

India calls for a change in strategy to end IDD through the National Nutrition Mission

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India has made impressive progress in efforts to control iodine deficiency with the successful adoption and scaling up of universal salt iodization (USI). But to bring iodized salt to more than 90% of the country's population and to sustain optimal iodine intakes, India needs to strengthen its 'end game'.

According to WHO, the single most important cause of mental impairment is iodine deficiency. It is totally preventable by adopting universal salt iodization (USI). In addition to mental handicap, iodine deficiency is also responsible for spontaneous abortion, stillbirth, congenital anomalies, and it contributes to infant and neonatal mortality. Yet, as this causal relationship is not visible, it is not seen a priority. It seems that, with respect to iodine deficiency disorders, we have lost the sight but we should not lose the vision.

Today, we are within reach of the target of >90% household level coverage of adequately iodized salt. According to the National Iodine and Salt Intake (NISI) survey, 2014–2015, currently, 78% of households in India are consuming salt that is adequately iodized (1). However, a significant percentage of the population continues to consume salt with insufficient iodine (14%) or no iodine at all (8%). There is an urgent need to reach those populations and cover the 'last mile' of the road to USI success in India. This calls for developing and implementing the 'end game strategy' to accelerate, achieve, and sustain the elimination of IDD in India.

India has been at the forefront of global efforts to eliminate IDD by contributing to research, policies, and programs. The successful evolution of the IDD control program in India, written about extensively

elsewhere, highlights some of the necessary factors for successful and sustainable implementation, and it offers lessons for other programs in health and nutrition in particular and in the social sector in general. Those experiences and lessons can be generalized to other countries as well.

Key milestones in IDD control in India

In hindsight, the critical factors which contributed to the success of the IDD control program in India can be summarized as follows:

- (i) Generation of regular, representative and reliable scientific data** – state and national-level data are needed to develop effective and efficient policy, program, and advocacy. From the earliest Kangra Valley study (1956–1972) (2) to the most recent NISI Survey (2014–2015) (1), generation of evidence has been an iterative process in India providing inputs for policymakers and program managers.
- (ii) Stakeholder alignment and development of partnerships** – partnership between various stakeholders such as government institutions, academic institutions, international and national non-governmental organization, civil society organizations, and salt producers has improved the sustainability of efforts towards achieving USI and elimination of IDD.

(iii) Institutional continuity and mentorship – active involvement of the All India Institute of Medical Sciences, New Delhi, in the IDD control program has provided institutional continuity and enabled mentorship for generations of researchers and workers in the field of IDD.

(iv) Addressing the value system of stakeholders – neglect by policymakers can lead to serious setbacks to program implementation (3). Addressing this issue through sustained advocacy has led to the reinstatement of the ban on non-iodized salt and eventual improvement in household coverage with adequately iodized salt.

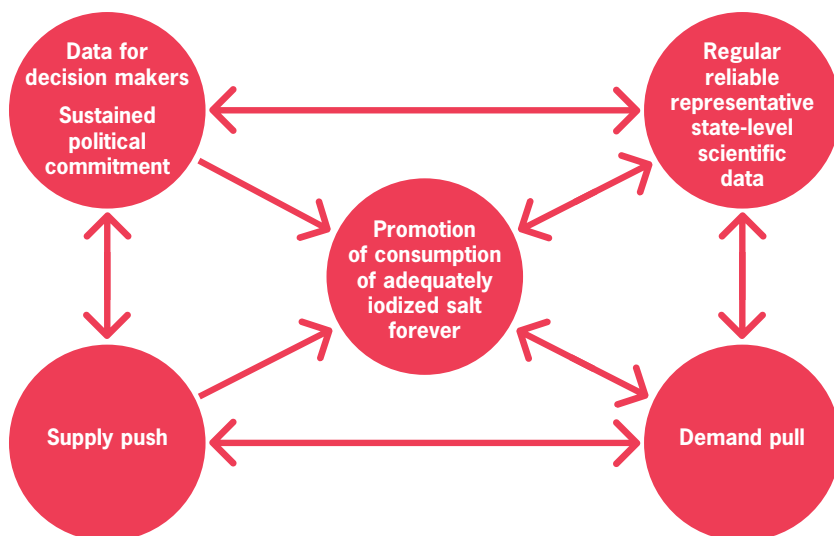
(v) Legislation for achieving public health goals – the PFA of 1954 and its successor, the Food Safety and Standards Act (FSSA) 2006, which prevents the sale of non-iodized salt for human consumption, have been instrumental in creating an enabling environment for USI in India.

(vi) Involvement of the private sector in public health efforts – cooperation with the salt industry has been one of the main factors in achieving high household coverage with adequately iodized salt. Engagement with medium- and small-scale salt producers and focus on improving the quality of iodized salt through quality assurance have been the prime drivers of improved household coverage with adequately iodized salt.

The challenge of sustaining IDD elimination

The USI program in India has entered a critical phase, and its long-term success depends on the commitment of all stakeholders today to its future sustainability. There is a need to invigorate the salt iodization efforts at the national and state levels. The first step should be to reposition the NIDDCP to ensure that IDD elimination is viewed through its role in developing human potential. The social process model (Figure 1) is applicable to IDD control and should be used to promote the consumption of adequately iodized salt.

FIGURE 1 A multi-component model for the IDD control program (4).



The technical guidelines of NIDDCP should be revised to reflect the maturity of the national IDD elimination program. The existing guidelines for district-based periodic IDD surveys should be revamped to focus on generating meaningful epidemiological data at the state level, which can guide the program and drive policy more effectively. The regulatory framework to ensure stringent implementation of mandatory salt iodization needs to be strengthened. For example, the FSSA should be accompanied by national guidelines and advisory for mandatory salt iodization.

At the state level, adequate resources including people need to be allocated to salt iodization regulation and use of the Management Information System (MIS) for monitoring of salt iodization at all stages. Consolidation, modernization, and mechanization of the salt industry have been an essential component of successful progress towards USI so far; policy should be adapted

to enable this process to continue in order to improve access to adequately iodized salt for all sub-national population groups.

Strong government leadership and coordination amongst all stakeholders, which has been a cornerstone of the success to date, should be maintained. The success of the National Coalition for Sustained and Optimal Iodine Intake (NCSOII) and state USI coalitions in Bihar, Gujarat, Rajasthan and Uttar Pradesh highlights the key role of all stakeholders in USI. These partnerships should be sustained, strengthened, and replicated in other states. The initial stages of formation of district USI coalitions in

12 leading salt producing districts of the country (accounting for 90% iodized salt production) should also be accelerated.

The key importance of quality assurance

Strengthening quality assurance of salt iodization at the point of production is proven to be the most efficient way to achieve and sustain USI. There is a need to strengthen quality assurance at production facilities in India, particularly in the southern states. To achieve this, the FSSA provision regarding mandatory iodization of all edible salt needs to be implemented with zero tolerance. Significant augmentation of infrastructure and human capacity under the Act needs to be optimally harnessed to ensure stringent implementation. The success achieved in special campaigns on salt iodization by several Indian states (UP, Bihar and Gujarat) (5,6) needs to be replicated elsewhere in the country.

Reaching vulnerable populations

The non-availability of affordable iodized salt due to supply chain bottlenecks is responsible for the zonal difference in coverage. Reforms in iodized salt transportation policy are required to improve the availability of iodized salt throughout the country. A behavior change communication (BCC) strategy should be used to promote awareness of the linkage between iodine nutrition and iodized salt. The 2014-2015 national survey highlighted the large differentials across zones, rural-urban and socio-economic strata in iodized salt coverage (7). There is a need to conduct sub-national and state level USI surveys to build on this new evidence to further understand the causes and develop a strategy to address them. In addition, studies are needed to assess the iodine status in pregnant women in India and to develop appropriate strategies to ensure their optimal iodine intakes.

Mainstreaming IDD control with 'Poshan Abhiyan'

Poshan Abhiyan (the National Nutrition Mission) was launched by Hon'ble Prime Minister Shri Narendra Modi on 8th March 2018. Mainstreaming the IDD program with Poshan Abhiyan will ensure sustainability of the USI strategy and strengthen the monitoring and tracking of the USI program along with other key nutrition policies and programs at the highest level.

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