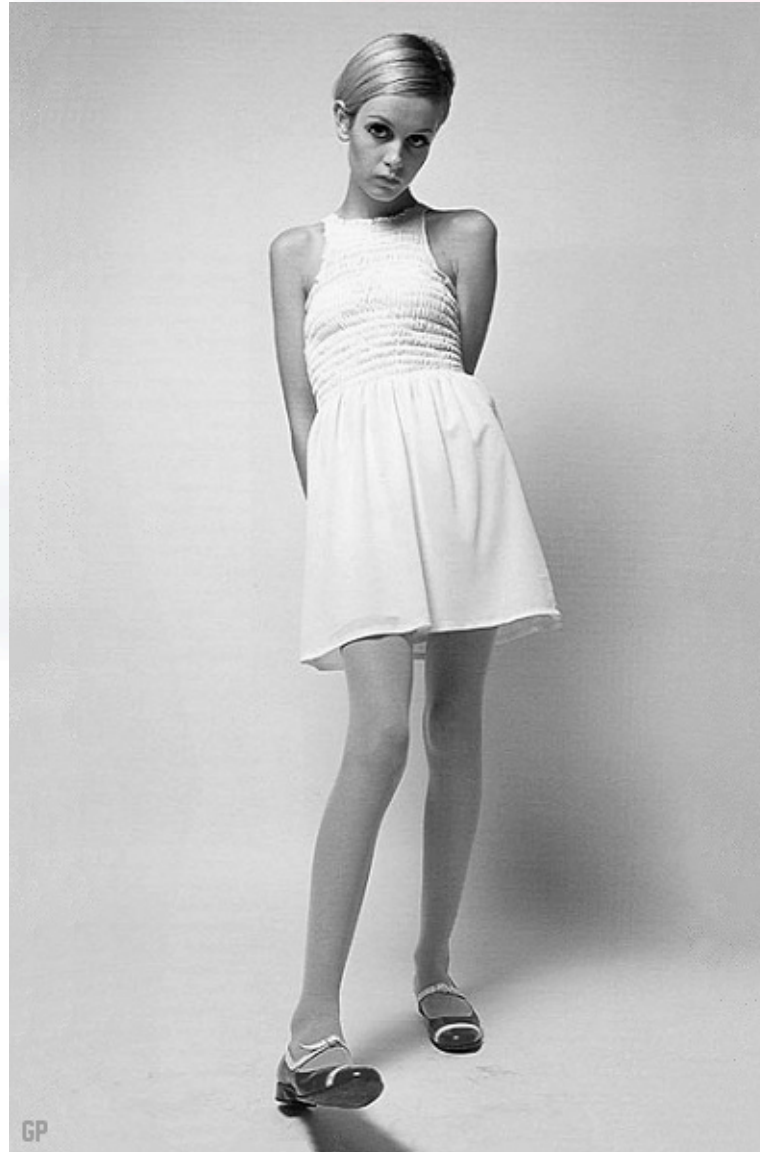


# Oslo Conference

What LFHC did to the UK  
& why LCHF is the only answer

Zoe Harcombe

**From this...**



**Twiggy**

To this...



10yrs/76kg

15yrs/210kg

16yrs/120kg

18yrs/254kg

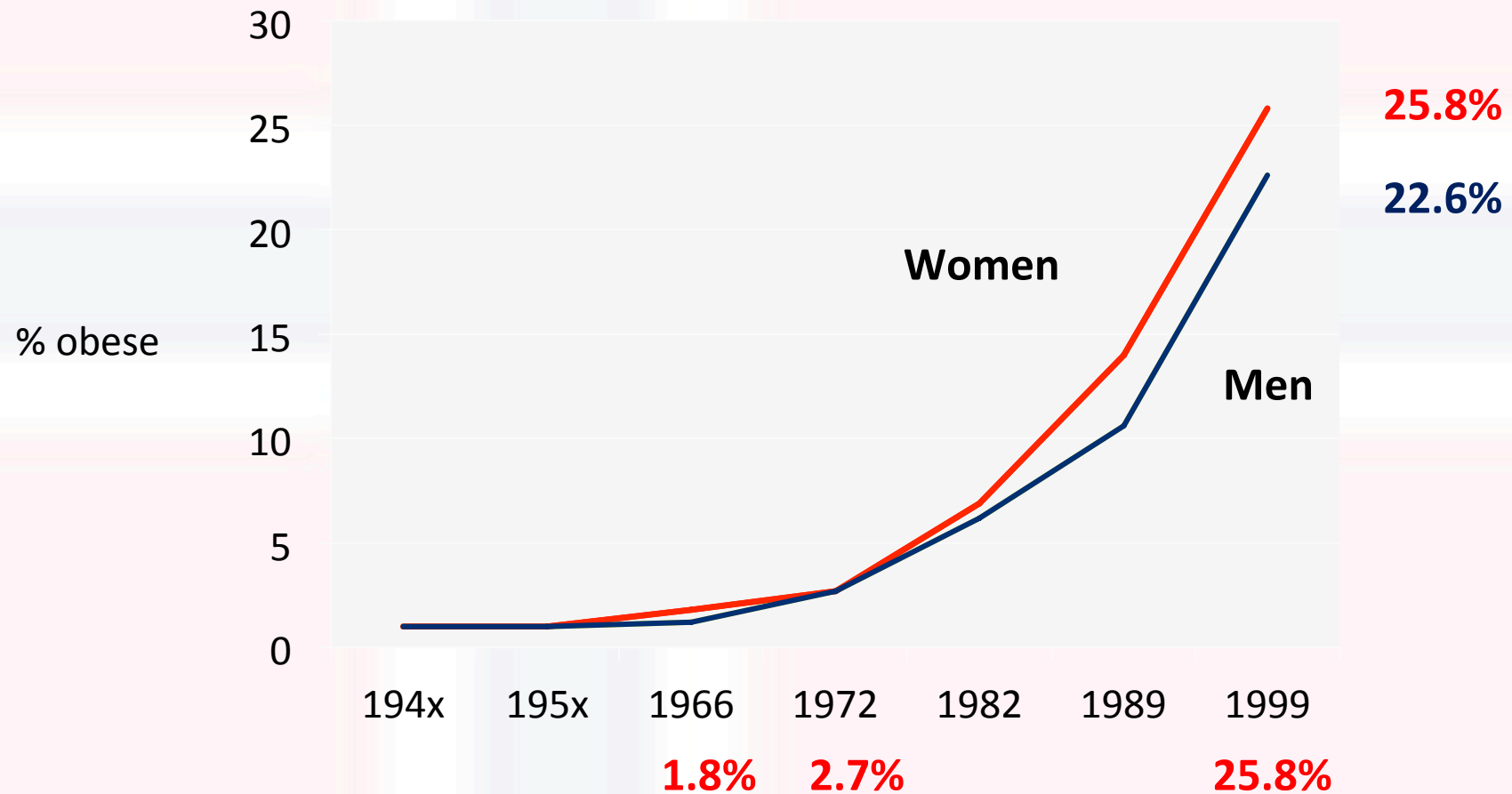
19yrs/400kg

**Georgia Davis**

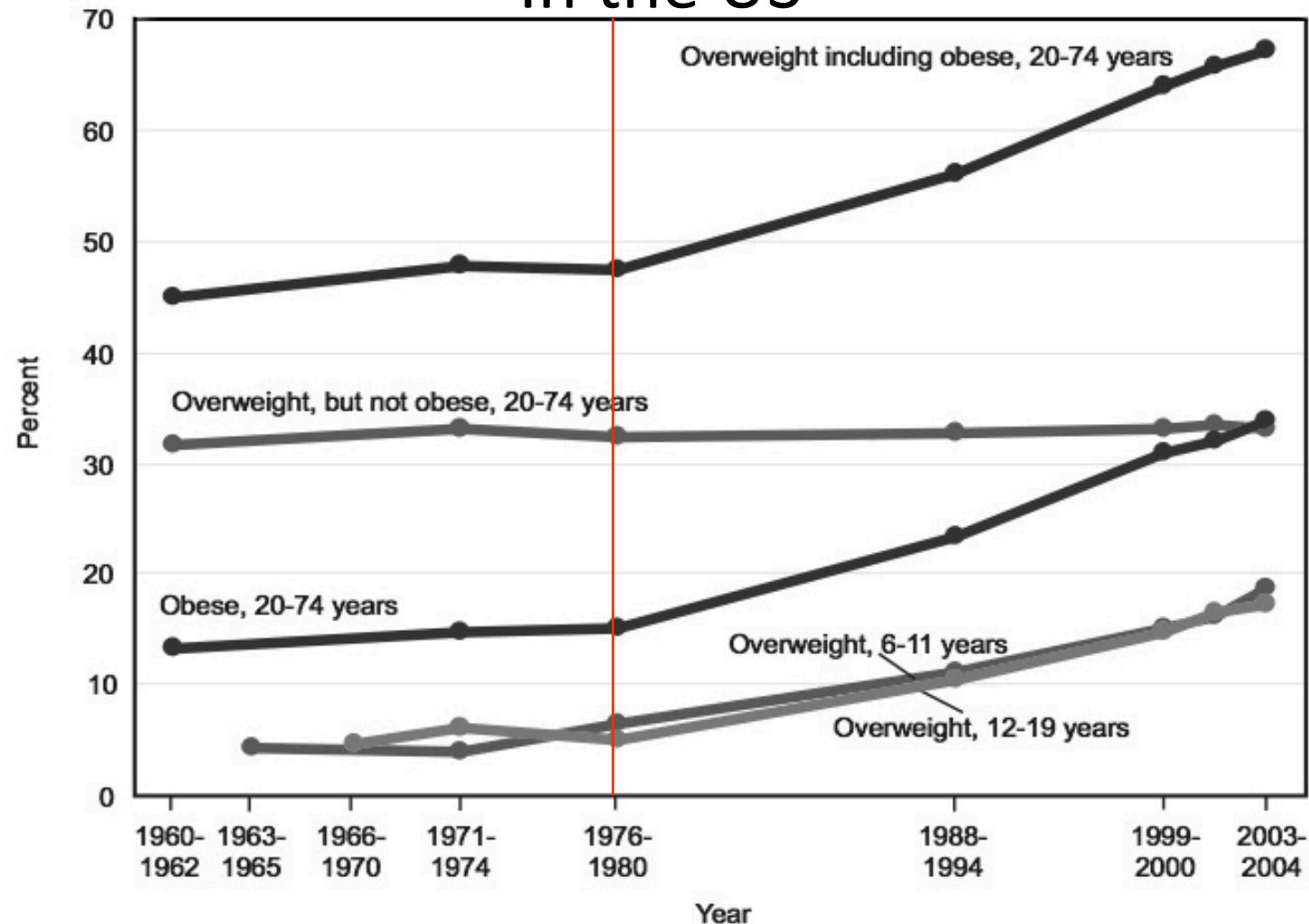
# Agenda

- The Obesity Epidemic
- Why did we change dietary advice?
- The case against fat
- What did we change to?
- Were we right to change?
- What should we eat?
- Obstacles to change
- Refs on <http://www.zoeharcombe.com/oslo>

# The Obesity Epidemic In the UK



# The Obesity Epidemic In the US



# The Obesity Epidemic

What happened c. 1980?

- 1977 Dietary Goals for the USA
- 1980 Dietary Guidelines for Americans
- 1983 Proposals for nutritional guidelines for health education in Britain (NACNE)
- 1984 Diet & cardiovascular disease policy paper (COMA)
- We did a U-turn in our diet advice...

# The Obesity Epidemic

## What happened c. 1980?

- **From:** “Farinaceous and vegetable foods are fattening, and saccharine matters are especially so.” (1869)
- **To:** “Base your meals on starchy foods.” (1984)

“The previous nutritional advice in the UK to limit the intake of all carbohydrates as a means of weight control now runs counter to current thinking and contrary to the present proposals for a nutrition education policy for the population as a whole... The problem then becomes one of achieving both a reduction in fat intake to 30% of total energy and a fall in saturated fatty acid intake to 10%.”
- **Note:** We don't tell people to eat carbs because we know they're healthy...



# Why did we change dietary advice?

- 1950 USA – heart disease (1.45% or 40%)



- Does dietary cholesterol raise cholesterol?

# Why did we change dietary advice?

## Cholesterol logic

- "The evidence - both from experiments and from field surveys - indicates that cholesterol content, *per se*, of all natural diets has *no* significant effect on either the cholesterol level or the development of atherosclerosis in man." (Keys 1955)
- Only animal foods contain cholesterol
- All animal foods contain fat
- If cholesterol has no impact...

# Why did we change dietary advice?

## The Seven Countries Study

- 1970; 7 countries (Finland, Greece, Italy, Japan, Netherlands, USA & Yugoslavia); 16 cohorts; 12,770 men aged 40-59 in 1956
- 1) CHD tends to be related to cholesterol
  - 2) Cholesterol tends to be related to sat fat
  - 3) CHD is as closely related to sat fat as it is to cholesterol
- $r = 0.72$  for CHD deaths at 25 years & cholesterol at start ( $0.52 = r^2$ )
  - $r = 0.96$  for CHD deaths & latitude ( $0.92 = r^2$ )

# The case against fat

“Evidence from randomised controlled trials does not support the introduction of dietary fat guidelines: A systematic review and meta-analysis”

Study	Men	Years	Diet
Rose Corn & Olive Oil (1965)	80 (S) 28 & 26 vs 26	2	64g corn oil/day 58g olive oil/day
Research Committee low-fat diet (1965)	252 (S) 123 vs 129	3	40g fat/day
MRC Soybean oil (1968)	393 (S) 199 vs 194	3.4	85g soybean oil/day & many banned foods
LA Veterans (1969)	846 (S/P) 424 vs 422	8	40% cals from fat. 2/3 from veg oils
Leren Oslo (1970)	412 (S) 206 vs 206	11	40% cals from fat. 72% from soybean oil
Woodhill Sydney (1978)	458 (S) 221 vs 237	5	10% sat fat/15% poly vs. 14% sat/9% poly
TOTAL	2,467		

# The case against fat

## RCT results

- The dietary guidelines introduced were 30% total fat & 10% sat fat.
- No RCT had tested government dietary fat recommendations before their introduction. (Woodhill tested 10% sat fat. Deaths 18% vs. 12%)
- There were 370 deaths in the intervention groups and ...
- ...370 deaths in the control groups (30% in both).
- The death rate from CHD was 16.9% in the intervention groups and 17.4% in the control groups. This was not significant.
- Recommendations were made for 276m people following secondary studies of 2,467 males.
- Reductions in cholesterol did not result in reductions in deaths.
- RCT evidence did not support the introduction of dietary fat guidelines.

# The case against fat

... The study has not, can not & will not be done

- “There has been no controlled clinical trial of the effect of decreasing dietary intake of saturated fatty acids on the incidence of coronary heart disease nor is it likely that such a trial will be undertaken.” (COMA, 1984)
- “It has been accepted by experienced coronary disease researchers that the perfect controlled dietary trial for prevention of coronary heart disease has not yet been done and we are unlikely ever to see it done.” (Truswell, 1994)
- “The ideal controlled dietary trial for prevention of heart disease has not yet been done and it is unlikely ever to be done.” (FSA, 2009)

# What did we change to?

## The eatbadly plate

CANCER

DIABETES

NAFLD

Fructose



CHD



Glucose

Sucrose

MODERN FOOD/ILLNESS

Link (i)

# What did we change to?

1,556 processed food calories/day (730 flour, 400 sugar)



1,423g



731g



40g

Per week

1975-  
1999

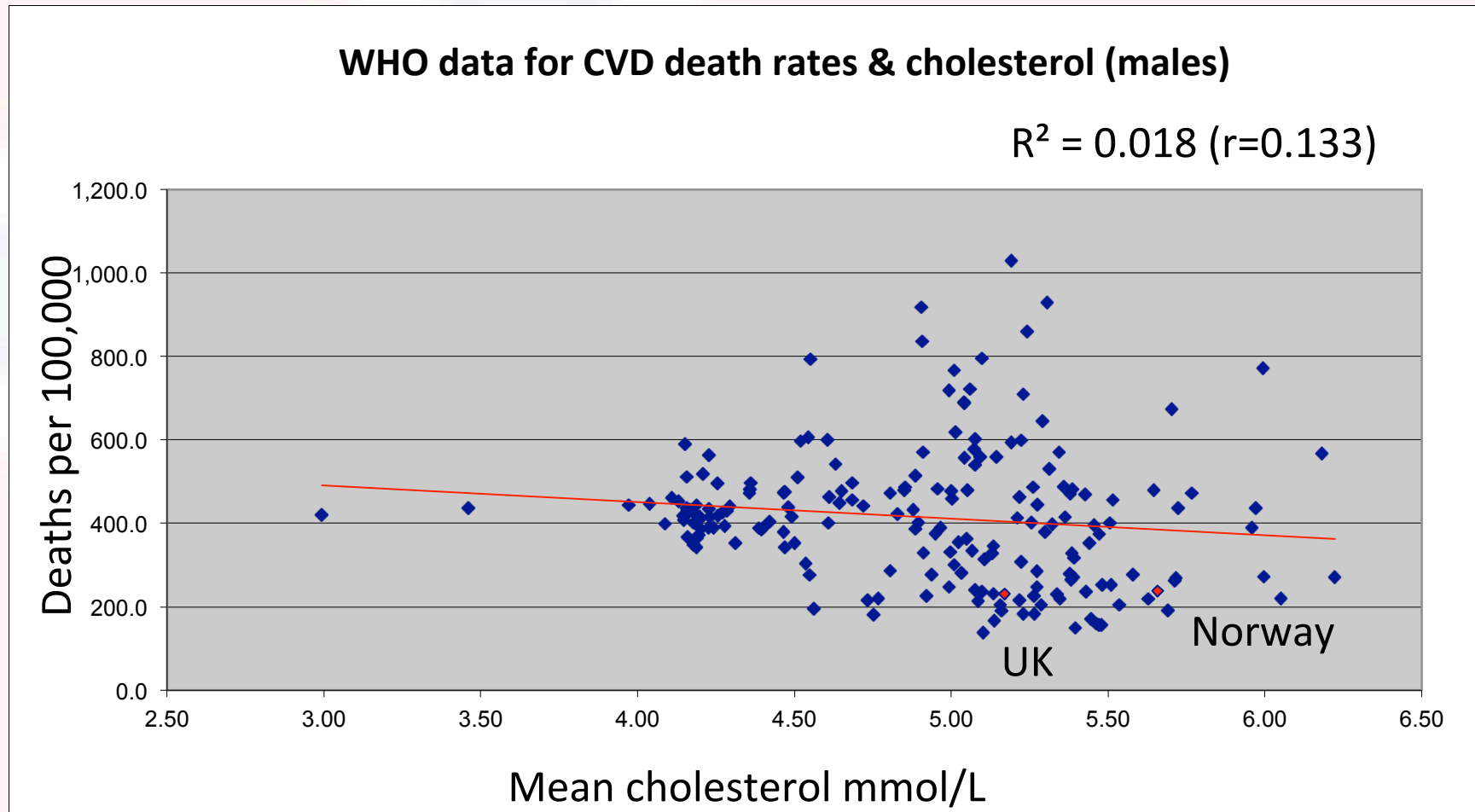
**Down:** Real meat, eggs ( $\frac{1}{2}$ ), butter ( $\frac{1}{5}$ ), whole milk ( $\frac{1}{5}$ ), veg (fresh green)

**Up:** Cereals, cereal products, confectionery & ice cream (3x), fruit & fruit products, processed meat, processed potatoes & veg (3x), soft drinks (6x)



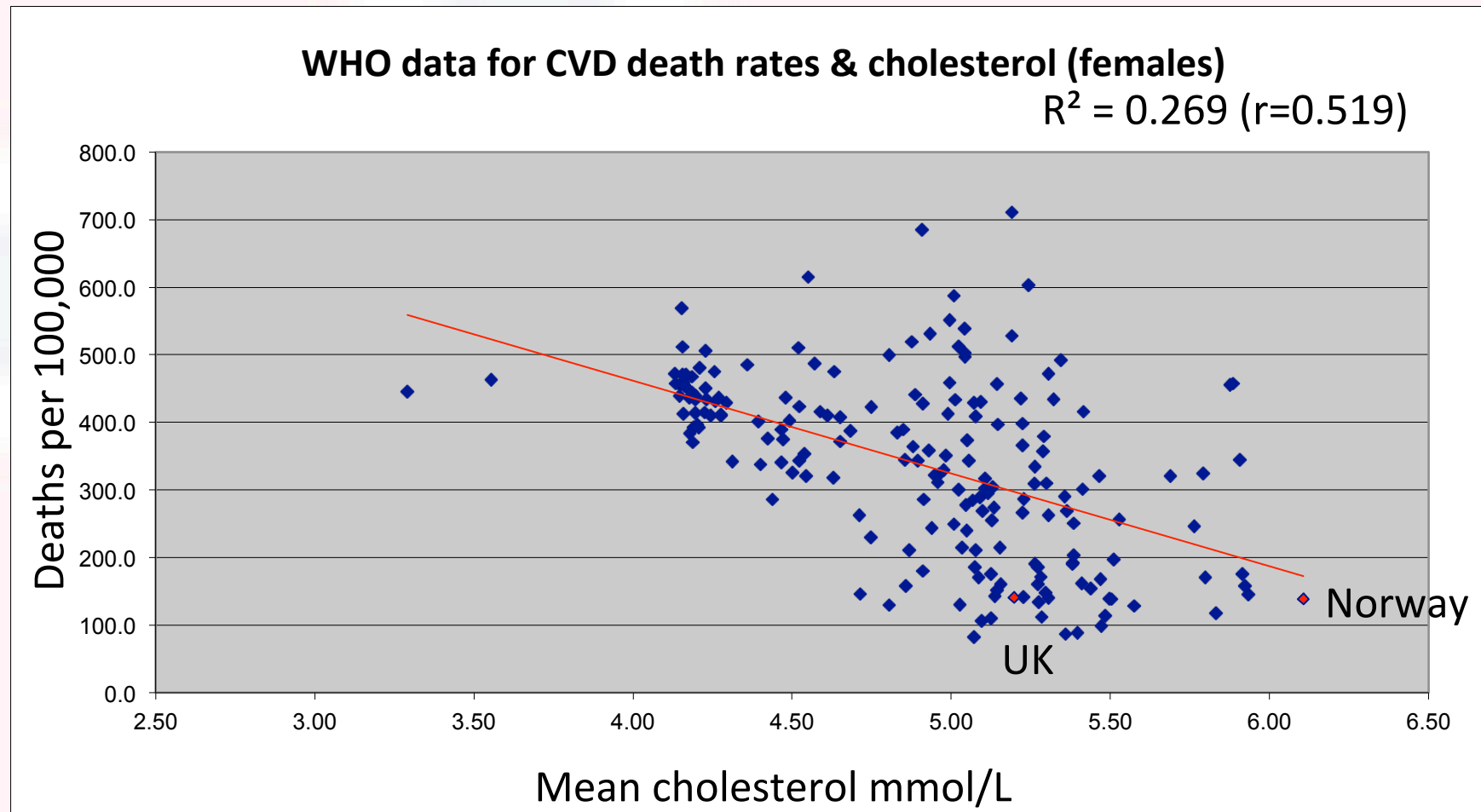
# Were we right to change?

## The 192 Countries Study



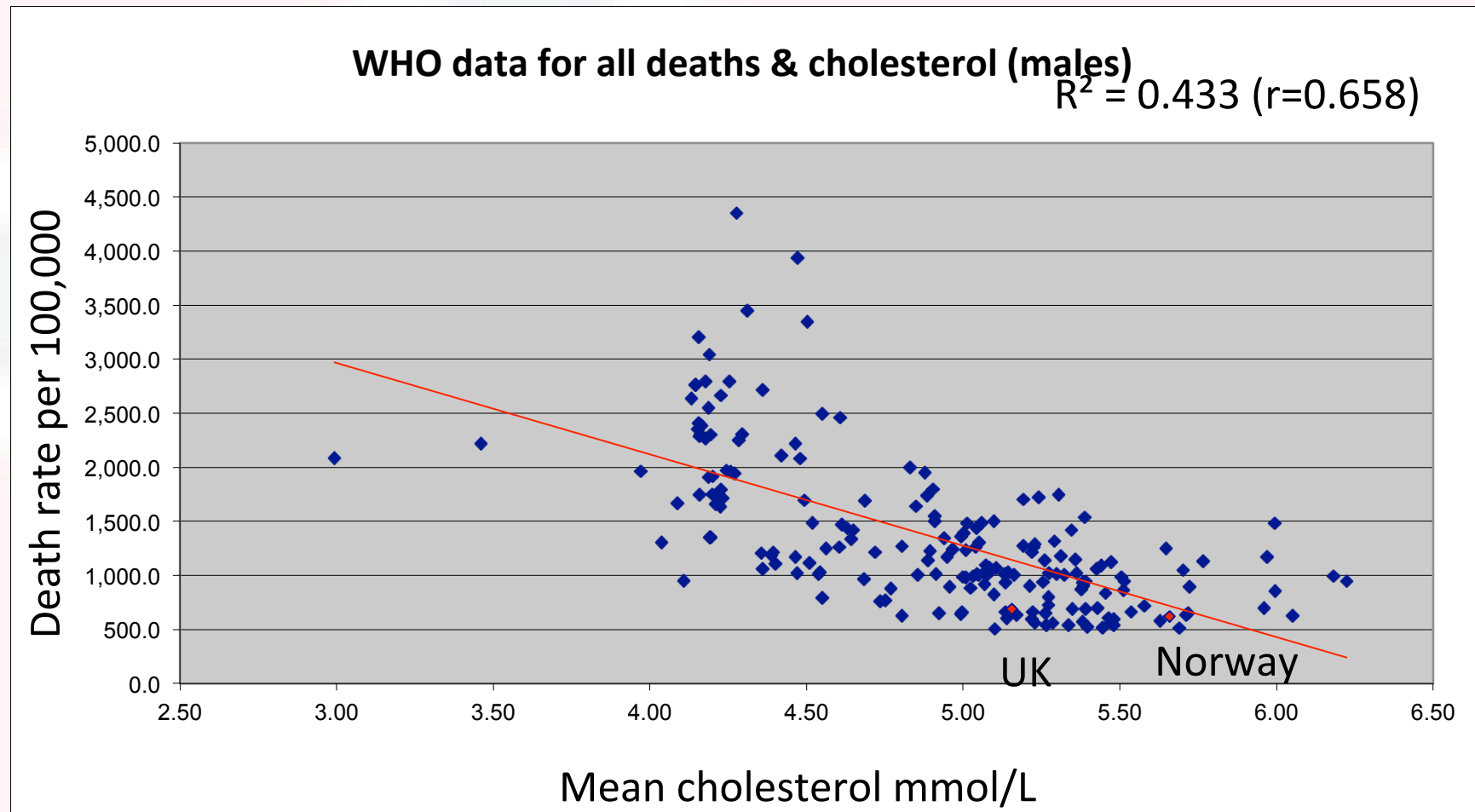
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## The 192 Countries Study



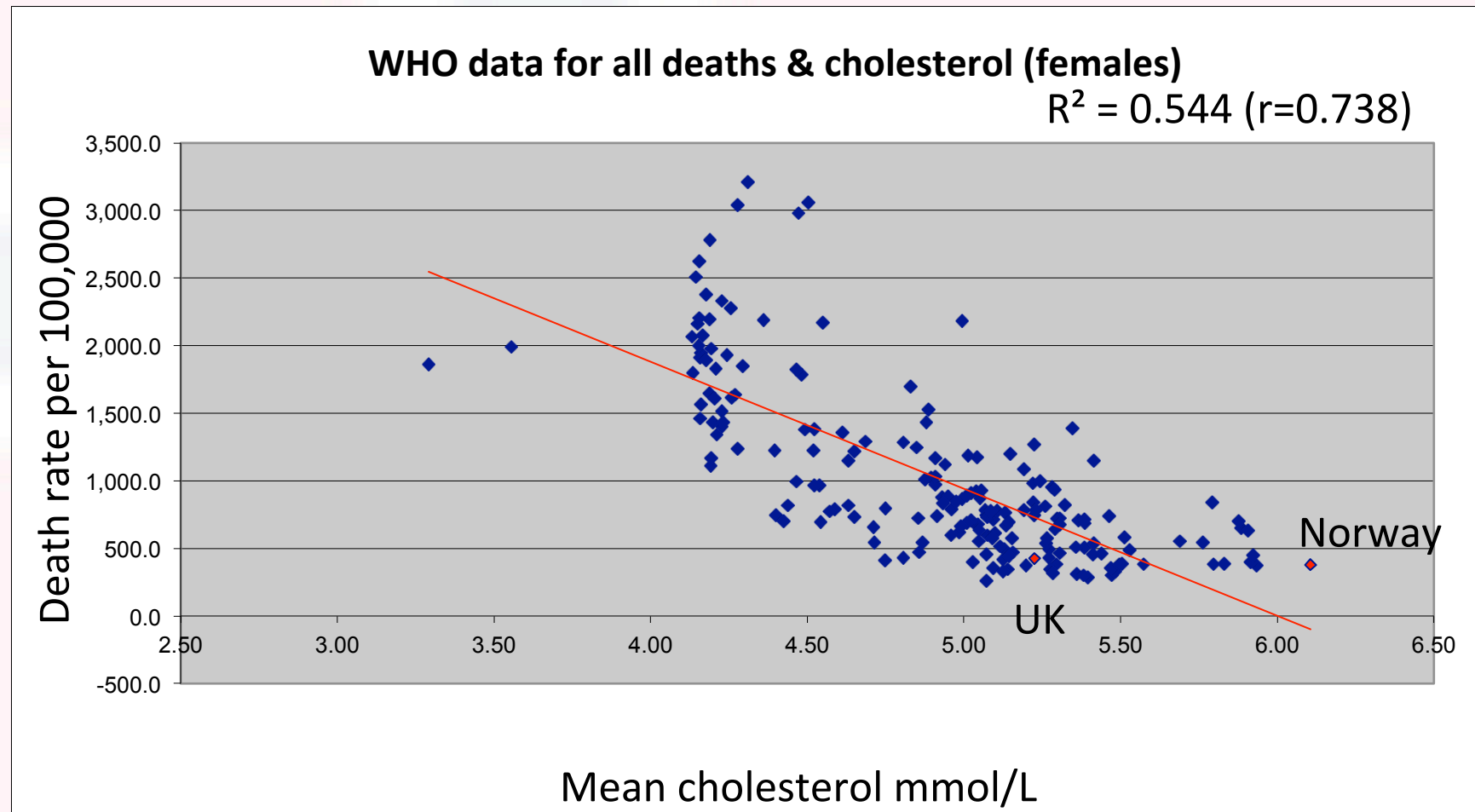
# Were we right to change?

## The 192 Countries Study



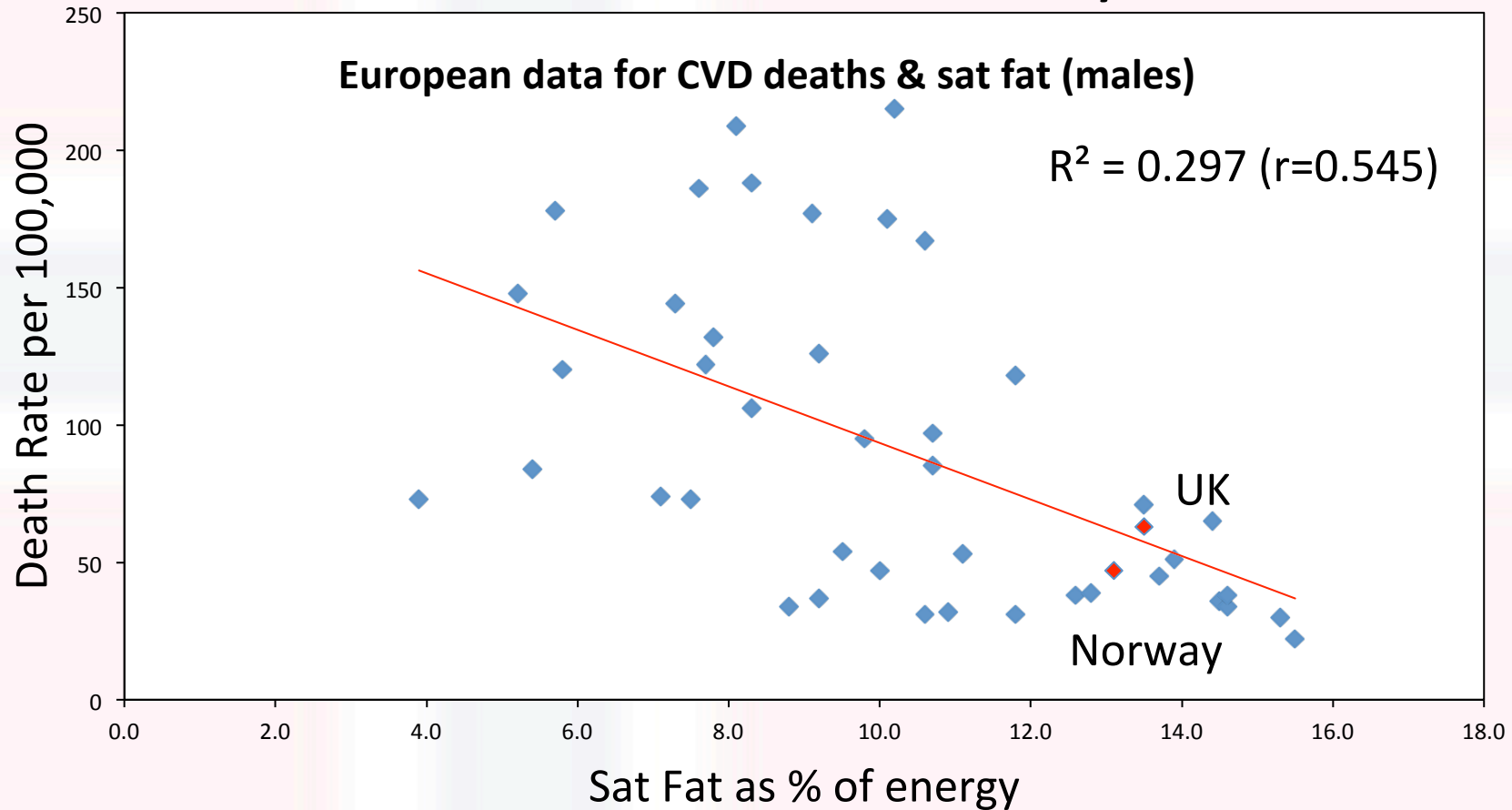
# Were we right to change?

## The 192 Countries Study



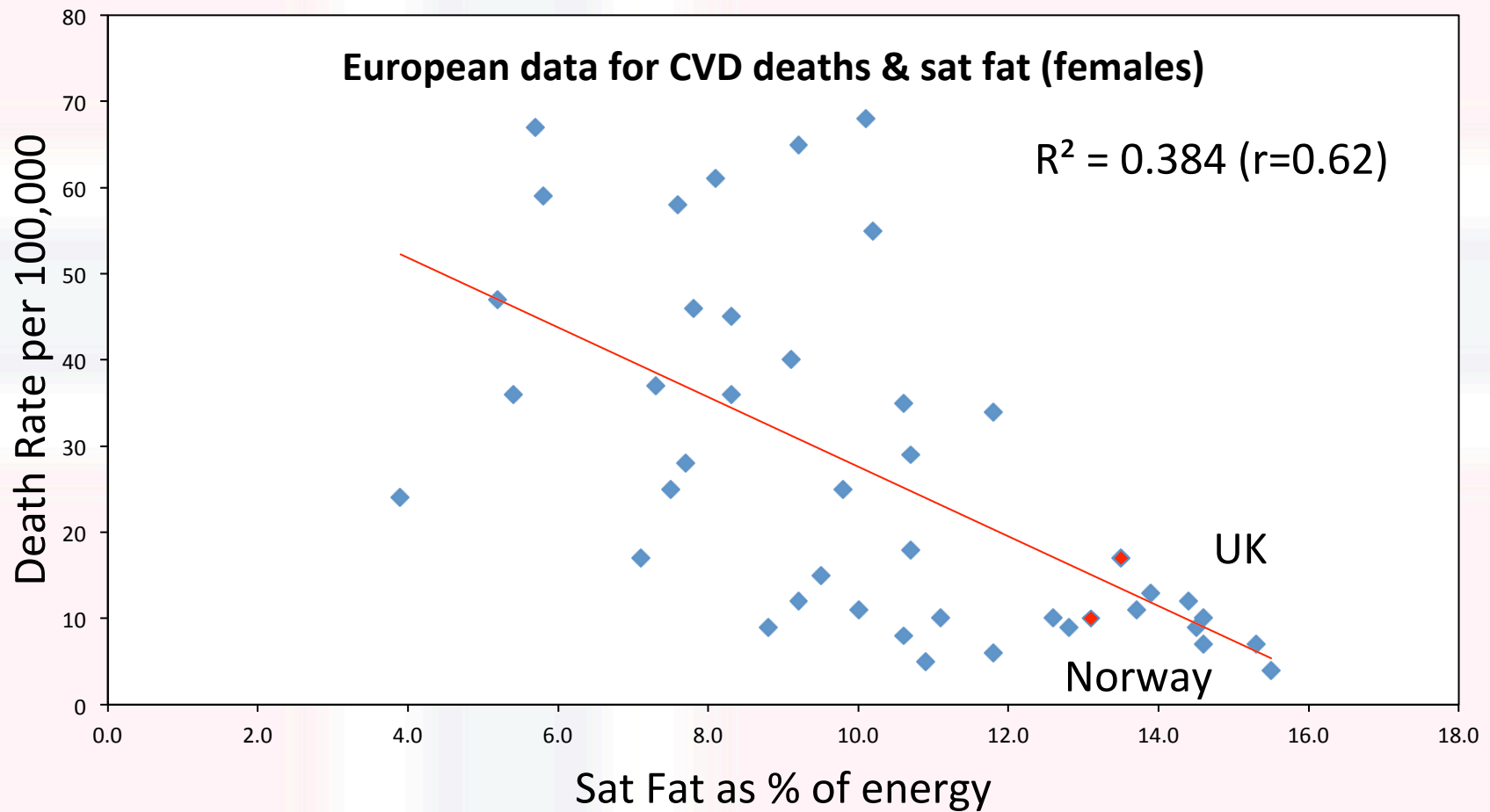
# Were we right to change?

## The 44 Countries Study



# Were we right to change?

## The 44 Countries Study



# What should we eat?

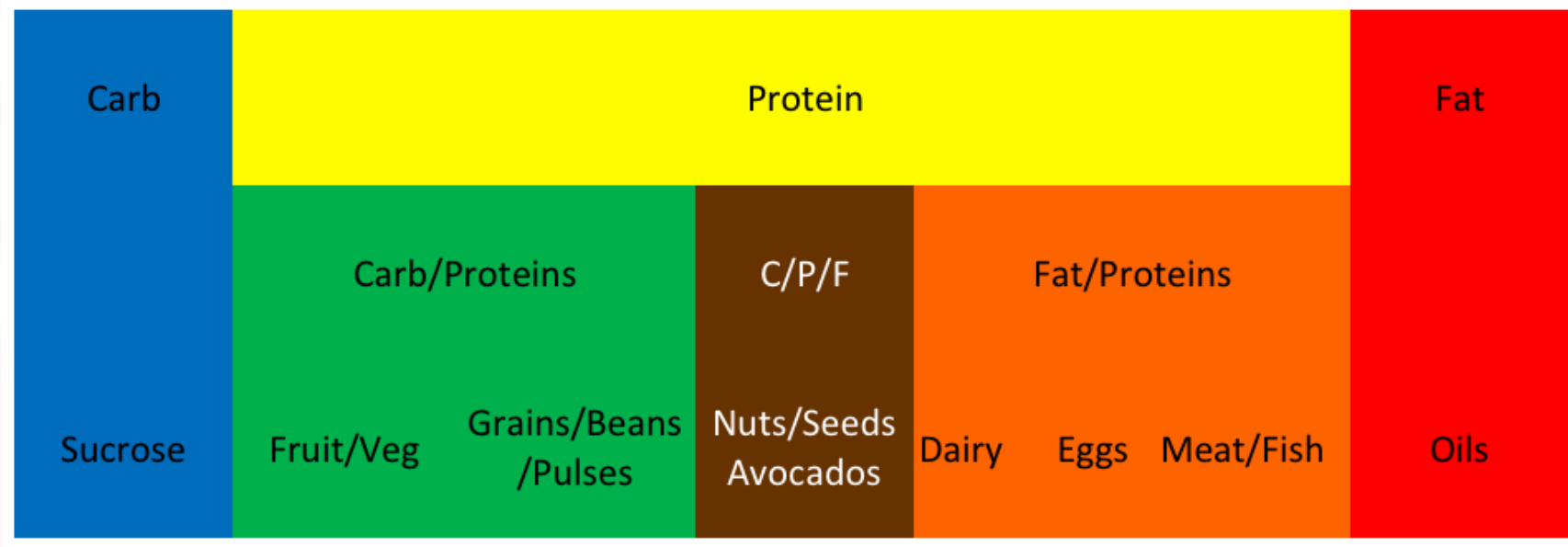
Real food!

Plants or Animals?

What level of carb intake?

# What should we eat?

Don't worry about the macronutrients



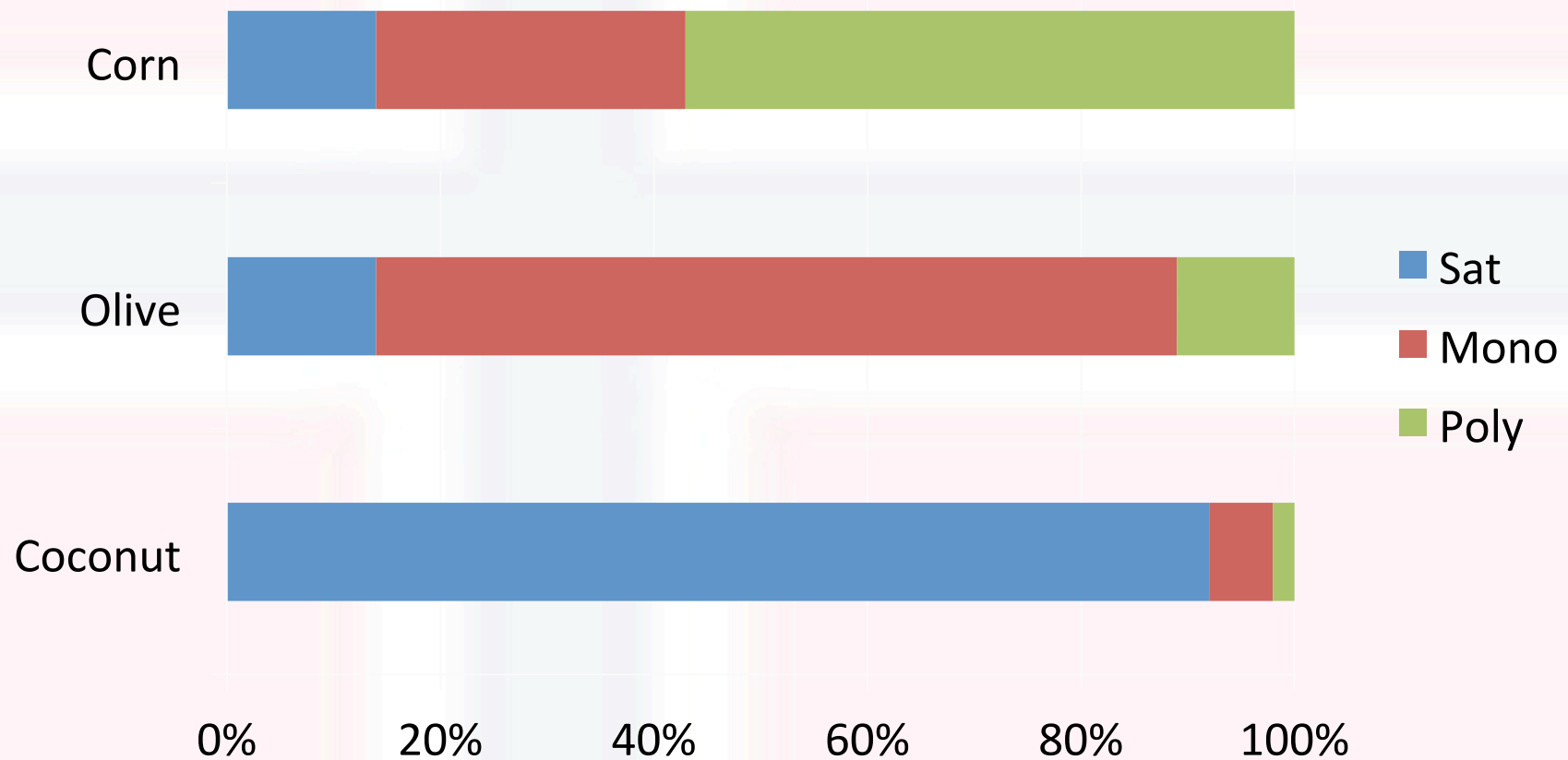
Plants

Animals



# What should we eat?

Don't worry about the macronutrients



# 4) What should we eat?

## Take care of the macronutrients

Food (Per 100g)	Water	Carb	Protein	Fat	Sat	Mono	Poly
Sucrose	0	100	0	0	0	0	0
Pork	75	0	21	3.8	1.5	1.8	0.5
Whole wheat pita bread	37	43	13	4	0.9	0.8	1.9
Oats	11	69	13	7	1.1	2	2.3
Sirloin steak	71	0	21	7	2.1	3	0.3
Eggs	76	1	13	10	3.1	3.8	2.6
Mackerel	64	0	19	14	3.3	5.5	5.2
Butter	18	0	1	81	51	21	3
Lard	0	0	0	100	39	45	11
Olive oil	0	0	0	100	14	73	11

# What should we eat?

## Take care of the micro nutrients

(All per 100g)	Liver	Steak	Sardines	Broccoli	Apple	Brown rice	Lentils
Calories	116	154	208	34	52	<b>370</b>	353
Protein Quality	<b>149</b>	94	148	83	31	75	n/a
A (3,000 IU)	<b>11,077</b>	0	108	623	54	0	39
B1 (1.2mg)	0.3	0.1	0.1	0.1	0	0.4	<b>0.9</b>
B2 (1.3mg)	<b>1.8</b>	0.1	0.2	0.1	0	0.1	0.2
B3 (16mg)	<b>9.7</b>	7.2	5.2	0.6	0.1	5.1	2.6
B5 (5mg)	<b>6.2</b>	0.6	0.6	0.6	0.1	1.5	2.1
B6 (1.7mg)	<b>0.9</b>	0.6	0.2	0.2	0	0.5	0.5
Folic Acid 400mcg	<b>588</b>	13	12	63	3	20	479
B12 (2.4mcg)	<b>16.6</b>	1.2	8.9	0	0	0	0
C (90mg)	17.9	0	0	<b>89.2</b>	4.6	0	4.4
D (400IU)	Neg	0	<b>272</b>	0	neg	0	0
E (15mg)	0.7	0.3	<b>2</b>	0.8	0.2	1.2	0.5
K (120mcg)	0	1.2	2.6	<b>102</b>	2.2	1.9	5

# What should we eat?

## Take care of the micronutrients

(All per 100g)	Liver	Steak	Sardines	Broccoli	Apple-> Cocoa	Brown rice	Lentils
Calcium (1000mg)	8	27	<b>382</b>	47	129	23	56
Magnesium (420mg)	19	22	39	21	<b>499</b>		<b>(143)</b> 122
Phosphorus (700mg)	297	193	<b>490</b>	66	<b>734</b>	333	451
Copper (0.9mg)	<b>0.5</b>	0.1	0.2	0.0	<b>3.8</b>	0.3	<b>(0.5)</b>
Iron (18mg)	<b>9.0</b>	1.5	2.9	0.7	<b>13.9</b>	1.5	7.5
Manganese (2.3mg)	0.3	0.0	0.1	0.2	<b>3.8</b>	<b>(3.7)</b>	1.3
Zinc (11mg)	2.7	3.9	1.3	0.4	<b>6.8</b>	2	<b>(4.8)</b>

# What should we eat?

Real food!

Plants or Animals?

Michael Pollen

Eat food; mostly plants; not too much  
Whole grains; beans; pulses; fruit

Zoë Harcombe

Eat food; mostly animals; quite a lot!  
Pasture fed meat/eggs/dairy; fish;  
fruit in season

Agree on vegetables & salads

LCHF becomes an outcome

# Obstacles to change

## 1) Government/Dieticians

“A man should never be ashamed to own that he has been in the wrong, which is but saying in other words that he is wiser today than he was yesterday.” (Alexander Pope)

## 2) Economic factors

“Not much more than 1% of Britain’s workforce now works full time on the land – compared to an average of 60% in India and the third world.” (Colin Tudge)

## 3) Conflicts of interest

“The world’s largest ‘food’ and ‘drink’ company, PepsiCo, is larger than 65% of the countries in the world.”

# Conflicts of interest

## American Dietetic Association



# Conflicts of interest

## British Nutrition Foundation





# Conflicts of interest

## Nordic Congress for Dietitians



# Summary

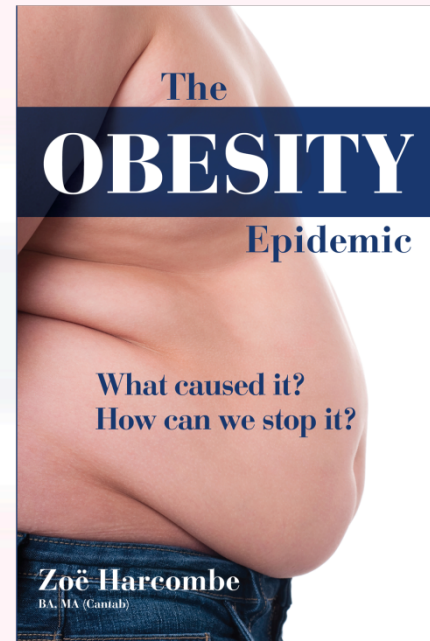
## To LFHC & back

- We changed our dietary advice in 1983/84
- We changed with no evidence
- We changed to the wrong advice (LFHC)
- Obesity increased ten fold 1972 -> 1999
- Coincidence or cause?
- Eat for nutrients & LCHF is the only outcome
- Addresses obesity, T2 diabetes, cancer, CHD etc

# The final slide

- 'Civilised' man is the only chronically sick animal on the planet. (Barry Groves)
- Man is the only species clever enough to make his own food...
- ... & stupid enough to eat it.

# Thank you!



[www.theobesityepidemic.org](http://www.theobesityepidemic.org)

[www.zoeharcombe.com](http://www.zoeharcombe.com)