Association for Rational Use of Medication in Pakistan

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'Feeding Fiasco:
Pushing Commercial
Infant Foods in
Pakistan'. A report by
The Network looks at
the infant food industry's promotional practices that undermine
breastfeeding and/or
promote artificial feeding, especially bottle
feeding

Health Action
Schools is a three-year
project of the Aga Khan
University and Save the
Children Fund (UK)
that aims to encourage
the development of
health-promoting
schools in the country

Regular features

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The Network's

mission is to promote the rational use of medication and essential drugs concept in Pakistan in order to optimize the usefulness of drugs and help bring equity in their access.

Bottled babies

t is common for mothers in Pakistan to buy infant formula and other artificial baby food products under the misconception that the contents of these attractively-packaged and expensive tins are better than their own milk and simple, home-made, fresh baby dishes. Millions of rupees are spent because of such wrong notions. Poor and illiterate mothers lovingly prepare 'milk' for their children without even understanding the directions on the packing. Families spend their hard-earned money on infant formulas while foregoing basic necessities of life.

A conservative estimate of the cost of feeding an infant artificial baby food is nearly Rs 1,500 per month. Our country imported powder milk and baby food worth \$48.9 million in 1995-96. Why the huge, unnecessary spendings and why the mistaken beliefs? It is widely known that unethical and aggressive marketing by manufacturers of artificial baby food products in connivance with medical staff impacts gullible mothers. This leads to the unjustified use of the artificial food products and, consequently, a decline in breastfeeding rates. The attendent risks of bottlefeeding — which increases four times the risk of dying due to diarrhea and 14 times due to acute respiratory infections — further bring profits to the medical profession and the pharmaceutical industry.

The dynamics of this negative symbiosis between industry and medical professionals is well-known, and has deep and pervasive implications for children and their parents. The ploy should be easily discernable to the government, which ought to counteract with a Protection of Breastfeeding and Young Child Nutrition Act.

The Network has conducted a countrywide survey to record milk formula manufacturers' compliance with the International Code for Marketing Breastmilk Substitutes. This has been done to build a case for the legislation of a national law on the issue. Our findings, now available in the report Feeding Fiasco: Pushing Commercial Infant Foods in Pakistan, provide compelling reasons for the government to accelerate the formulation of the Act, now on the anvil.

This issue contains a special pull-out centrespread that highlights some of the important aspects of our report **Feeding Fiasco**.



Viagra®: as sales rise, impotence goes down

NEW YORK: For much of his 35-year career, Dr Don Phillip Gibson, a general practitioner in Winfield, Kansas, has been able to spot a patient with an impotence problem seconds after he walked through his office door.

"I could tell by how they were squirming in their chairs what they were about to tell me," Dr Gibson said, "and I knew they had wrestled months, or even years, before coming to see me. The trouble was that there wasn't much you could do about it. I never had a patient I referred to a urologist come away happy with the treatment he received."

That may be changing. With the US Food and Drug Administration's approval [March 27] of Pfizer's Viagra®, the first pill to treat impotence, many of the 30 million American men who are believed to suffer from the ailment, Dr Gibson among them, will now be able to experience some quick and easy relief.

The introduction of Viagra® and a host of other more painful and invasive treatments for male

Viagra® is now available in Pakistan — on the

black market. But, according to media reports,

faint-hearted. A recent report in The News says

that "manufacturers of a 'miracle drug' are chas-

ing the health minister with cartons full of 'sam-

headaches, dizziness, and 'blue vision'. Doctors

caution heart patients and those on nitrate ther-

attacks. As many as 16 people have reported to

have died due to heart attacks after taking the

drug, but the link has not been positively estab-

Reported side-effects of the drug include

Viagra® has also been linked with heart

apy from taking the drug.

at Rs 1,200-1,800 each the pill is not for the

erectile dysfunction, as it is now known is part of a new departure for the world's pharmaceutical companies. After spending much of their research budgets focusing on cures for fatal and chronic illnesses, they now see a vast new opportunity in offering a spate of drugs aimed at easing the various ailments and complaints of aging baby boomers.

"Pharmaceutical companies have discovered that some of the conditions associated with aging, impotence and incontinence for example, may not be lifethreatening, but they can virtually destroy someone's quality of life," said David Saks, senior vice-president at Gruntal & Co., a brokerage.

This should add up to a boon for Pfizer. Some Wall Street analysts are predicting that worldwide sales of Viagra*, which will cost \$7



wholesale per pill, could eventually top \$4.5 billion, easily making it one of the world's best-selling drugs. Prozac, Eli Lilly's ubiquitous antidepressant, is expected to reach \$2.7 billion in worldwide sales this year, according to industry estimates.

David J. Morrow in International Herald Tribune

Phenolpthalein products withdrawn

All drugs containing phenolpthlein were withdrawn from several world markets recently. In Germany, the Federal Institute for Drugs and Medical Devices has recommended marketing authorization holders of phenolpthlein laxative products to withdraw their products from the market because of potential toxicological risks.

The US Food and Drug Administration has proposed to ban over-the-counter sale of products containing phenolphlein.

In Italy the Ministry of Health has suspended the marketing authorization for laxatives containing phenolphlein with immediate effect.

In December 1997, the European Union's Committee for Propriety Medicinal Products (CPMP) issued a position paper on the genotoxic and carcinogenic potential of phenolphlein. The CPMP has concluded that "carcinogenicity and repeat dose genotoxicity studies of phenolphlein in mice have identified a hazard with respect to carcinogenic and genotoxic activity." However, this has yet to be established in humans, says the Committee.

In Japan government health authorities have said that phenolpthlein-containing products have been voluntarily withdrawn by manufactureres

WHO Drug Information, Vol. 12, No. 1, 1998

lished.

Stop tuberculosis

KARACHI: The government should decrease the prices of tuberculosis drugs while the counter-sale of anti-TB medicines should be banned.

This was the opinion of two eminent chest physicians — Ojha Institute of Health Diseases Director Dr Ghazala Ansari, and the Head of Jinnah Post-Graduate Medical Center, Chest Medicine Department, Dr Nadeem Rizvi.

Both the specialists participated in the recently concluded international conference on TB and chest diseases held in Lahore under the aegis of Punjab Tuberculosis Association in collaboration with King Edward Medical College's Institute of Chest Diseases. There is a dire need to set up a reference laboratory for TB research in each province as well as at the central level, they said

The conference demanded of the government to put a ban on tobacco advertisements on radio, TV and newspapers.

The other recommendations are as follows: TB be declared a notifiable disease; national TB control program be implemented; media give more importance to TB and chest diseases for awareness of the public; TB be an examination subject at the undergraduate level; more seats of TB and chest specialists be created at the district level; government hospitals' chest departments be well equipped and updated.

Dawn, March 28

Convention on hazardous chemicals, pesticides

KARACHI: After two years of negotiations 95 countries have unanimously agreed on a legally binding convention on international trade and hazardous chemicals and pesticides.

The agreement was reached at the fifth session of the Intergovernmental Negotiating Committee in Brussels (end March). The treaty enters into force upon ratification by 50 countries. A diplomatic conference will be

held in Rotterdam, the Netherlands, in September to officially adopt the new convention.

It is expected that trade can be better controlled and that the risks of dangerous chemicals can be reduced to benefit people and the environment. Countries are expected to put national legislation into force.

Each year large numbers of people are harmed or killed by toxic chemicals and pesticides. Many of these substances have caused devastating environmental problems. The treaty aims at protecting "human health, including the health of consumers and workers, and the environment."

The convention requires that harmful pesticides and chemicals that have been banned or severely restricted in at least two countries shall not be exported unless explicitly agreed by the importing country (this is called Prior Informed Consent procedure, PIC).



At present, 22 pesticides and five industrial chemicals have been banned or severely restricted in a number of countries.

A large number of highly toxic chemicals that persist in the environment accumulate in wildlife and people, persist for long periods of time, and, when environmentally released, are spread all over the world.

The global market for pesticides continues to grow and is estimated at \$30 billion for 1996.

The Nation, March 31

Dreaded diseases

Tuberculosis

The Armed Forces

Institute of Pathology

organized its Second

Symposium on Tropical

and Infectious Diseases

sented as many papers

topics such as multidrug

covering wide-ranging

resistant tuberculosis,

malaria control, hepati-

tis management, anti-

influenza vaccine, respi-

ratory allergies, etc. The Network presents high-

septics, need for an

lights of the

seminar.

(March 27-28, 1998). Forty-two speakers pre-

(AFIP), Rawalpindi,

International

Commandant AFIP Maj-Gen K.A. Karamat spoke on multidrug resistant (MDR) tuberculosis. In 1995, he said, an estimated 8.9 million people developed tuberculosis, bringing the global total of sufferers to about 22 million, of whom 3 million would have died in the same year.

He warned that, if the effectiveness and availability of tuberculosis drugs do not improve substantially, more than 30 million tuberculosis deaths and 90 million new cases are expected to occur in the last decade of the century. About 95% sufferers are in the developing world with Southeast Asia, Western Pacific and Africa the worst affected regions.

Drug resistant tuberculosis, said Maj-Gen Karamat, is a growing threat worldwide. Incomplete or inappropriate treatment of the disease has spawned the development of strains resistant to drugs that once completely destroyed the bacteria.

Pakistan has more than 1.2 million cases of tuberculosis. If untreated the disease is fatal in more than half the cases. Cure rates of up to 95%, which can be achieved for drug-susceptible tuberculosis, fall to 56% or less with isoniazid and rifampicin resistance. MDR strains are as contagious as normal strains but more lethal as only a few and mostly expensive drugs can kill them. The AFIP, said the Commandant, has more than 13% of MDR bacteria in its isolates.

It is unfortunate, he said, that facilities to culture the bacterium are limited to a few centers in the country, and those carrying out antibiotic susceptibility even fewer. We need to treat the disease as an emergency, he concluded.

Speaking on 'Tuberculosis cure is better than prevention', Dr Shaukat Bangash of Shifa International Hospital, Islamabad, said that tuberculosis is not only a disease of the developing world, it is also spreading in the developed world after a century of steady decline.

This, he said, is due to a number of reasons:

a deterioration in living conditions particularly in inner cities, among refugees, spread of HIV, intravenous drug abuse and worsening standard of health care. Another problem is the emerging strains of M. tuberculosis, resistant to several antituberculosis drugs.

Dr Shaukat stressed the need to propagate Directly Observed Treatment Short-course (DOTS) and its benefits. [According to the Lancet: "DOTS is targeted at infectious, sputum smear-positive TB cases; trained health workers watch patients take combination anti-TB therapy, for 6-8 months. This strategy, developed 10 years ago, consistently produces 85% or higher cure rates (see Lancet 1996, 347: 358-62). But out of about 8 million TB cases worldwide in 1996, only 10% received DOTS, even though the World Bank describes it as one of the "most cost-effective of all health interventions". — Editor]

Dr Shaukat also highlighted the kinds of TB treatment prevalent worldwide, common errors in treatment, monitoring techniques for drug toxicity, preventing transmission, and preventive therapy.

Hepatitis

Ex-Commandant, AFIP, Maj-Gen (R) Iftikhar A. Malik talked about hepatitis A virus (HAV) in the Eastern Mediterranean Region. He said that viral hepatitis is of major significance around the world. It places heavy demands on medical science and on the developing resources of developing and poor countries, particularly in Asia and Africa.

Transmitted through feco-oral route, HAV is seen more in children, is self-limiting and is mostly asymptomatic. In most parts of North Africa, the Middle East, South Asia and North China HAV is present in water supplies due to fecal contamination of subsoil water. Nearly 100% of the population in the region gets exposed to HAV by the age of 15-18 years and shows presence of anti-HAV (IgC).

Maj-Gen (R) Iftikhar said that since the adult population is immune to HAV infection, they do not need any HAV vaccination. However, for children living in affected regions and for all foreign visitors there is need for protection against HAV infection.

He said that there was no specific treatment of the disease but preventive steps can be taken which include sanitation, hygiene, isolation and immunization.

Dr Essa Abdulla of Karachi looked at hepatitis B and the seroprevalence of HBsAg in Pakistan. According to him the extent of hepatitis B antigenemia remains highly controversial. The percentage of prevalence varies from 7% (doctors), 17% (dentists), and 22% (multiple blood recipients) to 70% (liver cancer patients), but these figures are questionable. A study was therefore conducted of 12 commercial screening kits to assess the accuracy of their results.

Six most commonly used first generation (latex) kits yielded false-positive results ranging from 3.2-15.7% and were confirmed negative by ELISA. Three second-generation (immunochromatography) kits gave occasional false-negative findings. One of the ELISA kits showed excess weak-positive results, thus adding to the difficulty in interpretation.

Dr Essa concluded by saying that the ELISA method of screening proved most effective. The figure of 2.8% HBsAg was ultimately reached at the end of the study, 2,924 blood referrals being screened with ELISA during June 1996 and January 1998. The findings, said the doctor, are in accordance with those of the Aga Khan University in healthy blood donors, and close to those of PWA and Pakistan Institute of Medical Sciences (1995) in 664 children (3.68% in Islamabad).

Mohammad Abdur Rab's presentation revolved around a water-borne hepatitis E epidemic that broke out in two sectors of Islamabad between December 1993 and March 1994. Of 36,705 individuals targeted a total of 3,827 were found to have acute icteric hepatitis.

The study revealed that the disease was water-borne and linked to contaminated water supply. Prior to the outbreak there had been an operational breakdown in a water treatment plant that distributed water to the affected areas. The managers of the plant had changed the slow sand purification system to a rapid sand purification one. The primary source of water — a heavily contaminated

stream — was thus not being properly purified.

The attack rate was highest among the age group 11-30 years (15.3%) as compared to children less than 11 years old (1.4%) and individuals older than 30 (10.5%). A total of eight fatal cases were reported. Four adult deaths occurred, all of which were females in their third trimester of pregnancy; the other four cases were newborn infants of mothers with acute icteric hepatitis.

The Capital Development Authority was later persuaded to temporarily close down the waterworks and revert to the slow sand purification system, Mr Abdur Rab said.

Dr Nasir Khokhar, Shifa International Hospital, Islamabad, overviewed the extrahepatitic manifestations of chronic hepatitis C. The disease is a very common infectious disease prevalent around the world, he said. It is transmitted by contaminated blood and, in addition to causing hepatitis, other extrahepatic manifestations also occur.

Over the past four years, said Dr Nasir, Shifa International has encountered three patients of chronic hepatitis C who had bone marrow involvement. All had pancytopenia. One

needed blood transfusion in the absence of obvious G.I. hemorrhage.

The most recent patient had hemoglobin from 5-8 g/dl, WBCs 1,500-2,700/ul and platelet count 26,000-45,000/ul. Chronic hepatitis C

had progressed to cirrhosis.



According to Dr Nasir, treatment of such patients is unsatisfactory as interferon, the mainstay of their treatment, cannot be administered since it has its own myelosuppressive effects.

Malaria

Maj-Gen (R) Muhammad Ilyas Burney spoke on the trials conducted on (i) Slf 66, a synthetic peptide vaccine developed in

Continued on page 15... \$

early all women are able to breastfeed their babies. Why, then, do we see more and more women artificially feeding their babies? More babies being bottle fed means fewer babies breastfeeding.

Why are women doubting their natural ability to provide their children with the most nutritious, anti-infective food available? Why do mothers believe they cannot produce enough milk to satisfy their babies hunger, when their mothers and their mothers' mothers knew no other way of feeding babies? Why are their doctors quick to recommend infant formula to "supplement" breastfeeding, rather than helping mothers to breastfeed with ease and success.? Why are mothers delaying the initiation of breatfeeding by hours and even days rather than feeding their babies colostrum - baby's energy packed first vaccination?

There are a number of factors responsible for all these misconceptions and malpractices. Largely to blame are the unethical promotional practices of the baby food industry. It was this same concern which prompted the World Health Assembly, of which Pakistan is a member, to adopt the International Code of Marketing of Breastmilk Substitutes in May 1981 as a recommendation to member states. Resolutions on infant feeding were adopted every two years thereafter to improve on the articles in the Code and clarify meanings, and to respond to new marketing gimmicks. The International Code and the subsequent, relevant resolutions adopted since provide basis for action at the country level.

Concern that breastfeeding and young child nutrition were not being adequately protected in South Asia prompted delegates from the seven member countries of the South Asian Association for Regional cooperation to review the International Code and subsequent WHA resolutions on infant feeding and develop an instrument adapted to the region's circumstances. The SAARC Code for the Protection of Breastfeeding and Young Child Nutrition was this instrument. The SAARC Code is much broader in scope and closes many loopholes

of the International Code. It was adopted by the SAARC Ministerial Conference on Children of South Asia, held in Rawalpindi, Pakistan from 20-22 August 1996.

The Network, along with its work to promote the rational use of medication and the essential drugs concept, in 1997 started a campaign for the protection of breastfeeding and young child nutrition in Pakistan. In March 1997, we decided to conduct a countrywide study to record company compliance with both the International Code and the SAARC Code.

The study was conducted over a period of three weeks in 33 cities and towns, with the help of 11 survey teams comprising 34 monitors. The teams visited public and private hospitals, clinics and shops and interviewed mothers, nurses, doctors, pediatricians and company representatives. In over 2,500 one-to-one encounters, questions were asked, views were sought and evidence was gathered. Analysis of data revealed that not a single company marketing infant food or feeding products in Pakistan was abiding by the International Code in its entirety; also, of the 662 mothers interviewed nearly every fourth mother was buying milk made by the infant food industry.

The findings of the study make it clear that if Pakistan truly wishes to protect breastfeeding and young child nutrition, legislation must go beyond the provisions of these two Codes, which regulate only the marketing of infant foods and feeding products, to cover all practices which undermine the initiation and continuation of breastfeeding.

The Network vows to continue to monitor the excesses of the baby food industry with regard to their unethical promotion of so-called "breastmilk substitutes". We hope that in the next monitoring exercise our point of reference will be a national law, and not just Codes.

Dr Zafar Mirza Executive Coordinator The Network Sulfindent Special Property



The report compiled by The Network reveals a disturbing situation. Sixteen years after the International Code Substitutes was overwhelmingly adopted by the World Health Assembly, setting out the minimum standards which every baby food manufacturer and distributor should operate by, there should not be such blatant violations of the Code in a country

like Pakistan. Independently of any other steps taken by the Government of Pakistan to legislate, all the companies have a moral obligation to stop violating internationally agreed standards in Pakistan. [See back page to order]

> Urban Jonsson Regional Director UNICEF Regional Office for South Asia

The report is ... an eye opener for many of us who are committed to the promotion of breastfeeding and child nutrition in Pakistan.... The Ministry of Health has taken up the draft legislation for enforcement of the Code with renewed commitment on priority basis....

We hope to continue to work with other partners for the promotion of breastfeeding and child nutrition in Pakistan and offer our support and assistance to all sincere efforts to achieve this objective.

Dr. Mubbashar Riaz Sheikh Deputy Director General Health Federal Ministry of Health Islamabad The report exposes the mercenary attitude of the milk and infant food industry and clearly shows that their only motive is to make money, no matter at whose expense. The report also highlights the exploitation of doctors by the industry for their war against breastfeeding and the unfortunate willing or unintentional cooperation extended by many doctors....

Dr. M. A. Arif

Professor of Pediatrics, General Secretary of Pakistan Pediatric Association (Center), General Secretary of Childcare Association, former President of PPA (Sindh), Convener and Chairman of the PPA Committee on Code of Ethics (1978 -94)

A ccording to a recent report, Pakistan has the highest infant mortality rates (IMR) in Southeast Asian region. Out of ten babies born in our country, one is unable to celebrate his or her first birthday. This high IMR is attributed mainly to diarrheal diseases, the ever-increasing incidence of which is due to a growing trend of bottle-feeding. For this, the baby food manufacturers are the main culprits as they make use of all kinds of unethical marketing practice to convince mothers to initiate artificial feeding.

I, as a former employee of Nestlé Milkpak Ltd., have been a part of this malpractice, but a stage came where I could not bear it any more and ultimately decided to quit this company....

I wish and hope that this [report] will help to save the lives of thousands of children of my nation.

Syed Aamer Raza Ex-employee, Nestlé Milkpak Ltd., Sialkot

Articles of Faith

- No idealizing of bottle feeding
- ♦ No baby pictures
 International Code of Marketing of Breastmilk Substitutes,
 Article 9
- Superiority of breastfeeding statement International Code, Article 9
- No discount coupons, special sales, pointof-sales promotion
 International Code, Article 9

SAARC Code for Protection of Breastfeeding and Young Child Nutrition, Article 5

- No photos, graphics or drawings SAARC Code, Article 3
- Labels must contain specific warnings
- No advertising or promotion of breastmilk

- substitutes
- ♦ No product displays, advertising posters

 *International Code, Article 5**

SAARC Code, Article 5

- Local language SAARC Code, Article 3
- No gifts to health workers International Code, Article 7.3 SAARC Code, Article 5.4
- Must not create a belief that bottle feeding is equivalent to breastfeeding International Code, Articles 7.2, 4.2
- No free samples to mothers (directly or indirectly) or health-care facilities.

International Code, Articles 5.2, 7.4

Health Action Schools

State of the future

By a health action school we mean a school which has developed an integrated approach to health promotion and which actively seeks to maintain and develop it so that it can serve as an example to other schools in the area. The comprehensive school health promotion model is used to integrate three elements, often now provided by different agencies, namely:

- the health education program in the school:
- the school environment (including nutritional standards and attention to children's safety);
- · the school health services.

Within the limits of reasonable expectations we would expect a school that had opted for a health action program to be happier, do better, have a better attendance record and be more closely linked with its community than previously. We might also expect its staff and pupils and their families to have increased health knowledge, better health behavior and higher self-esteem.

Why health in schools?

- School children study better and are happier in school if they are fit and well.
- · School children who are ill miss school
 - often and find it difficult to catch up when they return to class. Sometimes they drop out of school. Dropouts and absenteeism in Pakistan are extremely high.
 - School children who are hungry, unfit or unwell can-

not concentrate on their lessons and fall behind in their class work. Better health among school children would raise the standards of attainment in Pakistan schools which are by no means as high as they could be.

- Children who are unhappy or disturbed by events at home cannot set their minds to their studies. Experience suggests that there is a significant amount of tension, especially in urban areas in Pakistan, leading to emotional problems in children.
- School children are part of a family. They are often able to spread good health messages and good health practice from school to home.
- They can often influence their elders, sometimes by telling or showing them what they have learnt but more often by example.
- They have a special role to play helping their younger sisters and brothers, not only to keep them healthy but also, by playing, showing and talking with them, to help them become ready to learn well at school when they get there.

School children are tomorrow's parents. If they learn and practice good health knowledge and skills now and develop caring attitudes now they will carry these forward to the next generation.

Children who are taught to observe, to listen to communicate, to take decisions about their own health and about the health of others become not only good parents but active and useful community members capable of influencing not only their children but also others.

The process

The Health Action School (HAS) project was launched on April 1, 1998, in six primary schools in the Karachi and Malir regions belonging to different social and educational backgrounds. Fifty percent of the schools are government-owned.

The following are some of the characteristics of an effective health action (or health-promoting) school which we believe to be present whether the school is rich or poor, small or large, urban or rural:

- There is an attempt to identify health priorities; both at the general level of what a child in Pakistan needs (e.g., immunisation) and in relation to local needs (e.g., scabies). Needs analysis have been conducted with each school community, listening to children's voices also.
- Teachers and children take steps to promote a school environment, which is healthy, and develop a school community, which is actively health conscious.
- Linking closely with school health services.
- Involving the community in close interaction with the school and encouraging the school, particularly through its children, to promote health in communities in ways which are culturally acceptable.

Each 'action programme' is individually suited to social, health and educational context and thus, to some degree, always planned, owned and managed by the school and its community. This means involving a structure of management, decision making and monitoring which reflects a partnership between the owners or managers of the school (e.g., provincial education sectors and other school systems such as Aga Khan Education Services), heads of schools, the school staff and the local community.

Baseline data have been collected from the pilot schools about previous health education (virtually non-existent) and teaching-learning methods; health knowledge and behavior of school communities; the health environment and any health services provided for or by the school.

In addition two research studies have been conducted to inform curriculum development on health: (i) the health interests, knowledge and needs of Pakistani primary school children (Khamis, 1997) and (ii) traditional health beliefs and customs practiced

by the school communities.

Baseline data have highlighted unsafe use of medication as one problem area and need for intervention; many HAS have decided to focus on "safety" as one of their essential school health themes.

Initial teacher training has also occurred to expose the implementers of health education to child-centred activity-based teaching methods incorporating the child-to-child approach to health promotion (Hawes and Scotchmer, 1993). Awareness raising among policy makers has already begun with policy makers from both the health and the education sectors working together on the project's steering committee.

Conclusions

We hope through this three-year project to develop experience and suggestions on how the school curriculum for health at both the local and the provincial level can be formulated to incorporate priorities for health in the school without involving any major change in policy or major increase in the existing workload of teachers. Teaching materials will be identified and developed which support heads and teachers to help them organize health action, introduce relevant content, and promote effective methods which encourage active thinking and link learning in class with action in the home and community.

Both government and other agencies will be encouraged to follow the development of the program, support its expansion and give serious consideration to recommendations that result i.e., lessons learned on the formulation of curriculum, on the use of new methodologies, on the integration of separate elements into a single health plan, and on school and community participation in deciding health priorities, planning and monitoring health programs.

Baseline data have highlighted unsafe use of medication as one problem area and need for intervention; many HAS have decided to focus on "safety" as one of their essential school health themes

Resource Center update T Diagnosis and Treatment of Hu

Diagnosis and Treatment of Human Poisoning, Second Edition is the ency-

clopedia of toxilogy. From the potential posioning of babies having their diapers changed, to the dangers of mistletoe, from chemical disasters, to muscle relaxants... you'll find them all in this CD.



he STAT!-Ref CD Rom Collection comprises three refernce CDs: STAT!-Ref Medical Information CD offers 27 textbooks on one disc STAT!-Ref Oncology CD provides two package options as well as the ability to add textbooks STAT!-Ref MEDLINE CD includes six speciality subsets of MEDLINE jornal abstracts and/or citations

osby s GenRx is an extremely easy to use CD features a wealth of information presented through text, pictures, audio, animation, and video. It is the complete reference for generic and brand drugs.

he dtb (Drug and Therapeutic Bulletin) is the independent review for doctors and pharmacists. The CD version features a hotlinked contents list and

index, full text searching with the facility to add bookmarks and annotations. In addition any section, article or issue of dtb can be printed. This makes it an invaluable resource for medical students, researchers, pharmacists, doctors and nurses. But even the layperson can browse through the disc.





Elication's Medical Toxicology

oodman and Gilman's CD-Rom contains the full text and all the tables, charts, diagrams, and appendices of the ninth edition of Goodman & Gilman's The Pharmacological Basis of Therapeutics. It also contains MEDLINE abstracts of articles from over 50 of the most frequently cited journals in the book's bibliography from 1990 onwards.

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ETWORK



By Tahir Mehdi and Tracey Wagner-Rizvi. Published by The Network, Islamabad. 1998. 88pp, Rs 150, US\$15 (overseas, incl. handling and postage)

Feeding Fiasco:

Pushing Commercial Infant Foods in Pakistan Should be read by policy makers, health workers, medical store owners, medical students and journalists.



By Andrew Chetley. Published by Zed Books, London; reprinted 1996. 338pp, Rs 325 (incl. handling and postage)



Written for all consumers but especially for policy makers, health workers, medical store owners, medical students and journalists.



Guide to Good Prescribing

Although intended primarily for undergraduate medical students who are about to enter the clinical phase of their studies. postgraduate students and practicing doctors may also find it a source of new ideas and, perhaps, an incentive for change.

By T.P.G.M. de Vries et al. Published by World Health Organization, Geneva, 1995. 108pp, Rs 80



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