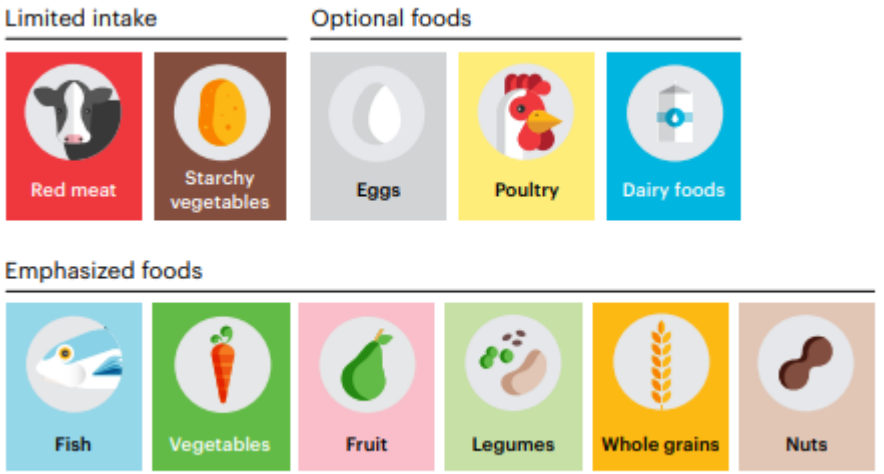

DTU

Freja A. Fabricius, Sofie T. Thomsen, Maarten Nauta

Substituting Red Meat by Pulses: the Impact on Disease Burden

Background



Summary of the Commission Food in The Anthropocene: the EAT-Lancet Commission on Healthy Diets From Sustainable Food Systems

Risk-Benefit Assessment

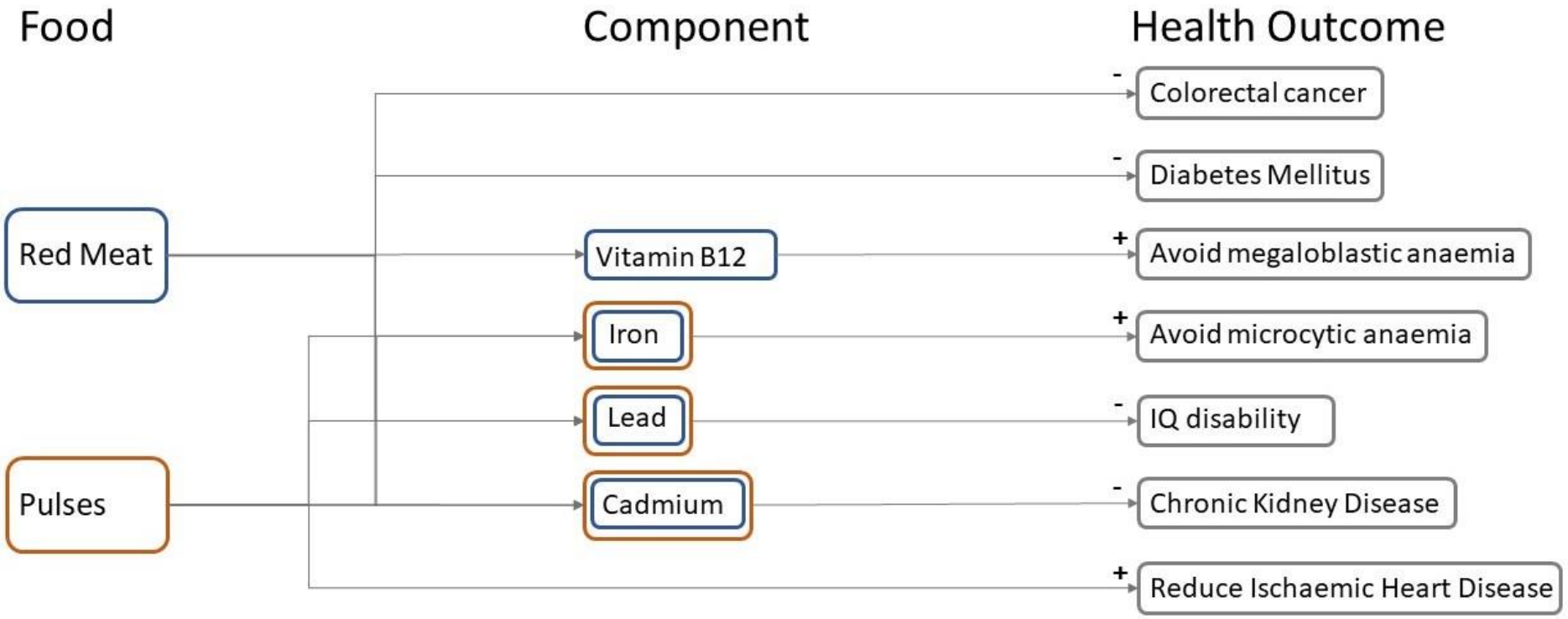
Aim

To investigate the impact on disease burden of substituting unprocessed red meat by pulses in the Danish diet by comparing the change in disease burden attributable to nutritional risk factors and chemical exposures, quantified in DALY.

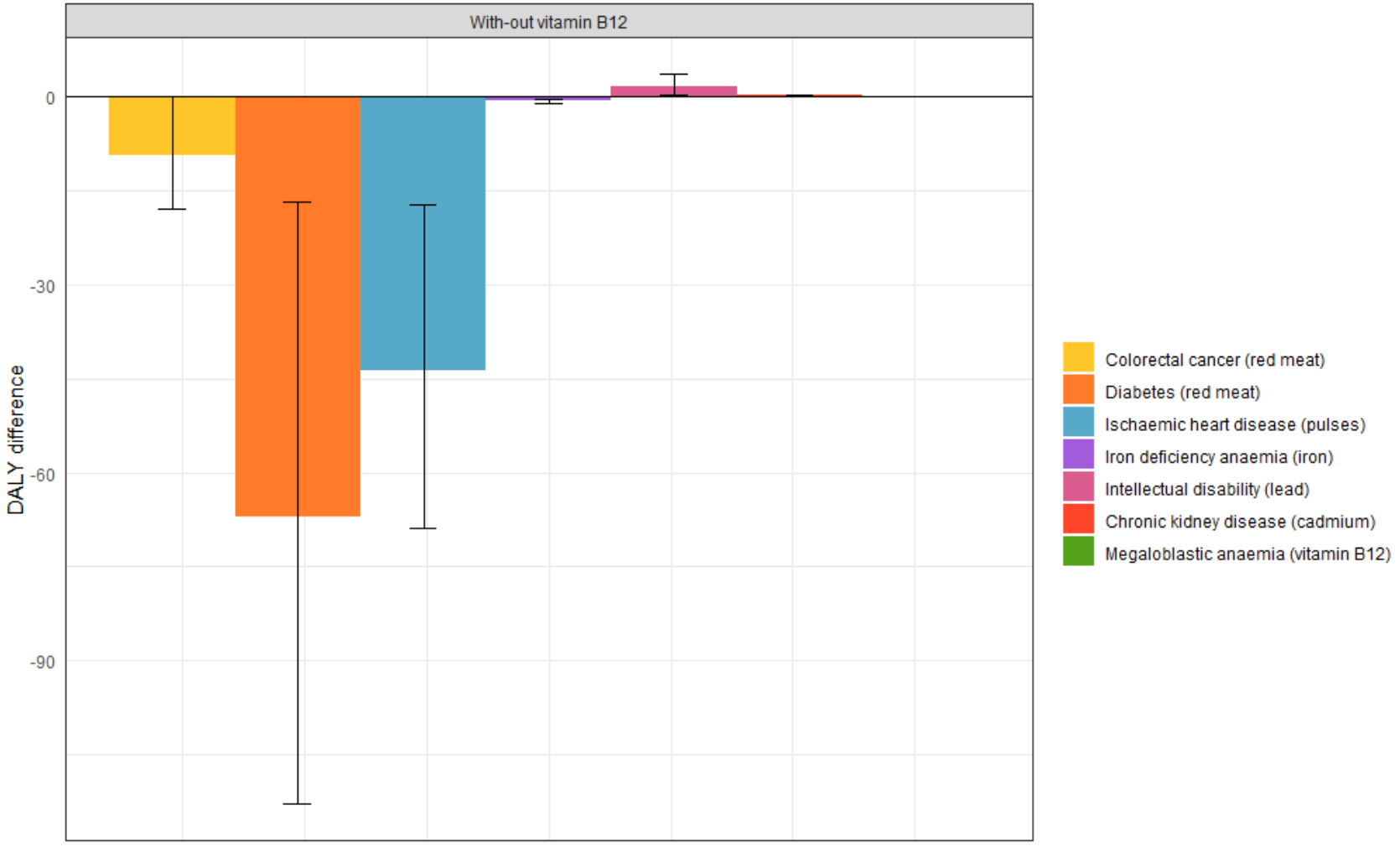
Methodology

- Danish population 4-75 years of age
- Substitution model (gram to gram)
- Substitution scenarios (25%, 50%, 75%, 100%)
- Sub-populations (men, women, small children, adolescents)

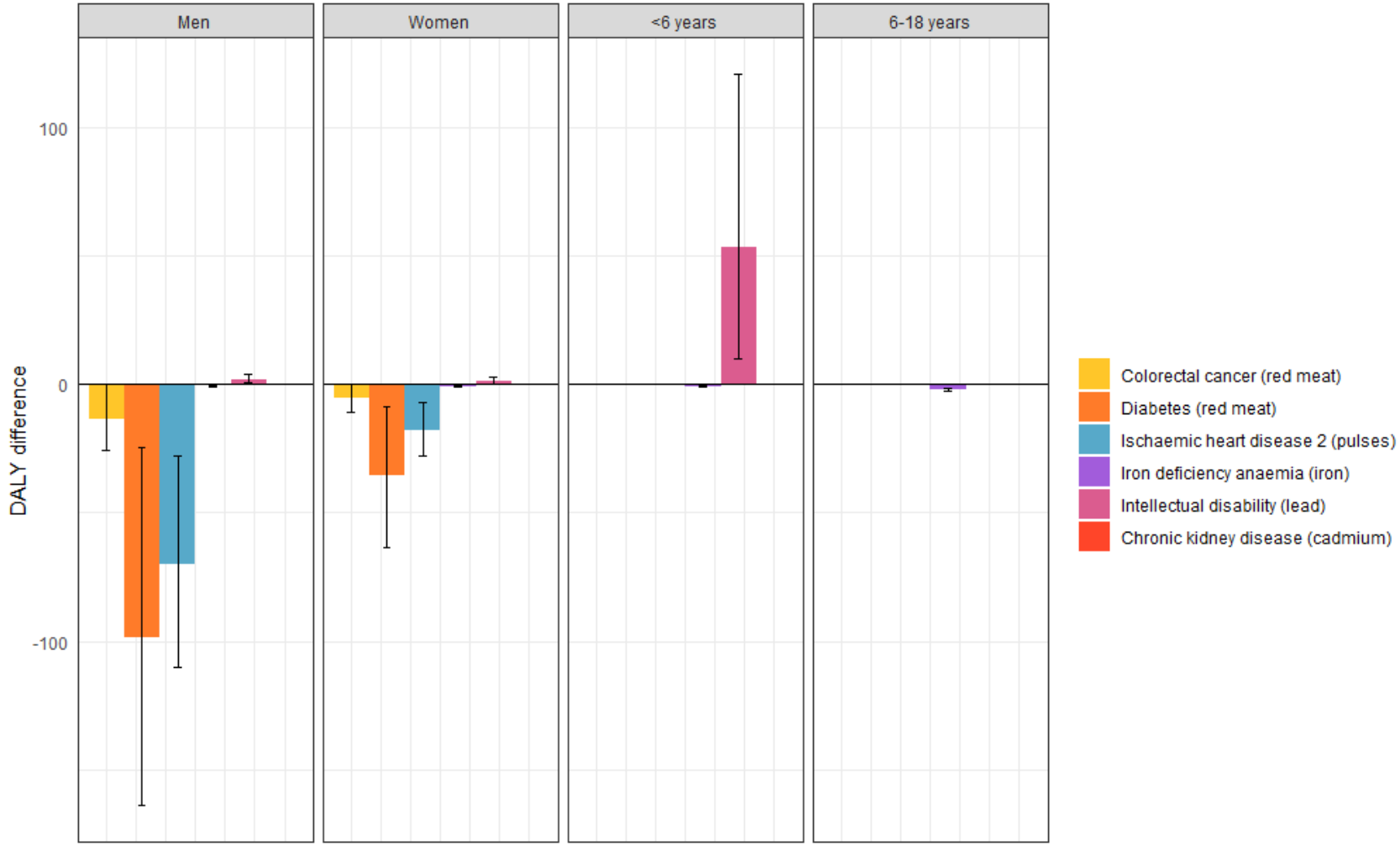
Methodology



Results


With-out vitamin B12
0
-30
-60
-90
DALY difference
Colorectal cancer (red meat)
Diabetes (red meat)
Ischaemic heart disease (pulses)
Iron deficiency anaemia (iron)
Intellectual disability (lead)
Chronic kidney disease (cadmium)
Megaloblastic anaemia (vitamin B12)

Results – sub-populations



Conclusion

- Up to 118 (95%UI: 85 ; 148) averted DALYs/100,000 from substituting unprocessed red meat by pulses in the Danish population
- Substitution is not advised for small children and adolescents
- Further investigate vitamin B12