

How a strong alliance of very different partners has helped to combat iodine deficiency through the Universal Iodization of Salt.

Mr. David J. Alnwick

Dr Werner Schultink

Ms Nita Dalmiya,

Health and Nutrition Sections, Programme Division, United Nations Children's Fund (UNICEF)

3 UN Plaza, New York, N.Y. 10017, USA

The aim of this paper is to illustrate how an alliance was created to combat iodine deficiency disorders (IDD), how this alliance helped to achieve results that none of the individual allies could have achieved on their own, and what the implications of this are for tackling other global public health and nutrition priorities. This paper focuses on these issues from the perspective of a UN agency, UNICEF. It describes the various players and analyses their various roles in the development of the alliance to combat IDD and evaluates the impact of their combined efforts.

Although the relationship between iodine deficiency, goiter and cretinism started to become known in the early 1800's, efforts to prevent goiter through salt iodization only started in the 1920's in the United States and Switzerland.

Doubts about whether iodine deficiency was truly the cause of so called endemic cretinism, combined with a reduction in the prevalence of goiter led to decreased global attention to iodine deficiency as a cause of significant ill health until about 30 years ago. In 1983, the term iodine deficiency disorders (IDD) was introduced by Dr. Basil Hetzel. It redefined the problem beyond goiter and cretinism and focused attention particularly on the negative effects of iodine deficiency on brain development. At the beginning of the 1990s, more than 1.5 billion people were estimated affected to some degree by iodine deficiency, indicating that this deficiency might have enormous consequences for human development.

A crucial step towards IDD elimination was taken around a decade ago when two global conferences took place - the World Summit for Children (September, 1990) and the International Conference on Nutrition (1992). These conferences established for the first time specific global goals and targets for improving child development, survival and nutrition, which helped form a global political consensus around the reduction of specific micronutrient deficiencies in children, including the virtual elimination of iodine deficiency disorders.

The World Summit for Children, held at the United Nations, New York in September 1990, represented the largest gathering of heads of state ever to take place up until that time. It was a meeting of Government leaders where agreement was reached on the need for concerted action on a number of issues agreed to be critical for the future of the world's children. Time-bound, quantifiable goals were established. The virtual elimination of iodine deficiency disorders was identified as one of the three goals specifically related to combating micronutrient malnutrition (later referred to as 'hidden hunger') especially in children and women.

Elimination of IDD was identified as a priority goal because of the growing body of scientific

knowledge that IDD caused serious problems in a large number of different countries and because there were relatively simple, proven, low-cost and effective approaches to tackling it available. The fact that there were also eminent scientists, such as Dr. Hetzel, who were prepared to take their conviction about the need for action out of the laboratory and to become active advocates and lobbyists also played a major role in obtaining the necessary consensus that global action not only could be taken, but that it should be taken.

At the International Conference on Nutrition in Rome, December 1992, the ministers and 'plenipotentiaries' representing some 159 countries re-affirmed some of the goals of the World Summit for Children, including the goal of the virtual elimination of IDD by 2000. This was also the first formal forum of this kind where the preferred means of achieving increases in iodine intake, through salt iodization, was clearly identified.

These conferences were important in that they provided a global platform for governments to publicly declare their commitment to improve the situation of children. They were also important because they created a climate of opportunity whereby change on a global level became possible. More important, they represented the

formation of a global alliance of leaders who for the first time made a political commitment to the elimination of IDD.

A strong political consensus of this type had proven to be essential for some other global public health initiatives, such as the successful effort to eradicate smallpox, and the ongoing effort to eradicate poliomyelitis. It is the foundation on which other meaningful alliances are created. The agreement on the goal of eliminating IDD, and the political commitment to this goal helped to create the environment for UNICEF and WHO to increase their resources to help tackle the problem.

Both UNICEF and WHO had started to support efforts to combat iodine deficiency shortly after the organizations were founded in the late 1940's. However, only in the 1980s were large scale programs in multiple countries supported. WHO established technical criteria to assess the degree of IDD in populations and set-up a database providing the first worldwide estimates of IDD prevalence. WHO also supported technical consultations and training programs to support countries establish IDD elimination programs. UNICEF was very active in fundraising, advocacy and awareness creation, which was essential for the initiation of many IDD elimination programs. The organization has also

directly assisted many countries with salt iodization programs by providing supplies and materials in support of efforts to combat the deficiency, including potassium iodate and equipment to add the iodate to salt. UNICEF has also developed a database to monitor the use of iodized salt in households worldwide.

At the same time that the UN agencies started to increase their support for efforts to combat IDD, a number of non-governmental organizations were formed or strengthened to support the international effort to tackle the problem. Organizations that should specifically be mentioned are the International Council for the Control of Iodine Deficiency Disorders (ICCID), the Program Against Micronutrient Malnutrition (PAMM), and the Micronutrient Initiative (MI). These organizations provided the technical expertise on which programs were built, expanded the number of trained professionals in developing countries, and assisted in advocacy at all levels. Each of these three organizations played an important but different role in the alliance, and the development of each of the organizations was facilitated by funding from national governments. The support from the Governments of Australia, Canada, the Netherlands and the USA to one or more of these organizations deserves mention/being particularly notable. UNICEF and WHO also participated in



the development and management of these groups.

At the international level, the involvement of Governments such as Canada, United States, the Netherlands, Germany, Australia, Belgium, and Japan in lending support to IDD elimination efforts has been a critical feature of this alliance and accounts for much of the rapid progress that has taken place towards putting programs in place. The knowledge that several countries, including the United States, Switzerland, and Canada, succeeded in eliminating IDD safely and effectively through salt iodization over 50 years ago has been a great boost to efforts to eliminate IDD worldwide. The support of these Governments has been important in providing credibility and visibility to IDD elimination efforts. This international collaboration has been critical in financing the start-up costs and for providing the necessary training and monitoring for IDD programs.

A series of very important regional and country level consultations followed soon after the landmark global meetings. The regional meeting on 'Universal Salt Iodization to Eliminate IDD in the Americas' which was held in Quito, Ecuador in 1994 was one of the events which led to Latin America embarking on an accelerated course towards IDD elimination. The meeting

culminated with the Quito Declaration on Universal Salt Iodization, in which governments of the region made a firm written commitment to achieve USI. Similar meetings were also held in Botswana (1992) for anglophone Africa, Senegal (1993) for francophone Africa and in Turkmenistan (1994) for the countries of the former Soviet Union.

With so many organizations joining the alliance, it was quickly becoming clear that there was a need to establish a mechanism - a working group - to co-ordinate the IDD elimination efforts of the various players. Such a working group was created under the aegis of the United Nations Sub-Committee for Nutrition (formally the UN ACC-SCN) which met yearly to report on progress and to jointly develop a workplan.

Several developing countries - notably Ecuador, Bolivia, and Bhutan, and later Eritrea and Zimbabwe, also played an important international advocacy and leadership role in the alliance by showing that they had successfully tackled a severe iodine deficiency problem through salt iodization with very limited resources. Their experiences demonstrate that this intervention was appropriate and was very much in the reach of the poorest countries in the developing world.

Although salt iodization is a relatively cheap

intervention, the magnitude of the undertaking of salt iodization in developing countries required considerable amounts of funding. The progress that has taken place towards making adequately iodized salt available to all households in the developing world would not have taken place had it not been for the work of one international service organization - Kiwanis International - which entered into agreement with UNICEF in 1994 to raise funds and advocate for IDD elimination. For those already working in the area of IDD elimination, the timing of this agreement with Kiwanis International was propitious. They entered into the alliance at a time when the international community was experiencing 'donor fatigue'. Their pledge to raise the necessary funds for IDD elimination provided the proverbial 'shot in the arm' at a time of dwindling resources and competing priorities.

To date, Kiwanis International has raised more than \$25 million for IDD programs in over 70 countries globally. But more importantly, their participation in the IDD alliance has left an impact that goes beyond the significant financial contribution they have directly made to the program. Their advocacy efforts with Governments in industrialized countries has resulted in increasing the visibility and resource base for IDD programs, the passing of IDD legislation, and even the release of iodization

equipment and supplies from government bureaucracies. It is their advocacy efforts that have mobilized and raised awareness among citizenry in developing countries about their right to be free of iodine deficiencies and the way to fight IDD through community action.

In this situation of increased awareness it became possible more recently to obtain additional support for IDD elimination efforts through UNICEF from the UN Foundation, which was created in part to handle the large gift for UN causes made by Mr. Ted Turner. In developed countries such as the USA, Kiwanis International's efforts have raised the level of awareness about the need to be vigilant about the re-emergence of IDD. Because of this partnership, private citizens are playing an active role in IDD elimination in their communities around the world and millions of children are learning better in school because their intellectual capacity is no longer diminished due to IDD.

UNICEF's experience has revealed that when the existence of a problem, its causes and solutions, remain hidden or known only to a few highly trained professionals, then certain public health initiatives such as IDD elimination remain narrowly medicalised. While the medical profession has a key role to play in understanding the extent, causes, and consequences of iodine

deficiency, it was clear that doctors would not eliminate this public health problem through treatment of just their individual patients.

This was not the case with IDD elimination. World scientific and medical opinion had been mobilized and the experts were calling for urgent action. In this regard, ICCIDD has played an active role at the international and national level by drawing attention to the problem, and then mobilizing and providing technical expertise to help tackle the problem at various levels. ICCIDD's work in setting practical standards for IDD programs with the World Health Organization and UNICEF has been widely recognized. Whereas other large scale health interventions mainly relied on a mixture of political commitment, funding and technical knowledge among program managers, it was clear that even this would not be sufficient to achieve IDD elimination. A broader alliance was needed including the private sector and public sector.

It was also obvious that while the problems caused by iodine deficiencies - mentally retarded children, high rates of stillbirths, people with goiters - were the mandate of those working with the health sector, the solution to the problem - Universal iodization of edible salt - needed to be tackled outside the health sector or even outside

the Government. Salt production and the iodization of salt was clearly an activity that lay outside the health sector. Success in eliminating IDD therefore depended on the mobilization and co-operation from other ministries of governments, e.g. the ministry of mining, commerce and trade. It was clear that good intersectoral co-ordination of the work of various ministries would be critical to the success of IDD elimination and that this co-ordination would require the support and commitment of Governments at the highest level. For this reason, in most countries an intersectoral co-ordinating mechanism within government was established and has clearly played a key role in moving IDD programs forward.

For those working within Government, international agencies, NGOs, and consumer organizations, this meant convincing salt producers of the importance of iodizing salt. By and large, salt producers in most countries were eager to comply. In return, governments were urged to regulate the iodization of salt by establishing laws mandating USI. Governments were also encouraged to provide incentives to the salt industry to help them comply with the new requirements. Such incentives sometimes took the form of access to concessionary loans, tax breaks, and by exempting salt producers from taxes and duties on imported machinery for



iodizing and packing salt and for supplies of potassium iodate.

A more recent example of good co-operation between agencies, governments and private industry is the alliance that has made a huge impact on the IDD status of two of the world's most populous countries - China and Indonesia - and which has been supported by the World Bank. The provision of World Bank loans of approximately \$60 million to re-structure the salt industry in these two countries has resulted in rapid progress in ensuring the availability of iodized salt to hundreds of millions of households. Recent data from China indicate that 89% of households are using adequately iodized salt, and in Indonesia 65% of households use iodized salt. The World Bank's calculations identified the elimination of IDD as one of the most cost-effective nutritional and health interventions and provided persuasive arguments to further convince Governments of the benefit of iodizing all edible salt. The credibility of these substantial investments in the IDD program helped to create a climate for increased investment and loan opportunities for the salt sector through local and regional banks. In the region of Latin America alone, it is estimated that credits for modernization of the salt industry in the range of \$400 million have been made.

A further indication of the broad alliance working towards IDD elimination were the workshops held most recently in the Philippines, Ukraine, Colombia and Kenya. These meetings were organized with the salt industry and participants from the industry and the public sector attempted to lay the ground rules for further mutually supportive action to ensure sustained progress towards IDD elimination.

In conclusion, the remarkable progress towards sustainable IDD elimination can be characterized by the following: development in awareness of the problem, collaboration, and commitment. Recognition of the magnitude and consequences of IDD led to high level political commitment, which in turn led to co-operation between governments, international agencies and NGOs. The large degree of success could however only be achieved through a real broad alliance including the salt industry and through awareness raising of the affected population. The continued understanding by both the general public and the salt industry of the significance of IDD, and of the importance of good salt iodization programs to prevent IDD recurring, will be essential if the progress made to date is to be sustained.