



# Type 2 diabetes mellitus: epidemiologie, oorzaken en gevolgen

Henk Bilo

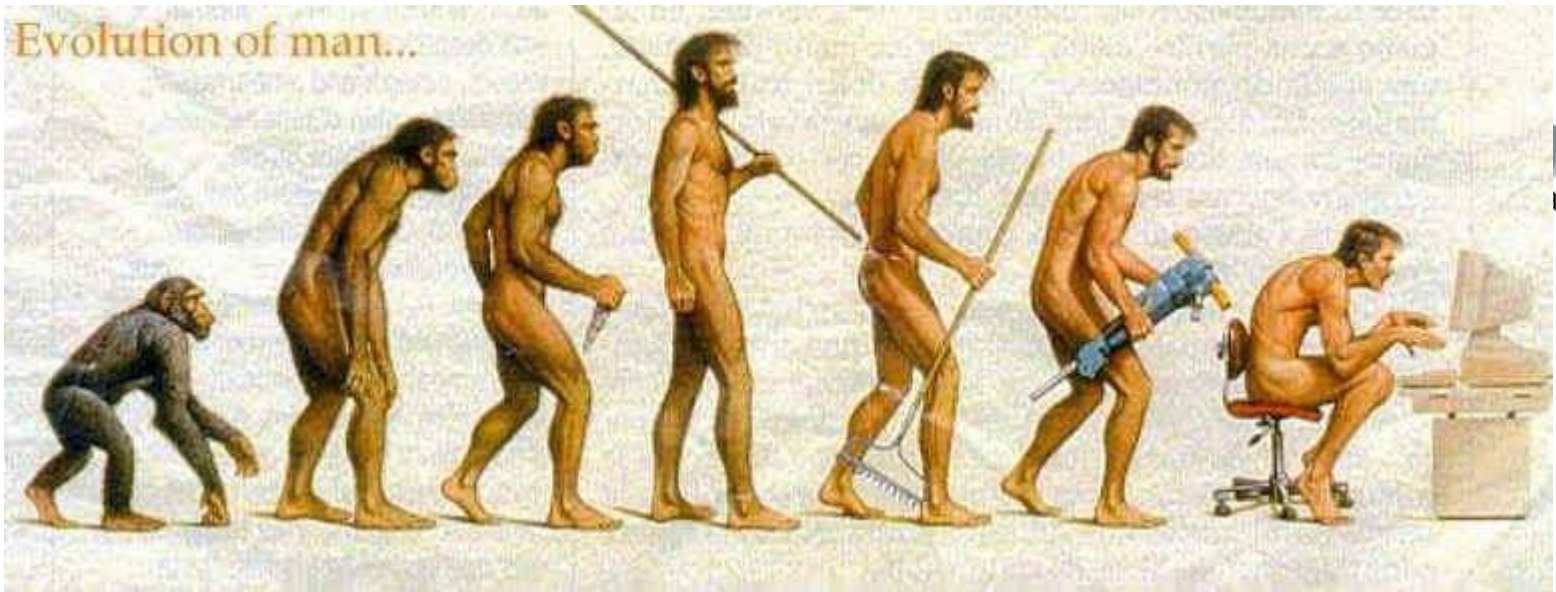
Zoete broodjes bakken

Utrecht, 9 april 2013

# Algemene informatie 2010-2030



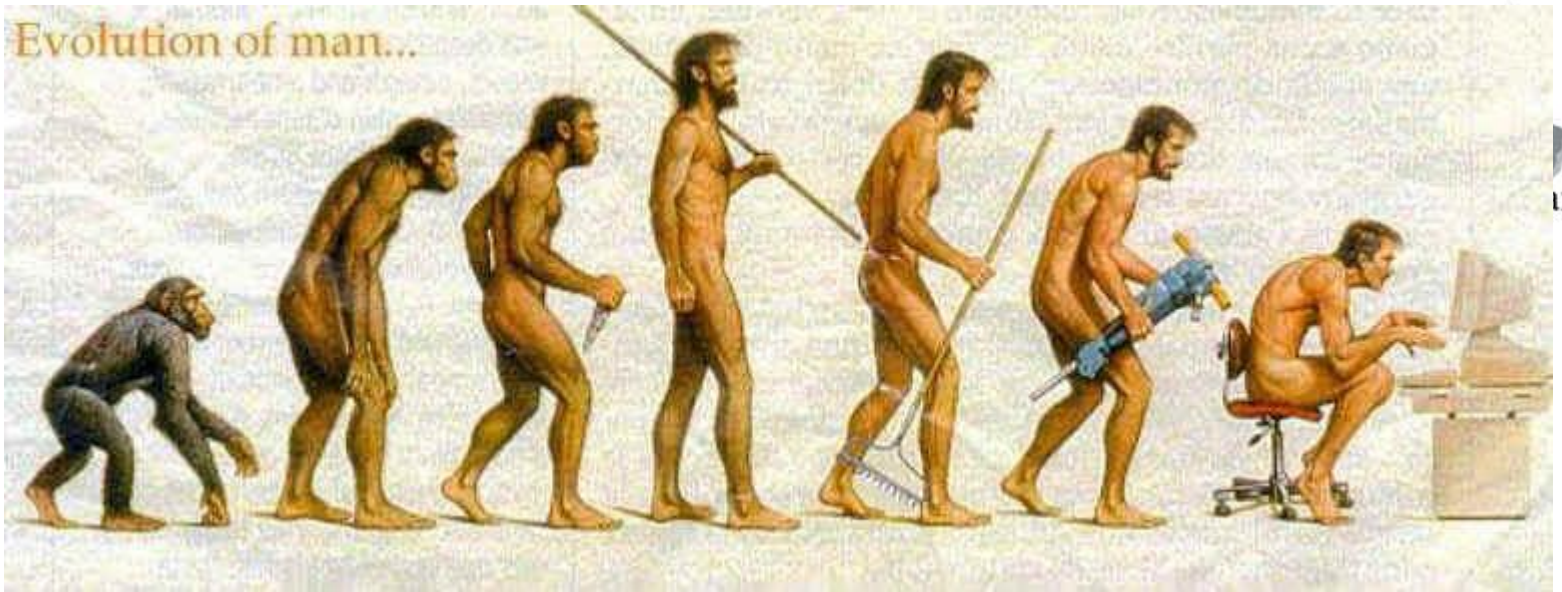
	<u>2010</u>	<u>2030</u>
Wereldbevolking (miljard)	7.0	8.4
Volwassenen (20-79 jaar)	4.3	5.6
Diabetes prevalentie (%)	6.6	7.8
Aantallen (miljoen)	285	438
IGT prevalentie (%)	7.9	8.4
aantallen (miljoen)	344	472



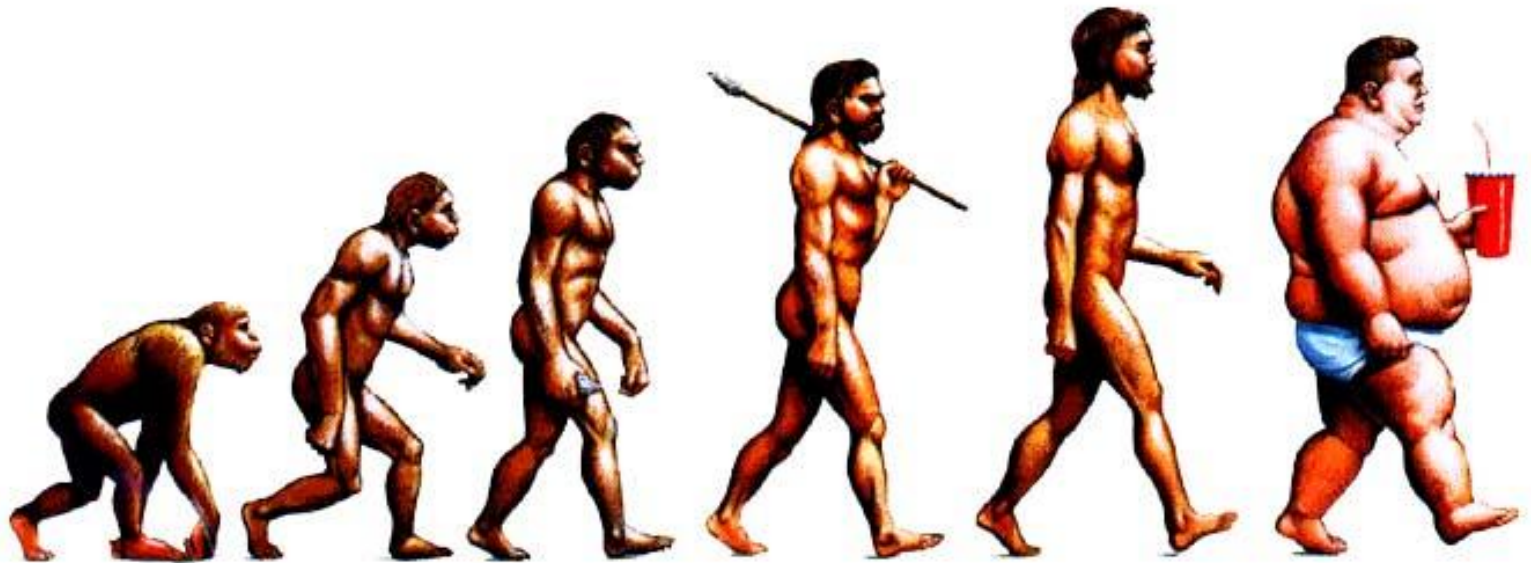
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Evolution of man...

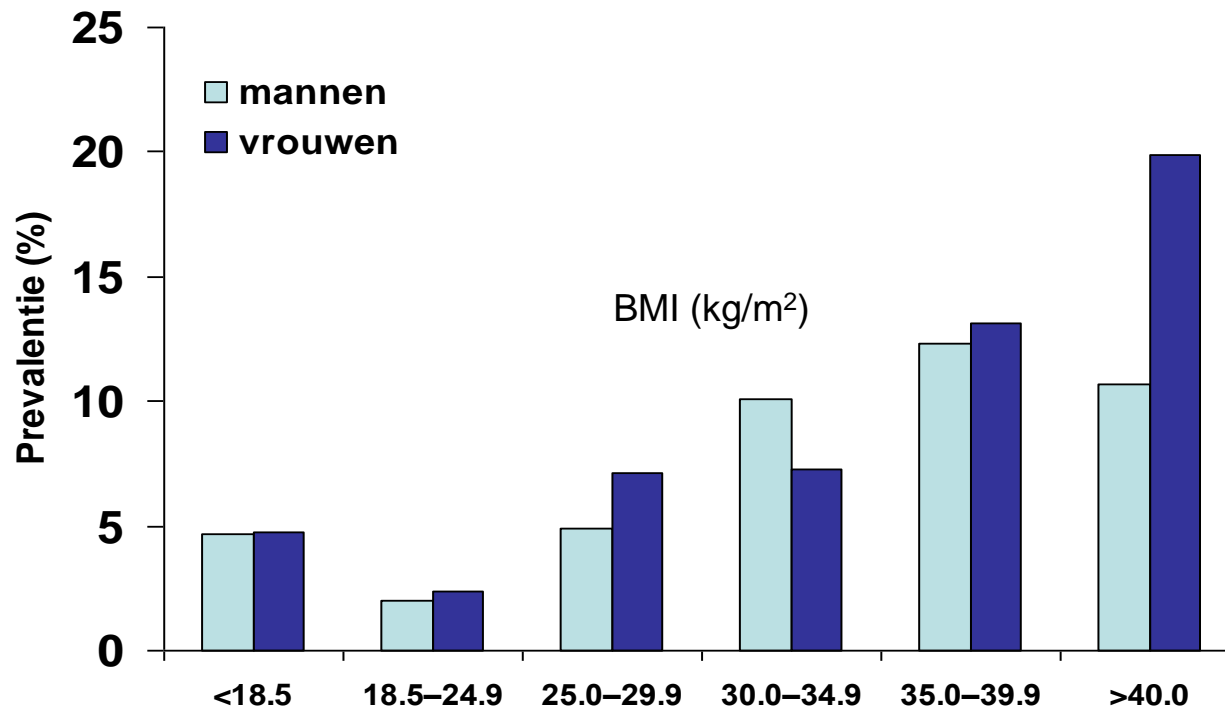


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# Hoe hoger de BMI, des te groter de kans op T2DM



\*BMI=body mass index.

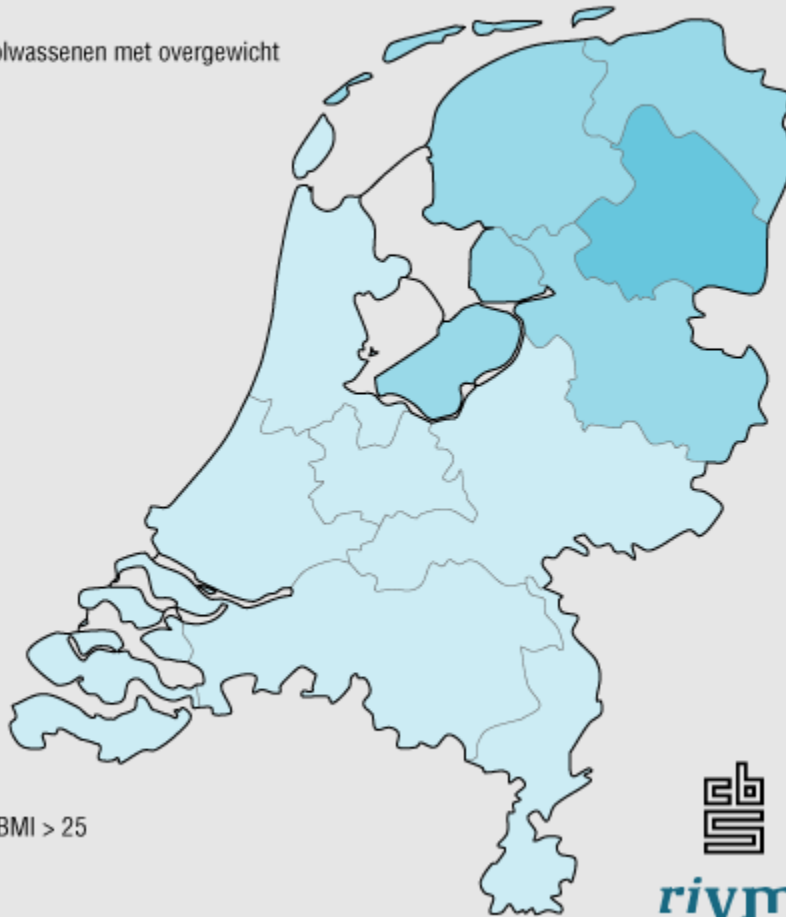
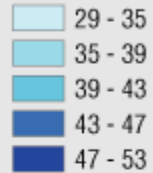
Data van de Third National Health and Nutrition Examination Survey (NHANES III), 1988–1994.  
Must A et al. *JAMA*. 1999;282:1523–1529.

# Ontwikkeling overgewicht



## Overgewicht 1981-1983 per provincie

Percentage volwassenen met overgewicht



overgewicht: BMI > 25

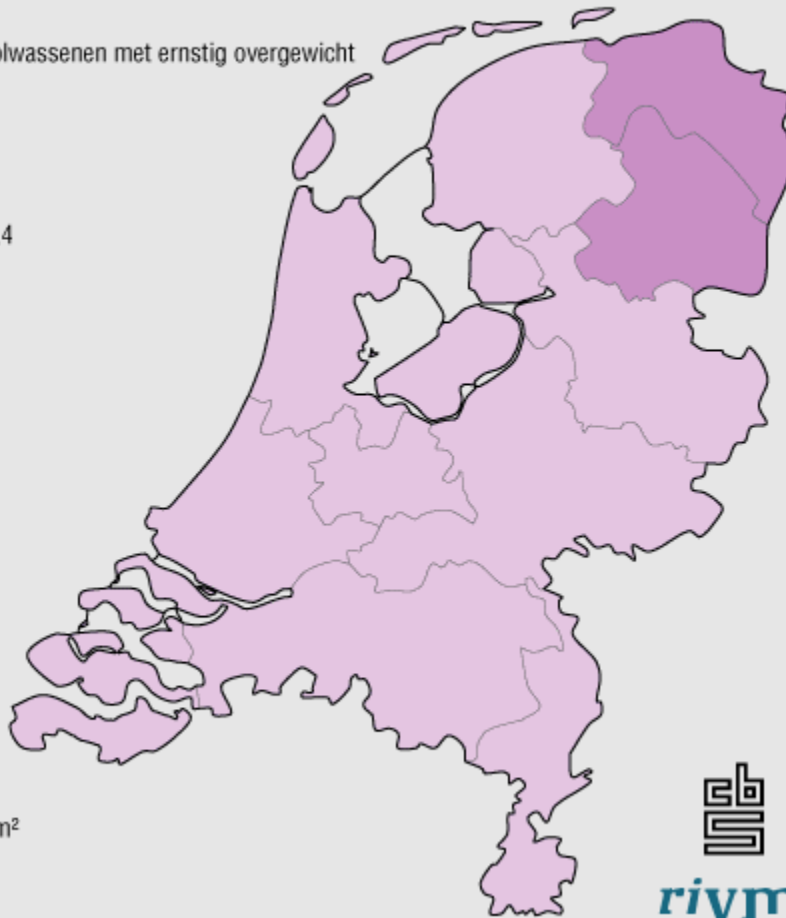
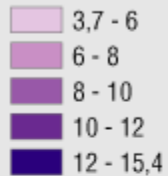
Bron: CBS

# Ontwikkeling ernstig overgewicht



## Ernstig overgewicht 1981-1983 per provincie

Percentage volwassenen met ernstig overgewicht

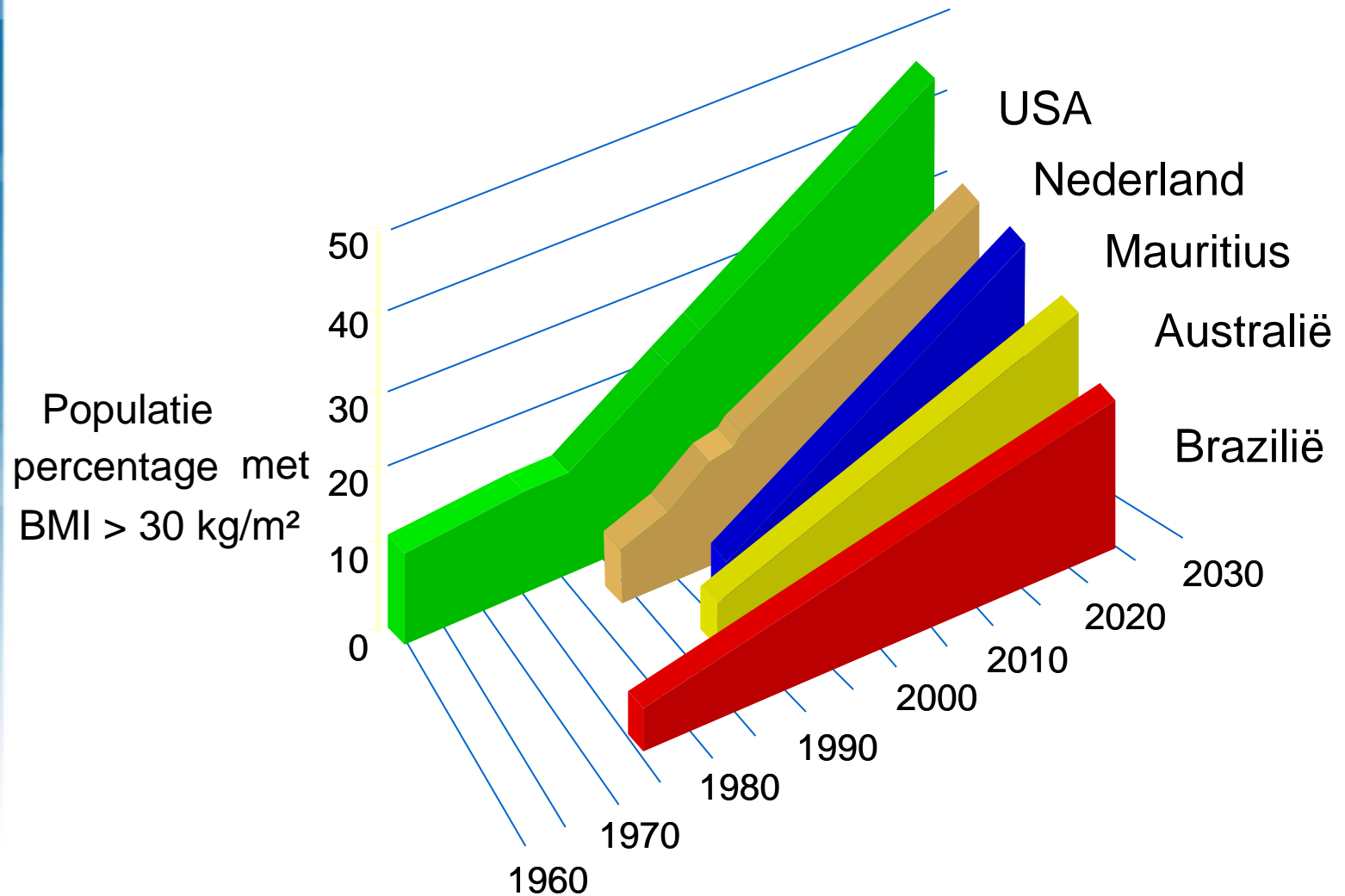


BMI  $\geq$  30 kg/m<sup>2</sup>

Bron: CBS



# Obesitas: nu en over 30 jaar





# T2DM



# T2DM



# T2DM: Heterogene aandoening



- Voornamelijk insuline resistentie met relatieve insuline deficiëntie
- Voornamelijk een uitscheidingsdefect met daarnaast insuline resistentie
- Voornamelijk verminderde bètacel functie zonder volledig verlies van productie
- Zwangerschapsdiabetes

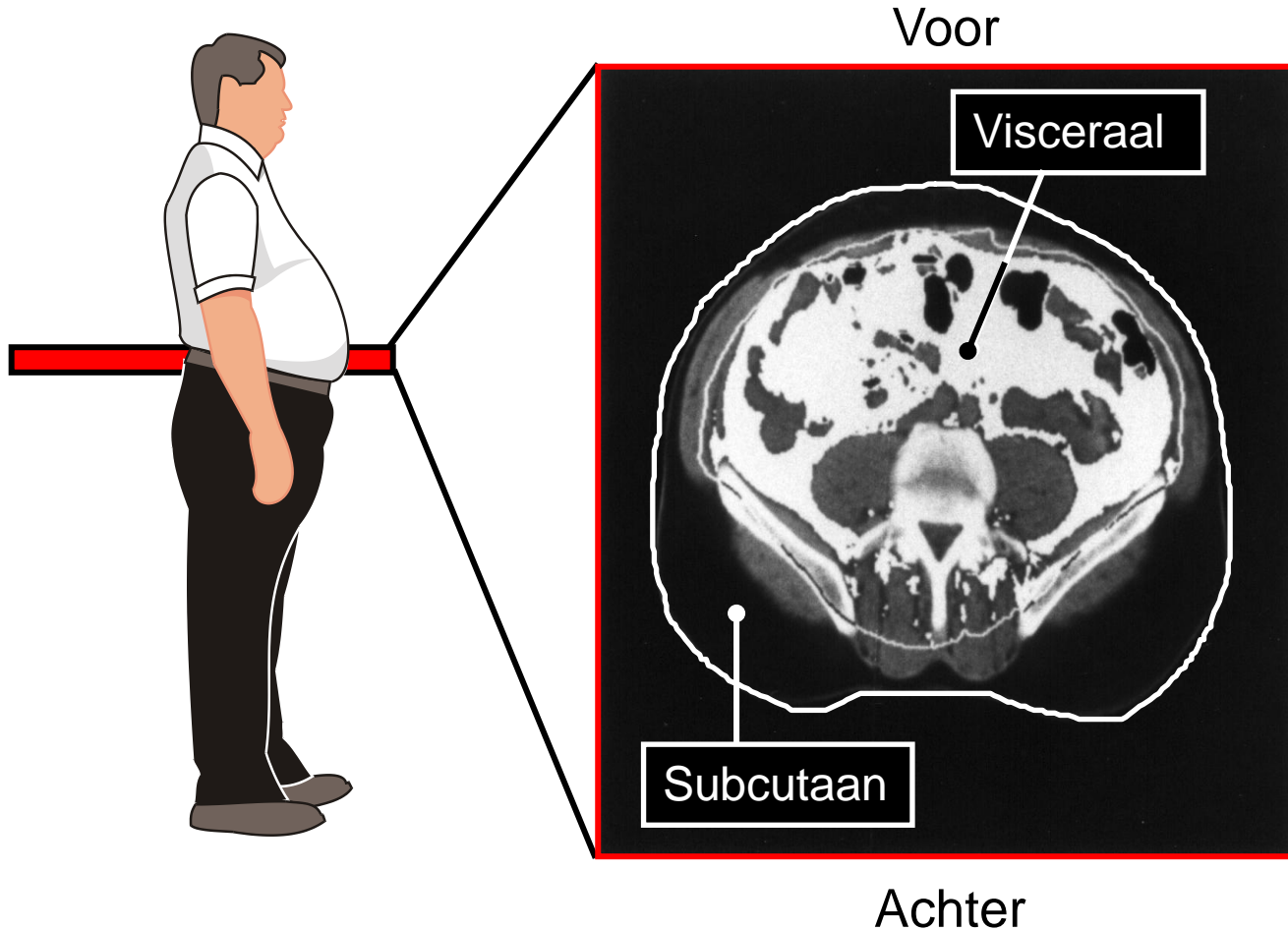
# T2DM: Heterogene aandoening



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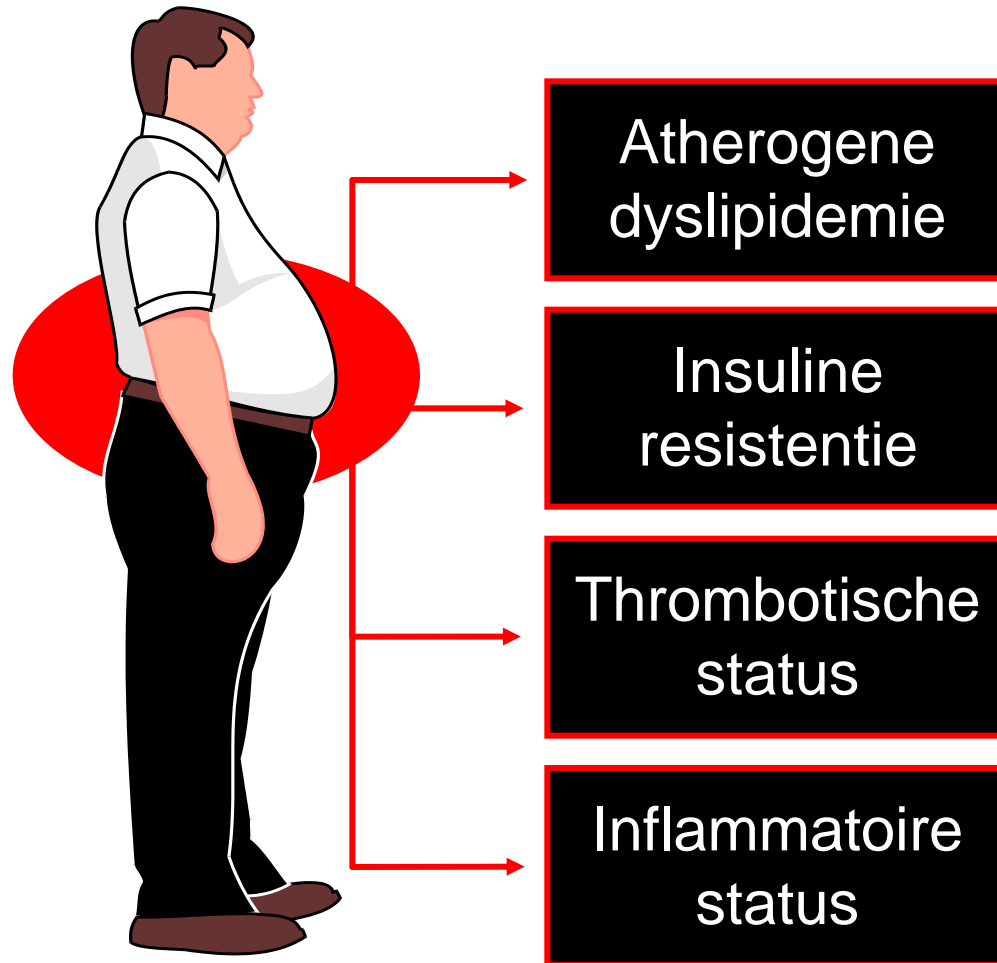


# Intra-abdominaal / visceraal vet

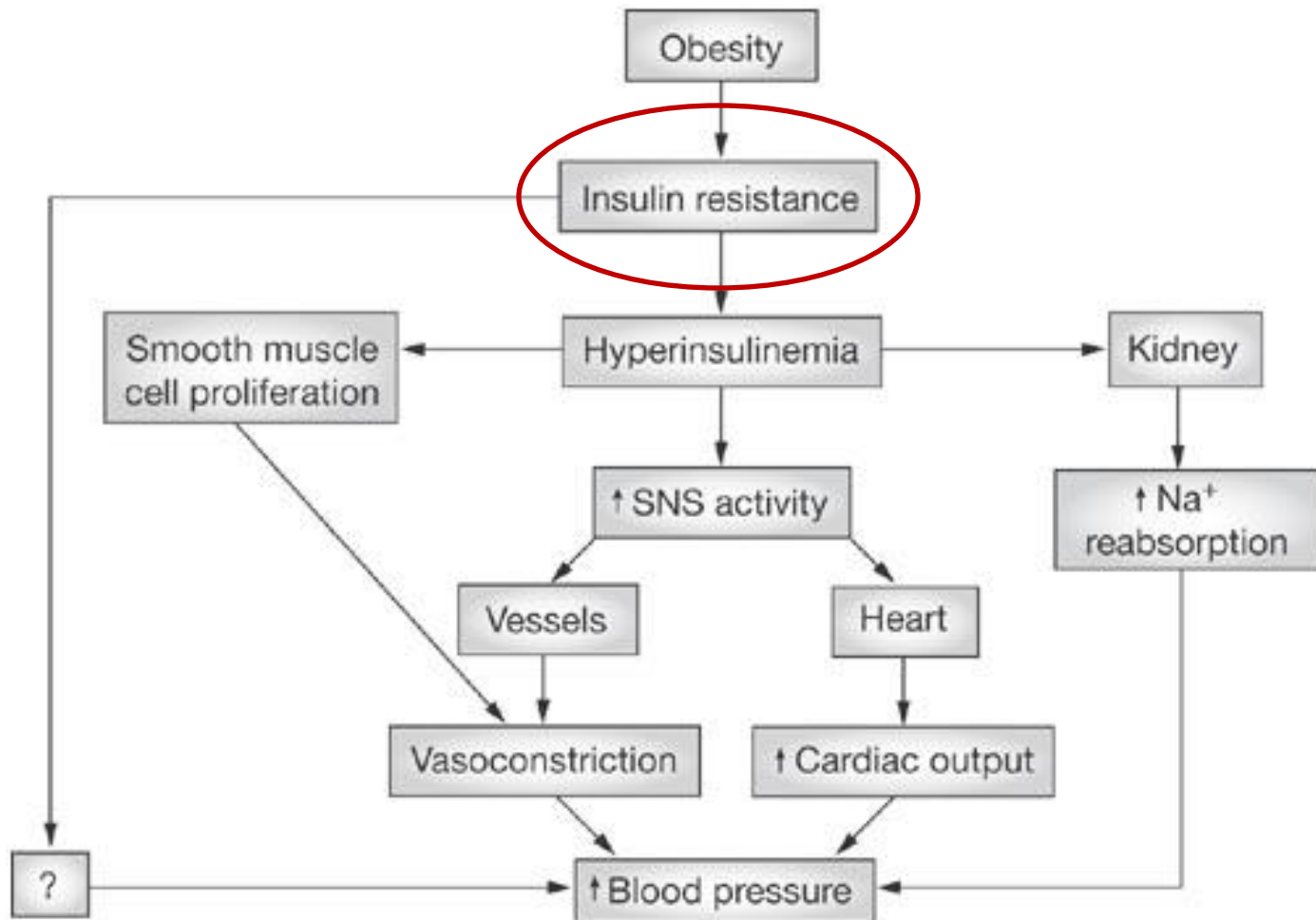




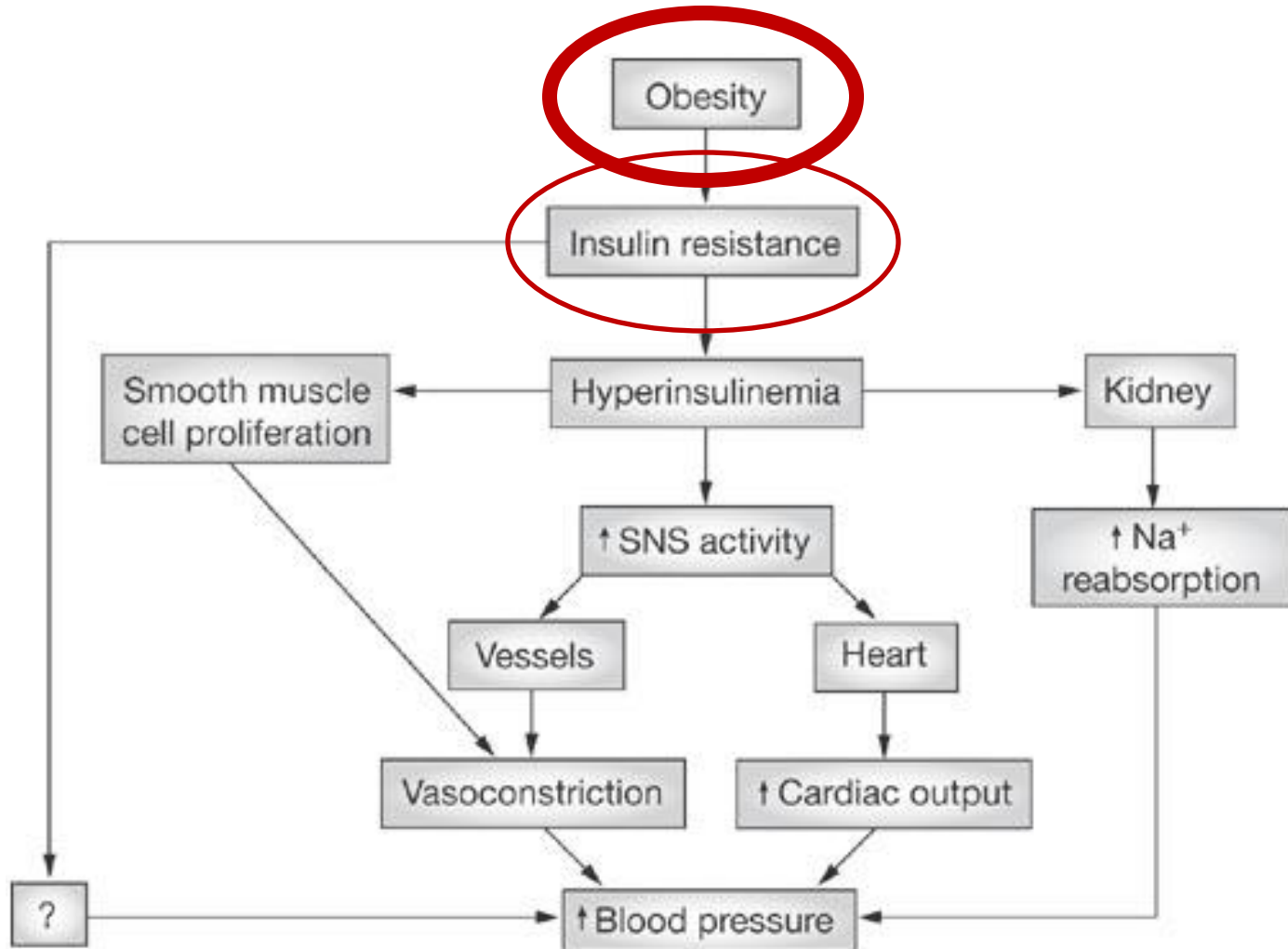
# Metabole effecten van visceraal vet



# T2DM en complicaties



# T2DM en complicaties

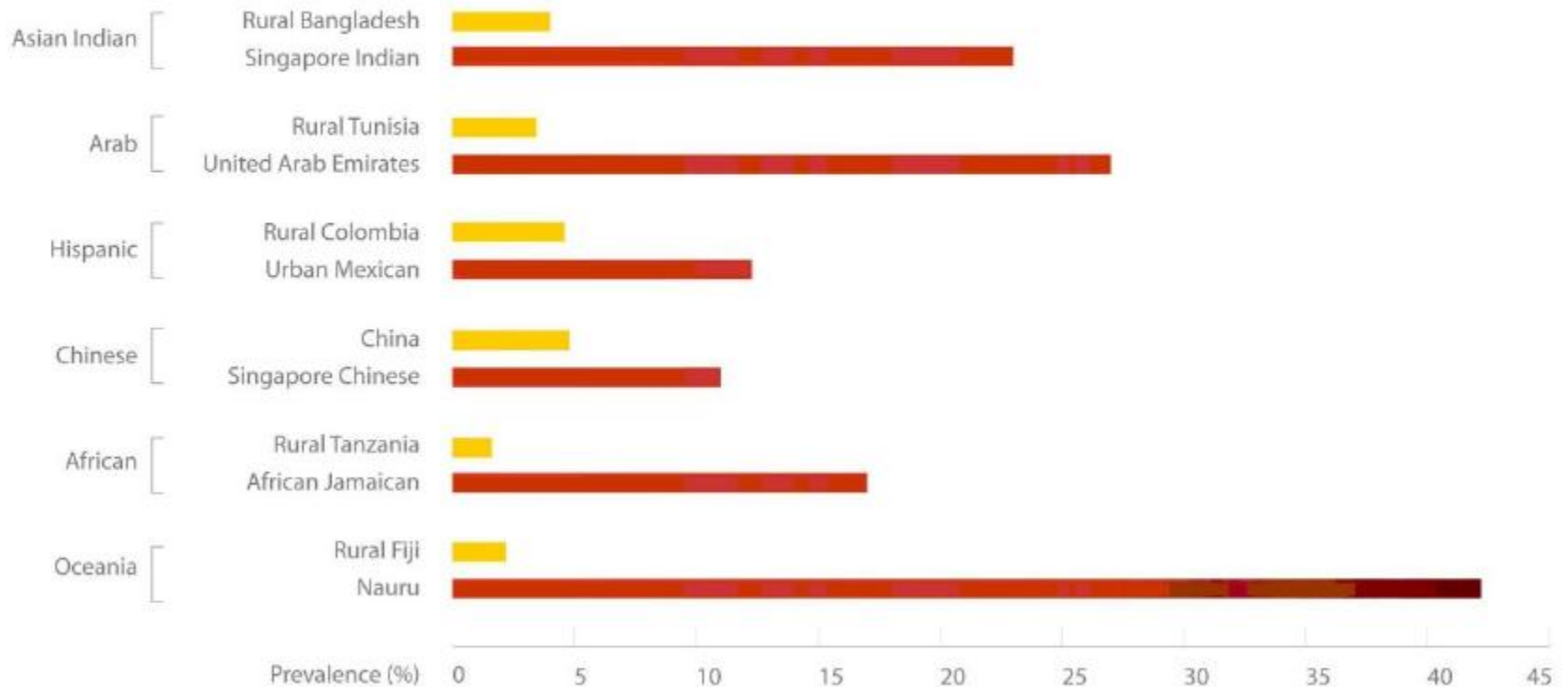


# Omgevingsverschillen



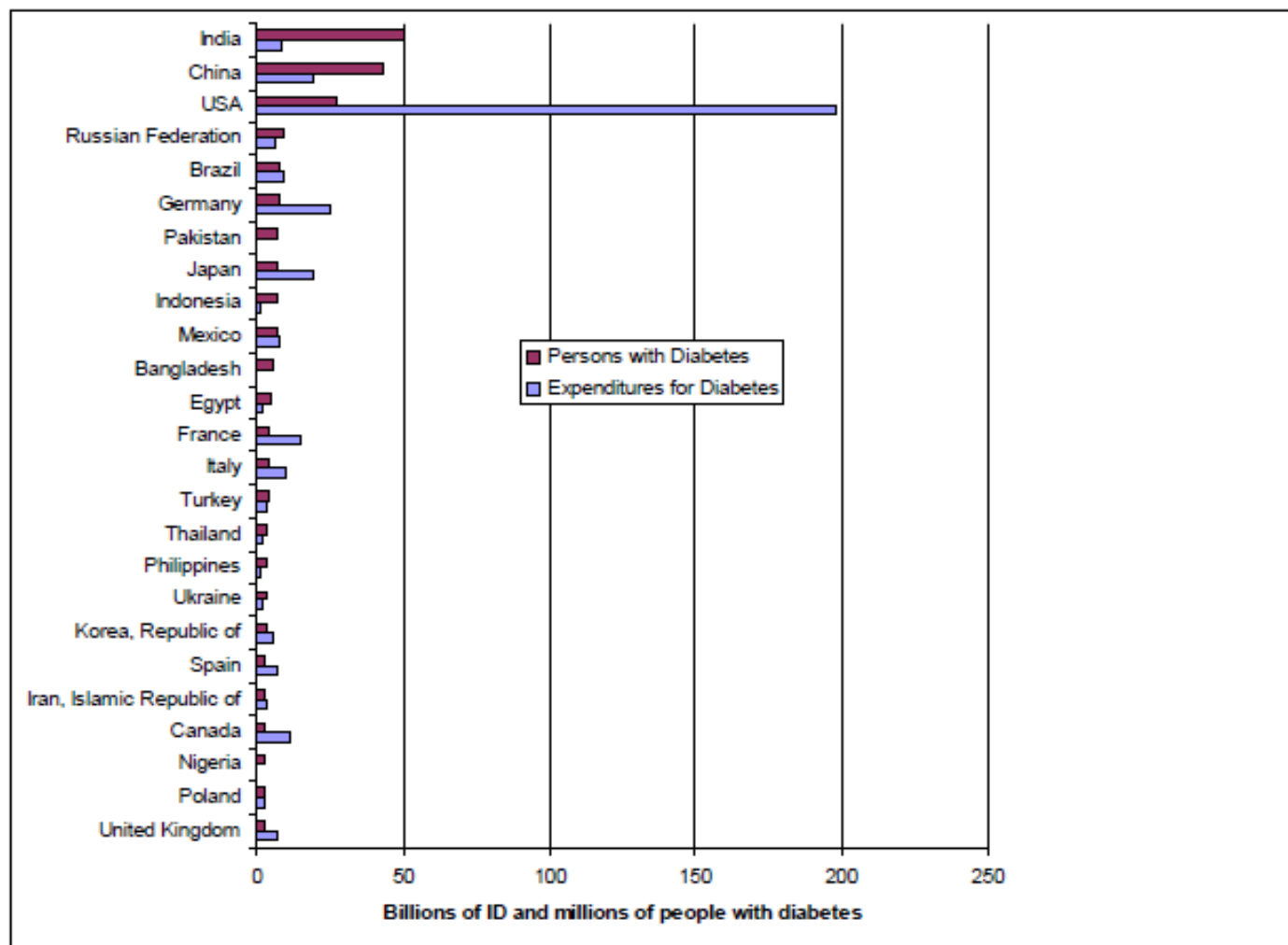
FIGURE 1

Differences in the prevalence of type 2 diabetes among selected ethnic groups, 2007



Prevalence rates are age standardized to Segi's World Population for ages 30-64 year

**Figure 2 Annual health expenditure for diabetes (ID) vs persons with diabetes in the 25 countries with the largest numbers of persons with diabetes in 2010**





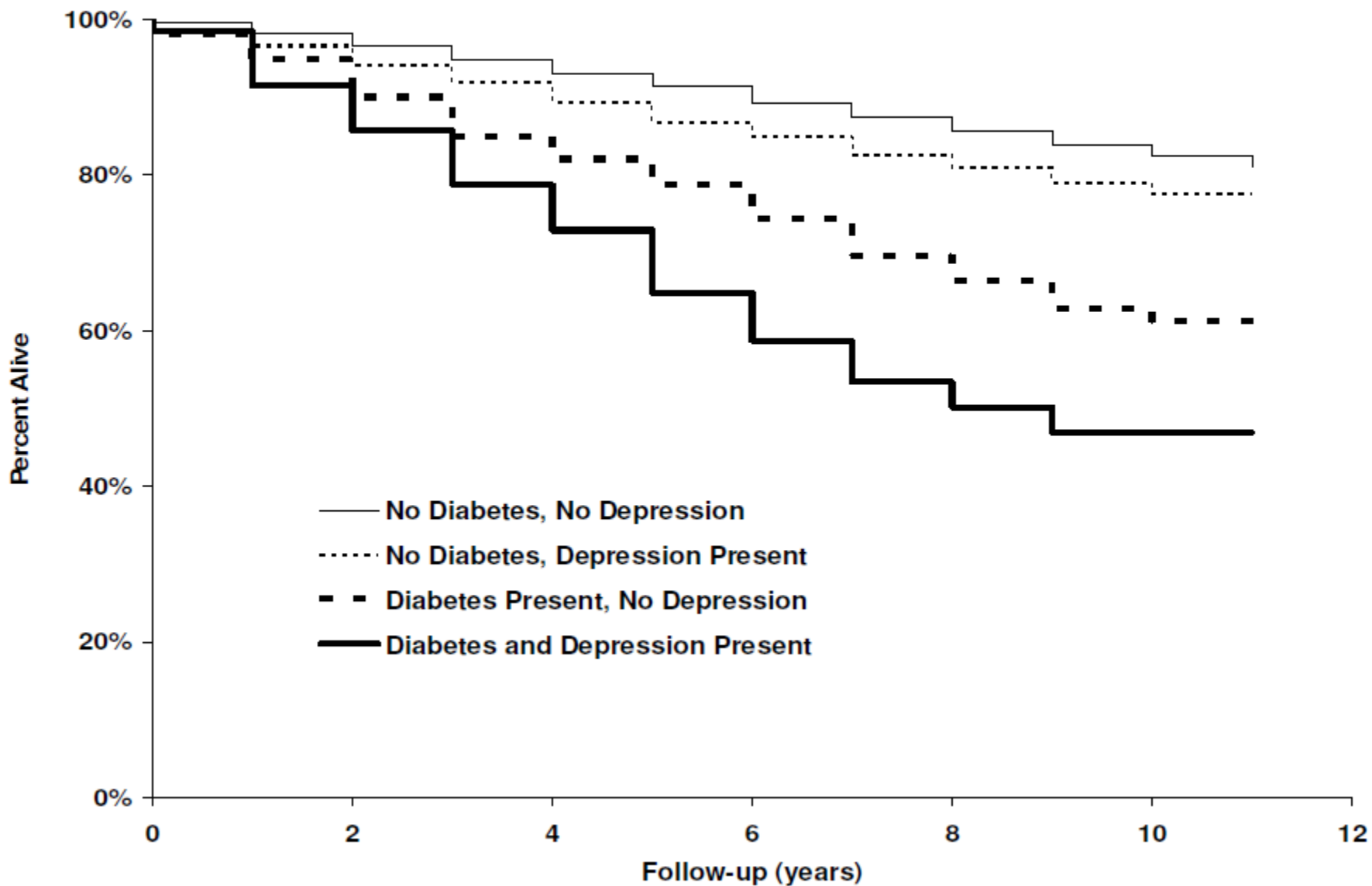
# Disparities in healthcare spending



There is a large disparity in healthcare spending on diabetes between regions and countries. More than 80% of the estimated global expenditures on diabetes are made in the world's economically richest countries, not in the low- and middle-income countries where over 70% of people with diabetes live.

One country, the United States of America, is projected to spend USD198 billion or 52.7% of global expenditure in 2010, while India, the country with the largest population of people living with diabetes, is expected to spend an estimated USD2.8 billion, or less than 1% of the global total. An estimated average of USD7,383 per person with diabetes is expected to be spent on diabetes-related care in the USA but less than USD10 per person will be spent in Burundi, Côte d'Ivoire and Myanmar in 2010.

## Figure 2 Effect of Depression on All-Cause Mortality in Patients with Diabetes





*“Diabetes behoort stellig onder de  
meest gecompliceerde  
ziektebeelden.”*

A.F. Soer:

Moderne aforismen uit de interne  
kliniek.

Rotterdam, 1917





Dank u voor uw tijd!



Langenhans







Langenhans





Langenhans





Langenans

