

A Critical Analysis of the National Goitre Control Programme

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The two most prominent goitre endemic areas in the world are the mountainous belts of the Andes in South America and the Himalayas in South East Asia of which the latter is undoubtedly the largest and worst affected area in the world.

In India today, we have all the possible weapons of hope against this large scale nutritional problem but even then it continues to not only occur but also expose and affect a major chunk of our population. Some of our hopes are related to the following facts :

The problem is preventable. We launched the National Programme in 1962, meaning thereby that it has already celebrated its Silver Jubilee. A potent and affective weapon iodised salt exists. Salt is a commodity which is consumed universally without wide variations. The cost of prevention through the use of iodised salt is only Rs. 0.50 or 0.05 Dollars/Year (WHO-1985). Government has now given every possible facility for the manufacture of iodised salt. The funds for this programme have been increased from Rs. 0.8 crores in

in 6th plan to Rs 20 crores in 7th plan, an increase by 25 times. The control of goitre is also included in the 20 point programme.

Unfortunately the problem is now also being reported from areas far away from the Sub-Himalayan region such as the states of Kerala, Gujrat, Karnataka, Madhya Pradesh and Andhra Pradesh. In fact there is no state in India today (NIHFW 1989) which does not have the problem of iodine deficiency and endemic goitre. It is for this reason that it is planned to have all the salt consumed in India iodised by the year 1992 and the problem controlled by 2000 A.D. (WHO 1985).

Some of the problems, shortcomings and adverse factors related to the National Goitre Control Programme are enumerated and discussed.

1. Since the inception of National Programme in 1962 the country has always lagged behind in the production of iodised salt in comparison to the actual needs, and production has been even lower than the theoretical capacity as is evident from the table 1. (WHO-1985).

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Table 1 : Requirement and Production of Iodised Salt.

Year	Actual production of Iodated salt (Lakh Tons)	Theoretical production	Iodated salt requirement
1978	1.06		
1979	1.20		
1980	1.22		
1981	1.29	3.76 Lakh Tons	10.0 Lakh Tons.
1982	1.23		
1983	1.20		

Till 1985-86 the production was hardly 2 lakh tons (Kapil 1986). In 1986 it rose to 6 lakh tons, in 1986-87 to 7.5 lakh tons and 1987-88 to 16 lakh tons. The targets for 1988-89 was 22 lakh tons, 1989-90-30 lakh tons and by 1992-52 lakh tons (Swasth Hind 1988). The sudden jump in the production after 1986 is due to the liberalisation of the policy of manufacture by private agencies and the announcement of government subsidy.

It is important to take note of the fact that from 1962-1985 (24 years) we were lagging far behind with regard to the production and distribution of iodised salt. We suddenly became active in 1986 and increased our annual production so as to meet the targets by 1992. This rapid increase in production may satisfy policy makers from the production point of view but what is the actual picture with regard to utilisation. Commonly used ordinary non-iodised salt is still available every where because of lax laws (even in endemic areas) and hence continue to be used because of their lower cost (WHO-1985). It is surprising that such a situation exists in spite of the fact that an amount of Rs 1.3 million was dis-

bursed to the iodised salt manufacturers as subsidy towards the cost of potassium iodate (NIHFW-1989). Increased production of iodised salt is therefore of no avail from the public health point of view unless non-iodised salt is banned simultaneously.

2. Awareness through organised and sustained Health education is still very poor in many endemic areas. To go on increasing its production without making the people (Consumers) aware of its importance and utilisation is useless.

According to a news item appearing in a national daily (Rai-1987), in many of the villages affected by Goitre in Deoria and Gonda Districts (U.P.), the people had not heard of iodised salt and those who had heard about it did not know from where to get it. In many instances even government doctors and medical practitioners were ignorant about the public health significance of goitre and the programme to control it (NIHFW-1989). To quote from well known study by the Nutrition Foundation of India (NFI-1983) "Indeed the process of education must start with public health personnel

including doctors. Doctors in charge of Primary Health Centres in the endemic state when specifically questioned do not list Goitre as a major public health problem and were themselves using non iodised salt. Lady Health Visitors themselves suffering from Goitre, were totally unaware of its implications". If this is the state of affairs of health personnel posted in endemic districts, what education of the masses and progress of the national programme can be expected from them. It is a tragedy that such a situation exists in spite of government claims that it has embarked a substantial amount of money to undertake an information, education and communication campaign in iodine deficient areas with the assistance of professional advertising agencies (NIHFW-1989).

Proof of the lack and in-effectiveness of Health Education is also evident from the following beliefs and practices prevalent in the country (Kapil-1986). In most communities in Uttar Pradesh and Bihar, Goitre in young girls is seen as a sign for her to get married. Some communities in Himachal Pradesh, Uttar Pradesh and Jammu and Kashmir have special neck ornaments designed to cover up the enlarged thyroid. Many women associate Goitre with pregnancy and child birth. When questioned in depth many women ascribed it to having screamed too much during childbirth or having been too voiceferous during pregnancy. The drinking of water with the head thrown back especially during pregnancy is also mentioned as a cause by several women.

3. The health authorities at Lucknow claimed that from June, 1987 iodised

salt will be available all over Uttar Pradesh and from October, 1987 there would be a total ban on the sale of common ordinary non-iodised salt (Rai-1987). The ban is still to be effectively implemented even today.

4. A four year old recommendation by health experts proposing the use of iodised oil injection to tackle the problem of Cretinism is yet to find acceptance by the Indian Government even though success has been reported and also demonstrated in Peru and Nepal.

The country's health keepers are yet to be convinced that Cretinism is an important problem even though we have 2.2 million cretins and 240 are being born every day (Pandav et al 1989). The then Union Minister of State for Health, Ms. Saroj Kharpade would only go as far to say—"The government was considering the All India Institute of Medical Sciences team's recommendations" while a senior official of the ministry remarked "We will consider iodised oil injection when the need arises".

There have also been some debates regarding the efficacy and cost of oil injections. Some workers of a study team were of the view that inspite of the administration of the injection some women still produced mentally retarded children. Others of the same team varified that this was so because the injections were given in 37th week of pregnancy, too late to prevent damage to the infants.

Another reason for avoiding oil injection is said to be its exorbitant cost. However

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according to UNICEF (Jain-1989) the total cost of such an injection along with Tetanus Toxoid to all iodine deficient mothers will only be Rs 3 crores which is just 1/7 of the allocated Rs 21 crores in 7th plan. Moreover according to Pandav, a member of the research team, only 3% of all women are pregnant at any given time.

5. There have been accusations that most of the iodised salt in the market (e.g. U.P. and Delhi) did not have the prescribed amount of iodisation (Hindu-1989). Report by the Nutrition Foundation of India (1983) indicates that the decision to iodise salt at 30 ppm. may be insufficient to prevent goitre and Cretinism. The report strongly recommends dose of 50 ppm as significant proportions of iodine are lost in transportation and storage. At room temperature, potassium iodate (used to iodate salt) loses 8.9% of its iodine in just 4 months (Deshpande-1989).

In Delhi random analysis of samples following complaints, revealed that even the variety marketed by a well known and reputed firm contained less than 15 ppm, a level which should normally be made available at the consumer end (Raizada-1989). It has also been alleged (Hindu-1989) that iodised salt packets did not have the date of manufacture and expiry which were important due to deterioration of iodisation with time.

6. The government of India has given the highest political commitment to goitre by including it in 20 point programme (NIHFW-1989). The

government has also commissioned 8 technology missions in areas of high priority having time bound targets and said to be being constantly monitored by the Prime Minister (NIHFW-1989). One of these missions is related to the control of Iodine deficiency disease.

But even inspite of all this the performance of the programme is still very much short of expectations. Where then is the political will and commitment of the government which on one hand is giving subsidies to salt manufactures to meet the cost of potassium but on the other hand is turning a blind eye to the higher cost of such salt in the market and also not banning the sale of ordinary non-iodised salt (which is cheaper).

7. Even though Goitre is a problem to be found in varying proportions in all the states only 10 states have set up Goitre Control Cells in their Health Directorates. In spite of repeated requests from the Health minister States like Haryana, Punjab Jamma & Kashmir, West Bengal, Tripura, Manipur, Himachal Pradesh Kerala, Karnataka, Goa and Union Territory of Delhi and Chandigarh have not yet set up such control cells in their Health Directorates, even though many of these states lie in the sub-Himalayan Goitre belt and the centre has approved an assistance of Rs 1 lakh per state for setting up such cells (NIHFW-1989). The fate of the national programme is no better in the 10 states which have even set up such cells.

8. At the national as well as state level there is no comprehensive plan of action which defines the targets, time frame, and resource requirements. The budgetary allocation is therefore used in an adhoc manner (NIHFW—1989).
9. Of the 423 districts in India only 113 (28.3%) had been surveyed till 1986 (Data of Orissa and Tamil Nadu were not available) On analysis of the districts surveyed it was found that 28 had been surveyed even prior to 1962, 33 between 1962-1970 and 35 between 1971-1980. After 1980 only 17 districts had been surveyed till 1986 (NIHFW—1989). Thus there was an average of roughly 3 districts surveyed per year. However there were several years (Seven) when only one district was surveyed in that year. These facts show very clearly the rather poor haphazard and slow progress of the National Programme relating to this component.
10. According to programme components a district should be resurveyed after 5 years of supply of iodised salt so as to assess impact. If we analyse the situation upto 1981 (an year in which all districts surveyed till then should have been provided with iodised salt and accordingly resurveyed by 1986 the year till which our information is available), we find that till 1981 only 55 out of 97 surveyed districts (56.7%) had been provided iodised salt and of such 55 districts only 14 (25.4%) had been resurveyed, thereby showing a gross discrepancy in this task also.
11. Of the 23 states for which data is available, the performance of different states as to the proportion of total district surveyed can be graded as follows :

Table 2 : Grading of Survey Performance of Various States

Grade of Performance	% Coverage (Criteria)	States	
		Number	Percentage
Excellent	100%	6	26.1
Satisfactory	80-99%	1	4.3
Fair	50-79%.	2	8.7
Poor	< 50%.	14	60.9

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It shows that 60% of states had a poor performance as regards survey. If this component of survey is calculated for the 15 states lying in the sub-Himalayan endemic belt rather high proportion was rated as having poor performance.

12. Ideally any district which is surveyed and reports endemicity of Goitre, (Prevalence rate more than 10%) and especially if this endemicity is high, should be provided with iodised salt as soon as possible so that the harmful effects are prevented. Very few districts have been provided with iodised salt within an year or two of their being reported endemic. Many were provided with iodised salt after 4 years, and some even after 36 years. It may be argued that how could the states surveyed before 1962 could do so, when the National Programme itself was started in 1962 i.e. after 32 years of the first survey held in 1930. In this regard it may be pointed out that if no national programme was available and salt could not be provided, then why was the survey done. This is against the principles and ethics of any screening procedure. When we examine the aspect of re-survey after 5 years of iodised salt supply it's found that very few were resurveyed within the stipulated 5 years,

the actual time taken ranging from 8-18 years.

It is expected that prevalence rate should decrease after supply of iodised salt. This is so for many districts but there are also 5 districts where prevalence rate had increased on re-survey and this increase ranged from 1.1%—36.5%.

13. If we analyse the control programme in relation to those districts where a prevalence rate of more than 50% has been reported the picture is also very gloomy. Available data indicate that there were 8 such districts according to surveys carried out till 1986 (NIHFW—1989).

(a) It is highly unfortunate that in 4 of such districts (50%) the commencement of iodised salt supply had not yet begun by 1986 i.e. even after 2, 3, 8 and 13 years after the baseline surveys had been done.

(b) In the remaining 4 districts where iodised salt supply had been provided, the time interval between the survey and the commencement of salt supply was ranging from 3-8 years and only one such district had been re-surveyed after 5 years of iodised salt supply.

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