Strategies to mitigate meat consumption should consider dietary choices

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Excessive meat consumption is considered to have a high impact on the environment but also poses a risk factor for human diseases such as cancer and type II diabetes. A study by researchers from the Institute of Environmental Studies in VU University of Amsterdam, Netherlands, investigated consumer habits related to meat consumption and their attitudes toward strategies for change. Results showed that these strategies should be applied carefully depending on the consumer segment, and that consumer preferences should be taken into account to better facilitate a gradual change in the amount and sources of protein consumed.

The web-based survey was conducted in the Netherlands with a nationwide representative sample of 1,083 consumers drawn from a large panel. The questionnaire was designed to investigate consumer attitudes to reducing the frequency of eating meat or amount of meat consumed. Questions asked included measures of the frequency of meat consumption, substitution practices, preferred meat-portion size, the purchase of organic or free-range meat, the purchase of meat replacers, preferences for plant-based proteins, attitudes towards the idea of 'meatless meals', BMI (calculated based on self-reported weight and height) and some demographics.

The average number of meat eating days for a consumer was 5.4 days per week and 28% of the sample reported consuming meat every day. Amongst the consumers who reported eating meat a maximum of four days per week, 81% deliberately replaced meat with something else (fish, eggs, cheese or meat replacers, e.g. veggie burgers). For a substantial part of the sample, those who reported eating meat many days a week also had a high preference for large meat portion sizes. Results showed that both the number of meat eating days and the preferred portion sizes were linked in a negative relationship with purchases of organic or free-range meat, meat replacers and preference for plant-based proteins.

Further exploration of the data showed that consumers' preferred meat portion size increased with the number of meat eating days and BMI, but decreased with the preference for plant-based proteins, age and higher education. In addition to that, it was found that, among normal weight consumers, a preference for smaller meat portions was related to a more frequent purchase of organic or free-range meat and a preference for plant-based proteins.

When consumers were asked whether they were familiar with the idea of 'meatless meals', 64% responded positively. As regards to their willingness to adopt such a strategy in order to reduce their meat consumption, 15% answered "certainly", 41% "maybe", 21% with "I am doing so already" and 23% with "I don't want to do that". Those who answered "certainly" or "I am doing so already" were significantly more likely to exhibit behaviours of eating meat less often, buying meat replacers more often, be more familiar with the idea of 'meatless meals' and be female, compared to those who answered "maybe".

These findings indicate that although most consumers did not eat meat every day, the proposed reduction of meat consumption by one third equals one to two more meatless days per person, or the equivalent amount in smaller portion sizes. Both the 'meat-eating frequency reduction' as well as the 'portion reduction' strategies are effective for different but also overlapping segments of consumers, depending on one's preference for meat alternatives. For example, those who prefer to have a meatless meal may be more likely to buy a meat replacer, while those who prefer to reduce the portion of meat may be inclined to buy organic or free range meat. In addition, the "less but better" or "less but more varied" messages may better communicate to consumers who are able to regulate their weight.

However, both strategies have a limitation. A 'meatless meal' approach could lead to a rebound effect of excessive meat consumption after the meatless meal. The authors conclude that both strategies should be complementary rather than competitive. Also, they should be accompanied by explanations, recommendations and guidelines, and be supported by social, governmental and public health authorities.

For further information:

De Boer J, Schösler H & Aiking H (2014). ''Meatless days'' or ''less but better''? Exploring strategies to adapt Western meat consumption to health and sustainability challenges. Appetite 76:120-128.