Options for the Production of a Cardiovascular-Friendly Palm Oil

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BACKGROUND
The prevalence of non-communicable diseases has continued to increase in Nigeria, as predicted by the epidemiological transition theory. The successful management of these diseases depends on the identification and control of their risk factors. The search for the possible risk factors should extend beyond the usual culprits, as the emergent epidemic seems to be indiscriminate. Palm oil is the most commonly used cooking oil, but has been linked to several non-communicable diseases, mainly due to its saturated fatty acids content. This review article is to explore possible ways of making the palm oil cardiovascular friendly.

MATERIALS AND METHODS
Data for the review were collected from peer review journals and include information on the fractional composition of palm oil, the link with non-communicable diseases, the plausible reasons for the continued use of palm oil in Nigeria and options for the production of palm oil with lesser saturated fatty acids.

RESULTS
Palm oil is made up of 95% fatty acids, with saturated and unsaturated fatty acids in about the same proportion. It also contains significant concentrations of carotenoids, tocols and other phytonutrients. The consumption of palm oil was shown to increase blood cholesterol level; and its substitution with oil rich in unsaturated fatty acids resulted in a significant decrease in the prevalence of hypercholesterolemia and coronary heart disease. But its rejection would result in energy and micronutrient malnutrition, hence the need for a blend of palm oil that contains less saturated fatty acids. This can be realized using genetic modification and temperature driven fractionation of the oil.

CONCLUSION
Palm oil in spite of its saturated fatty acids content still has a significant role to play in the management and control of non-communicable diseases in Nigeria, especially with the reduction of its saturated fatty acids content.

Keywords: Palm Oil; Cardiovascular risk and benefits

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