

Containing a Growing Menace with an Advanced Detection Technology

by Dr Munir Hassan

For the optimal control and ultimate eradication of an infective disease, early and proper detection is very important. Prompt treatment will prevent not only the development of complication but also the carrier state of Salmonella, the causative germ of typhoid and paratyphoid fever.

In a bustling metropolitan city like Dhaka, along with rising skyscrapers and new housing flats, shanties are also springing up in abundance. Together with the increase in human population, diseases like typhoid, paratyphoid fever are also on the rise to create a menace. Drinking water pollution, inadequate sanitation measures and the unhygienic practice of food handling are the major contributing factors to the increase in these water- and food-borne diseases, and to add to the problem, if the food handler is a carrier of Salmonella, the causative agent of Typhoid and Paratyphoid the problem becomes manifold. The carrier though excreting the germ however does not suffer from the active disease but unknowingly is a potential source of spreading the disease to others.

In 1913 the public health officials of New York city had tracked down one severe outbreak of Typhoid fever to the cook of a restaurant, famously known as Typhoid Mary. Since then no successful treatment in those days she was simply put to jail. Such extreme public health safety measures proved effective in the decrease of Typhoid fever cases in the developed countries while the exact opposite side of the picture is found in our country.

Our sanitation measures are at a deplorable level. Our water supplies are thought to be contaminated with sewage supply at places. Food handling practices are simply unsafe. Ice-cream factories are springing up everywhere without facilities for boiling water or milk. Cheap icecreams are being prepared and sold to school children among whom the occurrence of Typhoid fever is rampant.

It is virtually impossible to track down a carrier and bar him/her from handling food until he or she has successfully completed treatment. The majority of the vast numbers of laboratories, diagnostic centers and hospitals springing up like mushrooms every other day do not have a proper waste disposal system. Everything starting from dressings, potentially dangerous excretions of patients to laboratory waste products such as blood and its remainders and that of bacterial cultures are being disposed of either in the Municipal dustbin or washed in sewerage system resulting in the increase of diseases like typhoid, bacillary dysentery, parasitic diseases, hepatitis B and other deadly infective diseases.

The municipal dustbins are open containers polluting the environment with a major help from the Tokais who scavenge

the waste for their reusable factories but in the process spread the waste all over the place. Sometimes when the emptying is not done regularly, the dump gets spread all over the road because the container becomes overloaded.

For the optimal control and ultimate eradication of an infective disease, early and proper detection is very important. Prompt treatment will prevent not only the development of complication but also the carrier state of Salmonella, the causative germ of typhoid and paratyphoid fever. Salmonella are ingested along with the contaminated food and water. These bacteria reach the blood via the intestines and spread to different parts of the body most commonly to the walls of intestines itself. They multiply and ultimately produce the disease. The earliest chance of detecting and confirming the disease is by a pathological test known as blood culture.

Other investigations such as widal test, stool and urine culture become positive usually after the 1st week of illness. Vis-a-vis our bodies' defensive mechanism, the immune response takes about 5-10 days to develop when it encounters a hostile new germ and widal test which is a measurement of body's immune response against Salmonella though useful in detection but at times gives such results as are very difficult to interpret and the physician may end up treating a typhoidal fever as non-typhoidal and vice versa.

The correct detection and complete treatment of typhoid fever is very important because Salmonella is a notorious organism in that it remains sequestered in the protective regions of the body and unless long-term proper antibiotics are administered, carrier status develops with the chance of relapse and potentially dangerous transmission to others. With the introduction of a fully automated computerized blood culture system in a private laboratory in Dhaka city since April 97, there has been a great increase in the number of detection of typhoid cases.

This system uses an advanced method whereby more than 90 per cent of positive blood cultures are detected within a period of 6-24 hours whereas the normal conventional method of blood culture takes generally 72 hours or more to detect positive samples. Blood from the patients are collected into special culture bottles which have built-in sensors their bottom. The bottle is kept in a machine which is

connected to a computer. The sensors detect growth of bacteria and pass a signal to the machine every 10 minutes. The attached computer evaluates the signal and upon crossing a threshold value, declares a particular bottle positive. This allows the operator to remove the particular bottle and process it further for the consultant microbiologist to evaluate the findings. Using this system as early as 8 hours, growth has been detected.

This system has the added advantage of detecting germs in the blood even if a patient is taking antibiotics. Using this system over a period of 12 months, nearly 40 per cent of the positive blood cultures have been found with grown Salmonella, the causative agent of typhoid and paratyphoid fever. What is more alarming is that among this high percentage of Typhoid fever patients, 42 per cent were under the age of 5 years and 25 per cent were between the age of 6-13 years.

This huge number of Salmonella detected in a single private lab, in Dhaka city represents in fact the tip of the iceberg. The actual problem is hidden and more explosive. If we do not tackle the problem fast and efficiently now, cases of typhoid and other infective diseases may assume an epidemic proportion and it will be very difficult to tackle this menace effectively.

Public health measures have to be strictly enforced by the governmental agencies. Planned approach to the problem is a must and what will be most required is the sincere execution and this is one department where we are seriously lacking behind other developed nations. The grassroots levels of community — the individual households, can in fact contribute effectively to tackle this problem. Certain measures, however simple they might seem, should be strictly followed. Some of which are:

1) Each and every household should boil or filter water for drinking, cooking and washing utensils. Unless one is sure that proper boiling or cooking has taken place, food and drinks should not be consumed at public places.

2) As washing of hand with soap and water does a lot in preventing the transmission of water- and food-borne diseases, the individual household should strictly ensure this practice not only among their younger ones but also among their helping maids and others. School authorities should also strictly enforce this practice among the children and should provide liquid soaps instead of the conventional bar soaps in toilet. The municipal better than the open icecream and food vendors in their premises.

3) Diagnostic laboratories, medical centers, hospitals should have their individual incinerators for the proper disposal of waste materials. Syringes can simply be crushed by pliers before throwing them away.

4) Dhaka City Corporation should ensure prompt emptying of the municipal dustbins at least twice a day, otherwise waste materials lay strewn on streets as the dustbin though large in size rapidly fills up.

5) Doctors should take additional responsibility if a case of typhoid is involved in food handling. He or she should be treated until his/her carrier state is eliminated.

The distant warning signal given by the tip of the iceberg should not be taken lightly as the danger of hitting the iceberg is high and this is one department where we are seriously lacking behind other developed nations. The grassroots levels of community — the individual households, can in fact contribute effectively to tackle this problem. Certain measures, however simple they might seem, should be strictly followed. Some of which are:

The writer is an Assistant Professor of Microbiology at Dhaka National Medical College

UNEP in the Red

by Achila Imchen

The United Nations Environment Programme has gained the reputation of being an organisation beset by lack of coordination, fragmentation and financial problems.

stated of working actively to becoming an implementing agency, UNEP misses out on opportunities, says Desraj.

Another problem is lack of funds. UNEP has been losing donor confidence steadily. America, which has been the main contributor to UNEP with contributions of \$15 million and \$7 million respectively in 1995 and 1996, has drastically slashed its funds for the organisation.

To overcome these problems and provide leadership, within the UN system on environmental matters, UNEP is working towards restructuring itself. Topfer says UNEP can do this by concentrating on key strategic fields and coordinating environmental policy by synergising its various programmes.

During his address to the Global Environment Facility Assembly in New Delhi on April 1, Topfer stressed the importance of UNEP's obligation as an implementing agency for several conventions. There is general need to single out the interdependencies and synergistic effects of the conventions and to better coordinate action crucial for effective implementation of our multilateral agreements," he said. A key element of this profile involves building partnerships not only with gov-

ernments and other UN agencies but also with the private sector, local NGOs and regional institutions.

Though it is unclear how UNEP plans to structure and synergise its programmes, Topfer's address shows that scientific and market instruments will play an important role in UNEP's approach to environmental issues. An economist by training, he appears to believe that answers to problems regarding environmental policies lie in harmonising globalisation of the market with globalisation of environmental policies.

According to Topfer, one key objective in UNEP's new profile is to develop and apply economic instruments to foster more uniform standards and practices among nations.

In this regard, UNEP has proposed the establishment of a joint UNEP/UNCTAD Intergovernmental Panel on Economic Instruments for Environment Policy, to promote modalities for the use of economic instruments for environmental management and sustainable development. This policy will focus on the instruments as efficient and cost-effective tools for implementation of multilateral environmental agreements.

With regard to UNEP's long-

term priorities, Topfer identifies mobilisation of the scientific and technical community for information exchange as one of UNEP's core missions. It is hoped that strengthening the links between science, management and policy will lead to a global sharing of knowledge as well as of transfer of technology and skills.

How soon UNEP implements its profile remains to be seen. Unlike organisations such as UNDP, which has a strong hold worldwide, UNEP's base is still relatively small. In India, according to UNDP officials at New Delhi, there has been minimal or no UNEP activity in the country. UNEP's partnership with GEF is crucial because it uses the latter's resources to support their programmes. But during 1991-97 only 4 per cent of GEF sanctions have come from UNEP. This indicates that UNEP's authority is minimal compared to the other two implementing agencies of GEF. This will perhaps make it harder for UNEP to obtain support for its programme.

"Steward" for the environment within GEF, of ensuring that global environmental concerns are integrated into the agendas of the World Bank and the UNDP, may be difficult to implement. Topfer acknowledged this when he said, "UNEP cannot measure its success in the field of the environment by its share of financial resources to implement GEF projects, but rather by the implementation of its mandate assisted by the support it receives from GEF."

CSE/Down to Earth Features

Garfield



by Jim Davis

Mothers Given Rightful Place

by Durga Ray

After mulling over a representation from the government of India, the academic council of the university decided that students can now mention either or both of their parents' names in forms for admissions, migrations or other documents.

MOTHERS have finally got their deserved place. Students filling up forms at the Delhi University now have the choice of giving their mother's name instead of their father's.

After mulling over a representation from the government of India, the academic council of the university decided that students can now mention either or both of their parents' names in forms for admissions, migrations or other documents. Earlier, forms had provisions only for the names of fathers, guardians or husbands. The university decided to include a provision for the name of the mother as students who had single mothers, either divorced or separated, faced problems while filling up the forms. Moreover the university insisted on having the same name of the guardian in forms for admission into the university and migration from it.

The provision for providing

only the mother's name did exist earlier, but only for select students. Delhi University's dean for students' welfare A.K. Sinha was quoted as saying by a newspaper that students from matrilineal tribes in north-east India had to fill up only their mother's name in university papers.

The provision now covers everyone, thanks to a Supreme Court judgement. The apex court, in a ruling in 1993, had directed the governments of the Centre, the states and Union territories to include a provision for filling up the mother's name apart from that of the father's in all forms submitted to any government agency including schools, colleges, courts and even the Election Commission.

The Supreme Court had been petitioned in the matter by a non-governmental organisation Bharatiya Patita Uddhar Sabha (Indian association for the upliftment of downtrodden women) as early as January

1988. The association argued that orphans and children of prostitutes and divorcees had a difficult time getting admission in schools as mentioning the father's name was compulsory in the admission forms.

This is very good news. I appreciate the Delhi University's decision to include the mother's name in their forms," association president Khairati Lal Bhola said. Steps to implement the 1993 Supreme Court decision were taken three years later when the Central government formally notified all state and union territories to implement it in September 1996. The northern state of Punjab became the first Indian state to include the provision for giving the mother's name in all government forms, followed by its neighbour Haryana and the western state of Maharashtra, Bhola told IANS.

— India Abroad News Service

Burmese Women's Day in Exile

Burmese women and men living in exile in Delhi came together under the banner of the Women's Rights and Welfare Association of Burma (WRWAB) to celebrate June 19, the 53rd birthday of their charismatic leader Aung San Suu Kyi, as Burmese Women's Day. The WRWAB issued a solidarity message from Aung San Suu Kyi

on the occasion, lauding the overseas efforts of women friendly to the cause: "We are carrying on a non-violent movement against a military regime which is armed to the teeth, so we need all the help we can get... It seems to me that women do a lot more for us than men on the whole."

Stating that "Suu Kyi is the

symbol of hope and victory for all of us who want to see democracy realised in Burma" Thir Thin Aung, general secretary of the WRWAB stressed that the only way of solving the country's political and economic problems is through dialogue between pro-democracy forces, leaders of ethnic groups and the military junta. *News Network*

Project Management Organisation
Bangladesh Railway, Chittagong
Extension of Selling Date and Dropping/Delivery Date of International Tender
The following amendment is made in the Tender No. COS/S CREDIT/SS/MLR 98 dated 02.4.98 for supply of 100,000 Nos. BG Steel Sleeper with fitting for Bangladesh Railway.
1. Last selling date will be 20.7.98 instead of 05.7.98.
2. Dropping/delivery date will be 21.7.98 instead of 06.7.98.
Other conditions will remain unchanged.
M Abdullah
Controller of Stores/Project
Bangladesh Railway
Chittagong
Phone: 880-31-725791

BPDB's International Tender Notice
বিদ্যুৎ ব্যবহারে মিতব্যয়ী হোন
Sealed tenders are invited by Bangladesh Power Development Board from renowned Manufacturers/Suppliers against Tender Enquiry No. Pur-211/98 dated 22.6.98 for procurement of Digital PLC set and Digital Telephone Exchange under Telecommunication Division, BPDB, Siddhirganj out of cash foreign exchange allocation for 1998-99. Tender document including detail specification and terms and conditions may be purchased from the office of the undersigned during office hours on written application to the undersigned and on payment of Tk. 2,000/- (Taka two thousand only) (Non-refundable) in the form of Pay Order/Bank Draft in favour of the Director, Purchase, Power Development Board, WAPDA Building (9th floor), Motijheel C/A, Dhaka-1000. Tenders will be received by the undersigned up to 11.00 AM on 10.8.98 and will be opened on the same date at 11.30 AM.
Tender document will neither sold on the day of opening nor it will be received through Telex/Fax/Post/Courier etc.
BPDB reserves the right to accept or reject any or all bids without assigning any reason thereof.
Biddut/Jana-1736(4)/97-98
DFP-14384-25/6/98
G-1515
Director, Purchase
BPDB, Dhaka.

Bangladesh Power Development Board
বিদ্যুৎ ব্যবহারে মিতব্যয়ী হোন
Invitation of Local Tender
1. Local sealed tenders are invited by Bangladesh Power Development Board from renowned Manufacturers/Suppliers for the procurement of Conductors for Greater Chittagong Power Distribution Project as detailed below:

S1. No.	Tender Enquiry No. & Date	Description of Equipment/Materials	Cost of Tender Document	Tender Receiving and Opening Date
1.	Pur-109/98 Dt. 21/6/98	33 KV Line Accessories (Pole Cross Arm Earth Wire Mast, Band, Connector etc.)	2,000/=	26/07/1998
2.	Pur-110/98 Dt. 21/6/98	Grosbeak Conductor, Repair Sleeve and Tension Joint.	2,000/=	26/07/1998.

2. A complete set of tender documents may be purchased by the interested bidders from 25/6/98 on submission of a written application and upon payment of non-refundable fee of Taka as mentioned in column-4 above against each tender in the shape of Bank Draft/Pay Order favouring Director, Purchase, BPDB, Dhaka.
3. A bid bond equivalent to 2.50% of the offered amount shall be submitted with the tender.
4. Tender will be received upon 11-00 AM and will be opened at 11-15 AM in the prescribed date as mentioned in column-5 in presence of the intending bidders or their representatives, if any.
5. Tender document shall neither be sent nor it will be received by Post/Telex/DHL/Fax etc.
6. Late bid shall not be received.
Biddut/Jana-1728(4)/97-98
DFP-14392-25/6/98
G-1517
Director
Directorate of Purchase
BPDB, Dhaka

Biman BANGLADESH AIRLINES
Ref: DACPL/26/98-99/489
Dated: 25.06.98
Tender Notice No. 01/98-99
Sealed tenders are hereby invited by Biman Bangladesh Airlines from interested manufacturers/distributors/suppliers for the supply of the items mentioned below as per details/specifications mentioned in the schedule:

01. BLACK WOOLEN GAVERDIN CLOTH	— 8,000 MTRS.
02. NAVY BLUE WOOLEN BLAZER	— 11,000 MTRS.
03. 4810-40080 TYRE	— 100 EA.
04. TISSUE PAPER (2 PLY)	— 57,600 PKTS.

Tender schedule mentioning full details/specifications of items, terms and conditions will be available from the Manager, Cash & Banking, Head Office, "BALAKA", Accounts Officer, Cash Payment Unit, Admin Building, ZIA, Dhaka of Biman Finance Directorate & Office of the Divisional Commissioner (1st 12 Storie Govt. Office Building, 1st Floor, Room No. 206), Segunbagicha, Dhaka on payment of Tk. 500/= (Five hundred) only per set (per group) non-refundable by applying own letterhead pad during any working day up to 22.07.98.
Sealed tenders should be dropped in the tender box kept in Local Purchase Section, Stores & Purchases Directorate, Biman Admin Building, ZIA, Dhaka, Biman Press Building, Farmgate, Tejgaon, Dhaka and Office of the Additional Divisional Commissioner (General), Room No. 303, Segunbagicha, Dhaka latest by 10:30 hours (BST) on 23.07.98 & will be opened on the same day at 14:00 hours premises of Stores & Purchases Directorate, Admin Building, ZIA, Dhaka in presence of the tenderers (if any).
Biman Management reserves the right to increase or decrease the quantity of the items and can accept or reject any or all the tenders without assigning any reason whatsoever.
Dy. General Manager (Purchase)
Stores & Purchases Directorate.
GD-522

Invitation of Local Re-Tender Notice
বিদ্যুৎ ব্যবহারে মিতব্যয়ী হোন
1. Local sealed re-tenders are invited by Bangladesh Power Development Board from renowned manufacturers or their agents for the procurement of PC/SPC/Steel Galvanised Poles for 18 Towns Power Distribution Project Phase-II as detailed below:-

S1. No.	Tender enquiry No. & date	Description of materials	Quantity each	Cost of tender document	Tender receiving & opening date
1.	Pur-101/98 Dt. 22/6/98	PC/SPC/Steel Galvanised Poles 9M/200 dan 9M/300 dan	500 Nos 1500 Nos	Tk 1000/-	26.7.98

2. A complete set of tender document may be purchased by interested bidders on submission of a written application and upon payment of Non-refundable fee of Tk 1000/- in the shape of Bank Draft/Pay Order favouring Director, Purchase, BPDB, Dhaka.
3. A bid bond equivalent to 2.5% of the offered price shall be submitted with the tender.
4. Tender will be received up to 11:00 AM of 26.7.98 and will be opened at 11:15 AM on the same day in presence of the intending bidders or their representatives, if any. Tender shall neither be sent by post nor it will be sold on the opening day. Offer send by Post/Telex/DHL/Fax will neither be received nor it will be accepted.
5. Bidder can participate for any one or both the items. But the rate must be mentioned separately for the items.
Biddut/Jan-1727(5)/97-98
DFP-14382-25/6
G-1516
Director
Purchase
Power Development Board
Dhaka