The Role of the International Council for Control of Iodine Deficiency Disorders (ICCIDD) in the Elimination of Iodine Deficiency Disorders (IDD) as a Cause of Brain Damage by Salt Iodization

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1. INTRODUCTION

Iodine deficiency is now recognised to be the most common preventable cause of brain damage in the world today.

A global program is now proceeding with remarkable momentum for the elimination of IDD as a cause of brain damage by the year 2000 through the universal iodization of salt (USI).

In 1997 WHO estimated that between 500 and 850 million of an at risk population of 1.5 billion are affected by goitre. Eight of the most populous countries (Bangladesh, Brazil, China, India, Indonesia, Nigeria, Pakistan and the Russian Federation) which make up 54% of the world's population have a significant iodine deficiency disorders (IDD) problem.

2. THE ICCIDD

The International Council for Control of Iodine Deficiency Disorders (ICCIDD) has an official relationship with WHO as technical adviser on all aspects of this global program. The ICCIDD now comprises an international multidisciplinary network of 435 professionals from 82 countries with a majority from developing countries and expertise in relation to universal salt iodization.

From its foundation the ICCIDD accepted technical assistance to national programs as the first priority. This has led to a close global partnership with governments of

The expertise required includes epidemiological methods, laboratory techniques (salt iodine and urine iodine), the establishment and maintenance

countries with severe IDD (usually Ministries of Health) and with the leading aid agencies WHO and UNICEF, the salt industry and Kiwanis International as a major donor. A series of Regional Meetings have been attended by country delegations, where a multidisciplinary model for a national program has been presented with emphasis on the important role of the salt industry.

These meetings took place in Yaounde (Cameroon) 1987; in Delhi (India) 1989; in Dar es Salaam (Tanzania) 1990; in Tashkent (former USSR) 1991; in Brussels (Belgium) 1992; Alexandria (Egypt) 1993; Quito (Ecuador) 1994; Dhaka (Bangladesh) 1995; Harare (Zimbabwe) 1996; Munich (Germany) 1997 and Beijing in 1998.

It is through these Regional Meetings that a limited number of experts within the ICCIDD network have been able to communicate with many countries at country level. This has subsequently developed further with consultancies and further contacts designed to identify obstacles to progress and remove them including problems with salt iodization.

Progress has been spectacular in Africa. At the first African Regional Meeting (Yaounde, Cameroon) in 1987, only 22 countries were represented, in 1996 45 countries were represented including Zaire, Angola, Mozambique and Eritrea in spite of the recent or present occurrence of civil war.

of laboratories, advice regarding planning and communication, management, iodized salt and other iodine technologies. The ICCIDD multidisciplinary network has been able to provide advice on all these aspects.

The preferred iodine technology on the grounds of effectiveness and cost is universal salt iodization(USI). This means that all salt for human and animal consumption should be iodized, which requires legislation.

Such a measure was recommended by WHO/UNICEF in 1993 and has been adopted by the great majority of countries with an IDD public health problem, including the highly populous countries, China, India, Indonesia and Nigeria.

3. REPORT FROM CHINA

China has made remarkable progress as reported to an International Workshop in Beijing (5,6, October 1998) held by the ICCIDD, with the Ministry of Health and Ministry of Light Industry. A comprehensive Report was presented which indicated a mean fall in goitre rate in all 31 Provinces from 20.4% in 1995 to 10.9% in 1997 (Total Goitre Rate (TGR) (children aged 8-10 years). There was an increase in quality rates of iodized salt (more than 20mg iodine/kilo at household level from 49.9% (1995) to 81.1% (1997).

Notable features were the high level of political support, the success of health education of children about IDD and the successful international cooperation. Continuing problems included lack of awareness in remote provinces such as Tibet and Xinjiang, the availability of non-iodized salt in some provinces and the illegal availability of capsules of iodine through schools and health services.

4.REPORT BY WHO DIRECTOR GENERAL TO 1999 WORLD HEALTH ASSEMBLY

A Report by the WHO Director General to the 1999 World Health Assembly indicated that indicated that in 1990 only 46 countries had salt iodization programs. By 1998 the number had increased to 93, more than 80% of which have legislation on iodized salt. Overall more than two-thirds of households living in IDD affected countries now consumes iodized salt and 20 countries have reached the goal of USI (defined as more than 90% of households consuming iodized salt).

5. THE ISSUE OF SUSTAINABILITY

The current challenge in relation to the success of USI is the issue of sustainability. Past experience indicated that breakdowns can occur. Sustainability can be assisted by an independent evaluation of progress at country level, which has now been carried out by the ICCIDD in a number of countries in collaboration with WHO, UNICEF, PAMM, MI and national governments. This evaluation includes the level of salt iodization, the measurement of iodine intake from all sources (urine iodine) and an evaluation of the political support and administration of the national program. Particular emphasis is laid on the achievement of salt iodine levels in the range of 20-40 mg/kilo and urine iodine levels in the range of 100-200 ug/litre in order to ensure prevention of brain damage and avoid the occurrence of iodine induced hyperthyroidism (IIH). Regular monitoring using these indicators is essential to sustainability. The participation of the salt industry is most important.