## Need for Appropriate Health Research

ESEARCH and action are complementary While action is aimed to improve the health of certain people today, research is an investment with multiplier effect; improving the health of many more people in future generations. Research is the essential but often neglected link between aspiration and action.

But research is often perorived as an academic exercise only, unrelated to meeting the urgent health needs at hand. Some feel that research is a luxury which only those with surplus resources can afford. Others feel that the results of research are rarely practical and never timely in dealing with the pressing demands which face the nation. Often research is not among the programmes supported by many donor agencies.

It was the perception that research was being misunderstood and its value greatly underestimated that stimulated the formation of the Commission on Health Research for Development in 1988. This was an international initiative to improve and expand the support for research that has a bearing on the heath of people in developing countries.

The Commission consulted with a broad range of experts. interviewed hundreds of people, reviewed numerous working papers specially commissioned for its work conducted a survey of health research in developing countries and developed its final report "HEALTH RESEARCH: ESSENTIAL LINK TO EQUITY IN DEVELOPMENT.\*

This report confirmed that there is very little health research being conducted in the developing countries. The re-

HRISTMAS comes but

just as well, given the

amount of dietary indiscretion

which seems to accompany the

religious festival. Let's face it,

we all enjoy the traditional fare

- turkey and ham, Christmas

pudding and cake and, of

course, the traditional Yuletide

At least in Hong Kong it is

the traditional cold, wintry

drinks.

once a year-which is

search being done was mostly biomedical. The important components critical for promoting health i.e. social and economic issues, were not included in this research; furthermore, this research was often inappropriate to the critteal needs of the country.

The results of the research were also seldom utilized by the decision makers in policy formulation. In short, the research work most seriously neglected in these countries is that which might have been very important for informing decision-makers regrading reguired health actions.

To fill this gap in health research the Commission devel-

by Dr Sadia Chowdhury plinary approach to research and by strengthening the linkages between policy, action, and research will help develop a situation where all three will share a common interest and work in unison towards the fulfillment of its purpose.

ENHR as envisioned by the Commission, comprises broad categories of research which are different but complementary i.e. country specific and global research. In country specific research each developing country will: 1) identify country specific health problems, distribution and determinants of health conditions and diseases: 2) decide how best to approach the problem.

ENIIR and taken up the chalone nurse for every 19370 lenge of establishing country population (Third Five year Plan). The doctor to nurse raspecific ENHR programmes. Bangladesh is one such country tio has improved - it was 4:1 which is attempting to transin 1979 and came down to late this concept of ENHR into 2.5:1 in 1985.

> But the statistics still continue to indicate a physician centered health care system. (It should be noted here that it is difficult to get an accurate understanding of the number of health personnel active in the country, since available statistics only relate to the

government sector). In terms of skill development, health research is not viewed as a career choice due to very little development prospects. Community health

is still regarded as being pe-

ripheral to medical education

and has not been fully inte-

grated into the medical cur-

riculum. Health problems and

research are mostly viewed as

biomedical concerns, with

minimal input from other

fields, i.e. the social sciences

that there is an acute shortage

of trained health researchers

in Bangladesh. According to an

estimate done in 1988, there

were fewer than 150 profes-

sionally trained community

health/public health re-

searchers in Bangladesh with

its population of about 120

million (George Rubin, Ford

Foundation). There has not

been any significant improve-

ment in the situation since

Essential research

is unique in that the ENHR ini-

tiative has been taken up and

The situation in Bangladesh

Thus it is not surprising

or statistics.

is being pushed through by a national NGO namely BRAC and some international agencies, ICDDR.B and UNICEF.

The question would invariably rise here as to whether non-government private organizations can assist in the advancement of the use of research in Bangladesh.

Some national NGOs have increased the scope of their activities, grown in size and professionalism with considerable support from abroad. With a stable support base, it is foreseeable that this growth is likely to continue for some time to come.

In January 1989, a meeting was organized in Dhaka sponsored by BRAC and CHRD (Harvard). The meeting, at tended by eminent and senior personalities from the health profession in Bangladesh. called for urgent measures to promote and foster health research in Bangladesh.

There was explicit recognition that health care research and evaluation are not luxuries but an integral part of the health system with the ultimate goal of improving the health of the target population.

An ENHR Working Group was formed with representa tion from nine institutions. both government and NGOs.

Following several meetings with the Government and other national and international organizations, the Working Group for formally launched the initiative in November 1990 through a workshop attended by repre sentatives from the govern ment, private institutions from CHRD as well as from several funding agencies.

(Access)

ies and will improve the mood also. It's one time when there are hours to spare and what better way to spend them?

This leaves us with richer traditions of X mas - the carols, the exchanging of gifts

a Happy and Healthy Christmas and a Febulously Fit and Prosperous New Year.

EXECUTIVE

## Targeting Brain **Tumours**

by GS Mudur

ECENT studies by a team of Indian scientists might ultimately lead to a new way of combating brain tumours that are difficult to treat either through surgery or by chemotherapy with antitumour drugs.

Brain tumours pose a major challenge to neuroscientists who have to overcome several obstacles to successful treat-

One problem in trying to treat brain tumours through chemotherapy is in getting the right amount of the anti-tumour agent into the brain past the blood-brain barrier. This barrier is a semi-permeable membrane that allows some solutions to pass through it, but excludes solid particles and large molecules. The blood-brain-barrier keeps the circulating blood separate from the tissue fluids surrounding the neurons or brain cells.

However some drugs to penetrate the blood-brain-barrier. But doctors often have little or no control over where the drug will act. In addition to destroying the tumour cells, it could also harm other neighbouring healthy cells in the brain, causing brain damage.

What doctors have been looking for is something that will open up the blood-brainbarrier to let the drug in and an agent that will make the drug act only on the tumour cells and not on healthy brain

Now biochemists at the All India Institute of Medical Sciences in New Delhi believe they have got both these desired effects by coupling two kinds of molecules to each other.

The AllMS scientists worked on the human glioblastoma multiform tumour. This is a highly malignant and rapidly growing brain tumour that is not controlled easily by therapy. Doctors say its prog nosis is poor and it has a high mortality rate.

The researchers first devel oped monoclonal antibodies for glioblastoma multiform tumours. Monoclonal antibodies can be regarded as "recognizing agents" that are able to specifically identify these tumour cells. Once inside the body, their job is to seek out and attach themselves to the surface of the tumour cells. The AllMS team led by Dr Shail Sharma, head of the department of biochemistry joined these monoclonal antibody molecules to artificially created molecules called liposomes in which was enclosed the anti-tumour drug.

The liposomes are molecules of chemicals called phospholipids oriented in a special manner which enable them to enclose within themselves the anti-tumour drugs.

Laboratory studies suggest that liposomes either fuse with the membranes of the tumour cells and let the drug flow inside the cells or let themselves be swallowed whole by the tumour and then burst inside unleashing the drug which then kills the tumour. The prime advantage of the liposomes, says Dr Sharma, is that they will allow the delivery of very high concentrations of the anti-tumour drugs.

Liposomes cannot by themselves pass the blood brain barrier. But the AllMS team has used a well-established medical trick to open up the barrier for a short while to let the drug-enclosed liposome coupled with the monoclonal antibody into the brain.

The barrier can be opened up temporarily by injecting a concentrated solution of mannitol, a kind of sugar. Once inside the brain, the monoclonal antibody attached to the liposome takes it to the site of the tumour where the liposome interacts with the tumours, releasing the drug to destroy the tumour cells.

The experiments have so far been conducted in laboratory mice. The AllMS group now plans to induce glioblastoma cells in laboratory animals to determine the efficacy of the coupled molecules in finding and destroying the tumours. The next phase of the experiments will involve monkeys, a crucial step before the new approach can be tested out in humans.

- (PTI Science Service)

### According to the Population Development and Evaluation Unit of the Planning Commission and the Bangladesh Bureau of Statistics (1988), approximately 600,000 children under 5 die every year in Bangladesh.

oped the concept of Essential National Health Research (ENHR) in the following terms:

To understand its own problems; to enhance the impact of limited resources: to improve health policy and management to foster innovation and experimentation; to provide the foundation for a stronger developing-country voice in setting international priorities; the establishment and strengthening of an appropriate health research base in each developing country no matter how poor, is essential".

The Commission emphasized that ENHR is that research which is linked to decision-making, needing to be applied on an ongoing basis to every level of the health services and which should be an integral part of all programme development, planning and implementation.

ENHR, by promoting an inter-sectoral and multi-disci-

should be carried on to-day in

a sophisticated business com-

munity is arguable, but I can

sense a chorus of disapproval

arising at any Scrooge-like

questioning of the ancient cus-

toms. Still discussing methods

that alcohol is not a stimulant

but a depressant. The attrac-

sex at the office X mas party

available, after a few drinks be-

cause one's inhibitions have

been suppressed. The morning

after may also produce the all

too familiar feelings of depres-

of this not too learned article

has a suspiciously detailed

knowledge of the condition

you are not far wrong. Age may

or may not bring wisdom but it

brings a heightened sensitivity

to the grog and its side effects.

so I am more circumspect

If you think that the writer

sion in full force.

It is not generally realised

fects might be entertaining.

how to organize - to take all the pieces of existing knowledge and improve health in the most cost effective way: 3) identify impediments to the successful implementation of these programmes: and, 4) design and evaluate action

programmes for controlling

the problems, and their distri-

button. This expedites efforts for equity by providing better understanding of the way the health services function and identifying gaps in availability. accessibility and coverage.

Country-specific research may give rise to questions which if researched with the input of several other countries, leads to cumulative, transferable results which may be shared with and applied to any part of the world, resulting in global research.

Since the release of the report over thirty countries have shown a remarkable interest in

anism to utilize research findings for making health policy decisions.

a process involving re-

scarchers, policy-makers and

the community for effective

utilization of the country's lim-

ited resources to achieve

in the health related sectors is

currently inadequately devel-

oped to meet the policy and

planning needs of the govern-

ment. It would be fair to say

that there is no long term co-

ordinated research agenda,

and no clearly defined mech-

National research capability

equity in health.

#### Bangladesh scenario

According to the Population

Development and Evaluation Unit of the Planning Commission and the Bangladesh Bureau of Statistics (1988), approximately 600,000 children under 5 die every year in Bangladesh. Over thirty per cent of these deaths are caused by dehydrating diarrhoeal diseases and another third is caused by the eight preventable (immunizable) diseases (diphtheria, pertussis, tetanus. tuberculosis. poliomyelitis, measles), malnutrition and respiratory tract infections.

#### Availability of trained manpower

At the national level there was one physician for every 9690'population in 1981, and

> X'mas stocking. Remember. cardio-vascular disease kills

Try to spend some time in physical activity - golf, tennis or whatever. This will prevent some sledging up of the arter-

#### with the loved ones, the family Christmas tree, and so on. This is what it is really about. I shall finish by wishing you

#### weather - if not actually snowof getting over the worst efing. In Australia the temperature on X'mas Day can be off the clock - well into the hundreds - but we still have the ham and puddings - though tive member of the opposite these days with some people this has become ham salad on looks even better, and more the beach.

The original festival was a celebration of the Winter Solstice, the shortest day of the year. Nowhere in the Bible is December 25, mentioned as the date of the Saviour's birthday. In medieval times it may have been an excuse for starying peasants to beg some largesse from their lord to keep them alive until the coming of Spring. To keep the peasantry alive it is not a bad idea to give them lashings of fatty pudding and some grog.

these days. Whether this tradition The hangover of Boxing Day

# For That Morning After Feeling

by Dr Cooke

In this exclusive series, Dr David E. Cooke offers some pointers to relieve the pain and punishment of excessive seasonal imbibing.

is a sorry consequence of the festivities. The blurry feeling. the headache, the stomach that feels that a tribe of savages is trying to roast you from the inside. What to do? Here is a quick First Aid guide.

Paracetamol. Better not to use aspirin because it may do drastic things to the lining of the stomach. The indigestion responds to

The headache responds to

antacids like Mylanta or Mucaine but avoid the aspirin containing preparations. You may have to use fairly large doses, but it is important to neutralise all the excess acid.

If you have a friend who is in a really bad way and vomiting a lot, then Sternetil by in-

jection may have to be given but this is for the unfortunate who does not respond to simpler measures.

The best cure is prevention. Try alternating soda water with the hard stuff at the Office Party. Alcohol is a diuretic and actually makes you thirstier. So pouring down the soda water will keep you feeling better and yet you are still perceived to be the life of the party. You will of course make more use of the executive washroom but that is a small

The less you drink the better you feel the next day so is will pay off. Remember that alcohol can be a killer. It directly accounts for three thousand deaths in Australia annually not including the road toll.

What do you do when you arrive home in a state of euphoria from the office party to be greeted by a spouse who is less than enchanted by the prospect of a night playing nurse-maid? Flowers, protestations of undying affection and other more tangible proofs of your deep and undying devotion are the traditional stand-

Better not have any lipstick on the collar, though. It tends to spoil the effect. Better to abandon the shirt and invent a story of a hair-raising encounter with a death-dealing Triad gang from which you only just escaped. Spouses are never fooled by these tales but you may get points for origi-

More difficult is the hostess whose grand piano you wrecked by delighting the company with your inebriated but hilarious impression of a dentist. You extracted too many of the tvory keys with the fire irons - that was the mis-

Try a large box of the most expensive chocolates and an even larger cheque for the piano repair man - who will certainly seek punitive damages for being called out at the festive season.

For those not locked in Holy Wedlock (or Unholy Deadlock) a condom is a necessary accessory to any amorous adventures.

With the HIV virus rampant - not to mention the Hepatitis in various A. B and C variants it is wise to a avoid the scenario of a Day with Bacchus, a Night with Venus and seven years with lingering Misery before release.

A word should be said about the dreaded cholesterol which is a big component in too much of the traditional X mas fare. Stick to turkey breast and politely decline the ham and puddings. You do not want to be the

Ghost of Christmas Past and a

coronary occlusion is the last

thing you would like in your

about half the population of prosperous societies.

## Medical Care as Political Weapon in Gaza Strip

by Martin Rubenberg

HE ability to provide medical care and the power to withhold it has evolved into a strategic and tactical weapon of political and 'low intensity' warfare. Nowhere in the world is this better illustrated than in the Gaza Strip in the context of the intifada.

The Gaza Strip is an area of approximately 350 square kilometres, bordered on the north by the Erez checkpoint (Israel), on the south by the Rafah checkpoint (Egypt), on the west by the Mediterranean and on the east by the Negev Desert (Israel). Residing in this area are approximately 700,000 Palestinians, 2,000 Israeli settlers and an undetermined number of Israeli troops (estimated to vary between 7,000 and 25,000 at any

particular time). Approximately 50% of the land area has been confiscated by Israel for settlements. nature reserves,' 'conservation areas' and military requirement. The Palestinian population density in the remaining area is thus 4,000 people per square kilometre, one of the highest in the world, and by comparison, 20 times greater than that of Israel.

Water allocation and usage are controlled by the Israeli authorities. Seventy-five per cent of the total water resources go to the 2,000 Israeli settlers and only 25% to the 700,000 Palestinian Gazans. Less than a quarter of the Palestinian population has running water in their homes.

There is no sewage system in any of the eight refugee camps — home to over 250,000 people. Raw sewage runs through the streets and alleys of the camps. In Gaza city, storm drainage is inadequate with the result that after heavy rains many streets are impassable for several days owing to sewage backup and the creation of fetid pools. Solid waste collection and disposal, a municipal function, is inadequate owing to funding controls by the occupation authority - erratic at best and further complicated by cur-

The combination of high population density, limited water availability, open sewers and inadequate garbage disposal render the population

highly subject to viral, bacterial wounds, gas inhalation and home if he is needed. and parasitic contagion, with the resultant high levels of respiratory and intestinal diseases and generalised debility.

Although no exact figures are tabulated for the Gaza Strip population, the vest estimates reveal that between 30 and 50 infant deaths occur during the first year of life per 1,000 live births. This rate is obscenely high when compared to an infant mortality rate of 10.7 in Israel (official 1987 statistics).

The birth rate in Gaza is one of the world's highest. The best estimates are in the range of 50 live births per 1,000 people per year. Two factors will probably drive his figure higher:

. Sixty per cent of the population is under 20 and thus approaching marriage and child-bearing, and

 They have lived for two years under a constant 8 pm to beatings have to be treated on an outpatient basis. The Israeli Government

and occupying forces have been methodical in devising ways of inhibiting the growth, development, utilisation and delivery of medical and healthcare services. Monies neces sary for the construction and maintenance of medical facilities are increasingly rationed by the occupying authority. A new building which is to replace the totally inadequate facilities at Shifa hospital has now been under construction for eight years. The Israeli administration has stated that this building 'will be completed within six months. During the time I was in Gaza saw no construction work in

progress. Bureaucratic obstruction is used to limit medical care. It is illegal to do voluntary work in

Medical care has been viewed through the ages as a humane and beneficial enterprise but, in reality, to a greater or lesser degree, it has been used as an instrument of political control. This is starkly revealed in the Israeli occupied territories.

4 am curfew.

There are approximately 500 doctors in the Gaza Strip, the majority of whom are employed by government hospitals at a wage of \$500 per month. The doctor-to-population ratio in Gaza is 1:1400, compared with a doctor-topopulation ratio in Israel of

Hospitals and their facilities are grossly inadequate to service the population. At present there are only 650 general hospital beds available in all of Gaza, less than one per 1,000. Sanitary conditions in the government hospitals are deplorable. In the past, the Israeli Government allocated Gazans approximately 90 beds in Israeli hospitals for the treatment of residents with medical or surgical conditions for which no facilities existed in Gaza. During the past year, this allocation has been reduced to 26.

The vast number of injuries (in the tens of thousands) inflicted during the intifada by the Israeli military totally overwhelmed the already inadequate medical facilities. injuries such as gunshot

the Gaza Strip without government approval - an unpaid volunteer must apply for 'working papers.' S/he will be asked to produce diplomas, certificates of competence, etc. It takes about nine months to process a work permit which is only good for six months. This inhibits volunteer and philanthropic

Medical care is also limited by Israeli authorities when they prevent the return of Palestinian doctors who have been trained abroad. AUStrained haematologist was told by the Israeli authorities that he could legally enter but that neither his wife, who was also Palestinian, nor his two-yearold child could join him in the West Bank. As a result, this very competent doctor is practising in Amman, Jordan.

Radio facilities, including doctors' bleepers, have been banned, making immediate notification of accidents or illness to a hospital or ambulance impossible. The only haematologist in Gaza, who lives in Khan Younis, has no telephone and no bleeper and consequently cannot be contacted at

The absence of adequate service, continuous nightly curiews. frequent 24-hour curfews for days or weeks at a time, military closures and regulations prohibiting Gazans from remaining in Israel overnight, all combine to increase the pain, suffering, debilitation and mortality of Palestinian patients.

A related aspect involves the future cost that Palestinian society will have to bear as a result of the intifada and Israel's brutal response, which is all- encompassing and methodical to the point where it raises the question whether this response is an attempt to suppress the intifada or the beginning of Israel's 'final solution' to the 'Palestinian prob-

When one considers the vast numbers of individuals between the ages of 10 and 30 suffering paralytic injuries blindness, amputations and deformities, one realises that the cost of their rehabilitation and maintenance is going to be a tremendous economic and psychological burden on whatever society evolves from the present situation.

Certainly, at the present time, Palestinian society cannot provide rehabilitation for so large a number of injured people. It may well be that in the long run that burden may have to be shared by a variety of organisations - both charitable and political - or perhaps something akin to a Palestinian 'Marshall Plan'. Under the current constraints of the occupation it is impossible to plan for future needs.

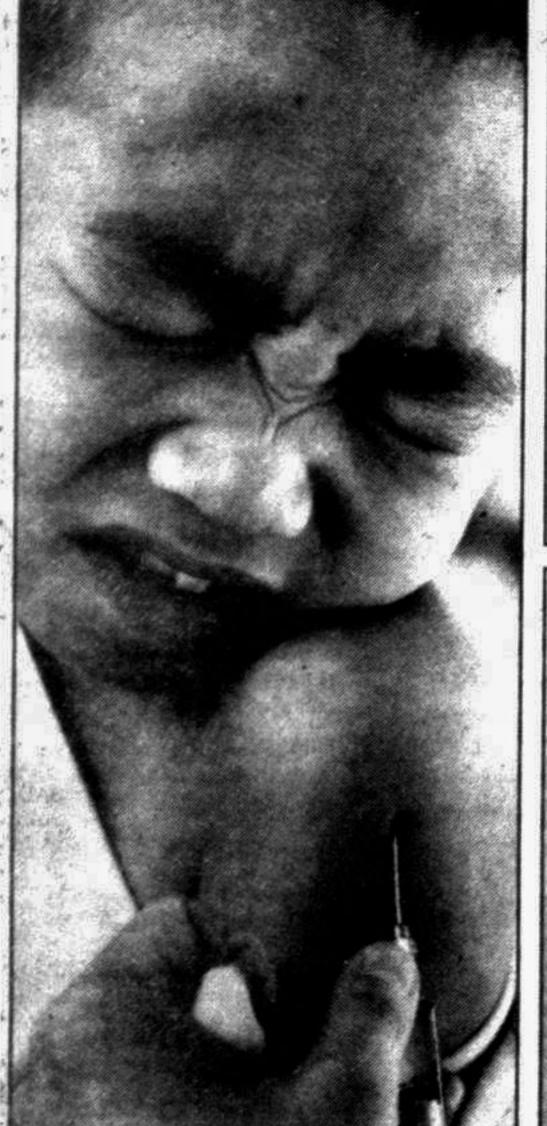
We are forced to the conclusion that the Israeli occupation seems bent on a form of collective punishment of the entire Palestinian populace. Thus, in the most dramatic way, the Israeli authorities are demonstrating how medical care, its production, its delivery and its utilisation can be used as a political weapon to control, and subjugate a population.

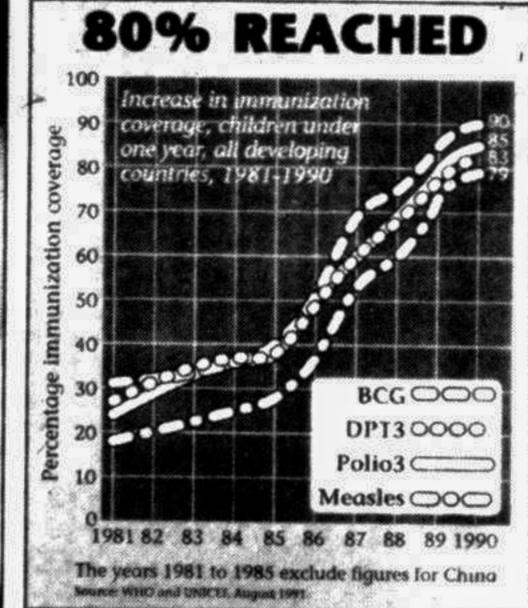
- Third World Network Features/Free Palestine (Dr Martin Rubenberg, a

practising doctor in Florida. recently worked as an unaffiliated volunteer doctor in the Gaza Strip).

SUCCESS

STORY





In the late 1970s, when vaccines reached only

about 10% of the developing world's children, the

international community set the ambitious target

of 80% immunization by the end of 1990. The

charts show the result of that ten year effort.

