A ‘nimble’ solution to Cambodia’s iodine deficiency

Although Cambodia achieved universal salt iodization in 2010, the coverage has since declined at an alarming rate. A recent government-led analysis found that only 1 in 10 salt samples on the market across Cambodia were adequately iodized. It also estimated that approximately 30% of pregnant and non-pregnant women had urinary iodine concentrations (UIC) below 50 µg/L, which signals insufficient iodine intakes. Iodine deficiency puts the population at risk of losing up to 13 IQ points, which could thwart its trajectory toward optimal development, and jeopardize national goals to improve the educational outcomes. New strategies are needed to improve access to adequately iodized salt in Cambodia and stem this public health crisis.

UNICEF Cambodia has a long-standing commitment to achieving universal salt iodization that began in the early 2000s. Facing a deteriorating situation, in May 2016 UNICEF hired an international consultant to work with Cambodia’s National Sub-Committee for the Control of Iodine Deficiency Disorders to identify the challenges and develop guidelines on iodized salt production, monitoring, and quality assurance at all levels of the supply chain.

One of the proposed solutions was a small piece of equipment called ‘The Nimble’, an iodization machine developed specifically for small- to-medium-sized salt producers. “The Nimble was designed to operate in areas with or without access to electricity, to iodize small quantities of salt on a continuous basis in order to meet the needs of local communities,” says Lorenzo Locatelli-Rossi, one of Nimble’s inventors.

Many Cambodian salt producers, who often run small-scale operations in remote areas where electricity comes at a premium, meet these criteria.

With USAID funding, UNICEF has been able to invest in six Nimble iodizers, which were sold to local salt boilers or re-packers via the Ministry of Planning. The buyers repay the ministry in monthly installments.

UNICEF also provides test kits that allow the producers to monitor the quality of their salt on a daily basis.

“As requested by the Ministry of Industry, I have changed my packaging so that my brand, 2 Lions, is recognized for its reliable quality,” Teng explains. “I hope that the Government will help promote companies like mine that comply with the iodization standards. It is vital for us to eliminate the bad producers.”

Koy Rithya, a re-packers from Phnom Penh’s Russey Keo district, is also aware of Cambodia’s iodization challenges. He relies on salt from boilers and the iodization cooperative in Kampot and Kep, where quality control and assurance has been slipping. He developed a manual process of spraying the salt with iodine before repackaging. In early 2017, he purchased a Nimble, taking advantage of the UNICEF/Ministry revolving fund.
“The Government told me my process was not suitable for future registration, so I decided to invest in the Nimble. The possibility to pay in instalments over time was an incentive and very useful,” Koy says. 
“I have made small modifications to the Nimble to ease my daily workload, and I am very happy with this new system that UNICEF promotes. Now we need the Government to enforce the legislation so all producers are on the same level.”

UNICEF and relevant line ministries in Cambodia are working together to develop a more appropriate certification process for salt producers and re-packers to ensure fair competition. Senior Minister of Industry and Handicraft, H.E. Cham Prasidh has continued to show his support by opening the National Salt Producers’ Meeting in late 2016. He made it clear that the situation of iodine deficiency in Cambodia was serious and persistent, even after years of work. In the future, the Government would not tolerate underperformance, and iodine deficiency must be eliminated, he said.

With government leadership, UNICEF has been able to resume its important work on salt iodization. It’s still a long road ahead, but with simple innovations like the Nimble, UNICEF can continue its mission to achieve universal salt iodization and thus protect more Cambodian lives from unnecessary hardships.