

How the Cancer Report is misleading the public

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In 1995, the UK Committee on Safety of Medicines issued a warning that oral contraceptive pills increased the risk of potentially life threatening thrombosis twofold. The news provoked great anxiety, and many women stopped taking the pill, which led to unwanted pregnancies and nearly 13,000 additional abortions in the next year in England and Wales. Yet, when investigating this daunting “*twofold risk*” it was revealed that the incidence of thrombosis increased from one in 7000 women who do not take the pill, to two in 7000 women who do (Gigerenzer et al., 2010).

On 26 October 2015, the International Agency for Research on Cancer (IARC) published a summary of their evaluation of red and processed meat in the British Medical journal *The Lancet Oncology*, and the World Health Organization (WHO) Press Release No 240 swiftly followed.

The IARC is part of the WHO with a mission to coordinate and conduct research on the causes of human cancer, the mechanisms of carcinogenesis, and to develop scientific strategies for cancer control. The particular evaluation did not introduce any new evidence; it was based on existing scientific literature. The IARC represents the opinion of a selected group of scientists (from 10 countries not including a developing country), and this opinion is not based on consensus in the global scientific community. The final classifications were furthermore based on a majority agreement, and not on unanimous consensus of all members of the working group.

The messages are however misleading, which has resulting in the translation of the findings in the media being overwhelmingly negative.

Moreover, IARC conducted a hazard analysis, not a risk assessment. This distinction is important. It means that for this case study, they considered whether meat at some level, under some circumstance, could be a hazard. The fact that it did not include a risk assessment means that it did not take into account the real exposure to the substance linked to its potential to cause cancer.

The report continued to publish a risk, namely that eating 50 grams of processed meat each day can increase the risk of colorectal cancer by 18%. However, as with the contraception case, the authors have stated that this risk is in fact small to begin with.

According to the most recent estimates by the Global Burden of Disease Project, 34,000 cancer deaths per year globally are attributed to diets containing high intakes of processed meat. This seems like a significant amount until placed in perspective. Approximately 1 million deaths per year are attributed to tobacco smoking, 600,000 per year by alcohol consumption and 200,000 a year as a result of air pollution! IARC is not saying that processed meat is as dangerous as smoking, the risk from processed meat and red meat remains small.

The report is also misleadingly interpreted as concerning red meat with exclusion of white meat such as poultry. The report defines processed meat as any type of meat that is salted, cured or smoked to

enhance its flavor or preserve it. Processed meat often reflects a combination of red meat and poultry-based products, but these are rarely reported separately in observational studies, and no distinction was made in the evaluation. However in many developing countries, poultry is often the most common animal-source included in processed meat products. Furthermore, many sausages and burgers are not considered as processed meat. Processed meat in the evaluation refers to meat that is preserved by smoking, curing, salting or adding preservatives.

On October 27, 2015 after the agency released the report, the assistant director-general of the World Health Organisation, Oleg Chestnov, announced that some foods need to be limited as part of a healthy diet but do not need to be completely eliminated: "*It's important not to eliminate foods but rather to limit and manage them correctly*". He said the document linking red meats to cancer was aimed mainly at politicians, so that they can regulate the sector appropriately within their borders.

Most governments throughout the world promote balanced approaches to diets based on scientific evidence, and encourage the moderate consumption of foods from all the different food groups. As example, in South Africa, people are recommended to consume up to 90g red meat per day as part of the national Food-Based Dietary Guidelines. South Africans however, consume significantly less than this at 54g beef, pork and lamb per person per day (BFAP, 2015). IARC's findings suggest that eating 50g of processed meat brings a small increase in risk. However average consumption of processed meat in South Africa is just 12g per day (SAMPA, 2015). South Africans would thus need to eat more than four times their current levels to increase their risk to develop colorectal cancer by 18%.

References

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Gigerenzer et al., 2010. <http://www.bmj.com/content/341/bmj.c4830>

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