has been favoured by industry- and removal resisted- because:

- They are cheap
- They are semisolid at room temperatures which makes them easier to use in baked products
- They have a long shelf life
- They can withstand repeated heating



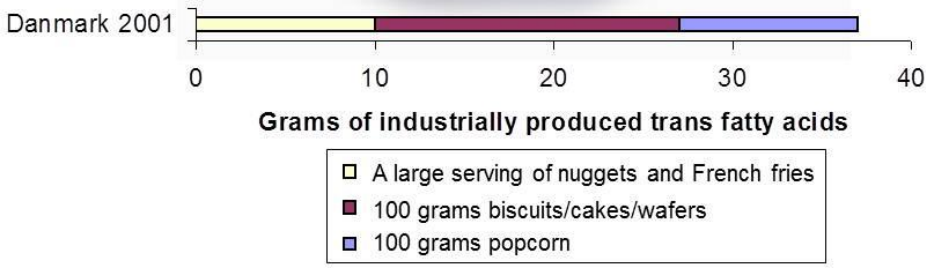
An intake of 5 grams per day is associated with 23 % increase in risk of heart disease

There is no beneficial effect of trans fatty acids on health

In light of the Danish Nutrition Council´s reports on trans fatty acids from 1994, 2001, 2003, and the present update, the Danish Nutrition Council recommends the following:

That industrially produced trans fatty acids should not be used in food.

"A high trans fat menu"



”A high trans fat menu”

A large fast food serving

French fries and fried chicken meat from McDonalds and from KFC

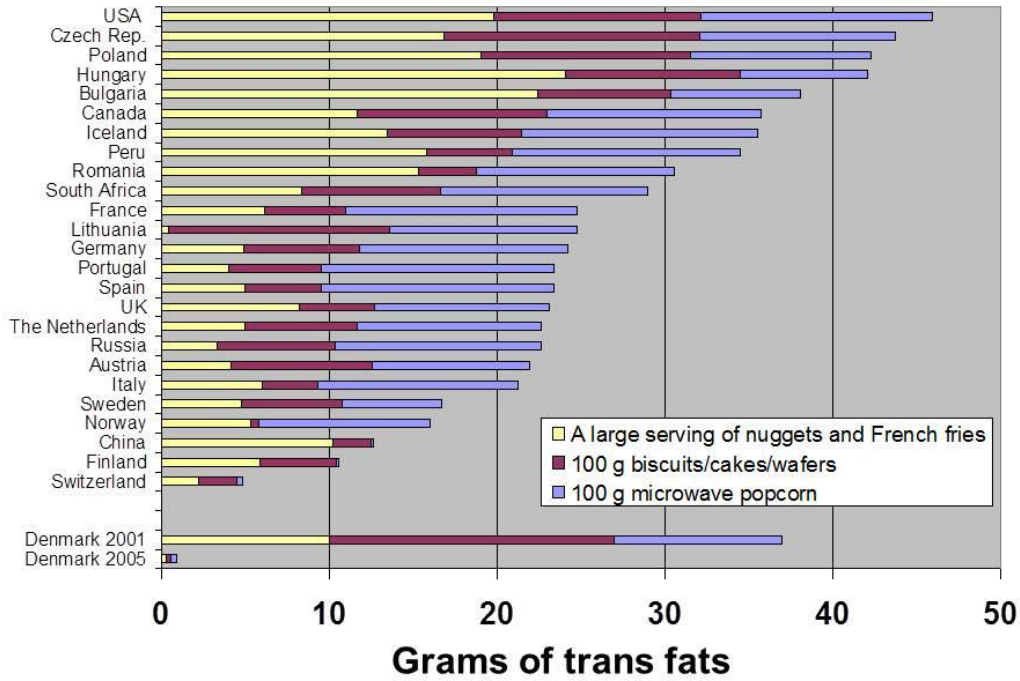
Biscuits/cakes/wafers and microwave popcorn

More than 15% fat in the product

Partially hydrogenated fat or similar term high on the list of ingredients

3 large supermarkets in the capital chosen by the local Turist Information Office were visited

Trans fat in ”a high trans fat menu” 2005-2006



Regulation in various countries concerning industrial trans fat (I-TF) in food

	Limits for I-TF				No limits for I-TF	
	No labelling				Labelling by naming I-TF	Labelling of amounts of I-TF
Countries	Denmark,	Switzerland,	Austria,	Iceland	EU	US, Canada
Latest legislation	2004	2008	2009	2011	1992	2006, 2005

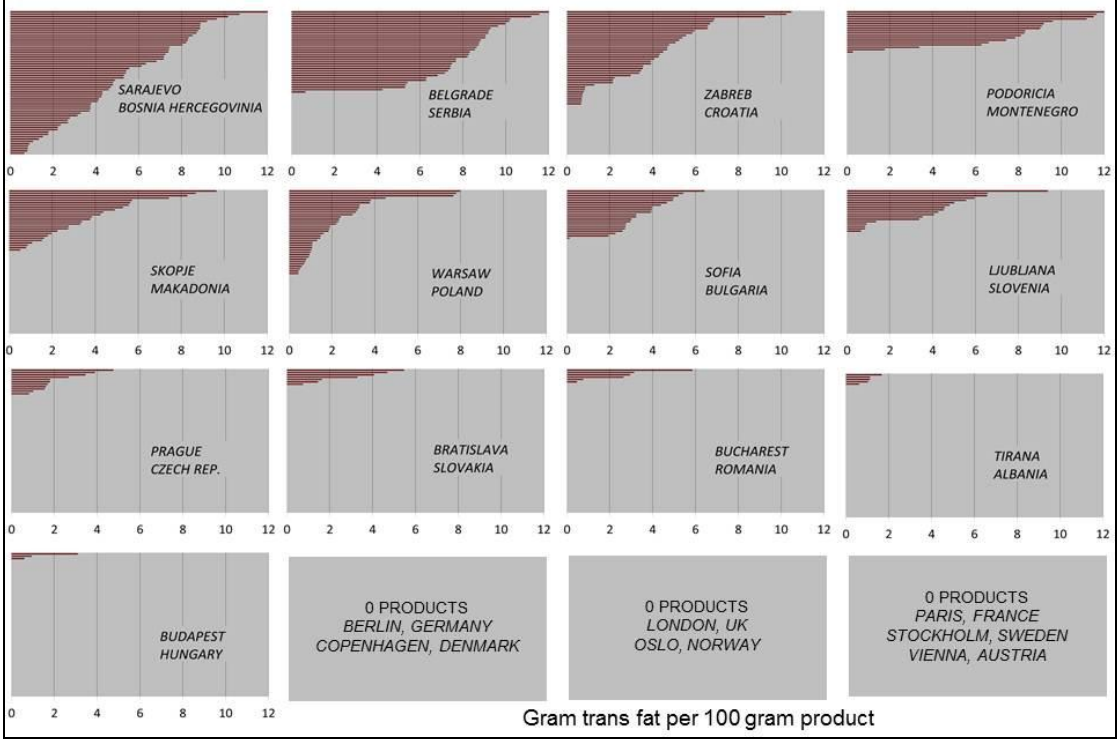
Sweden (2014) ?

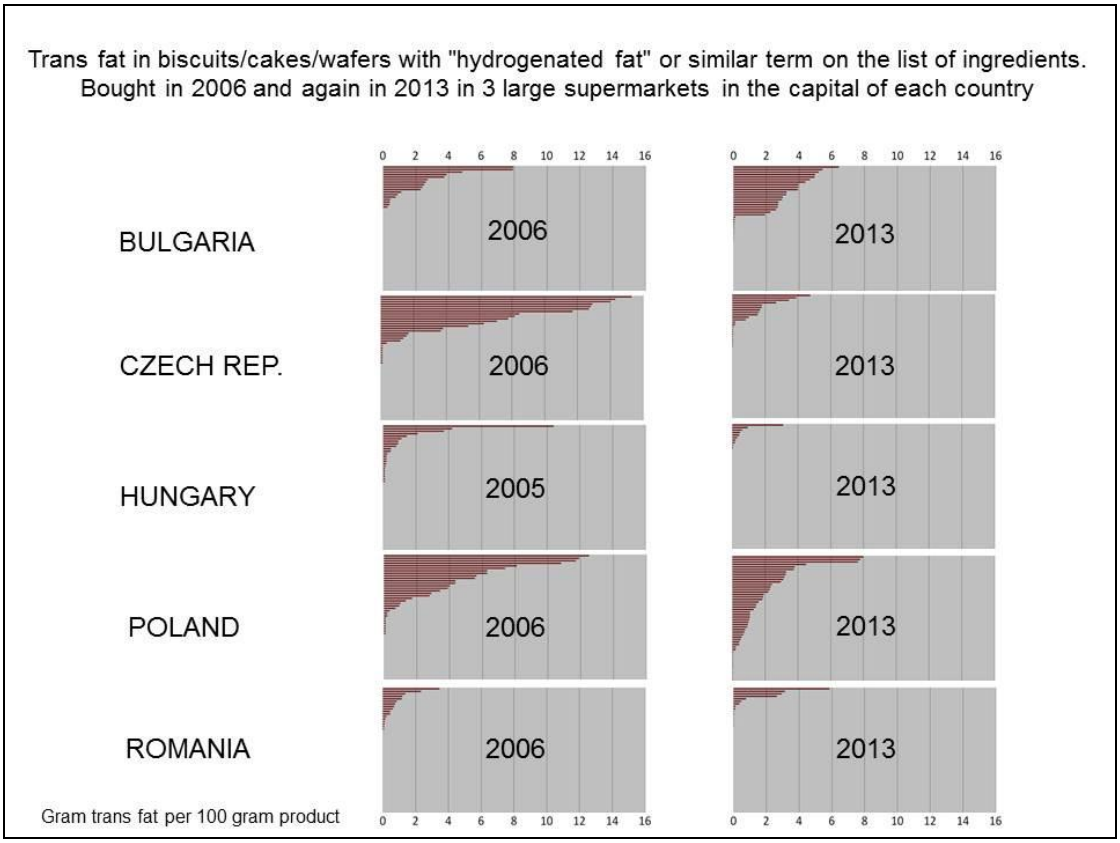
Norway (2014)

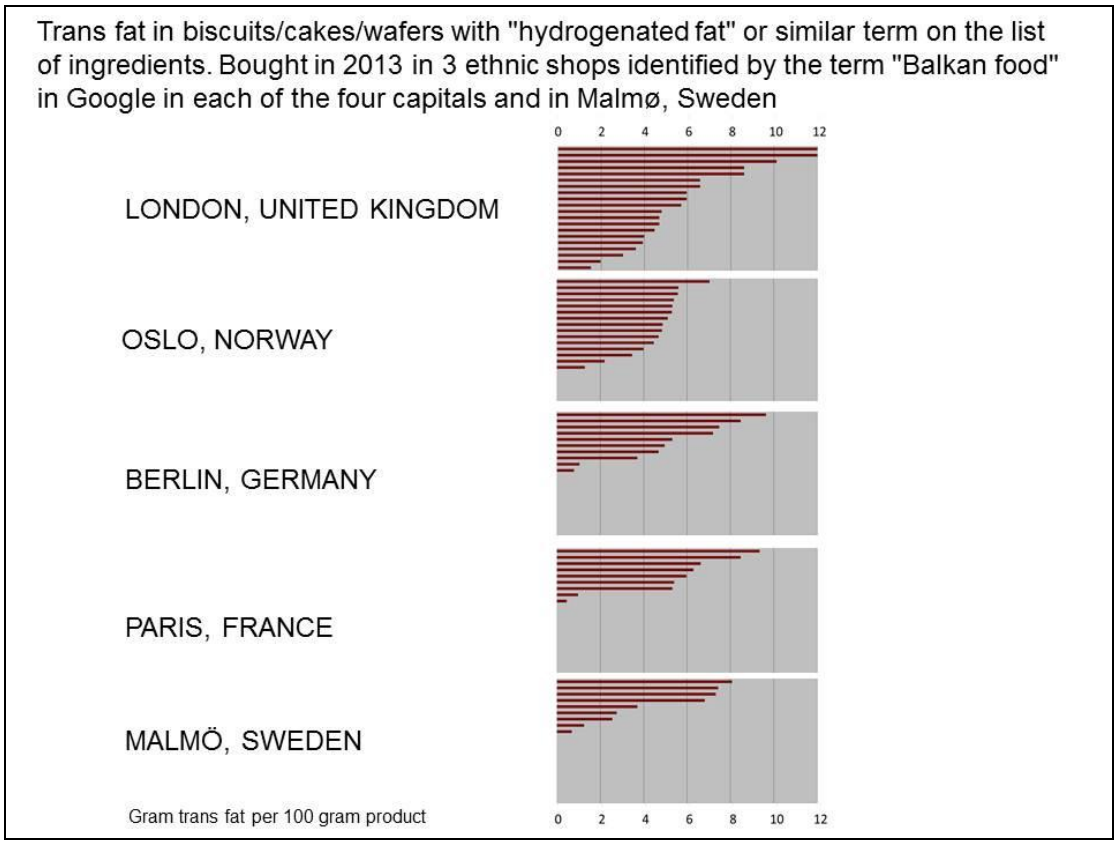
NY-City (2007)
California (2011)

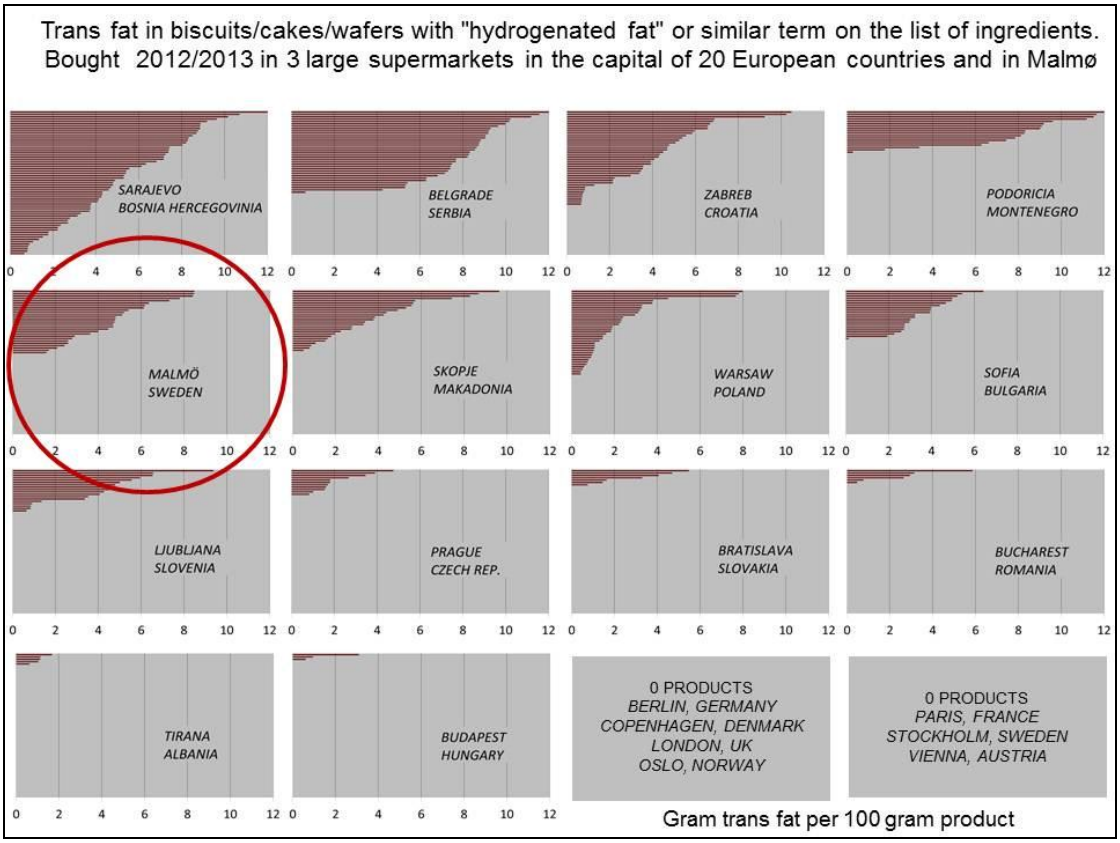
Example	No need for information	Partially hydrogenated fat	"Trans 3 grams per serving"

Trans fat in biscuits/cakes/wafers with "hydrogenated fat" or similar term on the list of ingredients. Bought 2012/2013 in 3 large supermarkets in the capital of 20 European countries




Trans fat in biscuits/cakes/wafers with "hydrogenated fat" or similar term on the list of ingredients. Bought in 2006 and again in 2013 in 3 large supermarkets in the capital of each country
BULGARIA
CZECH REP.
HUNGARY
POLAND
ROMANIA
2006
2005
2013
0 2 4 6 8 10 12 14 16
Gram trans fat per 100 gram product


Trans fat in biscuits/cakes/wafers with "hydrogenated fat" or similar term on the list of ingredients. Bought in 2013 in 3 ethnic shops identified by the term "Balkan food" in Google in each of the four capitals and in Malmø, Sweden
LONDON, UNITED KINGDOM
OSLO, NORWAY
BERLIN, GERMANY
PARIS, FRANCE
MALMÖ, SWEDEN
0 2 4 6 8 10 12
Gram trans fat per 100 gram product



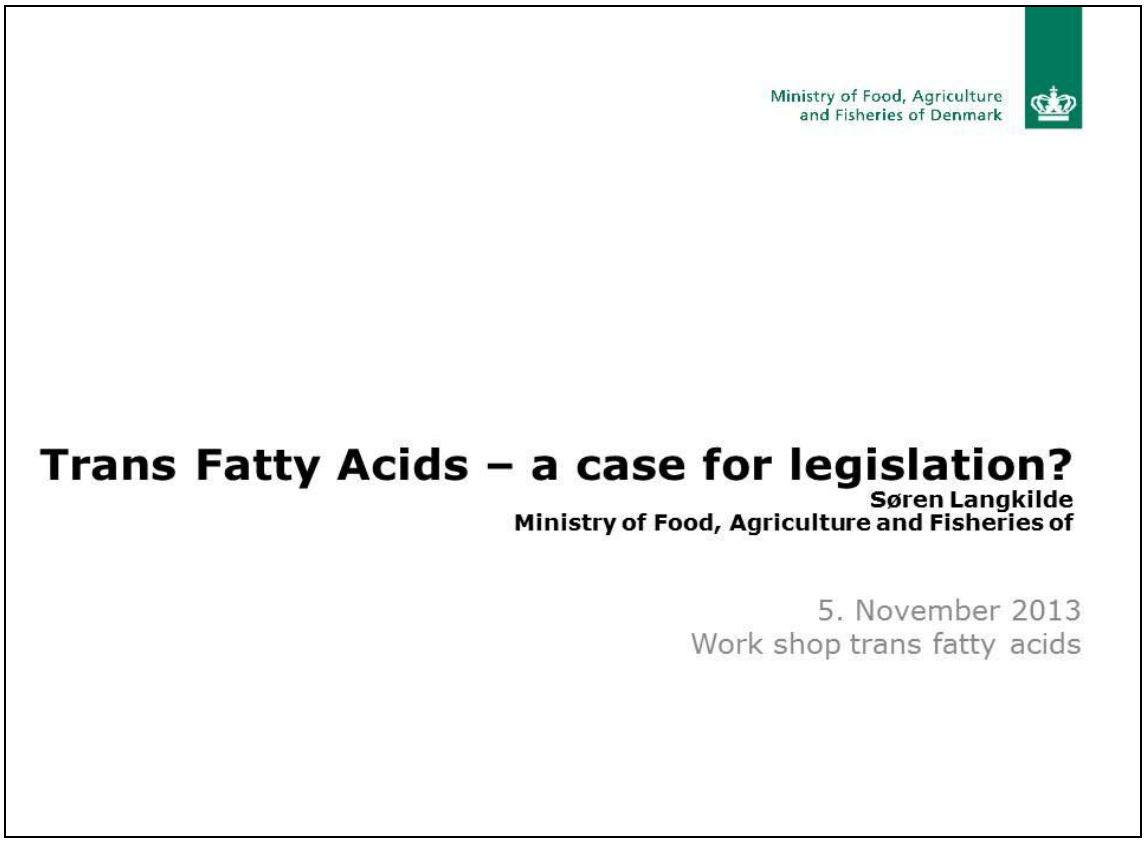
Summary I

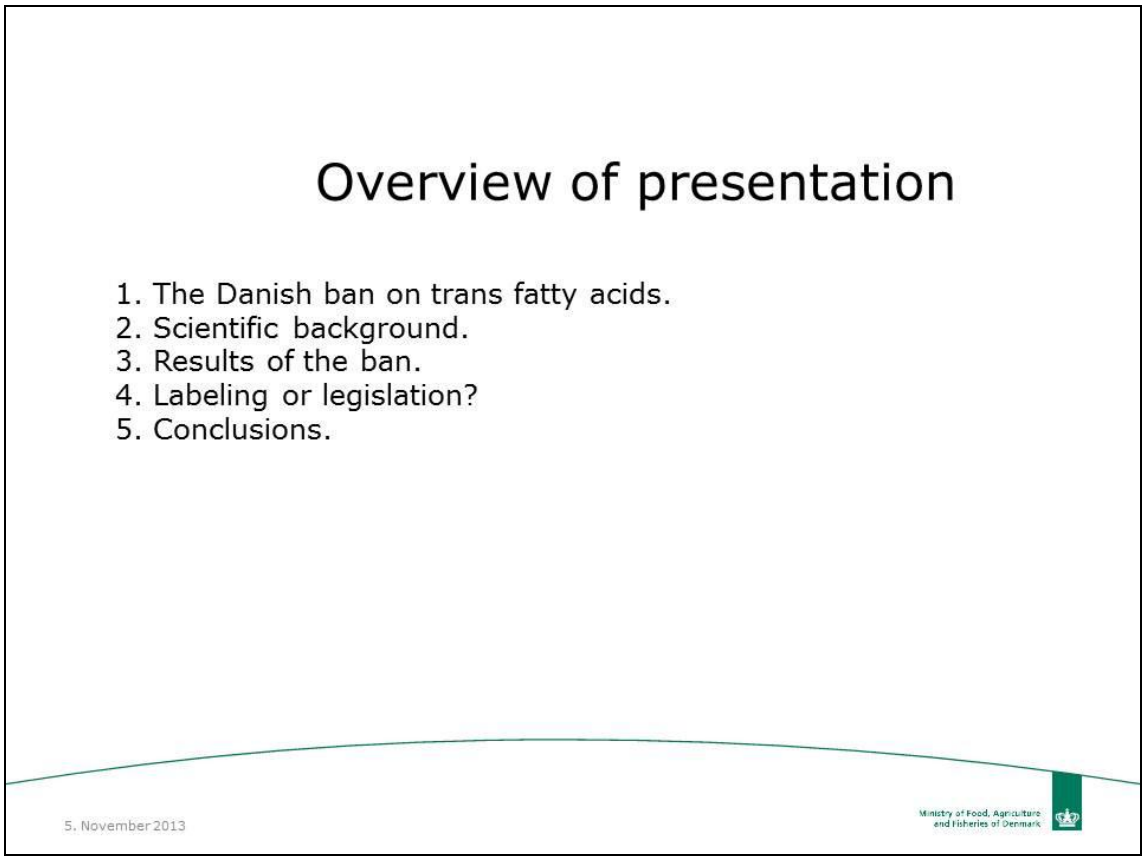
- "The detrimental effects of industrial trans fat on heart health are beyond dispute."
- Industrial trans fat in popular foods in Western Europe has declined considerably since 2005 probably due to societal pressure on food producers.
- In some countries in Eastern and South East Europe industrial trans fat in some popular foods is still high in 2013.
- Most European countries rely on their own food producers to voluntarily reduce the amounts of industrial trans fats in foods with variable results. And hope for no import.
- But import/export occurs exemplified by the present abundance of foods high in trans fat in large supermarkets Southern Sweden.

SUMMARY II

- A low average intake of industrial trans fat at the population level will not preclude a high intake among subgroups as long as foods with high amounts of trans fats are available.
- An effective strategy that minimizes intake of trans fat in ALL subgroups of the population in EU is a legislative trans fat limit for foods bought by consumers all over EU.
- A legislative trans fat limit has so far been used only by a few European countries. It appears to be a low hanging fruit in the future prevention of premature heart disease in subgroups at high risk all over Europe.

Presentation by Mr Søren Langkilde





Scientific background (1)

Recommendations from scientific bodies:

- WHO 2004 and 2009: " … Towards the elimination of TFA".
- Institute of Medicine 2002 (US): "Keep intake as low as possible while consuming a nutritionally adequate diet".
- AFSSA 2005: "Intake >2 E% increases risk of CVD." Maximum of 1 %.

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Scientific background (2)

Well-established link between trans fatty acids and cardiovascular disease:

- Increase intake of TFA (2% energy intake) = increase of 25% in risk for developing cardiovascular disease.
- TFA may worsen insulin resistance.
- 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.
- It has been estimated that the Danish ban will save the life of 4-500 citizens each year out of a population of around 5 million.

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Scientific background (3)

Key premises behind the Danish ban on trans fatty acids:

- The problem to be addressed is industrial trans fatty acids.
- Added in the production process.
- Level potentially high.
- Reduction technologically possible and distinction by analysis possible.
- Well-established link between trans fatty acids and cardiovascular disease and no safe upper level.
- High risk product groups.
- No benefits for the consumers. However, removal would be a substantial health gain for the population.
- Easy to remove and replace for the industry – when given proper time to adapt.

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Results of the ban (1)

Danish surveys on target products 2002 to 2013:

- Significant decrease in products >2 % TFA.
- Substitution: both monounsaturated and saturated fats. Vegetable oils and tropical oils.
- New methods of production developed – solid and semi-solid 'specialty fats'.
- No increase in prices and same product availability.

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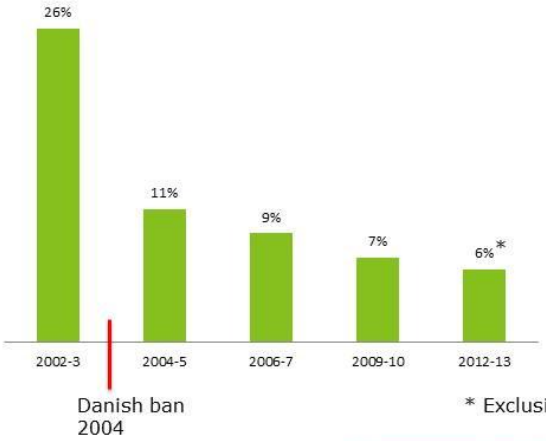
Results of the ban (2)

Danish surveys (2002 – 2013) showed significant reduction of foods containing IP-TFA > 2 g/100 g fat.



Fast food, cakes, chocolate, sweets, biscuits, French fries, frying oils, margarines and shortenings.

* Exclusively imported products

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Results of the ban (3)

Case: Fat content in foods at McDonalds in Denmark

Pre-regulation
- 55 % Monounsaturated
- 8 % Polyunsaturated
- 20 % Saturated

- 8 % Trans fatty acids.

Post regulation
- 70 % Monounsaturated
- 15 % Polyunsaturated
- 15 % Saturated

- NO Trans fatty acids !

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Labeling or regulation

Labeling
- Empowering citizens – leaving vulnerable groups at risk.
- Reduces intake – doesn't eliminate risk.
- Unpacked food products.
- Massive public information required.

Regulation
- Protection of citizens.
- Simple and efficient way of reducing intake and to eliminate risk.
- Enforceable, controllable and technologically feasible.

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Conclusions

- Scientific evidence is there - trans fatty acids are harmful.
- Legislation is an adequate response to the health risks associated with trans fatty acids.
- Legislation shown to be technologically feasible and costs for the industry not significant. No increase in prices and same product availability.
- Labeling is not an adequate response.

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