

Feature

Health

A Disease with Inconceivable Impacts

by Jerome Sarkar

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Disease more serious than though

GOITRE is a sizeable uncomely sag-like bulging of the throat caused by an enlargement of the thyroid gland. According to physicians, it occurs due to deficiency of iodine in human body. A video film on goitre produced by BBC has shown the serious malignancy of this disease. It is further projected that iodine is essential for brain's development and the thyroid gland's smooth functioning to regulate body's metabolism.

Mr Andy Batkin, an English gentleman who came to Bangladesh particularly to serve in Northern Bangladesh organised the viewing of the video film. His interest in our problem and drive to make the people aware of its dire consequences are indeed praiseworthy. In fact, many of us are ignorant of this disease's harmful effect of the mental growth as well as causal role of deformation of limbs. Some of the scenes caught live in the film are so horrifying and striking that all who witnessed the film were shocked. We did not know that this disease had got some hereditary characteristics too. If an expectant mother has this sinister disease, it may render the new born mentally and physically short of normalcy.

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An international voluntary organisation working in the northern Bangladesh where goitre has been common among the people, had tried to make the iodine injections and later iodine solutions avail-

able to the people. Subsequently, that NGO has introduced iodized salt to the locality in coordination with an iodized salt producing factory. At the initial stage, they organised the transportation of iodized salt from the factory to the mostly affected areas. Besides, they have been advising the people to make up the iodine deficiency through regular consumption of vegetables and fruits rich in iodine and

vitamins. They have been trying to motivate the people to grow more vegetables and engage in home-gardening.

One wonders if the government is really aware of its serious consequences and has begun to contemplate any solution.

Iodized salt has been an economically preferred means for preventing iodine deficiency in our country. Now we see many salt industries such

as the joint venture by BSCIC and UNICEF being set up in different parts of Bangladesh to supply iodized salt. Practically, they transport salt from Chittagong and add iodine to it in their factories. As a result the cost of salt goes up by minimum Tk two per kg in Dhaka. If it is carried to northern districts, this margin will rise further. And the usual inclination of a buyer is to go for cheaper non-iodized salt because of

unawareness. As a first measure to curb the crisis, people must be made aware of different complications this dreadful disease may cause. Seeing is believing. Hence the film shows will be the most effective medium. It is easily comprehensible for the general mass in the rural areas.

The problem has been identified and the solution is in hand. Now the iodized salt must be made available at a reasonable price within the purchasing capacity of the general mass in the rural areas.

It is a national problem. Efforts of NGOs alone cannot face the dreadful situation. Hence the initiative must come from the government. The Health Department must come forward to face the situation capably and prove its worth.

It is learnt that by 1993 iodized salt production will be made compulsory by the government. Prevention Act 1989, Rule 10, in Bangladesh Gazette, on production of iodized salt is already in existence. It covers different aspects nicely. But who will ensure the quality? The most vital point is to ensure proper quantity of iodine in the salt. It is alleged that ordinary salt is packed in printed bags meant for iodized salt. If that allegation is true then the concerned factories will grow richer and richer at the cost of the nation while the nation will be heading towards ruination.

The primary responsibility lies with the government in this respect.

Our government in coordination with international donor agencies may prove equal to the task of tackling the alarming situation. Integrated efforts are needed to do something meaningful and face this deadly disease, goitre.

of both people and the environment has escalated.

Many will argue that an unbridled free market system is not compatible with — and tends to suppress — genuinely

The Mystery of Sand Sickness

FOR years, students temporarily helping out at farms in Krasnoufimsk, in the Ural region of the former Soviet Union, have fallen ill with symptoms ranging from headaches to nausea and flu.

The cause had never been identified — until lately. Health experts now say the students' mysterious illness may have been caused by exposure to stacks of sand in 24 wooden grain storage sheds at the Pobeda Integrated Stores, along-term storage facility meant for food.

Kept there since 1960, the 82,000 tonnes of concentrated monazite sands have been found to contain thorium the radioactive metal that can be used to fuel nuclear reactors instead of uranium.

Outside the stores, which are run down, badly protected and only 600 metres from the nearest village, radiation levels reach 1,500 microroentgens per hour, says, Gennadi Alyabishiev, deputy head of the Krasnoufimsk Administrative District. This means the maximum tolerable exposure is about three minutes.

Local pressure for removal of the sands has been building up for the past two years but the situation has only recently become more widely known.

Members of local environmental pressure groups are now threatening to tie themselves on the railway line that runs past the store unless the sandbags are taken away.

The sand was reportedly delivered from Korea and were intended as raw for a thorium nuclear fuel. But plan was dropped because enrichment was found to be too costly and large amounts of uranium were discovered in the former Soviet Union.

The sand was the handed over to Pobeda for long-term storage, even if may thought the sheds, built in 1941 to

store grain and sugar, were unsuitable for the purpose.

But the storehouses were emptied and refilled with sacks of auburn coloured sand brought in by railway. The same railway cars were used to take away cars were used to take away the grain that had been hastily removed from the sheds.

Local people remember the sand being unloaded by prisoners who had been sentenced to short terms of forced labour. They say the prisoners carried it in on their backs and sat on it to eat their lunch.

None of those handling it, including the store officials, were told of the dangers involved. And the delivery notes

Storehouses full of bags of concentrated monazite sand have been pinpointed as the source of a mysterious illness plaguing an agricultural community in the former Soviet Union. Judith Perera of IPS reports.

describing the sand as monazite ore containing up to 6 per cent of thorium 232 did not arrive until six months later.

That rang the alarm bells for the local sanitary inspector, which became worried over the presence of the radioactive material. It filed an enquiry with the Russian Health Ministry. Four months

later, the ministry sent back its approval of the arrangement.

Unsatisfied, the inspector tried to prevent any more deliveries of sand. But the health ministry said the sand was safe and insisted that storage be maintained.

Eventually, a compromise was reached with the demarcation of a 'no-go' area of 600 metres around the store. But while the health ministry agreed to resettle 200 residents of a small workers' settlement inside the danger

zone, this was not done until five years later.

Over the years, the storehouses deteriorated. In 1986 one of the roofs fell in, sending up clouds of radioactive dust.

Just 100 metres away, trains carrying explosives and dangerous chemicals passed regularly. On one occasion, a rail car carrying ammonium nitrate caught fire while it was making a delivery to the neighbouring fertilizer store.

If the fire had spread, the ammonium nitrate already stored there could have exploded, sending radioactive sand over a vast area and creating a Chernobyl-scale disaster.

Protests grew in the glass-nest years. By 1989, the Union Research Institute for Industrial Technologies released a study of the situation. The classified study found that the 'inhaled products of decomposition found inside the stores and up to 700 metres away pose the gravest danger'.

The concentration of those products was found to be 70 times the normal tolerance level. People were not to be within 600 metres of the storage hoses for more than three hours a day.

The institute is now considering ways of dealing with the sand and has come up with a variety of suggestions, ranging from burying it under artificial hills to putting it in iron cases and dumping it in abandoned mines.

Businessmen from the Baltics have been offering to take the sand. But Russia, which had previously obtained it from Kazakhstan, may decide to keep the sand for its valuable elements.

One tonne is estimated to be worth around 60,000 rubles. The Baltic businessmen, however, have said they want to return the radioactive thorium after removing other valuable rare-earth elements the sand contains.

Meanwhile, the bags of sand continue to sit in the old storehouses, as dangerous as ever. — IPS

'Health Democracy' Needed to Overcome Social Ills

by David Werner

THE United States, as the world's wealthiest nation, would appear to be making some big mistakes in terms of meeting people's needs. In spite of the 'outbreak of peace', it continues to spend 27% of the national budget directly on 'defence' and 60% goes directly and indirectly to 'military related expenditures'. The War Resisters League presents the following lethal statistics:

The US ranks first in military expenditures, military bases, military aid, naval fleets, combat aircraft, and nuclear warheads, bombs, and testing — but fifth in literacy rates, sixth in GNP per capita, eighth in life expectancy, eighth in public health expenditures per capita, 16th in the percentage of women in university enrollment, 18th in infant mortality rate, 18th in economic aid as a percentage of GNP, and 18th in population per physician.

Add to this the results of a study conducted by a 37-member commission, including the former Surgeon General, C Everett Koop, and pollster George Gallup. The results, reported in the *New York Times* of 9 June 1990 under the heading 'Gloomy Report on Teenagers' Health', are as follows:

- Never before has one generation of American teenagers been less healthy, less cared for, or less prepared for life than their parents were at the same age.

- Hundreds of thousands of adolescents (suffer from) excessive drug use, unplanned pregnancies, sexually transmitted diseases and social and emotional problems that can lead to academic failure or suicide.

- Each year one million teen-age girls, almost 1 in 10, become pregnant, and 2.5 million adolescents contract a sexually transmitted disease.

- The suicide rate for teens has doubled since 1968, and 10% of adolescent boys and 20% of girls have attempted suicide.

- Violence is a part of many young people's daily lives... Every day 135,000 students bring guns to school, and homicide is the leading cause of death among 15-to-19-year-old blacks.

- More than half of high school seniors become drunk (at least) once a month, and alcohol-related accidents are the leading cause of death among teenagers.

- Thirty per cent of tenth graders have experimented with drugs (as compared to 5% in the 1950s). Half a million 12-to-17-year-olds have tried cocaine.

The study concludes that, 'Many of America's young people, both rich and poor, from all racial and ethnic back-

grounds, have serious social, emotional and health problems, problems that have potentially disastrous consequences not only for the individual teen, but for society as a whole.'

The unhealthy and inequitable health situation in the US is made even worse by the fact that the US is the only industrialised nation where health is still a privilege, not a right. The medical and health care business has become one of the country's biggest and most lucrative private industries, with a powerful lobby, that relentlessly opposes a national health plan that would guarantee basic services to all.

Meanwhile, 37 million citizens lack any form of health insurance, one in five children live in conditions of poverty,

Certainly, President Bush is celebrating the 'triumph of freedom and democracy'. Recently he told a crowd at the Santa Ana Bowl — where he was introduced by freedom fighter Chuck Norris — that a new breeze has swept around the world, bringing new hope...

Vaclav Havel, free at last; Nelson Mandela, free at last; Nicaragua and Panama, free at last.

The US government in recent years has stepped up its rhetoric about all the 'democratic' governments it has created, or tried to create, in Latin America, in the Caribbean, in southern Africa, in the Philippines, and in the Middle East.

But clearly, something is wrong with these 'democracies' that have been

tried hardest to overthrow oppressive rule and to equitably meet everyone's basic needs are precisely those nations that the US has tried to destabilise and replace with its puppet 'democracies' (which are often brutally undemocratic).

How does people's health in countries that have won their liberation compare to that in such puppet democracies? Recalling the fairness factor, it is no surprise that the status of health in Cuba is incomparably better than in El Salvador.

I am not saying that Cuba is completely egalitarian or democratic. It is not. But with or without the facade of elections, Cuba is functionally far more democratic than El Salvador. Chronic hunger in Cuba is almost non-existent. Health care, education, housing and other basic needs are universally met. Persistent human rights violations in Cuba let us know that political freedom is incomplete. But the abuses in Cuba are minimal compared to the death squads in El Salvador.

The new Nicaraguan government is the most recent in the long list of US puppet democracies. After liberation, the Sandinistas, through genuine people power, made spectacular gains in health and education. The February election was a triumph, not for democracy, but for low-intensity conflict.

It is still too early to know how Nicaragua's change of government will affect health. But, according to US guidelines, hospitals will be privatised and community health centres closed to make way for mandated 'economic adjustments'. As ever, the poor will suffer.

If Nicaragua remains a subservient pseudo-democracy, it may descend to the same abysmal levels of health and development that exist today in Guatemala, El Salvador, Grenada and other countries whose governments dance to Washington's tune.

Clearly, this sort of 'democratisation' is a scam. It is important that we not confuse a 'free-market economy' with real freedom and democracy. For, as we have seen, improvement in levels of health depends on real democratisation: that is, on the empowerment of groups of people, at the family, community and national level, so that everyone has a chance to participate as equals in the decisions that affect their well-being.

As we have seen, the health of the world and its people is deteriorating. The current growth-oriented model of development has not caused health to 'trickle down' to the disadvantaged. Instead, the gap between rich and poor is growing, and cruel exploitation

Making the Best use of Radiation Biology and Radiotherapy

ACTIVITIES relating to radiation biology applications in radiotherapy as well as in other fields of human health-care significance are well represented in the research contract programme, with four CRPs ongoing and three completed in 1990. One current CRP, carried out under RCA and funded by the government of Japan, is aimed at introducing computerized dosimetry and databases in the radiotherapy of carcinoma of the cervix in Asian countries.

Cancer of the cervix is the most common female malignancy in most countries of the

CRP region. Among the three major treatment modes, such as surgery, chemoand radiotherapy, the preferred treatment of choice is radiotherapy which often provides better clinical results and less morbidity compared with radical surgery or other forms of treatment.

Personal computers (expert systems) with suitable software for teletherapy (radiation treatment administered by using a sealed radioisotope source that is at a distance from the target tumour) and brachytherapy (radiation treatment using a sealed ra-

dioisotope source in direct contact with the tumour) now are easily available at affordable costs and can be introduced through multi-institutional CRPs among radiotherapy centres in the developing CRA Member States.

It is envisaged that the CRP ultimately will lead to an improved and more uniform status of approach towards the management of cancer of the cervix by radiotherapy in the CRA region, and assessment of treatment results to sustain further improvement.

Experience would be shared with other developing

countries, particularly in Africa, where carcinoma of the cervix still constitutes a major cause of death among the female population.

Another global CRP on computer-assisted radiotherapy planning for tumours of the head and neck has been initiated.

Cancers of the head and neck constitute on the average 10 to 20% of malignant tumours in most countries. These ratios generally are even higher in the developing countries.

Many head and neck tumours seem to associate definitive disease-causing factors and geographic distribution patterns. Of the head and neck cancer types, those in the nasopharynx, oral cavity, and larynx are the most common in developing countries according to the statistics.

This CRP's work programme is designed to improve the quality of radiotherapy techniques for head and neck tumours of the three specified sites.

Efforts are being made to optimize the treatment technique by combining brachytherapy and external radiotherapy with use of personal computers (expert systems).

A programme pertaining to radiobiological effects of low-dose and low-dose-rate radiation, with emphasis on capability development for quantitative assessment of their potential impacts on human health and on radiological protection criteria, has been initiated in a new CRP.

The linearity of radiation-dose-effects relations, starting from the zero dose, presupposes identical mechanistic involvement of specified radiobiological effects at low- and higher-dose levels. Contrary to this are the progressively growing literature reports on the stimulatory (adaptive response) effects of pre-exposure to very low-dose radiation on the enhanced resistance to a subsequently delivered higher challenge dose. — (IAEA)



A treatment called brachytherapy is used to treat cervical cancer.

