SUBMISSION

Joint WHO/FAO Expert Consultation on Diet, Nutrition and the Prevention of Chronic Diseases

Name of Organisation: Meat and Livestock Australia

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Scope of Activities: Meat and Livestock Australia (MLA) represents the beef, sheepmeat and goatmeat producers in Australia and manages research and development, marketing and promotions on behalf of the red meat industry.

Mission of Organisation: To represent the interests of the beef, sheepmeat and goatmeat producers in Australia.

Interest in Subject Matter: MLA is committed to providing evidence-based nutrition and health information to health professionals and consumers on the role of red meat as part of a healthy, balanced diet.

Source of Funding: MLA is funded through levies from producers, contributions from individual processors, wholesalers, food service operators and retailers. The Australian Government contributes 50% of funds for research and development programs.
Introduction

MLA welcomes the opportunity to provide comment on the Report. The red meat industry has invested significantly in production techniques for a safe and nutritious red meat supply. Consequently, Australians have access to high quality, lean red meat. With a strong domestic market underpinning a successful export industry, the continuing success of the red meat industry is critical to the ongoing viability of regional Australia. Therefore it is important that recommendations regarding red meat consumption are based on sound scientific evidence that is specific for red meat.

Our response focuses solely on the recommendation to moderate consumption of red meat (recommendation 7 on page 37 of the main report) which we believe cannot be justified by the evidence presented, is inconsistent with the methodological approach taken in the consultation process and therefore needs to be removed.

1. Evidence presented in the WHO report indicates that red meat does not increase or decrease the risk of cancer, yet the report recommends that red meat consumption be moderated.

→ Red meat is included in recommendations for reducing the risk of cancer (page 37), however, the evidence on which this evidence is based is neither convincing nor probable.
→ The summary table in annex 1, lists the strength of evidence for diseases, including cancer. Red meat is not listed, because only convincing and probable levels of evidence are listed in this summary table.
→ According to Table 7 (page 36) of the report, which summarises the level of evidence on lifestyle factors and risk of developing cancer, red meat is not included at all – either as convincing, probable or possible/insufficient in relation to increasing or decreasing the risk of cancer.
→ According to Table 7 (page 36) there is only possible or insufficient evidence that animal fats, heterocyclic amines (HCA), polycyclic aromatic hydrocarbons (PAH) and nitrosamines increase or decrease the risk of cancer. However consumption of HCAs and PAHs is not uniquely associated with consumption of red meat, and the consideration of animal fat as a possible factor in cancer development also does not uniquely relate to red meat, but also to other sources of animal fats.
→ Annex 5 (page 7) states that "... a recent systematic review concluded that preserved meat is associated with an increased risk for colorectal cancer but that fresh meat is not ...".
→ Annex 5 (page 7) states further that "overall, the evidence is not conclusive".
It is therefore unclear how the conclusion that "...high consumption of preserved and red meat probably increases the risk of colorectal cancer" (page 7) was arrived at in light of the summary of evidence presented in the report.

Recommendation 7 on page 37 states “those who are not vegetarian are advised to moderate consumption of preserved meat (eg sausages, salami, bacon, ham etc) and red meat (eg beef, pork and lamb)”.

However, according to annex 5, *Summary of the evidence for dietary factors and human cancer* (page 12), "Recommendations are made only on the basis of evidence which is either convincing or probable".

Therefore there is a serious inconsistency between the recommendation to moderate red meat consumption and both the evidence presented in the report and the methodology used to derive recommendations.

### 2. Inconsistency with recommendations in Australia.

In Australia, the National Health and Medical Research Council (NHMRC) has published recommendations for the prevention, early detection and management of colorectal cancer[^2]. This report reviewed the evidence related to meat and concluded that the association between red meat intake and colorectal cancer was inconsistent and therefore the recommendations do not include a dietary recommendation to reduce meat consumption. The Australian Guide to Healthy Eating also recommends eating red meat (beef and lamb) three to four times a week to ensure adequate intake of zinc and iron[^3].

The term 'red meat' differs across countries. In Australia, it refers to beef and lamb, whereas in the US and Europe, it refers to pork, beef and lamb. In Australia, beef and lamb are primarily grass-fed and therefore have a higher content of omega 3 polyunsaturated fatty acid and a lower content of total and saturated fatty acids than the predominantly grain-fed animals available for consumption in the US and Europe. For example, 100g of grass-fed, lean Australian beef rump steak (raw) contains less than 3g saturated fatty acids and up to 200mg of long chain omega 3 polyunsaturated fatty acids. Analysis of the 1995 National Nutrition Survey in Australia has shown that high red meat eaters have the highest intake of vegetables, eating almost 40% more vegetables than non red meat eaters and 60% more than light red meat eaters[^4].

The general public are confused by conflicting health messages. Behavioural research indicates that there is a need for consistency in nutrition communications to the general public. Conflicting messages are interpreted as an excuse to reject or re-interpret messages to suit individual desires rather than health authority advice.
3. Recommendations on meat consumption may be misinterpreted, potentially decreasing the intake of protein and adequate amounts of bioavailable iron and zinc. There is convincing evidence that physical inactivity and overweight/obesity increases the risk of cancer. Nutrition recommendations should reflect an eating pattern that facilitates an active lifestyle and weight management.

Consumer research, commissioned by the meat industry in Australia, indicates health messages to reduce or moderate consumption of red meat are interpreted by consumers as a recommendation to avoid red meat completely. Consequently, recommendation 7 on page 37 may be misinterpreted as a recommendation to severely restrict red meat consumption without lower limit, which could jeopardize iron and zinc intakes.

Vegetarianism is increasingly popular amongst female adolescents and young women as a means of weight control. However, these women do not necessarily adapt their diet accordingly. Australian studies suggests that up to 20% of women aged 15 to 30 years may be iron deficient (serum ferritin <16µg/L) and around 40% may have low iron stores (serum ferritin <30µg/L). Tiredness and lack of energy are common symptoms of low iron stores which could affect the ability to be active. Since physical activity has consistently been shown to reduce the risk of cancer, nutrition recommendations should reflect an eating pattern conducive to an active lifestyle.

Increasing evidence suggests that increasing the proportion of protein in the diet may make it easier to achieve weight loss than a low fat, high carbohydrate diet. Recommendations which suggest avoidance or severe restriction of meat, a major source of protein in the diet may therefore make it more difficult to achieve weight control. Since overweight/obesity is the strongest established dietary related risk factor for cancer, nutrition recommendations should reflect an eating pattern that will facilitate weight management.

References

2 NHMRC, Guidelines for the prevention, early detection and management of colorectal cancer, 1999