

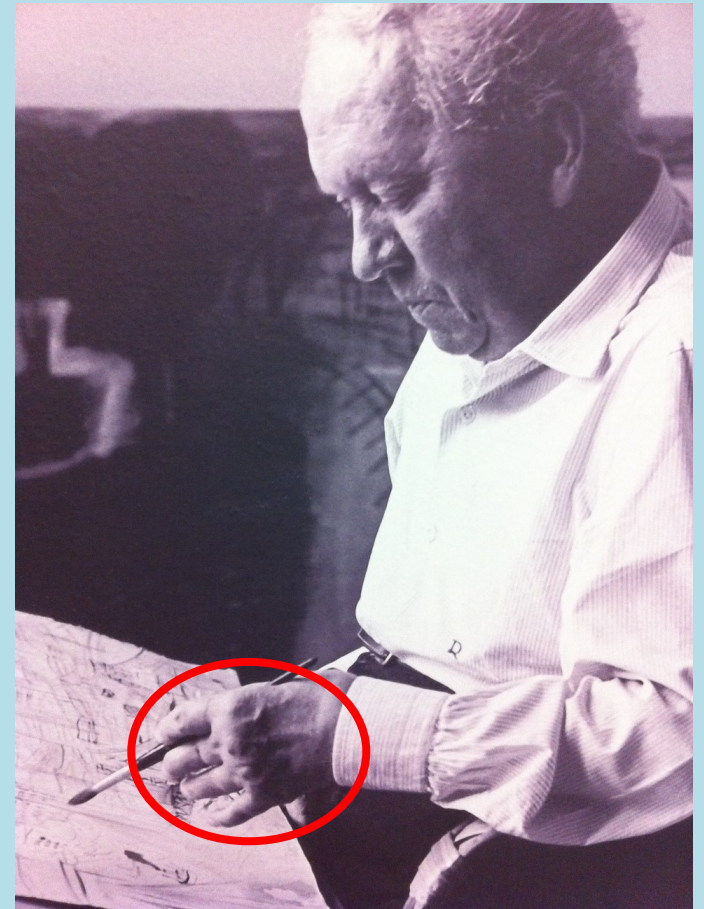
Leefstijl en reuma

26-5-2020

Prof. dr. Dirkjan van Schaardenburg



Auguste Renoir (1910)



Raoul Dufy (1948)

1990



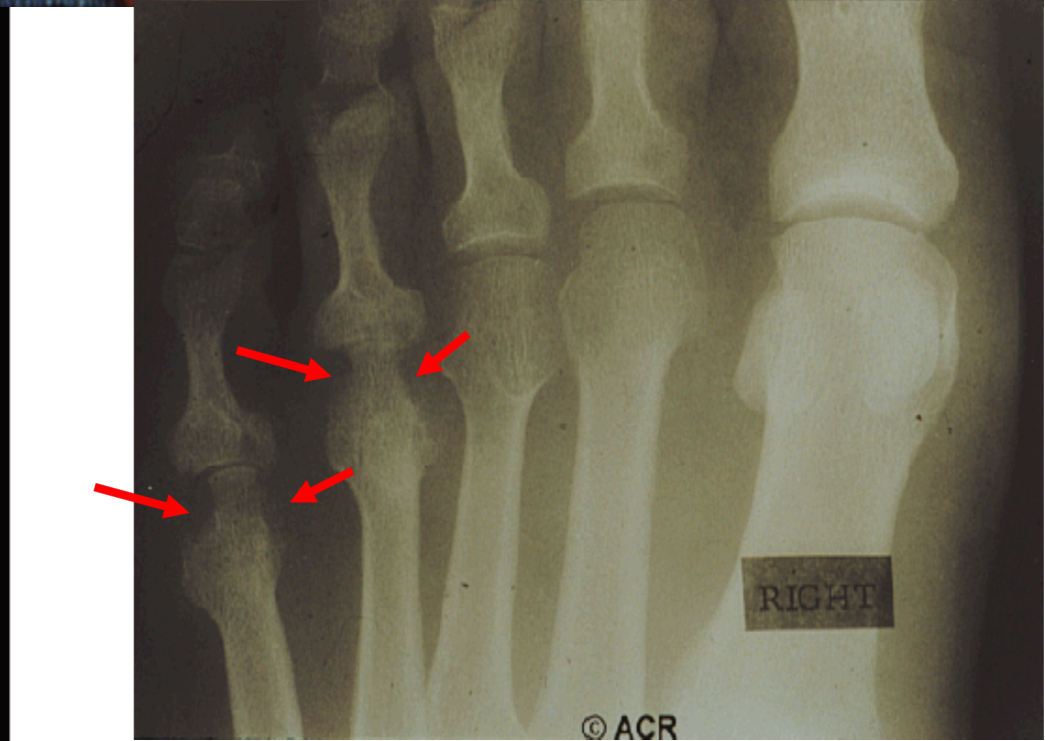
- Reuma(toïde arthritis): medicatie
- Bechterew/spondyloarthritis: FT, pijnstillers
- Jicht: Bourgondiërs
- Artrose: FT, pijnstillers, prothese

Voeding?

"Dieet" = gevaar voor deficiëntie

1915 darm-gewricht link:

Gastro-enteritis → reactieve arthritis



2016: ondanks goed effect vroeg intensief behandelen...



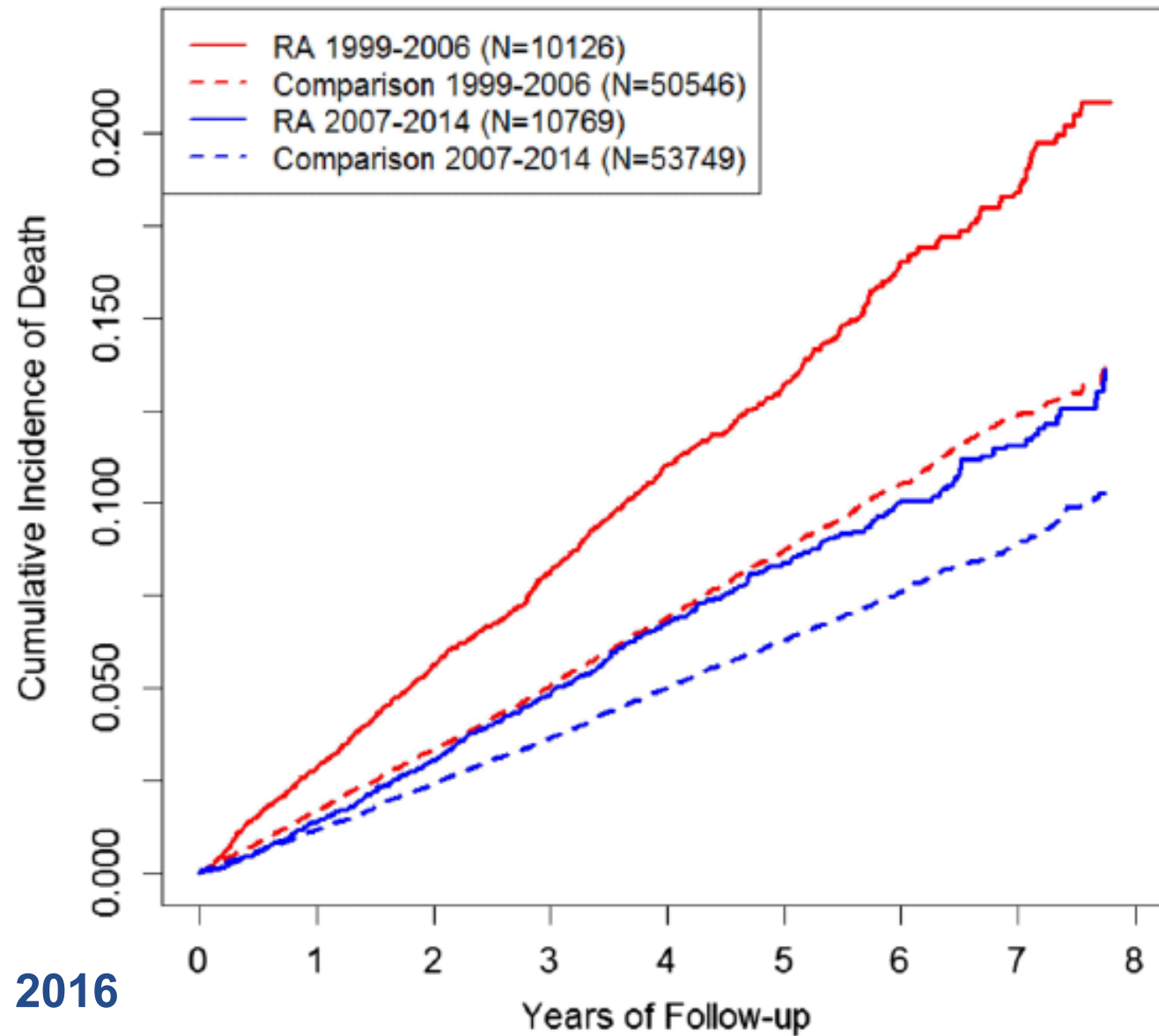
Beperkingen



en: 30% intolerantie voor medicatie

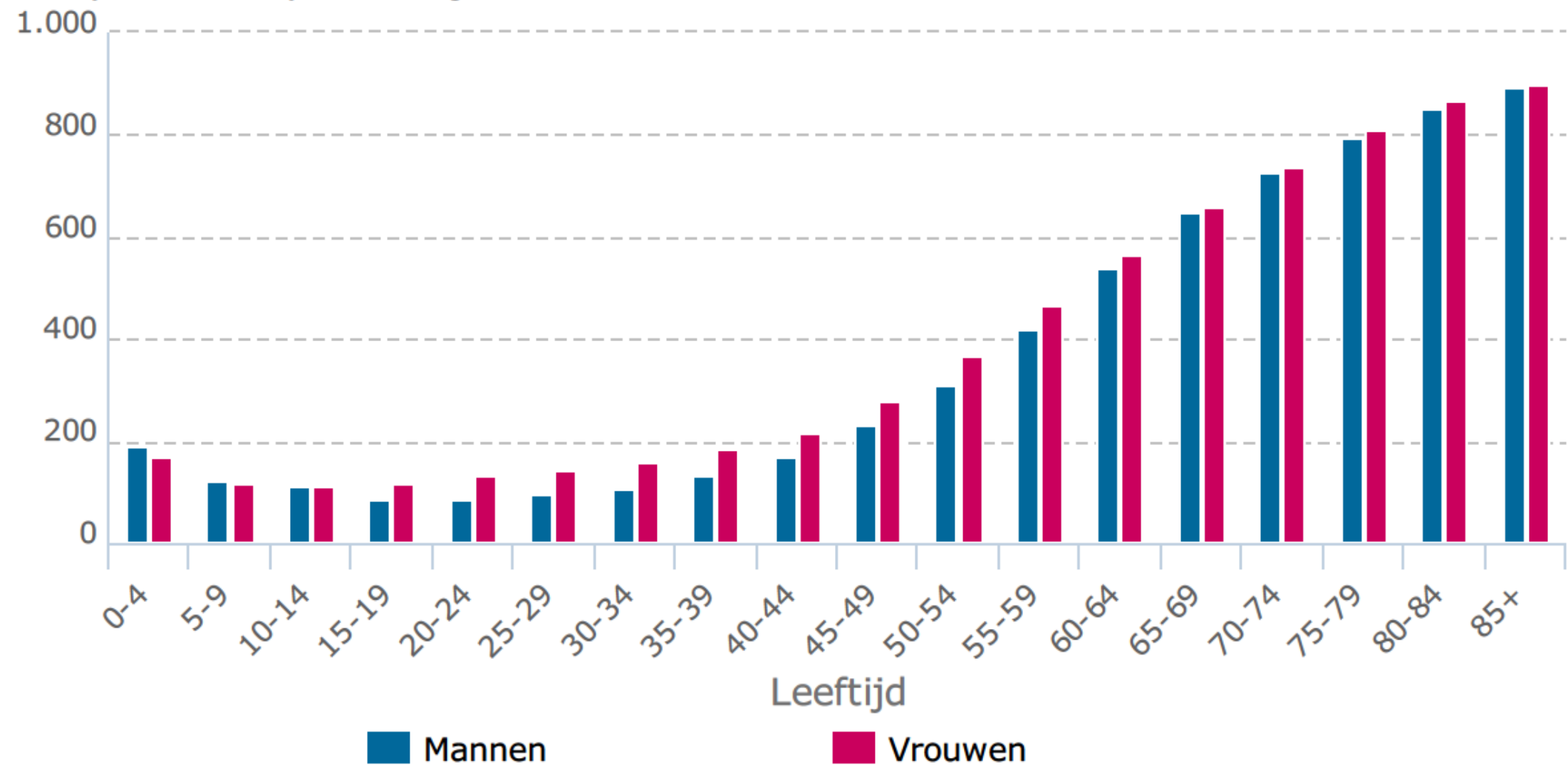


Mortality new RA in the UK

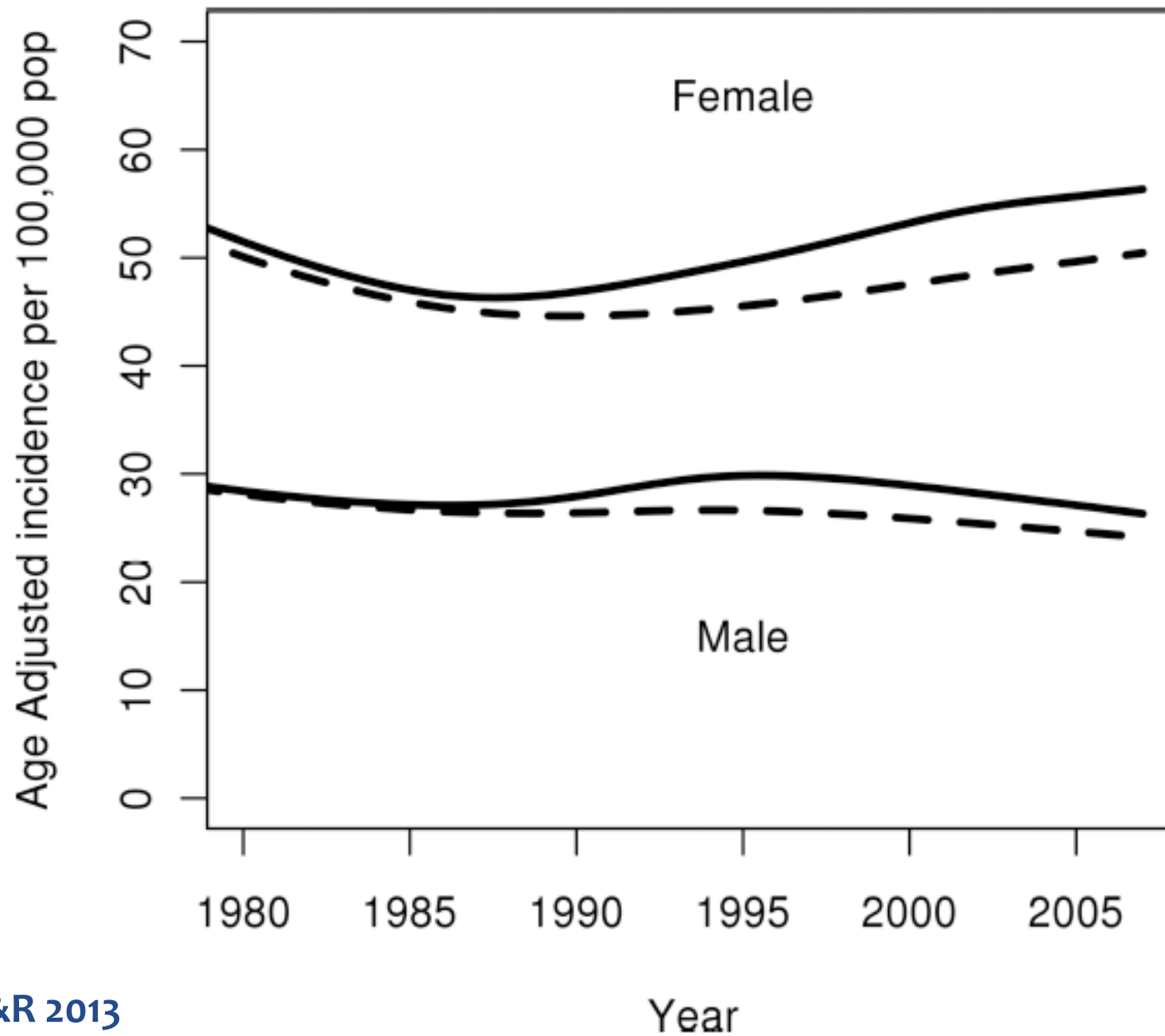


Contact met huisartsenpraktijk voor een chronische aandoening in 2018

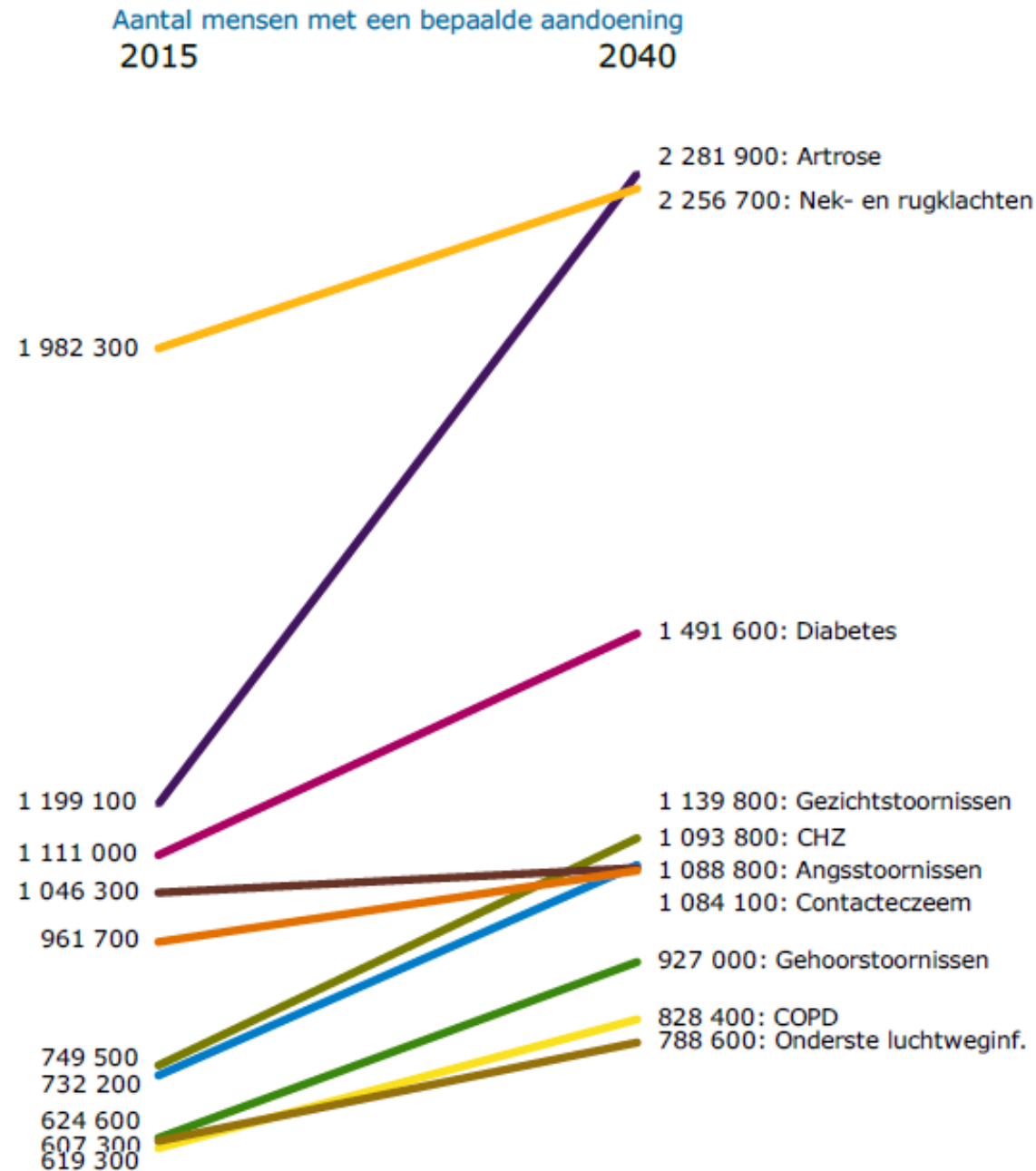
antal per 1.000 persoonsjaren



RA incidentie en obesitas USA



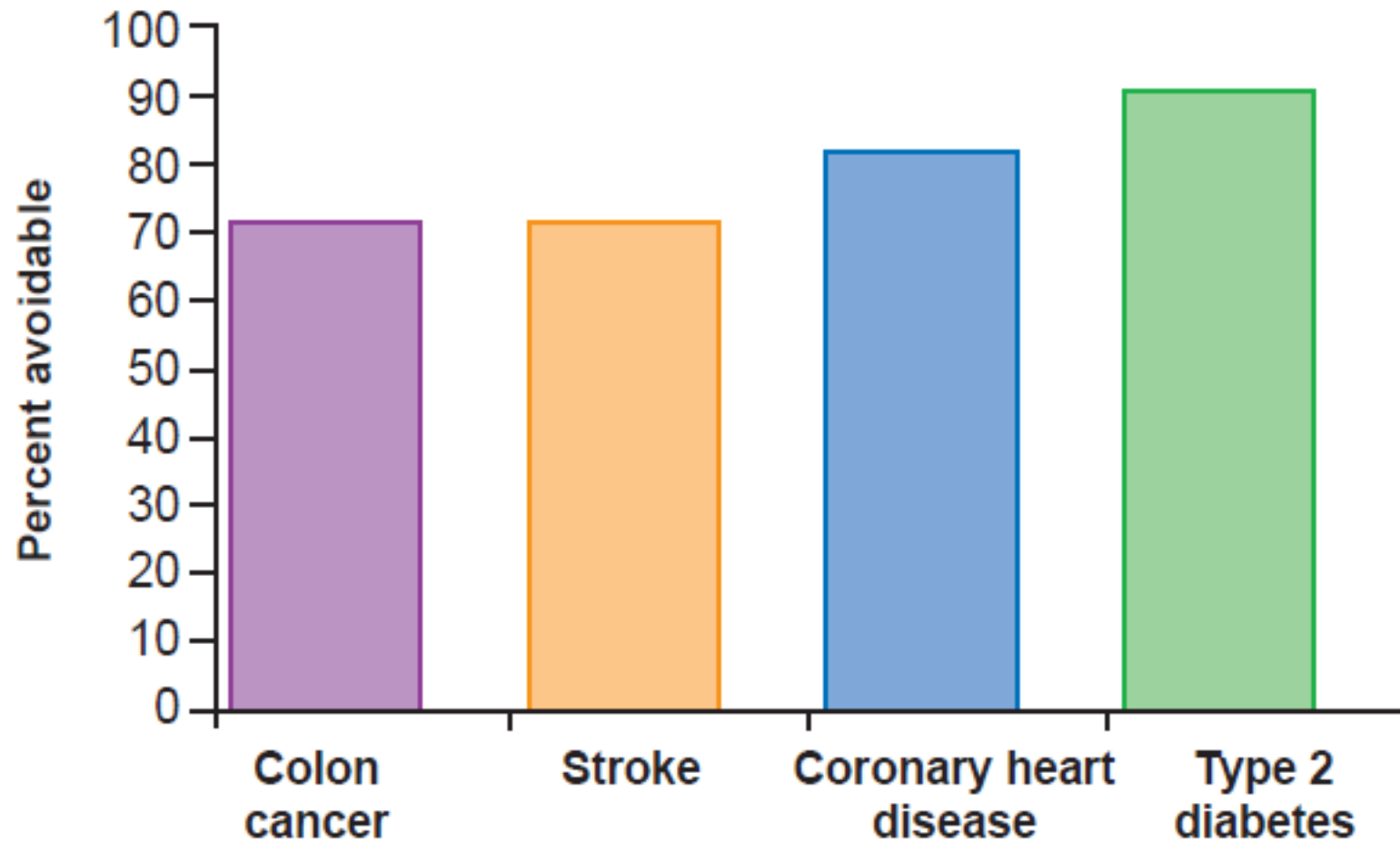
Volksgezondheid toekomstverkenningen





- 1990: Artrose = slijtage
- 2020: Artrose = 1. slijtage (mechanisch)
2. ontsteking (metabool syndroom)

Vermijdbare ziekte door leefstijl verandering



Willett Science 2002





1990-2003



HUMAN GENOME PROJECT (HGP)

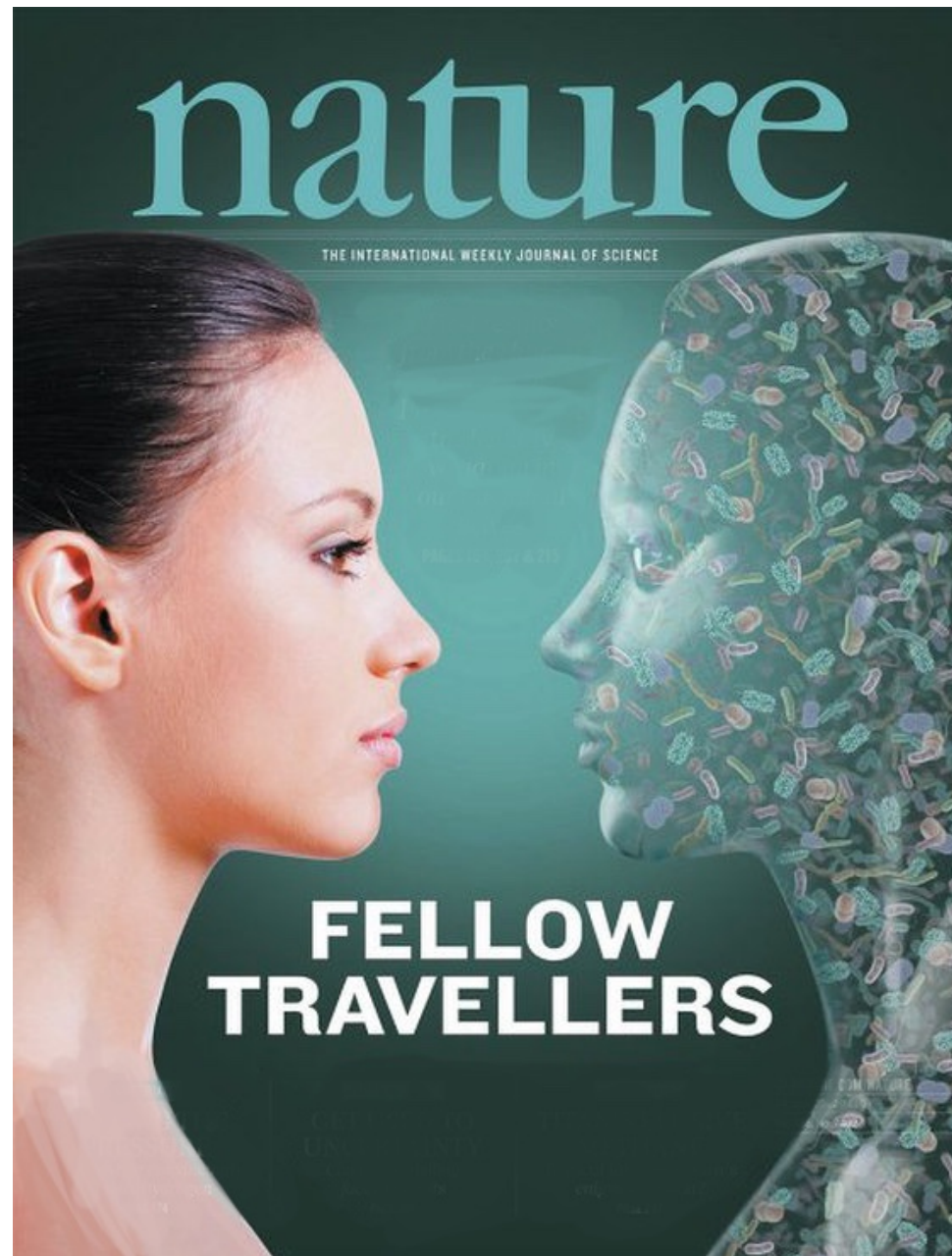
**CRACKING DOWN
THE LIFE'S CODE**

...AND UNDERSTANDING DISEASE!

...X



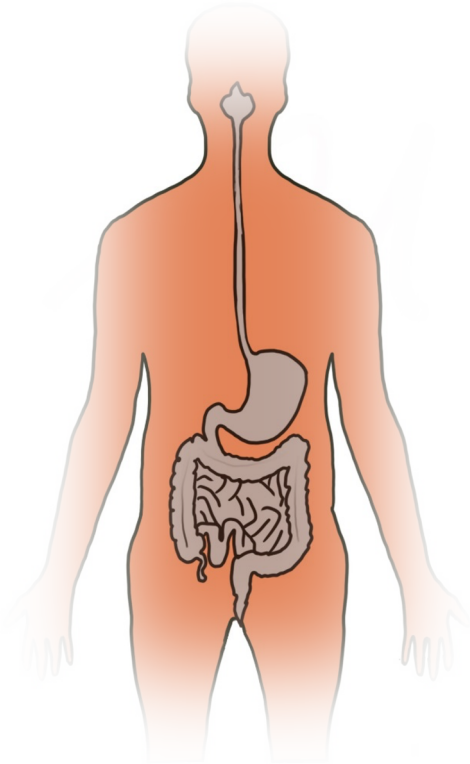
1960-2001 Microbioom onderzoek



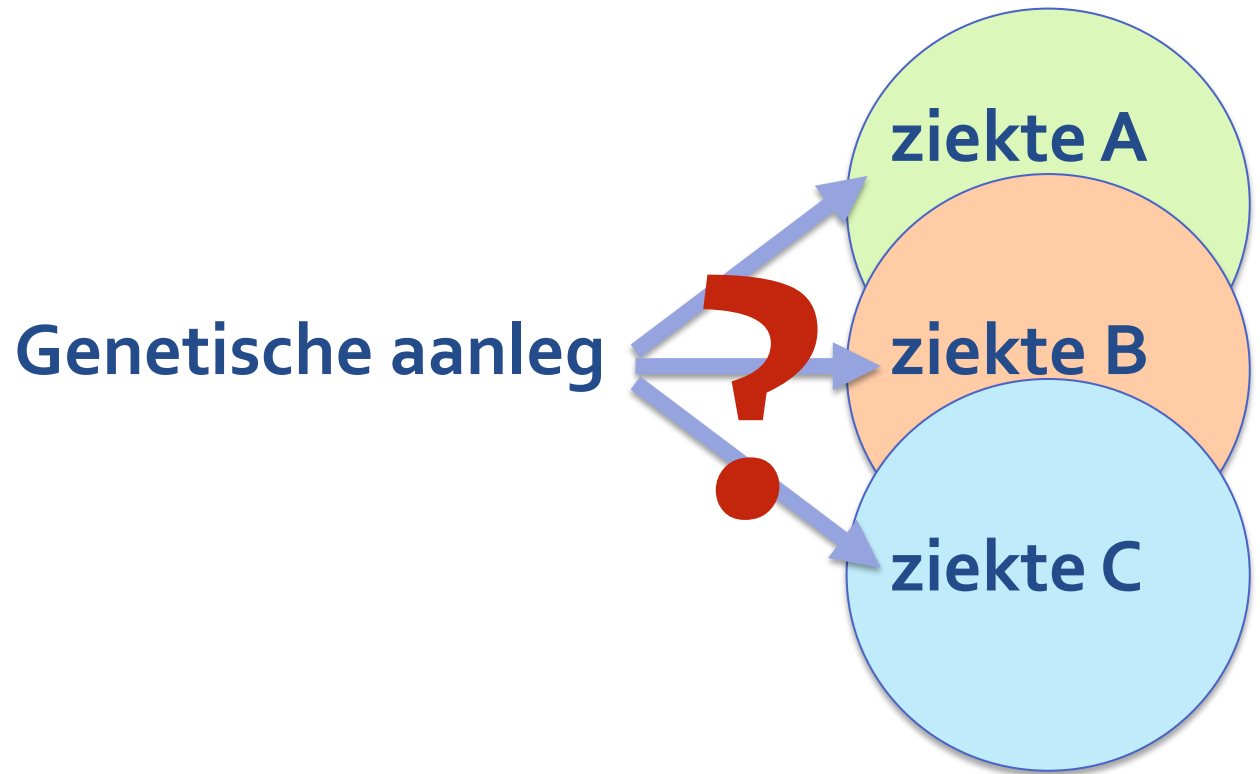
Het ecosysteem in de darm



- Bacteria, archaea, protozoa, virussen, fungi
- Aantal bacteriën: 10^{14}
- Aantal cellen in een mens: 10^{13}
- 100-150x zoveel genen

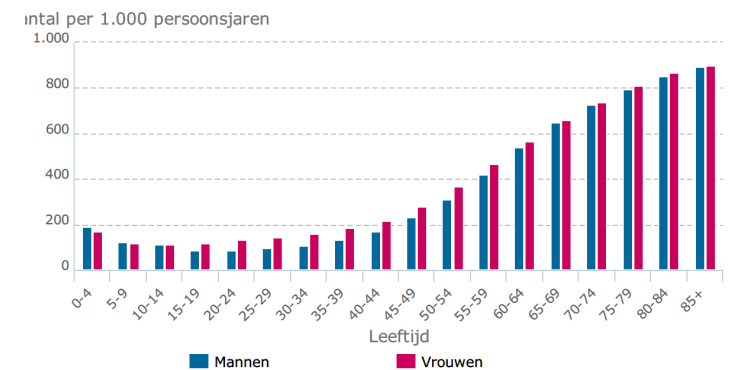


Model chronische ziekte



= multimorbiditeit

Contact met huisartsenpraktijk voor een chronische aandoening in 2018





Primaten:

Vrijwel plantaardig



Australopithecus:

Vruchten, knollen, zaden

Later ook vis / vlees



Primaten:

Vrijwel plantaardig



Australopithecus:

Vruchten, knollen, zaden

Later ook vis / vlees



Homo erectus:

Koken



Primaten:

Vrijwel plantaardig



Australopithecus:

Vruchten, knollen, zaden

Later ook vis / vlees



Homo erectus:

Koken



Jager-verzamelaars*:

Groente, fruit, peulvruchten, granen, knollen, noten, zaden;
vis, gevogelte, wild

*** vrijwel dezelfde genen, geen chronische ziekten**

Evolutionaire *mismatch*



- Genetisch zijn we ingesteld op lichamelijke activiteit en periodes met voedselschaarste
 - Jager-verzamelaars rusten en slaan reserves op als ze kunnen
 - Nieuw: geen noodzaak te bewegen, voedsel in overvloed
- Hoogcalorisch eten (vet/zout/zoet) en stilzitten is ingebakken

Chronische lage graad ontsteking



- Koolhydraten met hoge glycemische lading (snelle suikers)
- Fructose (*high fructose corn syrup*)
- ↑ Natriuminname
- ↑ ω 6 vetzuren
- ↓ ω 3 vetzuren, magnesium, anti-oxidanten
- Daarnaast: roken, alcohol, slaaptekort, stress

Chronische ontsteking → metabool syndroom

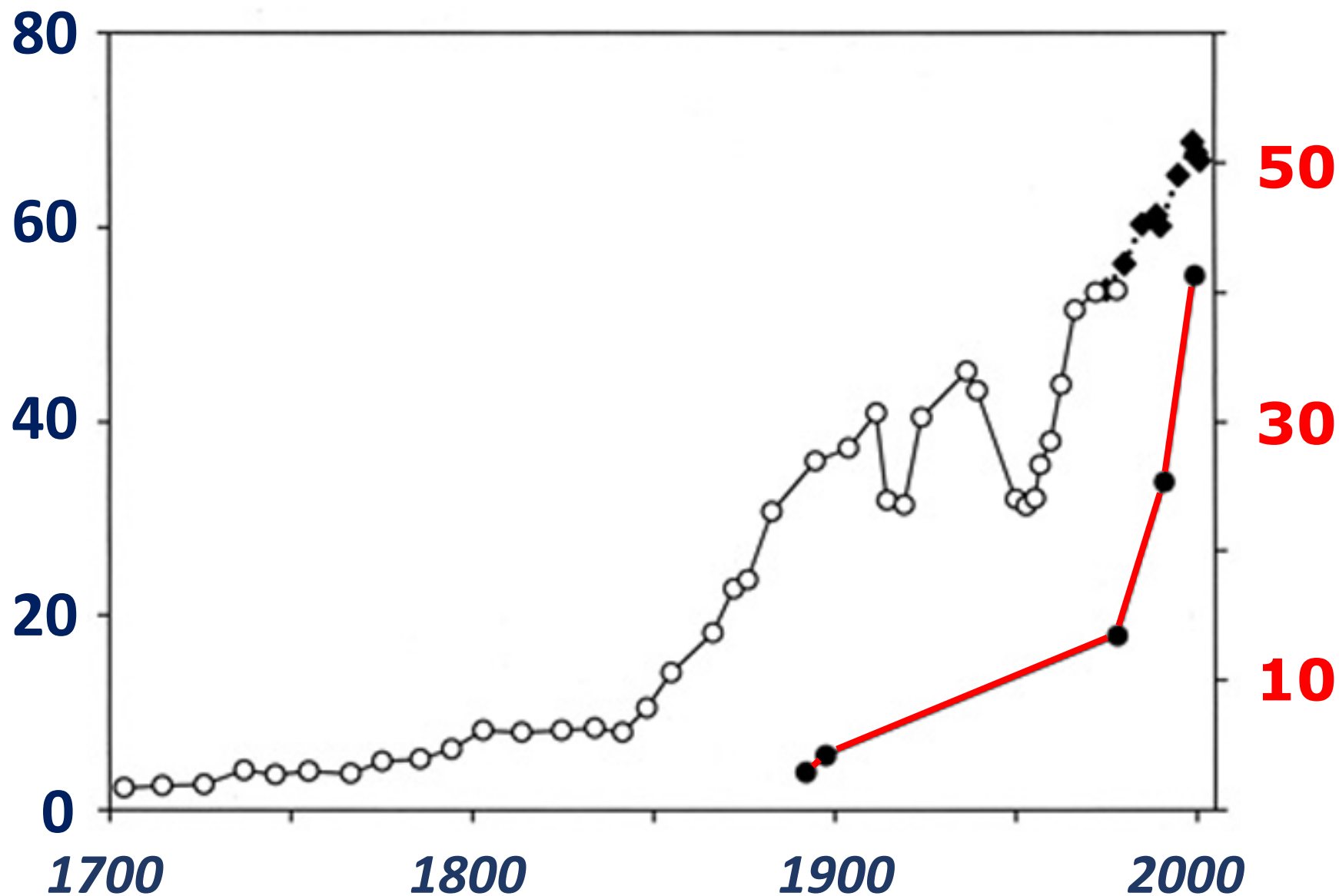


- Hoge bloeddruk
- Obesitas
- Gestoorde bloedvetten
- Hoog glucose en insuline

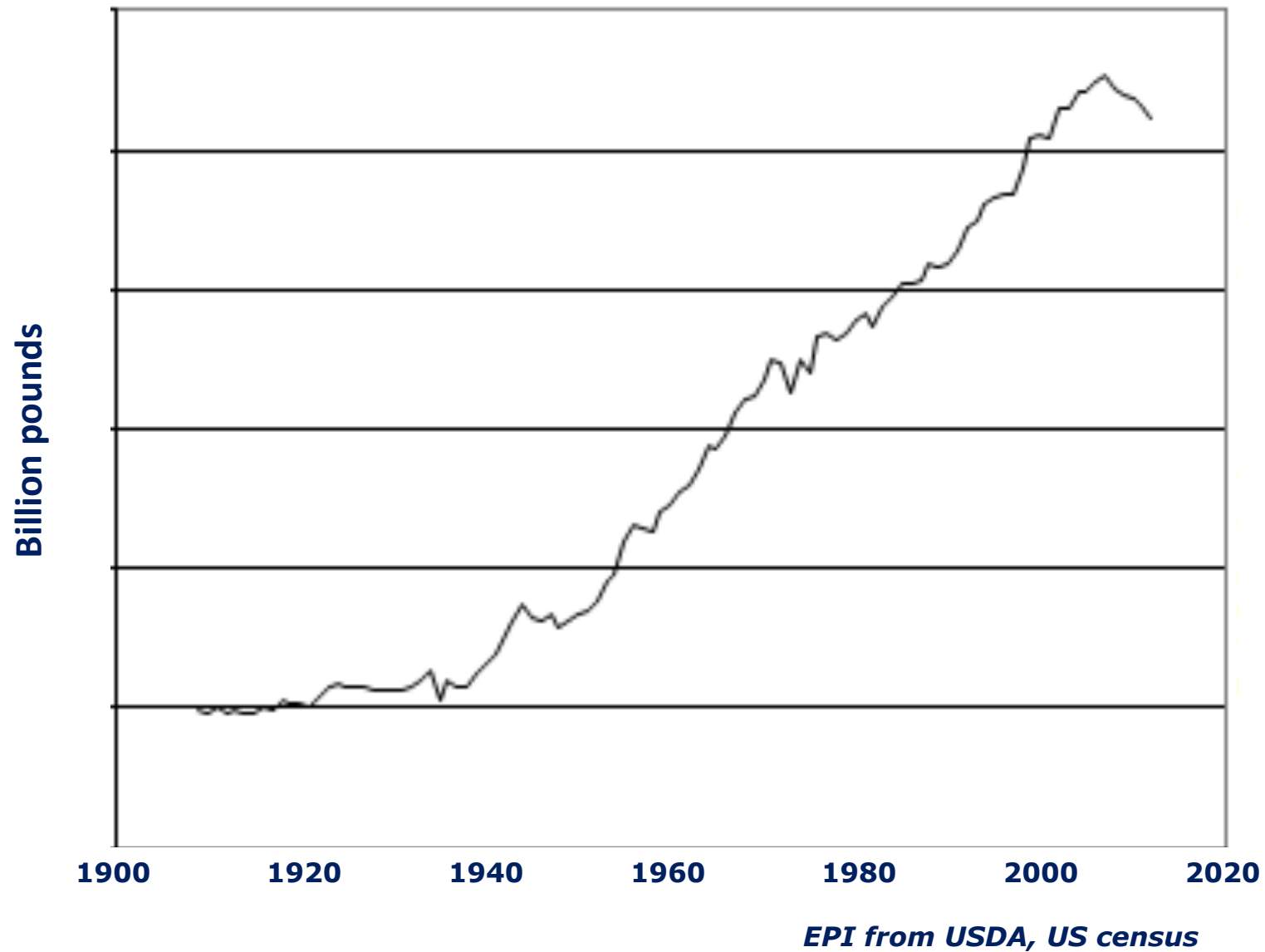
→ Welvaartsziektes: diabetes, atherosclerose, dementie, psychiatrische problemen, sommige vormen van kanker, gewrichtsaandoeningen: RA, artrose, jicht, etc.

Suikerconsumptie VS (kilo pp/j)

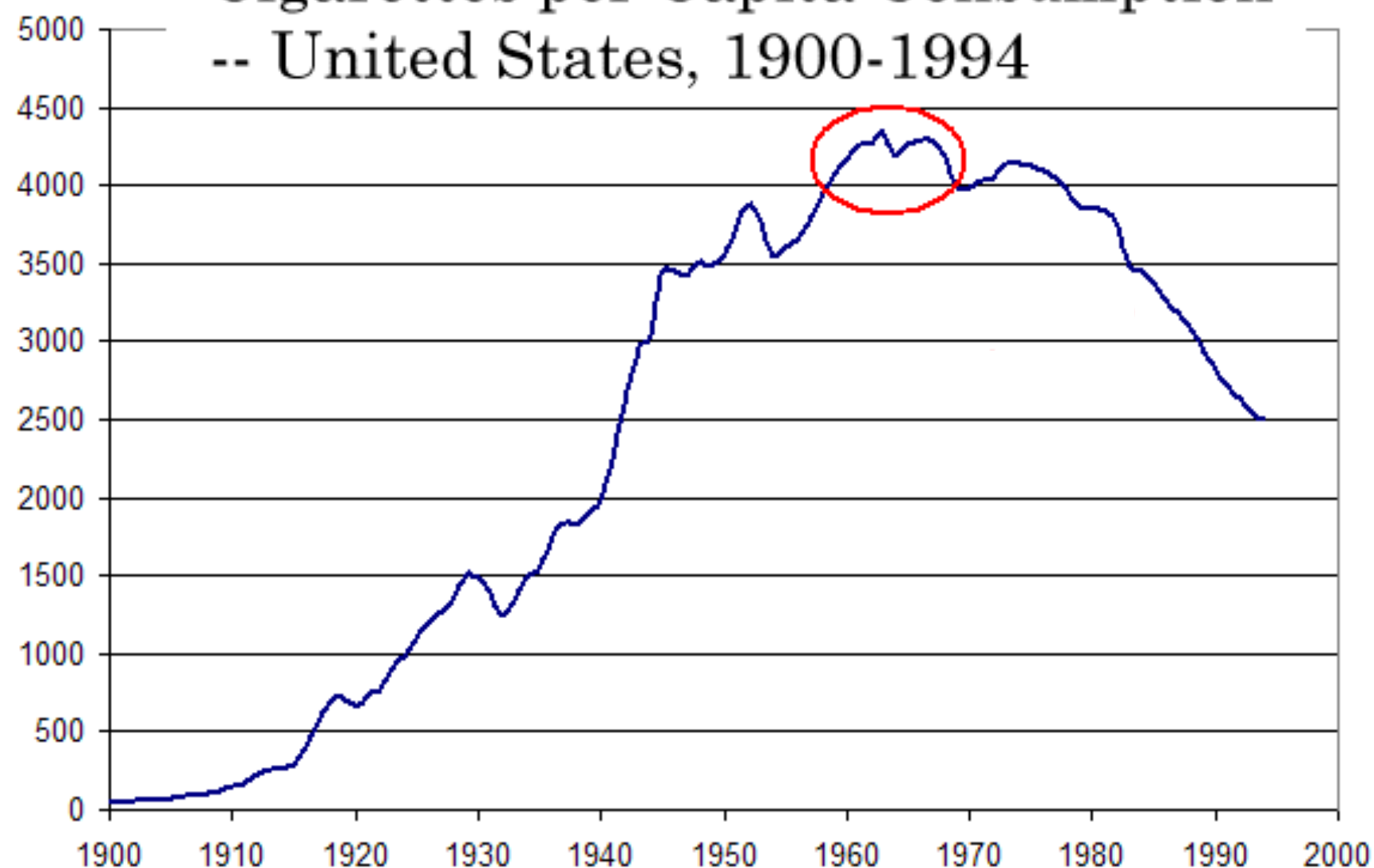
Obesitas (%)



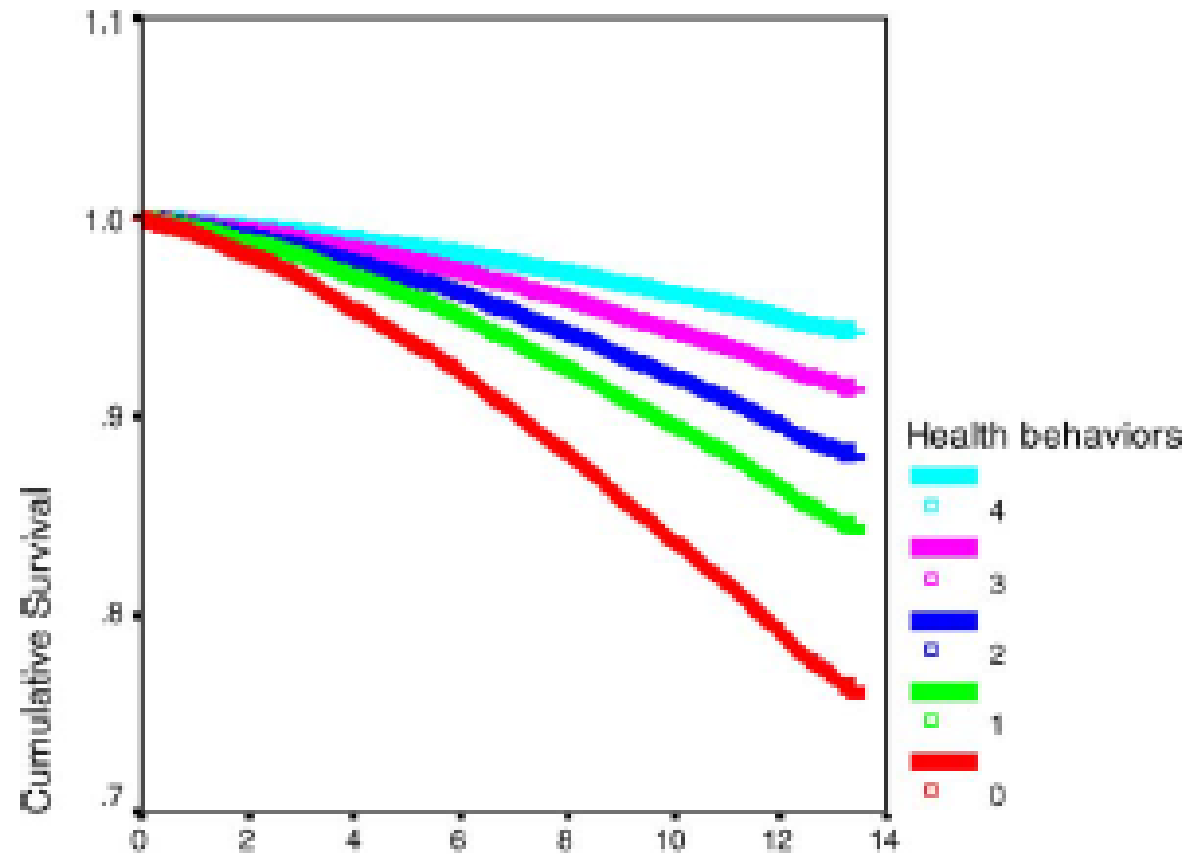
Vleesconsumptie VS, 1909-2012



Cigarettes per Capita Consumption -- United States, 1900-1994



Gedrag en sterfte



EPIC Norfolk 1993-2006



Lifestyle lessons Blue Zones

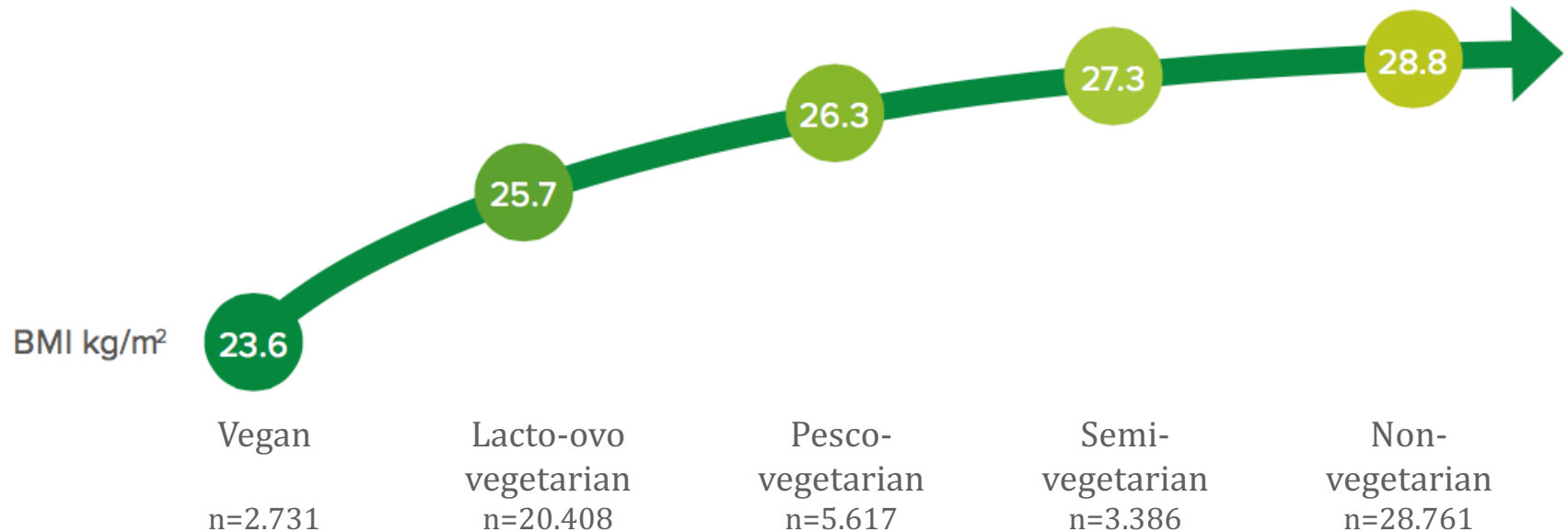


Effect voedingspatroon



Toename risico factoren bij toename dierlijke producten:

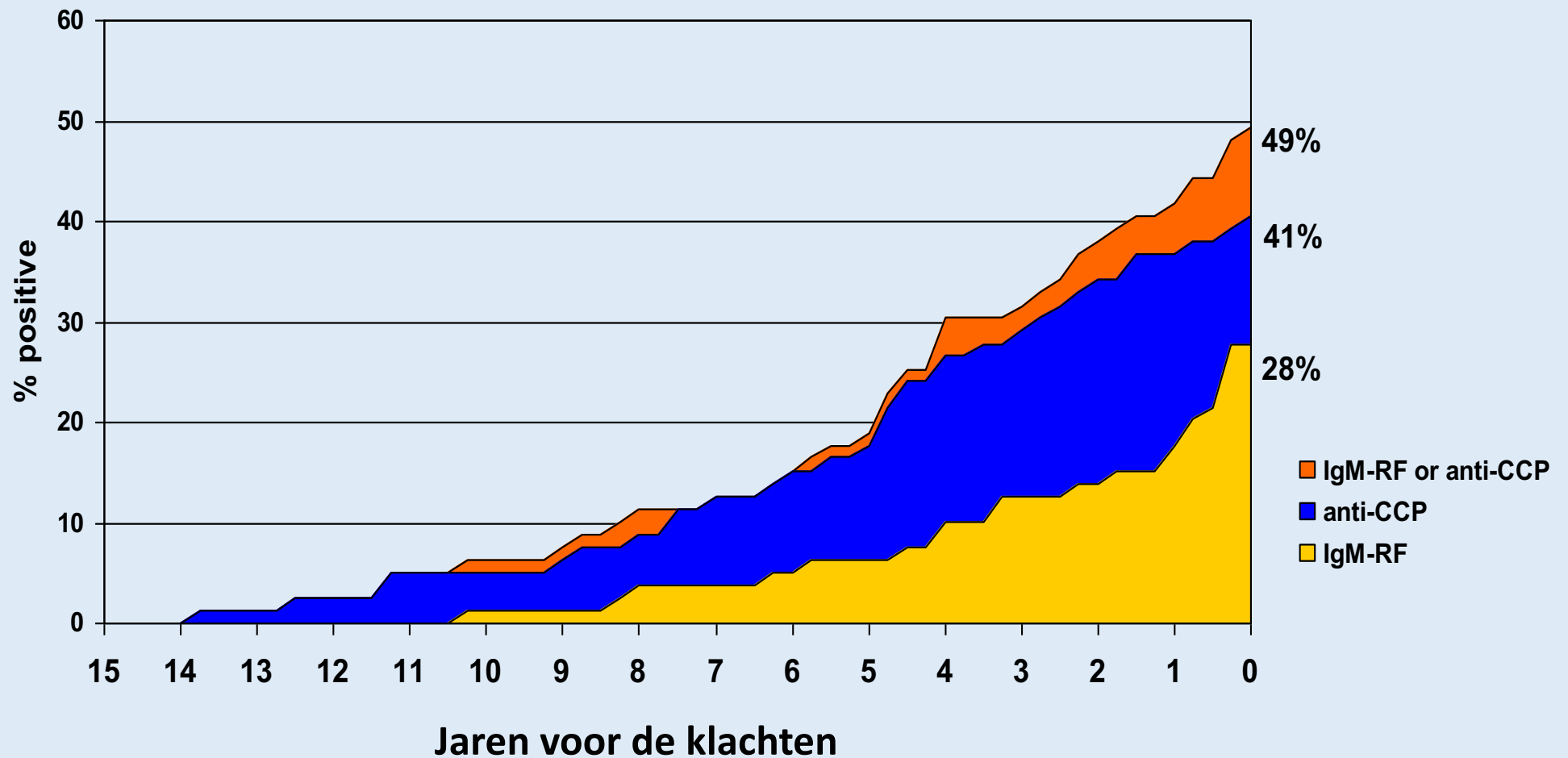
- Gewicht
- Hypertensie
- Diabetes 2
- Hyperlipidemie
- CRP
- Insuline
- IGF₁



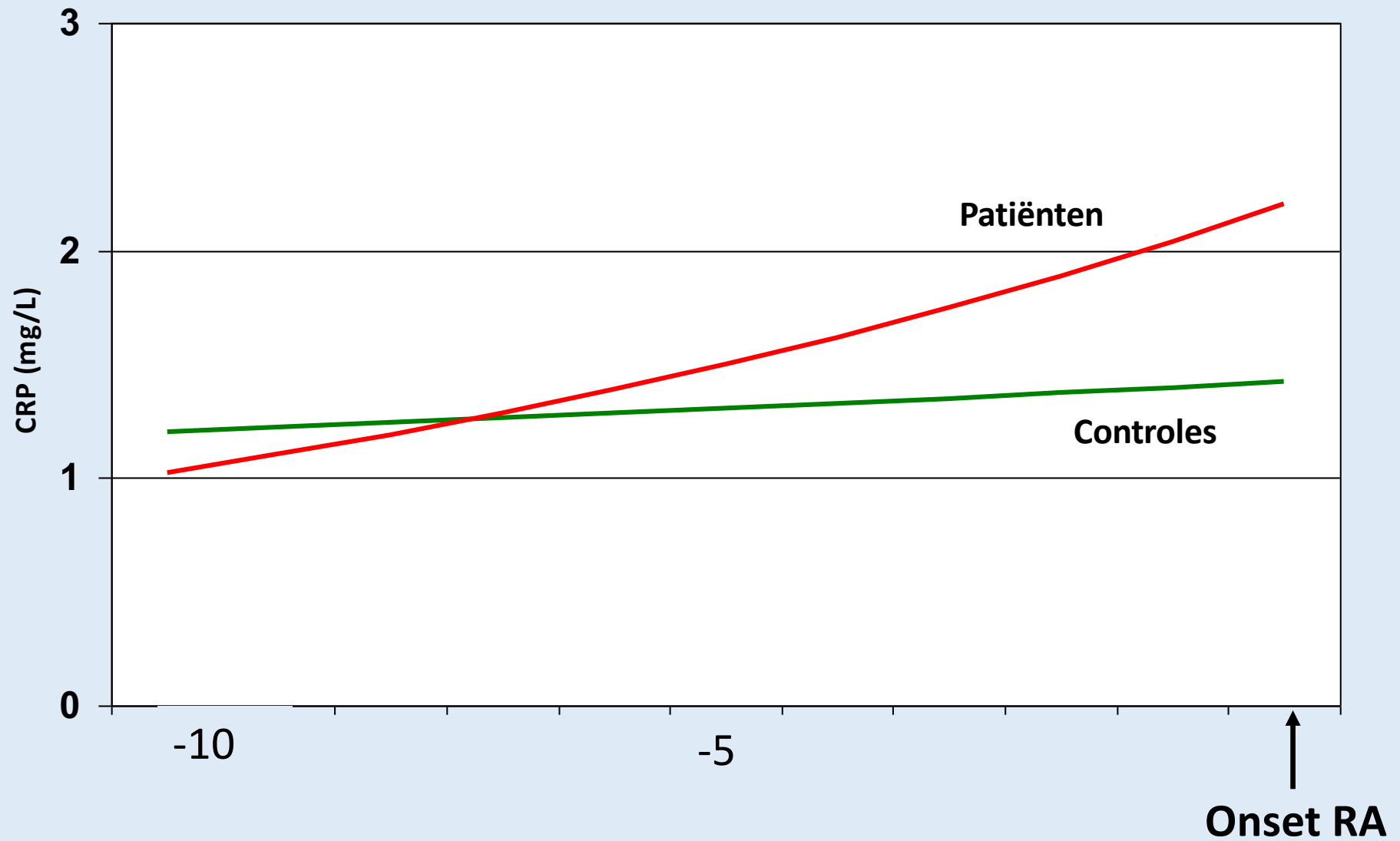
Adventist Health Study-2 (22.434 men & 38.469 women)

Tonstad et al, 2009.

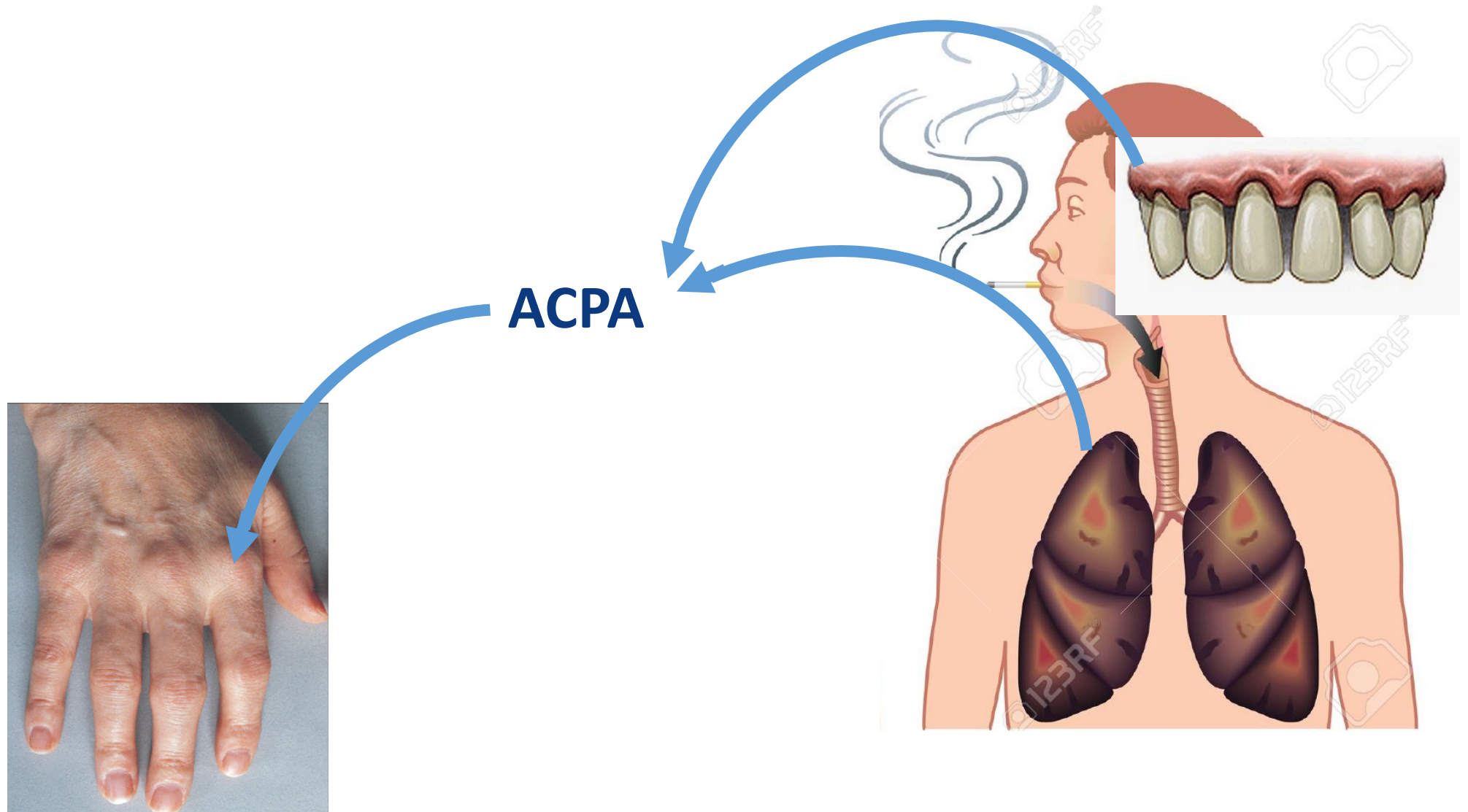
% positieve bloeddonoeren



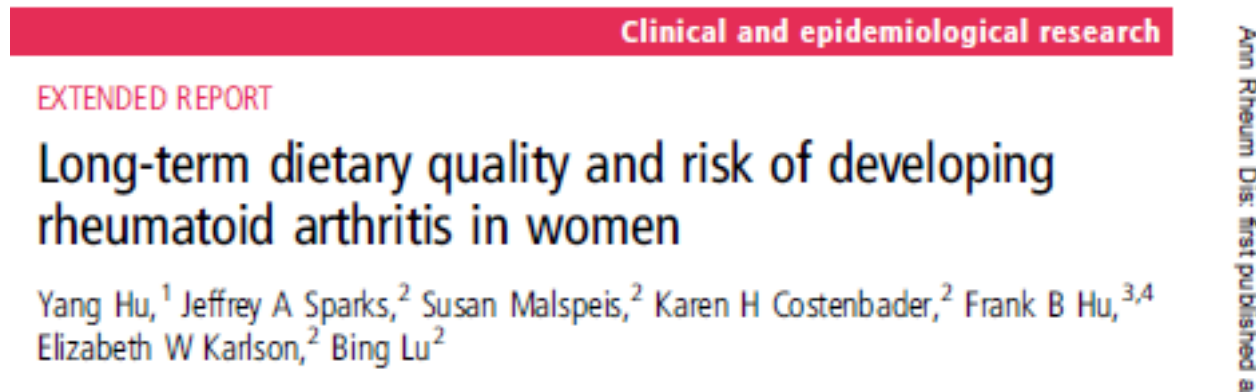
hsCRP



Van slijmvlies naar gewricht



Voedingspatroon als risicofactor voor RA

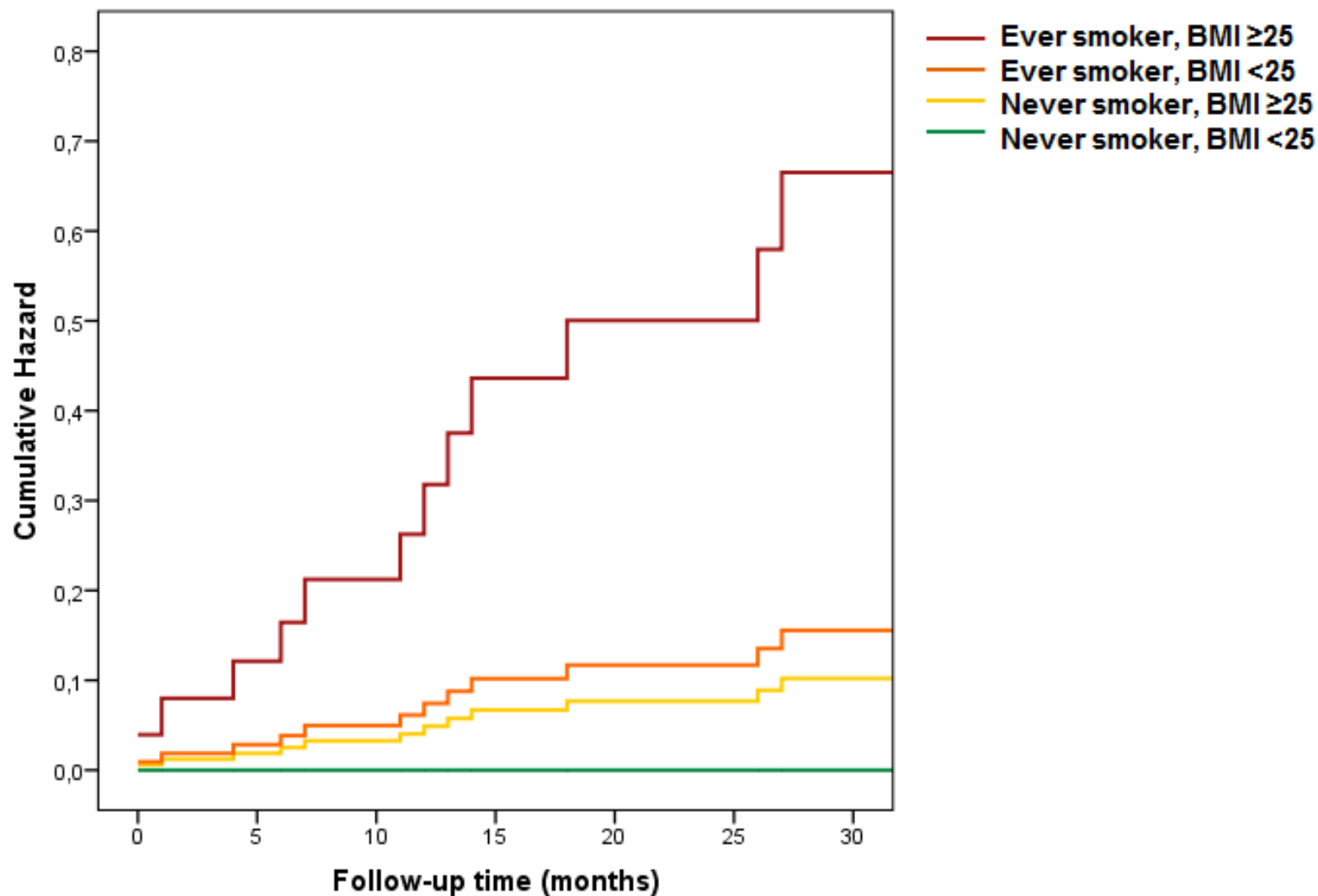


AHEI-2010 (alternative healthy eating index, is geassocieerd met risico op HVZ, Diabetes, Kanker)

Vrouwen <55 years & seropositieve RA:

HR (Q4-Q1)= 0.60 (0.42-0.86)

Roken en overgewicht voorspellen RA in seropositieve artralgie patiënten





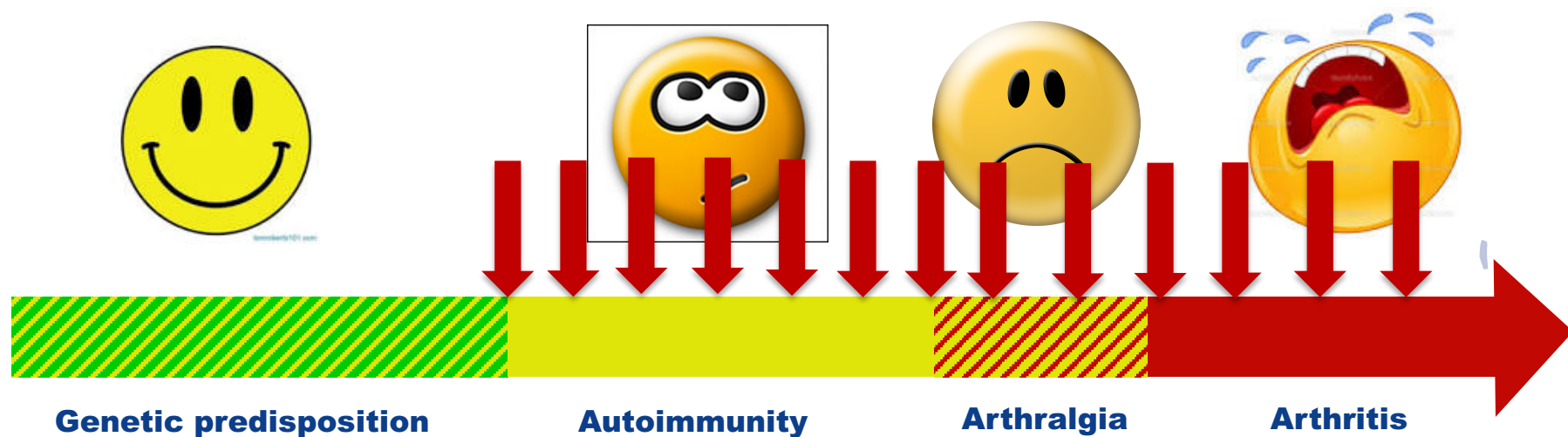
Omgevingsfactoren

- Roken, stof
- Obesitas
- Hyperlipidemie
- Rood vlees
- Suiker

Infecties

- Tandvlees
- Long
- Darm





Secretory form of rheumatoid arthritis—
associated autoantibodies in serum are mainly
of the IgM isotype, suggesting a continuous
reactivation of autoantibody responses at
mucosal surfaces

van Delft ARD 2019

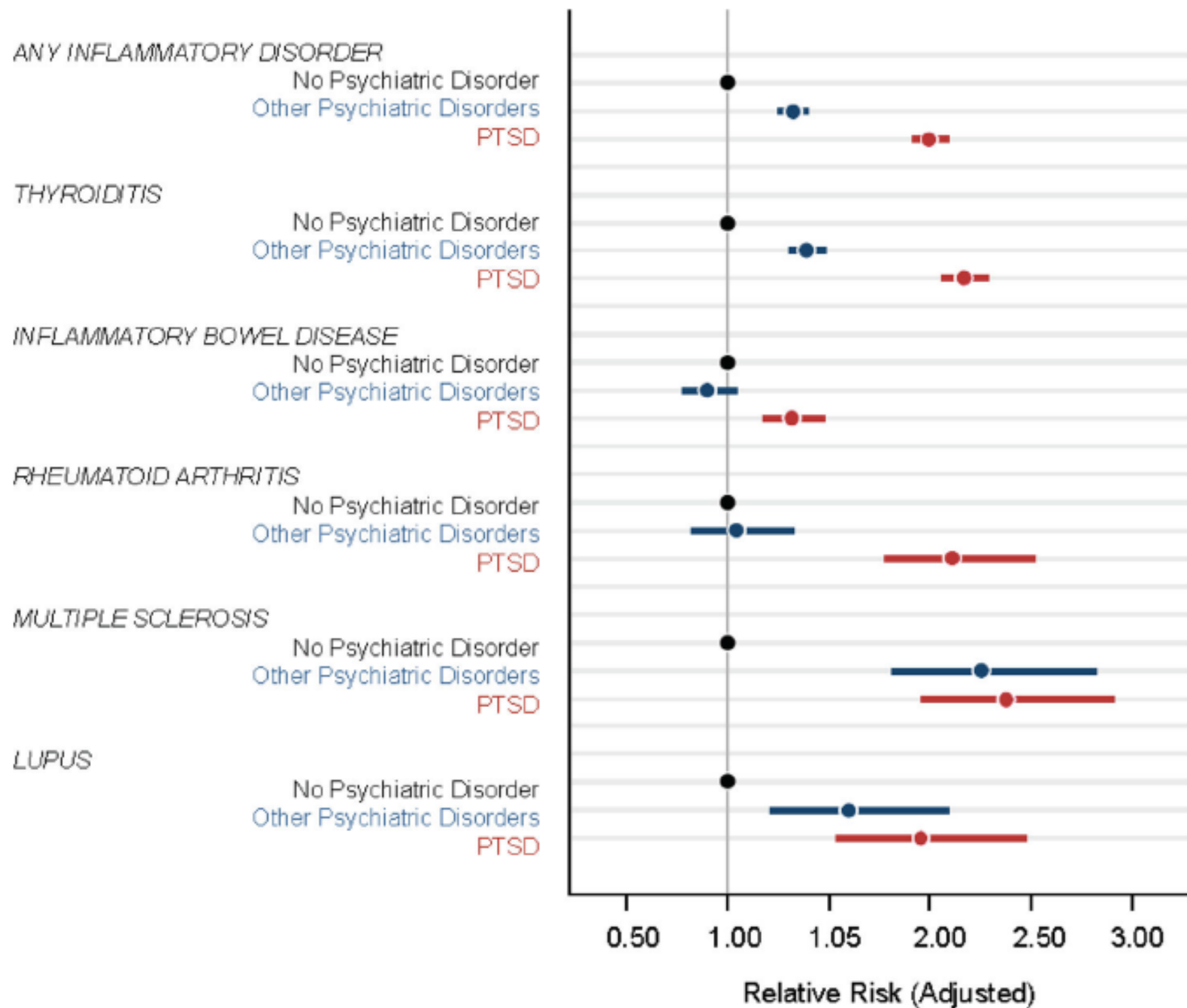
Het gaat niet alleen om eten bij RA!

Leefstijl factor	Effect op risico	Effect op ziekte beloop
Roken		
Alcohol		
Beweging		
Stress		
Voeding		



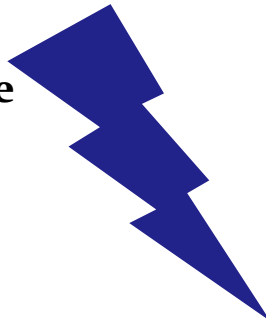
↓ 35%

Di Giuseppe Arthritis Res Ther 2015
De Jong Arthritis Rheum 2003
Hurkmans Cochrane Database Syst Rev 2009
Messier JAMA 2013



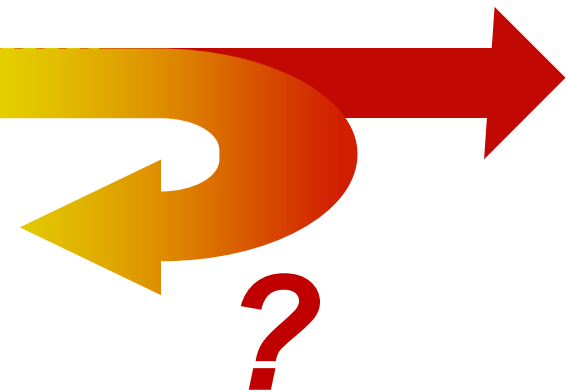
Environmental factors

- ✗ Smoking, dust
- ✗ Sugar
- ✗ Dyslipidemia
- ✗ Saturated fats
- ✗ Lack of exercise
- ✗ Stress



Hereditary risk

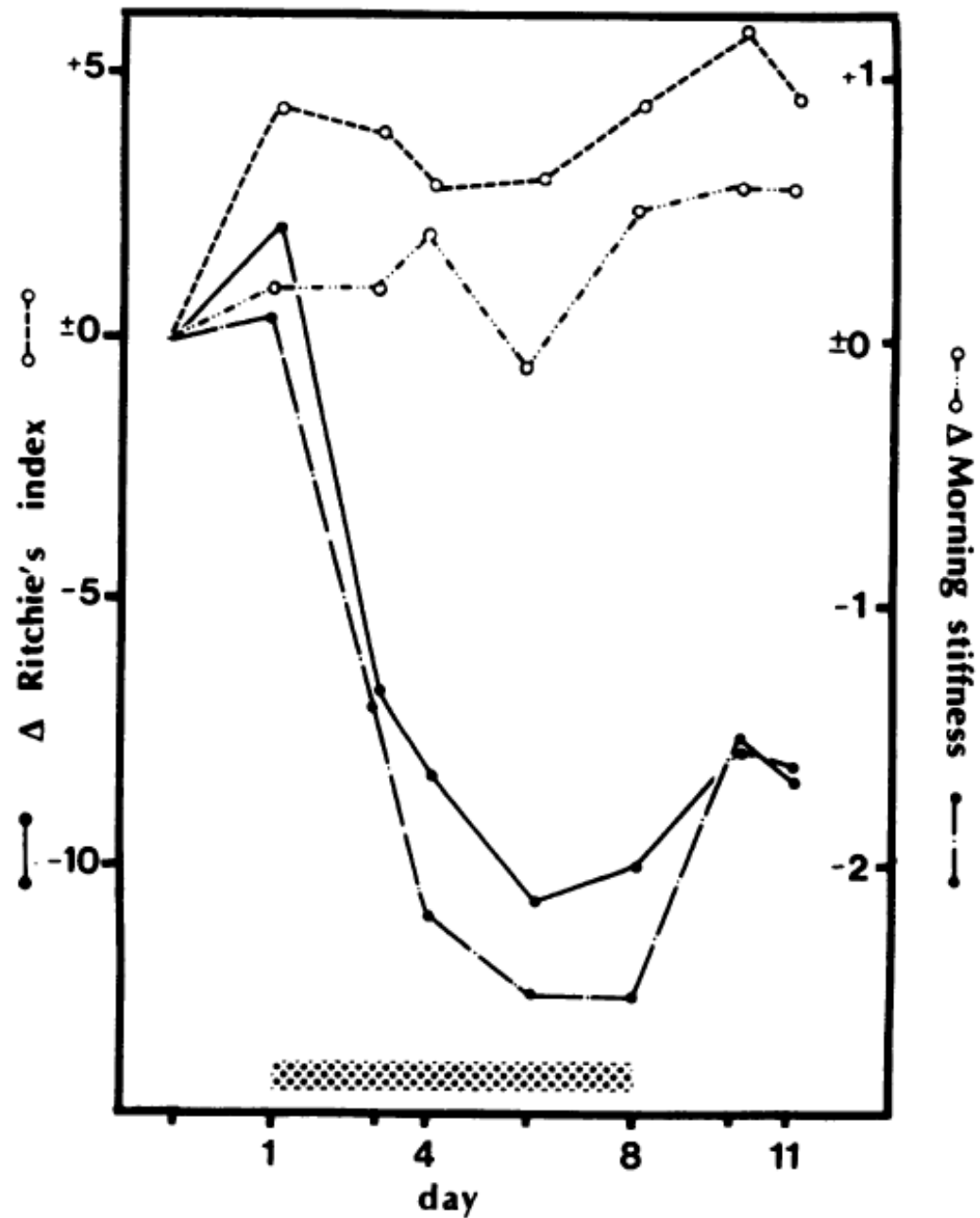
Auto-immunity



Terug naar een gezond evenwicht



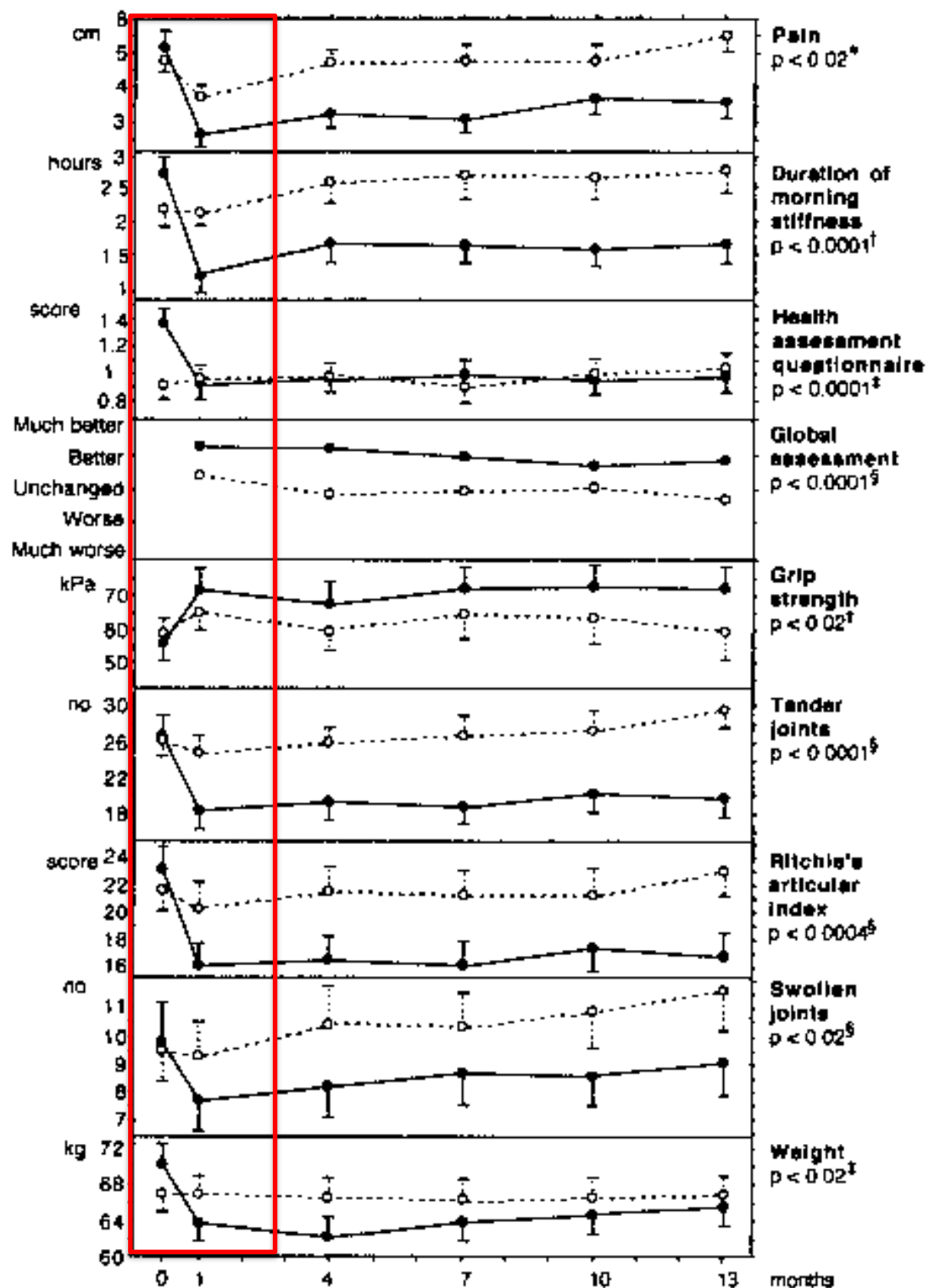
Klassieke therapie: vasten



Veganistisch → vegetarisch dieet

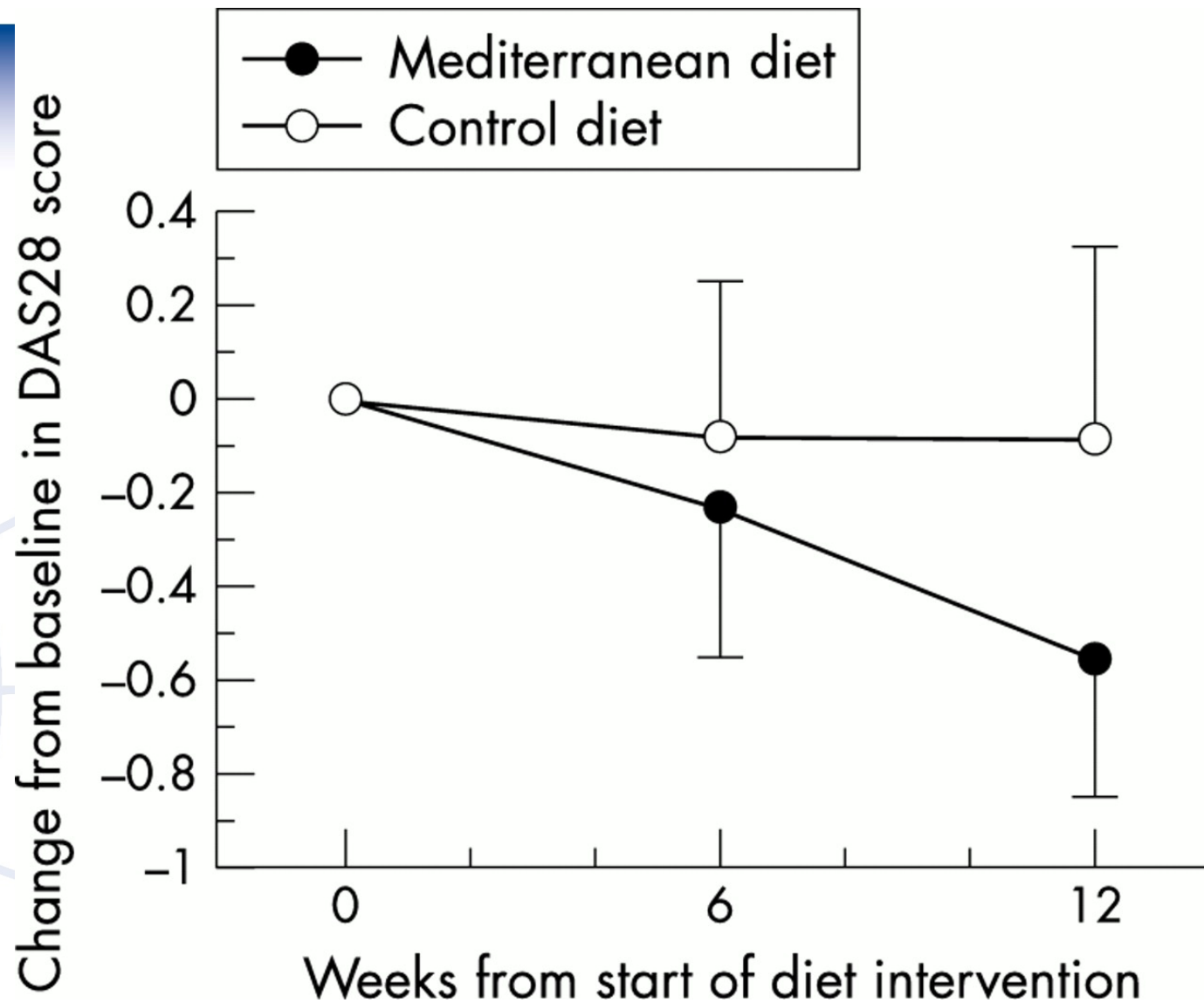
- RCT
- N=53 (7 years RA)
- 4 weeks clinic
- 1 week fasting
- 0-3 m vegan
- 3-12 m vegetarian

➤ Improvement all clinical scores



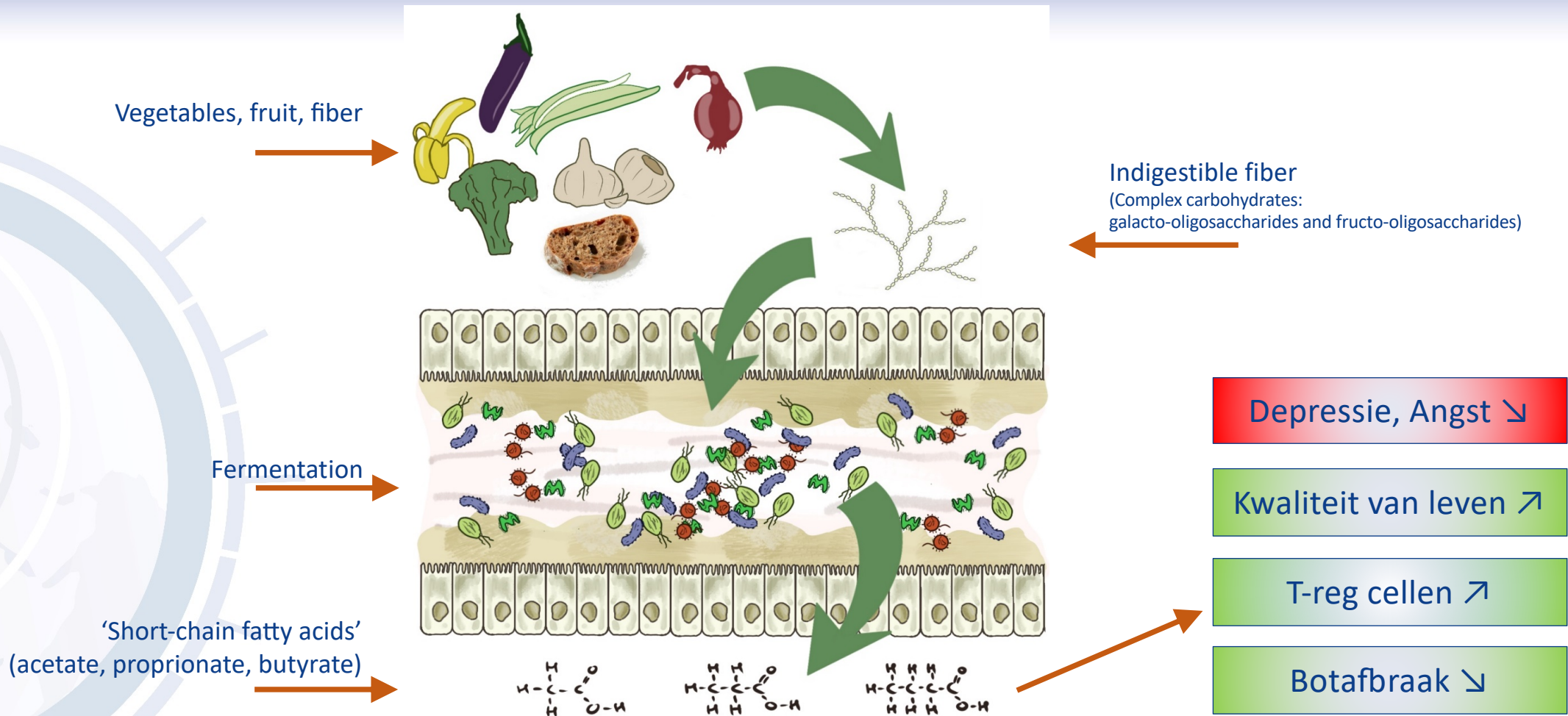


Mediterraan dieet verbetert RA





Korte keten vetzuren





Lifestyle program by Dean Ornish

Intensive lifestyle changes for reversal of coronary heart disease (JAMA 1998)

- RCT 48 patients with coronary heart disease, 5 years!

1 DIET



High in whole foods, plant-based protein, fruits, vegetables; Low in fat (10% of calories) and refined carbohydrates

2 EXERCISE



Moderate aerobic exercise – walking 30 minutes per day for six days a week

3 STRESS MANAGEMENT



Gentle, yoga-based stretching, breathing or meditation for 60 minutes daily

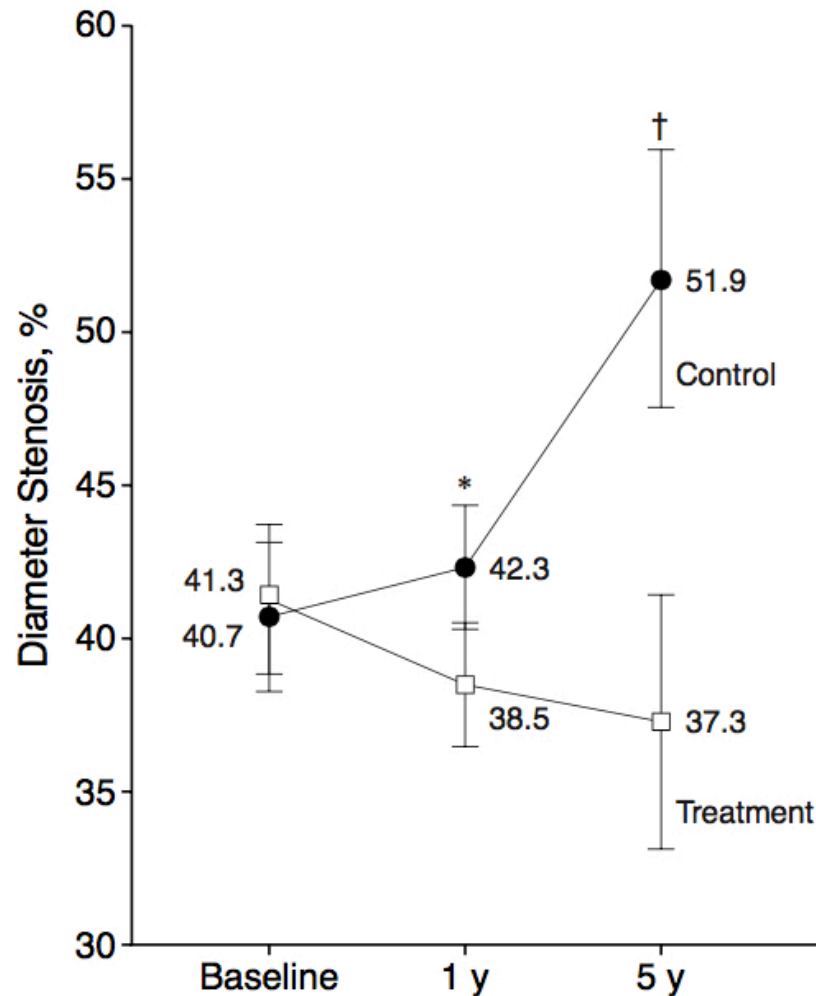
4 INCREASED SOCIAL SUPPORT



Weekly support group sessions that included moderate exercise, stress management training and counseling



Results Ornish Lifestyle Program



- Weight loss
- Excellent adherence
 - Baseline 0.6
 - After 1 year 1.3
 - After 5 years 1.1
- RR *cardiac event* 2.5 (CI 1,5-4,2) in control group
- Stenosis (angiography)
 - -8% in intervention group
 - +28% in control group

Ornish et al, JAMA, 1998.



Lopende studie: '*Plants for Joints*'

- Multidisciplinair leefstijlprogramma
 - Onbewerkte plantaardige voeding
 - Bewegen
 - Stress management
- Randomized Controlled Trial 4 maanden (medicatie constant)
- 1 jaar extensie (medicatie daalt mits in remissie)
- *Plants for Joints*: **inclusie**
 - Patiënten met (verhoogd risico op) reumatoïde artritis
 - Patiënten met artrose en metabool syndroom

Intake met dietiste...



A male physiotherapist with a beard and short brown hair, wearing a white t-shirt, is focused on assisting a patient. He is using a red marker to draw on the patient's leg. The patient's leg is extended upwards, and they are holding a black handle of a piece of gym equipment. The background is a blurred gym setting with various exercise machines and bright lighting.

...en met de fysiotherapeut



Kookles met partner

10 groepsbijeenkomsten voor discussie & oefenen





- **Onbewerkte
plantaardige
voeding**
- **Maand menu
100% ADH**
- **Vitamine B12, D**

Physical activity guidelines



Moderate or vigorous activity
at least **150 minutes** every week,
spread over several different days



Activities that strengthen muscles
and bones (for older people, including
balance exercises):
at least **twice** a week



And: avoid spending long periods
sitting down

Relaxation exercise & sleep coaching



www.reade.nl/plantsforjoints

Wat doet suiker/witmeel in je lichaam?

