

A practical intervention to reduce salt intake in Perú

October 9 2015, by Lorena Saavedra-Garcia



High salt intake is associated with high blood pressure, which left

untreated increases the risk of stroke and heart attacks. Despite these harmful effects on health, many populations consume twice the [WHO-recommended salt intake](#). In response, many countries have attempted to reduce salt intake by adopting strategies that target the quantity of salt added to processed foods, during cooking, and at the table.

However, it is not quite as simple as launching a [public health education](#) campaign warning about the effects of high salt intake. This is often not enough. Many people do not follow these recommendations because, among other reasons, they do not want to sacrifice taste.

There is a general lack of awareness regarding how much salt we consume and how much of it comes from [bread](#) and bakery products; a single slice of bread contains, on average, 0.5 grams of salt. In Lima, the average amount of bread consumed per person constitutes 36% of the recommended daily salt intake. In light of this, researchers at CRONICAS Center of Excellence in Chronic Diseases, based at Universidad Peruana Cayetano Heredia, decided to explore ways of [reducing salt in bread](#) without affecting the taste.

With support from the local government, to promote collaboration between the public and private sectors, we conducted a study at a municipal bakery. The aim of the study was to evaluate the feasibility of reducing salt in 'pan francés' – the most consumed type of bread in the city – without affecting taste and sales.

We performed a triangle taste test, a technique employed in sensory analysis to determine if there is a sensory difference between two products, in this case, to establish whether participants were able to detect the bread with less salt. We presented each participant with two trays each containing three samples of pan francés. The first included the traditional bread and 10% low-salt bread, whereas the second included the traditional bread and 20% low-salt bread.

The results of the taste test demonstrated that the majority of people could not distinguish between the traditional bread and the low-salt versions. Therefore, we decided to introduce bread with a 20% reduction in salt to the bakery's production. The hypothesis was that if participants did not perceive a difference in taste, consumption would not change and therefore the quantity of pan francés purchased would be maintained.

We considered it important that any health benefits from the intervention remained economically viable; those businesses which offered reduced-salt products should therefore not see a fall in demand for their produce. Using information taken from the municipal bakery's sales records for the past five years, we compared the quantity of bread purchased before and during the intervention to determine whether there was a change in demand. To avoid bias, consumers were not informed of the change in bread composition. Our results showed that the introduction of 20% low-salt bread did not change bakery sales when considering 'pan francés' or other types of bread in the analysis.

To identify effective ways of changing people's dietary habits, government and industry need to work together to develop healthy interventions that do not affect profits but comply with nutritional recommendations. We recognise that food is of cultural importance therefore any changes to food products need to be introduced gradually and with minimum impact on taste.

We have demonstrated that it is possible to reduce salt intake through simple low-cost interventions; however it is important to recognise that these health and behavioural changes need to be supported by the private sector to have a wide spread impact on salt intake and the associated risk of [high blood pressure](#).

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