

Reducing meat consumption in the Netherlands: mechanisms that are at stake according to young Dutch adults

A.H.P. Luijben, S.W. van den berg, M.C. Ocké

Contact: Guus.Luijben@rivm.nl

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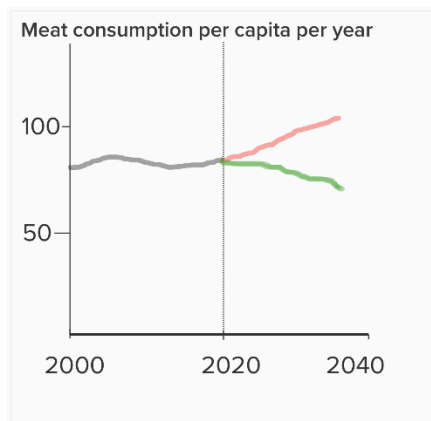
Introduction

Today, although people recognise that meat production is causing many problems, reducing meat consumption seems to be difficult in practice. Many factors at various levels are involved in meat consumption behaviour. Insights in the perceptions of the target group on how they think this complex dynamic system of interacting factors can be adapted towards lower meat consumption is scarce but could give valuable insights.

Problem Statement

- We know that our current way of eating is bad for nature, the environment and for our health.
- Meat production leads to the release of a lot of particulate matter, pathogens, greenhouse gases, pesticides and the leakage of nutrients.
- In the long run, this is unsustainable.
- /Scientists agree that it would be good for people and the environment to eat less animal and more vegetable food.
- We want to know what can encourage young adults to choose plant-based foods instead of animal foods.
- We want to know which mechanisms make it difficult for young adults to stop eating meat
- If we know better how we can help people choose healthy and sustainable food, we can work towards a healthier and more sustainable diet for the future.

Reference mode



Methods

Two participatory online group model building sessions each with a different group of 8 Dutch young adults (aged 18-34) were organized. Each workshop took 5 hours. Using the digital platform Webex and workspace Mural participants identified and prioritized factors related to the development in meat consumption over time. In addition, they connected those factors by developing causal loop diagrams (CLDs) and identified feedback loops and actions to break existing loops. Vensim was used to analyse and combine the CLDs.

Results

The time focus of our system was set to approximately the next 20 years. The combined CLD consisted of 16 factors. Two important reinforcing causal loops were identified related to 1) social norms/habits supporting meat consumption and 2) price of meat of which is thought that it is lower than the price of meat substitutes. In addition, two balancing loops to break existing loops were found related to 1) the increase in awareness among the public about the negative consequences of meat consumption for climate, health, and animal welfare and 2) the increase in attention for meat alternatives and for research on and innovation of.

Causal loop diagrams

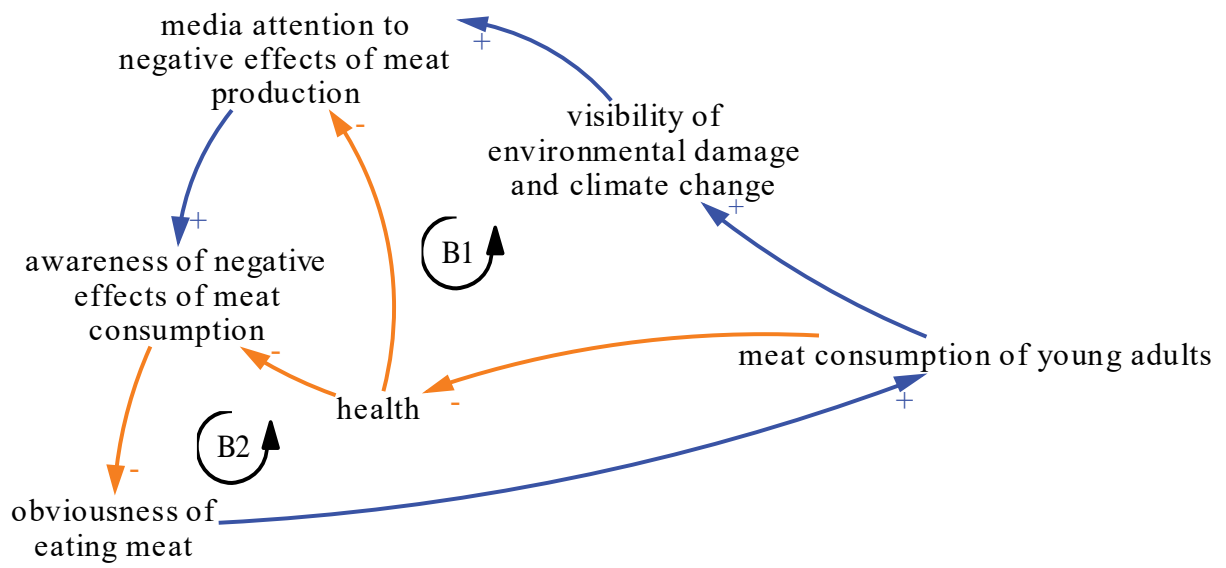


Figure 1: The awareness loops

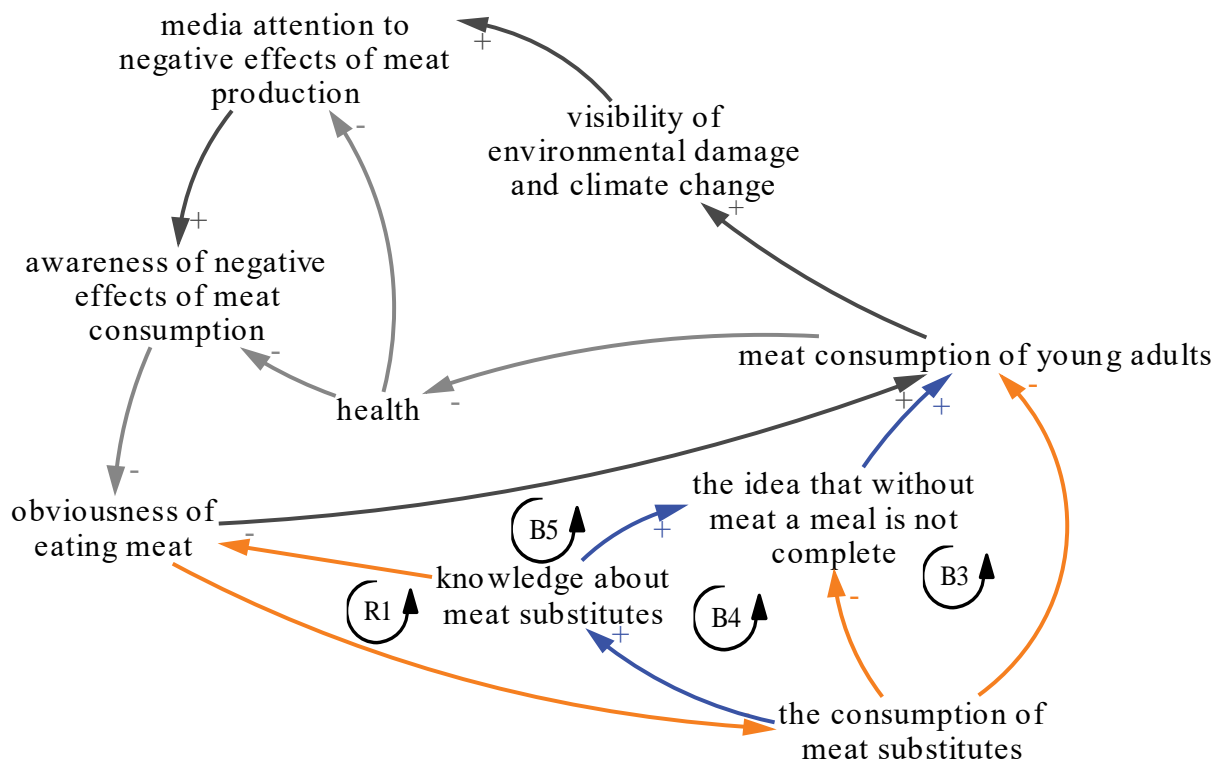


Figure 2: Knowledge about substitutes

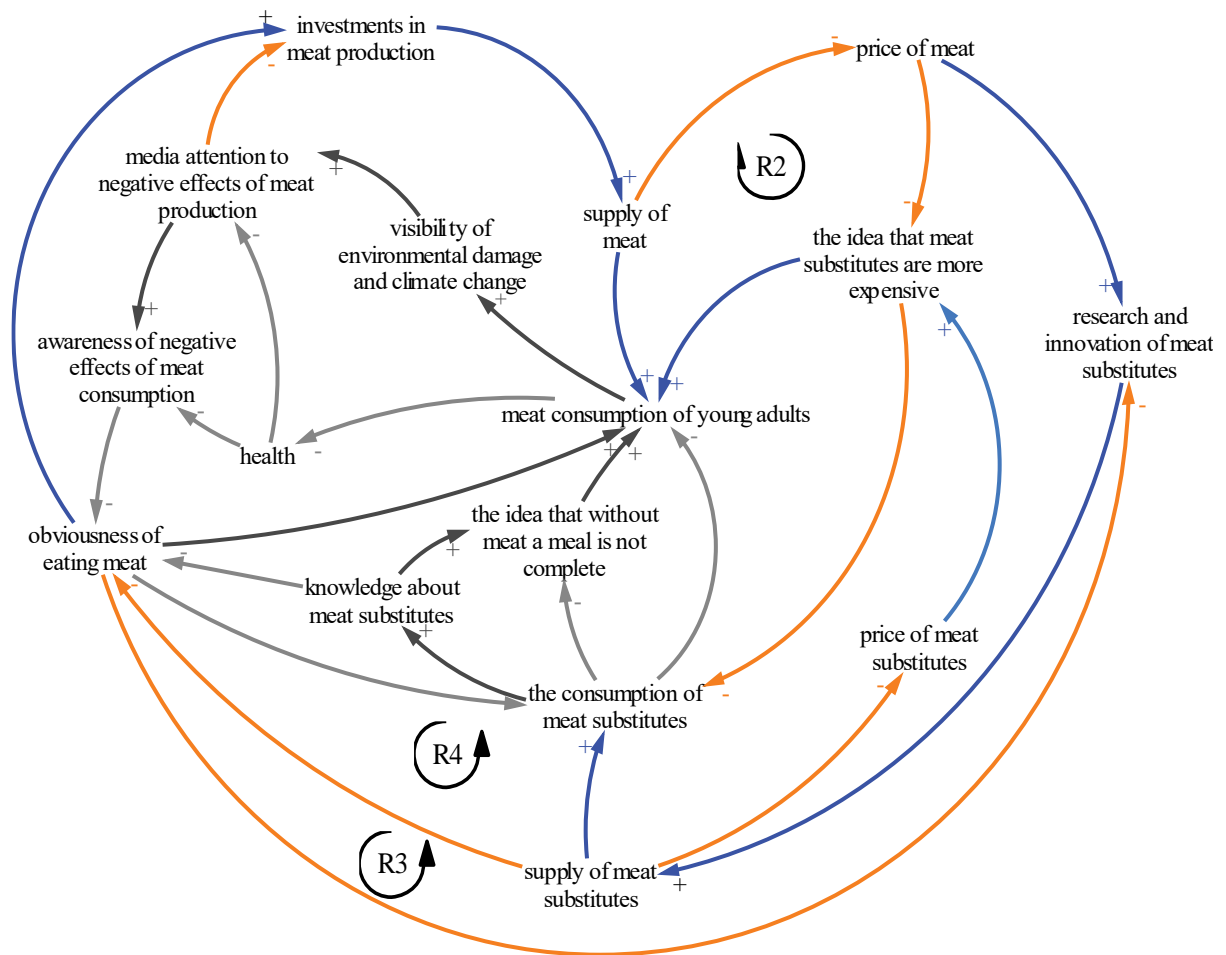


Figure 3: Supply and price mechanisms (1)

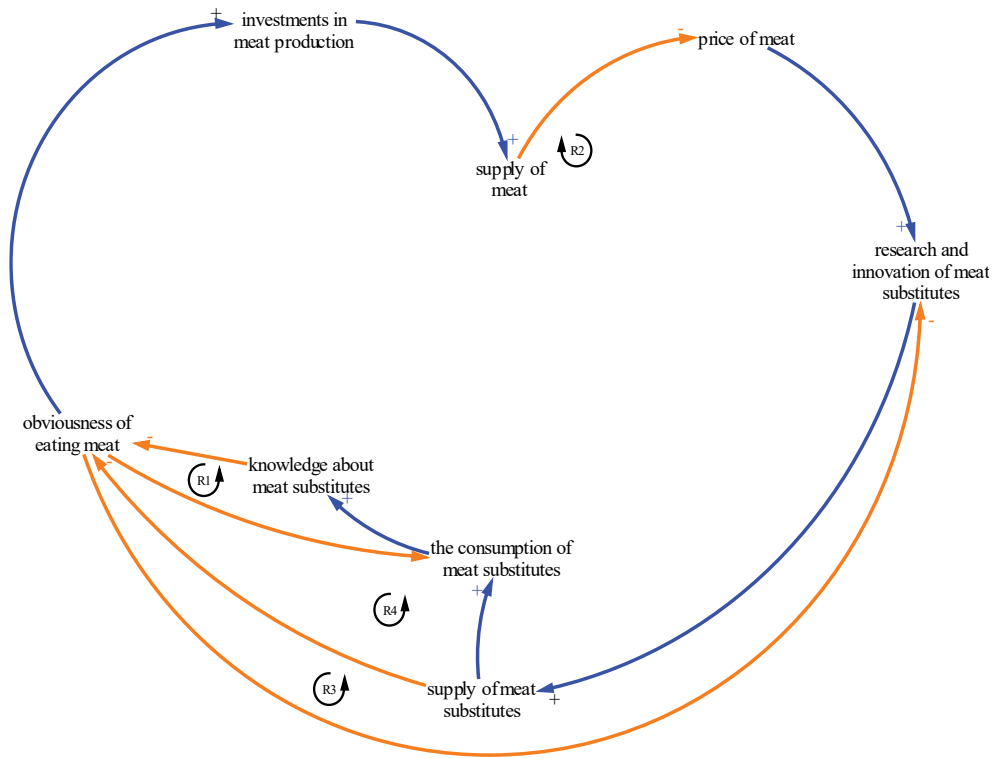


Figure 4: Supply and price mechanisms (2)

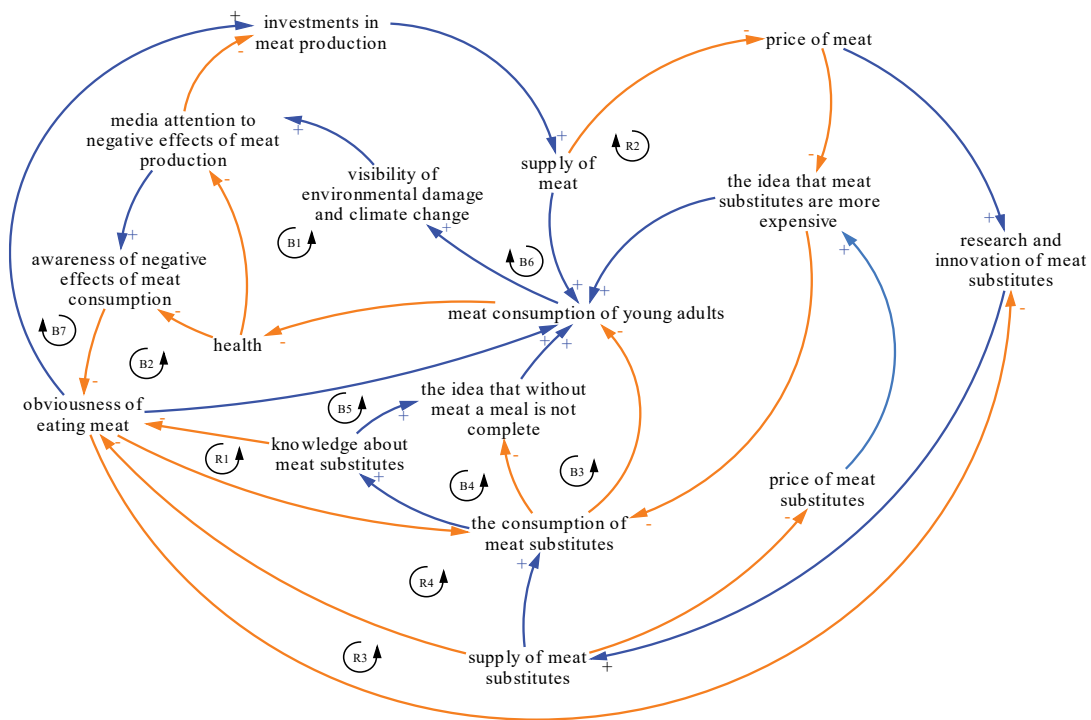


Figure 5: Results (final)

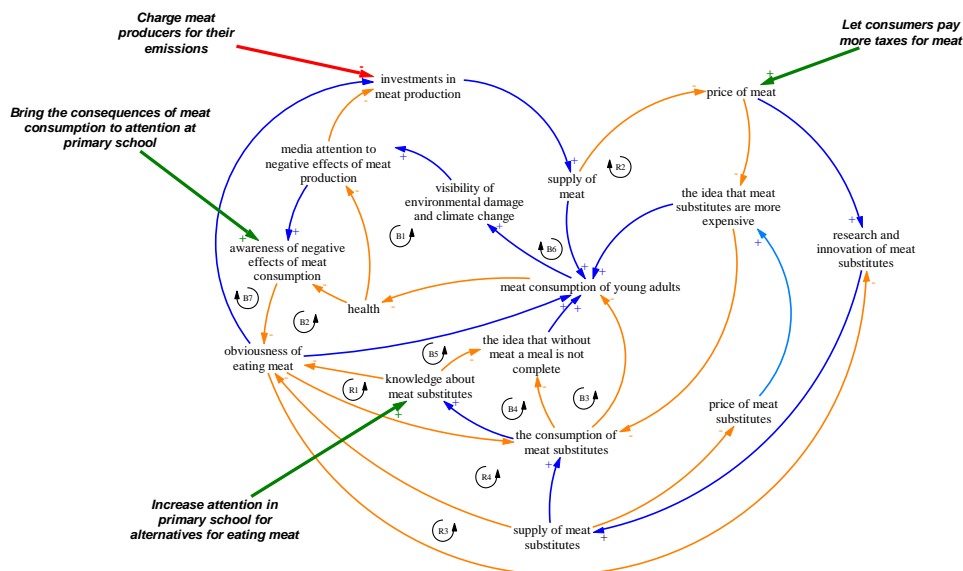
Potential leverage points

Actions that were mentioned to adapt the system towards lower meat consumption were mainly on the level of education (e.g., increase attention in primary school) and economy (e.g., let consumers pay more taxes for meat).

Table 1: Action ideas that were prioritized.

Action ideas
1. Bring the consequences of meat consumption to attention at primary school
2. Increase attention in primary school for alternatives for eating meat
3. Charge meat producers for their emissions; the more emissions the more they will be charged
4. Let consumers pay more taxes for meat

The actions that are listed in table 1 will impact the meat-eating behaviour of young adults by intervening on the mechanisms mentioned in the previous paragraph. Arrows in the figure indicate how the proposed actions affect the system. Green arrows indicate an increase and red arrows a decrease.



Discussion and conclusions

GMB can also be used online

Method provides insight into mechanisms that play a role in changes in meat consumption by young adults

Knowledge plays an important role – about negative effects

Opinions play an important role – about price differences

Only low level leverage points were mentioned during the GMB-workshops.

References

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Vennix J. (1999). Group model-building: tackling messy problems. *Syst Dyn Rev.* 15(4):379–401.