Salt as a platform for multiple micronutrient fortification of food.

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Approximately a third of humanity suffers from "hidden hunger" - the effects of insufficient amounts of key micronutrients in the diet. While the modification of the diet is the desirable way of sustainably addressing this problem, it is a very slow and difficult process, as it involves education and changes in food production as well as key social customs. Food supplementation is useful as a short term health intervention, but it requires education and a medical infrastructure to ensuresafe dosing of added micronutrients, Food fortification requires no action by the consumer, it is cost effective and sustainable.
While there are numerous food vehicles that are on could be fortified with micronutrients, poor rural consumers, especially women, do not participate in the cash economy, and do not purchase any processed foods. Thus existing programs do not reach up to a billion people mostry in developing countries in Asia and Africa.
Unlike most staple foods, salt is almost universally processed, and essentially everyone buys or barters for salt. Salt is consumed at uniform, predictable levels, and therefore it is an ideal carrier that ensures compliance without danger of under or over dosing. The Food Engineering Group of. the University of Toronto developed technology that produces encapsulated micronutrients in a form that matches grains of salt in terms of size and colour. the premix particles are then blended with salt at a 1:100 to 1:200 ratio to provide 30 to 100% of the daily requirement. The platform tecnology, based on extrusion and encapsulation can delived a wide range of micronitrients in a form that prevent interaction between the added micronutrients and does not affect the organoleptic properties of foods. Salt double fortified with iodine and iron has been succesfully tested with some 5,5 million school children and 60+ million consumers in India and resulted in very significant reduction in anemia.