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REPORT OF A WORKSHOP
GHANA EXPANDED PROGRAMME OF CHEMOTHERAPY
Novotel: Accra, Ghana
February 11-12, 1992

Ghana Ministry of Education
Ghana Ministry of Health
Task Force for Child Survival and Development

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I. INTRODUCTION

This Workshop on the Ghana Expanded Programme of Chemotherapy (EPC) was convened by the Ghana Ministry of Education and the Ministry of Health, with the support of the Task Force for Child Survival and Development. Approximately 70 persons (see Appendix) attended all or part of the sessions, which were held at the Novotel in Accra, Ghana on February 11-12, 1992.

The objectives of the Workshop were:

- o To discuss what is known about the adverse effects of schistosomiasis and intestinal helminths and the benefits of mass treatment of school children with currently available drugs;
- o To discuss and revise the draft Plan of Action for the Ghana Expanded Programme of Chemotherapy among a broader group from the Ministry of Health, the Ministry of Education, university and other researchers;
- o To review draft protocols for evaluating aspects of the EPC in Ghana;
- o To provide a forum for donor agency representatives to learn more about the national plans concerning this project; and
- o To begin raising public awareness about the diseases, their prevention and the project, through the local mass media.

II. BACKGROUND OF THE EPC PROJECT IN GHANA

The Expanded Programme of Chemotherapy (EPC) project is intended to be the first step towards a broad program of school health for Ghanaian school children, under the auspices of the Ministry of Education and the Ministry of Health. It is based on the realization that schistosomiasis (snail fever), especially urinary schistosomiasis, and intestinal parasites ("worms") are significant causes of ill health (reduced physical development and learning, etc.) and of some deaths in Ghana, that their adverse effects are most common among children of school age (6-14 years), that many such children are readily accessible in the schools, and that newer, safer drugs are available to reduce the burden of a broad spectrum of these infections for months or years following a single oral dose.

The initiative seeks to provide such mass treatment and appropriate hygiene instruction to all school children annually, and in a manner that is sustainable for many years until levels of hygiene and sanitation are improved to the degree that such measures are no longer needed. Eventually it is intended to use the school-based program to extend such treatment and health education to non-enrolled school age children, pre-schoolers, and other members of

heavily affected communities. Supplementation to prevent or treat selected micronutrient deficiencies (e.g. iron, iodine, vitamin A) may also be included at some stage.

In 1989, Ghana's Ministry of Education began a similar initiative to respond to the same needs, with some consultation with the Ministry of Health. Approximately one million primary school children were treated then with piperazine, which is effective against the large roundworm (ascaris) and whipworm (trichuris), in October that year. Related lessons in hygiene were conducted in the schools at the same time, using 30,000 handouts and pamphlets. That initiative was partly supported with funding from the European Community, but could not be extended to all school children or sustained.

The current initiative in Ghana began in 1991, when the Ministry of Health (MOH) and The Ministry of Education (MOE) began working with the Task Force for Child Survival and Development (TFCSD), the secretariat of which is located at the Carter Presidential Center in Atlanta, Georgia, USA. External funding for the first year of the project is provided by the Edna McConnell Clark Foundation and the Charles A. Dana Foundation, both of New York, through the TFCSD and the International Task Force for Disease Eradication, respectively, the secretariat of which also is at the Carter Center. A Memorandum of Understanding with the TFCSD was signed for the Government of Ghana by the PNDC Secretary for Health, Col. E.M. Osei-Owusu, in September 1991.

The primary objective of the current initiative is to develop a program to provide treatment and health education to about 2 million primary and 0.7 million junior secondary Ghanaian school children once each year. The program will use two drugs (praziquantel and albendazole) that are safe, well tolerated and effective when used against schistosomiasis (snail fever) and intestinal parasites such as roundworm (ascaris), hookworm, whipworm (trichuris), pinworm (enterobius), tapeworm, and strongyloides, in a single oral dose. Doing so is expected to improve the children's school attendance, growth, nutrition and learning abilities. Current plans are for the program to begin in the Volta Region in the summer of 1992, followed by the first nationwide treatment and teaching in all ten regions this fall or winter.

Both the MOH and the MOE have appointed Coordinators to work jointly on program operations. Dr. S.T. Wen represents the MOH and Mrs. Emelia Allan represents the MOE. In October 1991, the TFCSD assigned a resident advisor, Mr. Larry Dodd, to work with Dr. Wen and Mrs. Allan. In addition to setting up this workshop, Dr. Wen, Mrs. Allan, and Mr. Dodd have begun planning for the first pilot phase of the project with authorities in the Volta Region, stimulated development of the four draft protocols that were discussed at the workshop, promoted initiation of baseline studies in Volta and Northern Regions (the latter under the auspices of the Danish Bilharziasis Laboratory), begun soliciting support of local

donor agency representatives, and promoted production of draft health education materials and brochures for use in the program.

III. OPENING SESSION AND KEYNOTE PRESENTATIONS

The Opening Session was chaired by Dr. Alexander Ababio, PNDC Deputy Secretary of Health. The Deputy Secretary recalled some of his experiences with treating intestinal worms as a medical practitioner in Ghana, and the importance that parents attach to such treatment of their children. In his Welcome Address, Alhaji Gbadamoshie, Director General of the Ghana Education Service, Ministry of Education, noted the importance of including Ghana's Ministry of Mobilization and Social Welfare in this program.

Dr. Mary Grant, PNDC Member responsible for health and education, delivered the moving Keynote Address, which set the tone for the entire Workshop. She reviewed the expected benefits of the Expanded Program of Chemotherapy in Ghana, including "the promotion of intersectoral cooperation and the mobilization of local resources". She thanked the current donors to the program, and appealed to others for more assistance needed to fully launch the effort in all areas according to the intended schedule. As the senior representative of the Government of Ghana present, her indication of Ghana's strong interest in the success of this program was unmistakable.

The texts of Dr. Grant's Keynote Address and the Welcome Address given by Alhaji Gbadamoshie are included in the Appendix.

The first business session after the opening session was chaired by Mrs. Haldene Lutterodt, Coordinator of School Education in the MOE. Dr. Donald A.P. Bundy of Imperial College, University of London (UK) and Dr. Lani Stephenson of Cornell University in Ithaca, New York (USA) each delivered extremely informative, shocking accounts of their pioneering work and that of others, in documenting the adverse effects of especially schistosomiasis, hookworm, ascariasis and trichuriasis on the physical growth, fitness, mental and cognitive development, nutrition, appetites, and general well-being of school age children in developing countries. Dr. Bundy focussed on the parasitological epidemiology, effects and consequences of the infections, while Dr. Stephenson emphasized the nutritional aspects of the infections. Both noted the rapid positive effects that are achievable by means of single dose oral treatment of affected children, using the highly effective safe drugs that are now available.

Dr. Bundy also explained why a program of mass chemotherapy and health education, delivered in and through the schools, would be highly cost effective. A program to provide latrines and other sanitary improvements to the same areas would be expected to require at least 15-30 years to have comparable effects on the prevalence of these infections in the population, based on the experiences of Japan, Israel and other nations. No other country has as yet undertaken a program of mass chemotherapy and health

education such as this, using these two drugs (praziquantel and albendazole), nationwide.

Dr. Bundy and Dr. Stephenson's presentations were videotaped, so that video abstracts of both lectures can be made available to all regional directors of medical services in Ghana, and others who were not able to attend the workshop.

IV. DISCUSSION OF THE DRAFT PLAN OF ACTION FOR GHANA'S EPC

Dr. Donald Hopkins of the TFCSD chaired the session in which the draft Plan of Action (dated 5 August 1991) for Ghana's Expanded Program of Chemotherapy was reviewed and discussed by workshop participants. In opening this session, Dr. Hopkins stressed that while we do not know all we would like to know about these diseases in Ghana and about this subject, we know enough to start making the benefits of these new therapies available to children on a much larger scale, while refining our knowledge of the most efficient and effective ways to employ these tools in Ghana.

The Plan of Action was revised based on the discussions at this Workshop. The major issues that were raised in these extraordinarily rich discussions are summarized below.

Timing of interventions and the Volta Region pilot phase. The first phase of the program was scheduled to begin in the Volta Region in March or April 1992. Much remains to be done in the Volta Region in preparation for the first region-wide activities: an inventory of laboratory resources available, training for laboratory technicians, a workshop to orient teachers and others, initiation of baseline studies, consensus building, etc. Funds for training and for purchase of the drugs needed to treat the 275,326 children enrolled are not yet available. Since the current school term ends in mid-April, it will not be possible to conduct this first phase until after the next school term begins in June 1992. Effect of the rainy season on the accessibility of some of the schools will then need to be considered. However, it should be possible to complete this phase sometime during the next school term that ends September 17, 1992.

The first nationwide interventions will need to be delayed to allow time for full evaluation of the Volta Region pilot phase. Since this will be the first such annual nationwide implementation, it is deemed prudent to conduct the first nationwide implementation in three successive phases of 3-4 regions at a time, with perhaps a month's interval in between each such phase, beginning around October/November 1992. Subsequent annual implementation could then be carried out simultaneously, nationwide.

Some participants from the Northern Region indicated their eagerness to get this program started in that region as soon as possible. Northern Region authorities have already begun surveys to obtain baseline data on distribution of parasitic infections in

school children, with the support of the Danish Bilharziasis Laboratory in Tamale. While the urgency and enthusiasm were recognized, the need to restrict the initial phase operations to one region (Volta) was generally acknowledged.

Drugs to be used. Although mebendazole and metrifonate were recommended as the least expensive combination of drugs that are effective against the targeted parasites, they are not as effective as albendazole and praziquantel. Even before the Workshop, authorities in Ghana's Ministry of Health had decided to use the latter combination of drugs, based on their greater efficacy and on the likelihood that external assistance would be available to aid in the purchase of such drugs, at least initially, and on the knowledge that the price of both drugs was declining or expected to decline significantly.

To charge or not to charge for drugs. This issue was discussed at length, in view of its importance particularly to the sustainability of the EPC over the long term in Ghana, as intended. This important question must be decided by the Government of Ghana. The consensus of the workshop was that parents or children should NOT be charged for treatments of the children in the first year, in order to maximize the effect and build support for and understanding of the program. Starting in the second year, however, a nominal fee should be levied, and used to build a revolving fund to help ensure the indigenous sustainability of this program for the long term. It was also noted that such a long term plan (or something similar) would probably increase the willingness of external donors to help in providing funding to get the program started, given the considerable interest and work that is manifest already in Ghana.

Community diagnosis. The draft plan of action called for mass treatment of all children with both drugs for intestinal parasites and for schistosomiasis. The intestinal parasites are present in most communities in Ghana. However there are not sufficient data to permit one to classify all villages and wards in Ghana according to the prevalence of schistosomiasis, which does not occur everywhere, and it would be too expensive to attempt to acquire such information immediately. However, it is possible to categorize most or all of the 110 districts of Ghana according to whether they have a significant amount of the population infected with schistosomiasis or not. More detailed information will be obtained (using dipsticks and questioning) as the program progresses and more studies are done. In the meantime, it seems reasonable to use albendazole in all schools annually, while reserving praziquantel for use only in those districts where schistosomiasis is known to be a significant problem. How often praziquantel must be used must be resolved later, but it is probably not necessary to treat the same children with praziquantel every year.

Logistical arrangements. Both the Ministry of Health and the Ministry of Education have staff at national, regional, district

and community level, although in general, there are more schools than clinics or dispensaries in rural areas. The Ministry of Education's experience in managing the mass treatment program in 1989 is valuable not only as concrete evidence of the Government's own desire to address this problem, but also as something on which the two ministries can build in this new effort. The Ministry of Education could probably best clear the drugs from the port on arrival into Ghana, and provide warehousing in Accra, as they did in 1989. Since the logistical capacity of the two ministries varies from region to region, whether the MOE or the MOH is to be responsible for collecting drugs from Accra and distributing them within each region will need to be decided on a region-by-region basis. The ideal would be to take advantage of whichever system (MOE or MOH) seems best in each case, in order to maximize the sustainability of whatever system is used. Information on the bulk (size, shape, volume) of drugs to be imported and distributed is needed.

Drug distribution and accounting. An effective system must be devised to provide for proper accounting for the drugs, and reporting of coverage. In 1989, the MOE stores issued vouchers to the teachers, who signed for receipt of the drugs. The names of children who were absent from school on the given day were compiled on a list and sufficient drugs were left with the village chief for them. Enrollment figures were used to estimate the amount of drugs to distribute in individual schools. In this new effort, a form by which to systematically record the number of children enrolled (by class and school), the number of children treated, the number of pills distributed and the number of pills used, will be necessary. The optimal numbers of tablets to be packaged together needs to be determined for each of the drugs.

Training of teachers. Advantage should be taken of the periodic gathering of teachers in the Ghana Education Service for other purposes to inform them about this project and give them necessary information and materials. For example, 26,000 primary school teachers will gather in groups during April/May under MOE auspices, between school terms. The MOE is willing to allow time at these gatherings for EPC-related training.

Ideally, some method of determining the proper dose of praziquantel to give each child without having to actually weigh each individual is needed (e.g., by school grade, age or height).

Health education and community mobilization. A comprehensive plan for this extremely important component of the program and for evaluating its effectiveness is not yet available but needs to be developed. The Health Education unit of the MOH has recently developed prototype brochures for this initiative, for use in educating teachers and children about the target diseases, the drugs to be used, and relevant hygienic practices to prevent such infections. These will be pre-tested and adapted accordingly. In addition, school essay and drawing competitions, radio broadcasts, dramas, songs, video tapes and other channels for disseminating

information need to be considered and developed. Such plans probably need to be devised in each region if they are to be appropriate and effective. A calendar using color drawings selected from school children's work, similar to one developed in Kenya with funding from Smith Kline Beecham and displayed at this conference might be developed.

Materials developed for the Child-to-Child project pertaining to helping children teach each other how to prevent intestinal parasites and schistosomiasis, should be obtained and considered for possible adaptation to Ghana. Some Knowledge-Attitudes-Practices (KAP) surveys may also be useful.

The need for appropriate community mobilization beyond the schools is doubly important in the three northern-most regions of the country (Northern, Upper East and Upper West Regions), where average school enrollments of 6-14 year olds are lowest (about 34-38%, compared to the national average of 65%, and to an enrollment of 77% in Volta). Devising and implementing means of outreach to school-age children who are not enrolled is most urgent in that part of the country, where a majority of children aged 6-14 years do not attend school.

V. REVIEW OF PROTOCOLS FOR BASELINE STUDIES AND MONITORING

This session was co-chaired by Dr. Sam Adjei, Research Coordinator of the MOH, and Dr. E.N. Mensah, Regional Health Director, Volta Region. Dr. Adjei stated the importance in considering the draft protocols to be presented, of noting if each included a clear statement of the problem, indicated how the investigators were planning to address the problem (objectives, design, variables to be measured, and whether the variables will address the problem stated), identified who is going to do what, when, and how much the study will cost.

Four draft protocols were presented for discussion.

1. Dr. Wen presented a protocol developed by Dr. David Ofori-Adjei, who was out of the country. Dr. Ofori-Adjei plans a pharmacological study to ascertain whether there is any discernable difference in efficacy or safety in administering praziquantel and albendazole simultaneously, or at 3 day intervals with either drug administered first. This is proposed to involve a total of about 80 Junior Secondary School (JSS) children in Greater Accra.

2. Dr. Wen and his colleagues plan a study of the general distribution and prevalence of intestinal parasites and urinary schistosomes among a total of about 1400 persons in ten localities representing the three main ecological zones of Volta Region. Five sub-groups will be selected from among these for follow-up at 6 and 12 month intervals after treatment (Most will be screened only after one year). The main purpose of this study is to monitor the impact of the intervention, not to research the effects of the

drugs, since the latter has already been adequately documented in other countries and studies. In addition, a questionnaire survey is planned in each of the 12 districts (1000 persons per district) to elicit histories of urinary schistosomiasis and intestinal parasites.

3. Mrs. Rosana Agble plans to assess changes in nutritional status as a result of the chemotherapy in a cohort of children among those already selected for parasitological studies by Dr. Wen and his colleagues in Volta Region. Heights and weights will be the main indices measured.

4. Dr. (Mrs) Araba Sefa-Dedeh will study a separate group of about 60 children in Greater Accra to see whether measureable differences in cognitive development, mental development or academic achievement may be discerned as a result of treatment of heavily-infected children for schistosomiasis and intestinal parasitism.

The four draft protocols will each be modified in light of suggestions and other comments made at the Workshop and in follow-up sessions with Drs. Bundy, Stephenson, Ruiz and Hopkins.

The need for a protocol to evaluate the effectiveness of the health education/ public information component of the program was noted, and will be addressed.

VI. CONCLUSION

All five objectives of the workshop were met. Ghana is eager to move ahead to implement the EPC as rapidly as possible. Additional funding is needed urgently for training, production of health education materials, purchase of drugs, and other operational costs, including transport for the two national Coordinators.

VII. APPENDICES

Agenda

List of Attendees

Keynote Address by Dr. Mary Grant, PNDC Member

Welcome Address by Alhaji Gbadamoshie, D-G, Ghana Educ. Serv.

Background Data (Reference Table & Updated Summary)

Sample of Draft Brochures

School Age Population, Enrollment; 1991-1992 Schedule

Map of Ghana

Newspaper Coverage

WORKSHOP AGENDA

GHANA EXPANDED PROGRAMME OF CHEMOTHERAPY

NOVOTEL, ACCRA.

11/12 FEBRUARY 1992

Tuesday	9.00 am	OPENING CEREMONIES	Chairman, Col. E. M. Osei-Owusu. PNDC Secretary of Health
		Welcome Address	Alhaji Gbadamoshie, Director General. Education
		Keynote Address	Dr. Mary Grant, Member, PNDC
		Workshop Objectives	Dr. Donald Hopkins, Senior Consultant, TFCSD
		Chairman's Closing Remarks	Col. E. M. Osei-Owusu
	10.30 am	Break	
	11.00 am	BUSINESS SESSION	Chairman, Mrs. Haldene Lutterodt., Coordinator, School Education, MOEC
		Helminths and Their Impact on School Children	Dr. D. A. P. Bundy, Imperial College, London
	11.45 am	Nutritional Aspects of Helmenthiasis in Children	Dr. Lani Stephenson, Cornell University, Ithaca, N. Y.
	12.30 pm	Discussion of Morning Presentations	
	1.00 pm	Lunch	
	2.00 pm	GEPC Draft Plan of Action Overview	Dr. Donald Hopkins
	2.30 pm	Discussion (Response to Section i-v 15 minutes each)	Dr. Donald Hopkins
			Recorder — i,ii — Dr. S. T. Wen Recorder — iii — Larry Dodd Recorder — iv/v — Mrs. Emelia Allan
	3.45 pm	Break	
	4.00 pm	Summaries of Discussions by Section	Dr. S. T. Wen
	5.00 pm	Adjourn	

WORKSHOP AGENDA

GHANA EXPANDED PROGRAMME OF CHEMOTHERAPY

NOVOTEL, ACCRA.

11/12 FEBRUARY 1992

Wednesday	9.00 am	STUDY PROTOCOLS - Introduction	Chairman, Dr. Sam Adjei, Research Coordinator, MOH
	9.10 am	Clinical Pharmacology/Adverse Events Monitoring	Dr Ofori - Adjei
	9.20 am	Discussion	
	9.40 am	Parasitology	Dr. Wen, Bundy, Ruiz, Asamoah-Adu, Osei, Nkrumah, Mr. Block,
	9.50 am	Discussion	
	10.10 am	Nutrition	Drs. Stephenson, Agble
	10.20 am	Discussion	
	10.40 am	Cognition	Dr. Araba Sefa-Dedeh
	10.50 am	Discussion	
	11.10 am	Break	
	11.30 am	Health Education/Public Information	Mrs. Amissah, Messrs. Boasko, Atakpa
	11.40 am	Discussion	
	12.10 pm	Lunch	
	1.30 pm	Training Plan	Drs. Otoo, Letsa, Mrs. Allan, Mrs. Daaku
	1.40 pm	Discussion	
	2.10 pm	Evaluation of School Attendance	Mrs. Blay, Nana Asare Bediako
	2.20 pm	Discussion	
	2.40 pm	Drug Distribution and Accounting	Mr. Botchwey, Dodd, Mrs. Owusu
	2.50 pm	Discussion	
	3.10 pm	Coverage Reporting Plan	Dr. Mensah, Messrs. Buckle, Dodd
	3.20 pm	Discussion	
	3.40 pm	Closing Remarks	
	4.00 pm	Adjourn	

GHANA EXPANDED PROGRAMME OF CHEMOTHERAPY
(GEPC - WORKSHOP)

Novotel, Accra, 11/12 February, 1992

PARTICIPANTS

Dr. Mary Grant, PNDC Member.
Dr. Alexander Ababio, PNDC Deputy Secretary of Health.
Dr. N.A. Adamafio, Deputy Director of Medical Services, (Public Health), MOH
Dr. S.T. Wen, MOH Coordinator (GEPC).
Mrs. Emelia Allan, MOE EDSAC Coordinator, (GEPC)
Dr. Sam Adjei, Research Coordinator, MOH
Dr. Donald Hopkins, Senior Consultant, Task Force for Child Survival & Dev. TFCSO.
Dr. Donald Bundy, Imperial College, London.
Dr. Lani Stephenson, Cornell University, New York City.
Dr. Ernesto Ruiz, Consultant, TFCSO
Mr. Tom Ortiz, Director of Operations, TFCSO.
Mr. Jeff Mecascky, Edna McConnel Clark Foundation.
Dr. Araba Sefa-Dedeh, Psychiatric Hospital, Dept. of Psych. UGMS, Korle Bu.
Mr. Saldi M. Shomari, Resident Representative, UNICEF.
Mrs. Margit Gutteridge, Project Administrator, GTZ, Accra.
Dr. Alex Asamoah-Adu, Acting Head, Public Health Ref. Lab., MOH.
Dr. Francis Nkrumah, Director, Noguchi Institute, Legon.
Mr. Paul Block, DBL, Tamale
Ms. Mary Kotei, Head Director of Health Education, MOH.
Mr. V.L. Asigri, MOH, Tamale.
Miss Marian Amisah, Division of Health Education, MOH.
Alhaji R. Gbadamosi, Director-General, G.E.S.
Mrs. Rossana Agble, Head, Nutrition Division, MOH.
Mr. S.A. Botchwey, Director, Pharmaceutical Division, MOH.
Dr. Charlotte Gardiner, Head, MOH Division, MOH.
Dr. E.N. Mensah, Regional Health Director, Volta Region.
Miss Margaret Tawiah, Regional Education Director, Volta Region.
Dr. A.Y. Letsa, SMO-PH, Volta Region.
Mrs. Theodora Daaku, Coordinator, Basic Education, EDSAC, MOE .
Mrs. Harldene Lutterodt, Coordinator, School Education, MOE.
Mrs. Louisa Owusu, Coordinator, Logistics, EDSAC, MOE .
Mr. John Buckle, Evaluation Unit, (PREP) MOE.
Mrs. M. Danso-Manu, Dept. of Statistics, University of Ghana, Legon.
Mrs. Comfort Blay, Acting Director, Basic Education, GES.

Mr. Kwame Antwi Boasiako, GBC, Accra.
 Mr. Kofi Awadzi, Information Officer, MOH.
 Mr. Larry Dodd, Resident Representative, TFCSO.
 Nana Asare Bediako - MOE.
 Dr. Etor E.K. Takyi, Noguchi Institute, Legon.
 Mr. Emmanuel Quaye, Graphic Corporation, Accra.
 Mr. Andrews Biney, Graphic Corporation, Accra.
 Ms. Rosemary Ardayfio, Graphic Corporation, Accra.
 Mr. Daniel Opoku, Asst PAD., MOH.
 Mr. John Atta-Quayson, GES., Accra.
 Mr. Emil Acolatse, (GBC - Radio).
 Mr. Victor Markin, (GBC Health Programmes).
 Mr. Emmanuel Bansa Afeatse (GBC Ewe Language)
 Mr. Seidu Iddrisu, (GBC Dagbani/Hausa)
 Mr. Oko Dagadu, (GBC - GA)
 Mr. Ben Agbenu, (GBC - TV)
 Mr. Francis Sasu (GBC TV-NEWS)
 Mr. Christopher Pupulampu (GBC TV-NEWS).
 Mr. Robert Owusu, (GBC - Radio 2)
 Nii Adu Arday, (GBC TV-NEWS).
 Mr. Jones Oko Kumi, (GBC TV-NEWS).
 Nana Insaideo, GBC, Accra.
 Mr. J.K. Nartey, Weekly Spectator, Accra.
 Ms. Sika Adadevor, Weekly Spectator, Accra.
 Mr. William Ohene, Ghanaian Times Corporation, Accra.
 Ms. Elizabeth Hayfron-Asare, Ghanaian Times Corporation, Accra.
 Mr. Emmanuel Mills, (Vidoemart), Accra.
 Mr. Kodjo Akuffo, " "
 Mr. Stanley Asiedu, " "
 Mr. Ebo Kobina Wilson, " (Film Editor)
 Mrs. Felicia Adofo, (Ghana Education Service), Guidance & Counselling Unit, R.J.30
 Mr. William Sackeyfio (Health Education Division),
 Mr. J.Q.A. Sackey, (Health Laboratory Services) K'Bu, Accra.
 Mr. F.C. Grant, P.O. Box 2819, Accra.
 Dr. Sammy Tay, School of Medical Services, U.S.T., Kumasi.
 Ms. Patience Stephens, World Bank, Accra.

MR. CHAIRMAN,
ALHAJI GBADAMOSHIE, DIRECTOR GENERAL GHANA EDUCATION SERVICE,
DR. DONALD HOPKINS, SENIOR CONSULTANT, TASK FORCE ON CHILD SURVIVAL
AND DEVELOPMENT,
DRS. BUNDY AND STEPHONSON OUR DISTINGUISHED VISITORS FROM ABROAD,
EXECUTIVES OF GHANA EXPANDED PROGRAMME ON CHEMOTHERAPY,
DISTINGUISHED GUESTS,
LADIES AND GENTLEMEN,

I AM HAPPY TO JOIN YOU THIS MORNING FOR THE OPENING CEREMONY OF
THE WORKSHOP ON THE PROPOSED EXPANDED PROGRAMME OF CHEMOTHERAPY.
THE PROGRAMME, AS I UNDERSTAND IT, AIMS AT TREATING PRIMARY SCHOOL
AND JUNIOR SECONDARY SCHOOL CHILDREN FOR SCHISTOSOMIASIS AND A
VARIETY OF INTESTINAL WORM INFECTIONS. THE TREATMENT IS TO BE
COMBINED WITH EDUCATION ABOUT THESE INFECTIONS AND THEIR
PREVENTION.

AS YOU ARE AWARE, PARASITIC WORM INFECTIONS CONSTITUTE A HEAVY
BURDEN OF DISEASE THROUGHOUT THE WORLD, ESPECIALLY IN THE THIRD
WORLD TROPICAL CCOUNTRIES. URINARY SCHISTOSOMIASIS IS PREVALENT
THROUGHOUT GHANA, ESPECIALLY IN THE RURAL AREAS. THE GEOGRAPHICAL
DISTRIBUTION AND THE INTENSITY OF INFECTION HAVE INCREASED SINCE
THE CREATION OF THE VOLTA LAKE. INTESTINAL SCHISTOSOMIASIS ON THE
OTHER HAND HAS A MORE FOCAL DISTRIBUTION. THE OTHER INTESTINAL
WORM INFECTIONS ARE MORE WIDESPREAD IN BOTH THE RURAL AND URBAN
AREAS. THESE INCLUDE ROUNDWORMS, HOOKWORMS, THREADWORMS,

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WHIPWORMS, STRONGYLOIDES AND TAPEWORM.

A SURVEY IN THE DAMFA PROJECT AREA OF CHILDREN IN THE AGE GROUP OF 5 TO 14 YEARS REVEALED 51% OF THEM INFECTED WITH ROUNDWORMS AND 42% OF THEM WITH HOOKWORMS SOME OF THE CHILDREN WERE ALSO INFECTED WITH THREADWORM AND WHIPWORM.

ALTHOUGH SERIOUS AND SOMETIMES FATAL EFFECTS MAY OCCUR IN HEAVY INFECTIONS WITH SOME OF THESE PARASITES, THE MORE COMMON ~~INFECTIONS~~ ^{MANIFESTATIONS} ARE ALLERGIC SYMPTOMS, IRRITABILITY, LACK OF MENTAL CONCENTRATION AND PHYSICAL AND INTERLECTURAL RETARDATION. IT IS THEREFORE LOGICAL THAT THE PROGRAMME WILL FOCUS ON PRIMARY SCHOOL AND JUNIOR SECONDARY SCHOOL CHILDREN, WHO ARE MORE VULNERABLE AND INCIDENTALLY ALSO MORE EASILY ACCESSIBLE.

THE PROPOSED PROGRAMME IS BASED ON THE RESULTS OF PILOT PROJECTS IN OTHER COUNTRIES WHICH HAVE INDICATED THAT THERE ARE AVAILABLE DRUGS THAT PROVIDE EFFECTIVE CONTROL OF THESE WORM INFECTIONS WHEN ADMINISTERED, A MINIMUM OF ONCE A YEAR IN APPROPRIATE DOSAGE. IN ONE SUCH PROJECT IN KENYA, TEACHERS HELD POSTER CONTESTS IN THE SCHOOLS AND GAVE THE CHILDREN THE OPPORTUNITY TO DEMONSTRATE WHAT

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THEY HAD LEARNT. THE POSTER WHICH IS ON DISPLAY IN THIS ROOM WAS PRODUCED FROM THE COLLECTION OF THE KENYAN STUDENTS' POSTERS BY SMITH-KLINE

BEECHAM LTD, A MANUFACTURER OF ANTI-HELMINTHIC DRUGS. SIMILAR COMPETITIONS WILL BE HELD IN GHANA, AND IT IS HOPED THAT SMITH-KLINE BEECHAM AND OTHER DRUG PRODUCERS WILL PROVIDE RESOURCES AND SUPPORT FOR THEM.

THIS PROGRAMME WHICH HAS BEEN PLANNED IN COOPERATION WITH THE MINISTRY OF HEALTH AND THE MINISTRY OF EDUCATION AND CULTURE IS EXPECTED TO REACH ABOUT 2.5 MILLION PRIMARY SCHOOL AND JUNIOR SECONDARY SCHOOL CHILDREN THROUGHOUT GHANA. THERE IS THEREFORE THE NEED TO MOBILIZE THE REQUIRED RESOURCES SO THAT EXPANSION OF THE PROGRAMME IS NOT CURTAILED BY A SHORTAGE OF RESOURCES AS HAPPENED ONCE BEFORE IN 1989.

THIS PROGRAMME HOLDS PROMISE FOR A MULTITUDE OF BENEFITS. THE TREATMENT SHOULD IMPROVE THE CHILDREN'S CONCENTRATION ON THEIR STUDIES AND IMPROVE THEIR ACADEMIC PERFORMANCE. OTHER BENEFITS WILL BE BETTER NUTRITION AND GREATER RESISTANCE TO OTHER INFECTIONS. THE HEALTH EDUCATION COMPONENT WHICH WILL BE

.... / 4

INCORPORATED INTO THE PROGRAMME SHOULD HELP TO IMPROVE PERSONAL HYGIENE AND SANITATION PRACTICES. REDUCED PARASITIC INFECTION LEVELS IN SCHOOL CHILDREN HAVE ALSO BEEN SHOWN TO HELP HOLD DOWN INFECTION RATES IN PRESCHOOL AND ADULT POPULATIONS IN THE SCHOOL CHILDREN'S HOMES AND VILLAGES. A FURTHER BENEFIT OF THIS EFFORT IS THE COOPERATION BEING GENERATED BETWEEN THE MINISTRIES AND UNIVERSITY AND MEDICAL RESEARCHERS WITHIN GHANA. AS SHOWN IN THE WORKSHOP AGENDA, DR. SAM ADJEI, CO-ORDINATOR OF RESEARCH IN THE MINISTRY OF HEALTH, WILL CHAIR A WORKING SESSION TOMORROW WHERE PROGRAMME STAFF, MINISTRY PERSONNEL AND COOPERATION RESEARCHERS WILL BE FINALIZING RESEARCH PROTOCOLS AND OPERATIONAL PLANS FOR THE PROGRAMME.

A MAJOR BENEFIT OF THIS PROGRAMME SHOULD ALSO BE THE DEVELOPMENT OF A SCHOOL HEALTH PROGRAMME IN WHICH THE HEALTH AND EDUCATION SECTORS OF GHANA WILL WORK TOGETHER TO IMPROVE COMMUNITY HEALTH. SCHOOL AGED CHILDREN WHO ARE NOT ATTENDING SCHOOLS WILL ALSO BE TARGETED IN THE FUTURE. AND AS OTHER INTERVENTIONS TO ADDRESS OTHER CONDITIONS BECOME AVAILABLE, (SUPPLEMENTS TO CORRECT IRON, IODINE AND VITAMIN A DEFICIENCIES FOR EXAMPLE), THE EXPERIENCE GAINED FROM THIS PROGRAMME WILL BE READILY ADAPTABLE BY THE TEACHERS AND HEALTH

WORKERS INVOLVED.

IN ACCORDANCE WITH THE GOVERNMENT'S DECENTRALISATION PROGRAMME THE DISTRICT ASSEMBLIES ARE RESPONSIBLE FOR THE DEVELOPMENT OF ALL SOCIAL SERVICES INCLUDING HEALTH AND EDUCATION IN THEIR AREAS. THE DISTRICT ASSEMBLIES WILL THEREFORE BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE PROGRAMME. THE MINISTRIES OF HEALTH AND EDUCATION WILL PROVIDE LOGISTIC, ADVISORY AND SUPERVISORY SUPPORT WHILE THE RESEARCH INSTITUTIONS WILL BY THEIR RESEARCH HELP TO RESOLVE TECHNICAL AND OPERATIONAL PROBLEMS ENCOUNTERED IN THE IMPLEMENTATION OF THE PROGRAMME. AN ADDITIONAL BENEFIT OF THE EXPANDED PROGRAMME OF CHEMOTHERAPY WILL BE THE PROMOTIONS OF INTERSECTORAL COOPERATION AND THE MOBILIZATION OF LOCAL RESOURCES. THE PROGRAMME IS EXPECTED TO START IN THE VOLTA REGION DURING MARCH AND APRIL, AND EVERY EFFORT WILL BE MADE TO FOLLOW THE SCHEDULE IN THE PLAN OF ACTION. HOWEVER, RESOURCES NEED TO BE FOUND TO OBTAIN THE REQUISITE AMOUNT OF DRUGS INVOLVING 265,000 DOSES OF PRAZINQUANTEL AND ALBENDAZOLE. RESOURCES ARE ALSO NEEDED TO HELP FINANCE TRAINING, RESEARCH, PROGRAMME OPERATIONS AS WELL THE DRUGS FOR THE REST OF GHANA FOR THIS YEAR AND SUBSEQUENT YEARS. IN THIS REGARD WE WILL COUNT ON THE GENEROUS SUPPORT OF ALL OUR WELL

.... /6

WISHERS WHOM I WILL URGE TO RESPOND QUICKLY SO THAT THE CHILDREN OF GHANA ON WHOM THE FUTURE OF THE COUNTRY DEPENDS CAN DERIVE THE BENEFITS SOONER THAN LATER.

I WOULD LIKE TO THANK ALL OF YOU ASSEMBLED HERE FOR THE OPENING CEREMONY. I WOULD IN PARTICULAR LIKE TO THANK THE EDNA MCCONNELL CLARK FOUNDATION FOR THEIR SUPPORT SO FAR FOR THE PROGRAMME DEVELOPMENT AND FOR THIS WORKSHOP AND THEIR WILLINGNESS TO CONSIDER FURTHER SUPPORT FOR PROGRAMME DEVELOPMENT AND RESEARCH.

THANKS ALSO GO TO TWO OTHER ORGANISATIONS, THE DANISH BILHAZIASIS LABORATORY IN TAMALE AND THE CHARLES A. DANA FOUNDATION FOUNDATION IN THE U.S.A.

WE MUST ALSO NOT FORGET TO THANK THE TASK FORCE ON CHILD SURVIVAL AND DEVELOPMENT.

THANK YOU FOR YOUR ATTENTION.

WORKSHOP ON GHANA EXPANDED
PROGRAMME OF CHEMOTHERAPY
NOVOTEL, ACCRA
11TH - 12TH FEBRUARY, 1992

Mr. Chairman

Your Excellency PNDC Member Responsible For Education & Health

Honourable Deputy Secretaries

Director of Medical Services

Deputy Directors-General of GES

Deputy Directors of Medical Services

Resources Persons

Distinguished Invited Guests and Participants

Ladies and Gentlemen

I wish to thank the organizers for asking me to welcome you all, ladies and gentlemen, to this opening ceremony of the workshop on the Ghana Expanded Programme of Chemotherapy.

This is another practical phase of the programme for Child Survival and Development. However, with this phase, it appears more attention is being given to the integrated, inter-disciplinary and inter-sectional approach to programme or project implementation. The approach is clearly in the right direction and it has a very high potential for bringing to bear on the problem, maximum expertise of the various specialists from the different disciplines and sectors.

Neither can it be denied that that approach, if properly handled, has the potential for maximum effectiveness and efficiency.

It is in that spirit that a new programme of regular consultations and co-operation on School Health Education has been initiated between the Director of Medical Services and his top officials on the one hand and the Director-General of the Ghana Education Service and his top officials on the other. It is being proposed that the staff of Mobilization and Social Welfare be invited to participate in these regular consultations.

The Ghana Expanded Programme of Chemotherapy is multi-faceted and the success of its implementation will depend very much on the combined expertise of the staff of the Ministries of Health, Mobilization and Education and the Ghana Education Service. This Workshop is therefore being organized and distinguished Ladies and Gentlemen invited to this function in that spirit of co-operation. I have no doubt more light will be thrown on the Workshop in the address by Her Excellency the PNDC Member Responsible for Education and Health.

You are all therefore most welcome.

THANK YOU

APPENDIX: PREVALENCE OF POTENTIAL TARGET DISEASES IN GHANA

SCHISTOSOMIASIS.

Urinary schistosomiasis (S. hematobium) is associated with bloody and painful urination; obstructive disease of urinary tract; bladder ulcers, polyps, & cancer; and fibrosis of lungs. Also growth impairment, anemia.

Per cent villages positive for urinary schistosomiasis in national Guinea worm survey (1989): Upper East (54.6%), Eastern (47.7%), Central (43.8%), Greater Accra (37.1%), Northern (37.0%), Ashanti (33.2%), Volta (31.1%), Brong Ahafo (30.2%), Upper West (21.9%), Western (18.0%). Have data from same survey to rank all districts by population of endemic villages. Northern tendency of distribution, plus Lake Volta.

In Greater Accra survey (1973): highest rates in 10-14 year olds (12%) and 15-19 year olds (14%). 6% of urines positive over all age groups [Danfa Project]. In Upper West survey (1962), peak prevalence rates were in 10-24 year olds (24.8-30.8%) [Lyons]. In a village of Volta Region (1978-80), geometric egg counts were highest in 5-14 year olds, with a peak in 10 year olds [Klumpp & Webbe].

Surveys conducted in 1991 by the Danish Bilharziasis Laboratory (DBL) found only 1.5% S. mansoni prevalence in 134 primary school children in Tamale, Northern Region; but 67.7% prevalence of S. hematobium and 62.4% S. mansoni among 995 primary school children in Bolgatanga, Upper East Region.

ASCARIASIS.

Ascariasis and trichuriasis are often closely associated. Both are linked to undernutrition; malabsorption of nitrogen, fat, lactose, & vitamin A; growth retardation; and probable impaired mental development of children with significant levels of infection [Bundy].

Ascaris is usually the most common geo-helminth in Ghana, according to reports to the Ministry of Health. Average prevalence of Ascaris in Africa is 32% [WHO Expert Cte.]. Greater prevalence than hookworm in hospital stools data in Greater Accra, Ashanti, Central, Western, Eastern Regions [Wen, unpublished, late 1980s]. Southern tendency.

1973 baseline survey in Greater Accra (stool exams): 33% in under 5 year olds; 51% in 5-14 year olds; 42% in 15+ year olds. Peak prevalence in 5-19 year olds [Danfa Project]. 1982 study of pre-school children found higher proportion of children infected in two villages near the coast (41.9%, 76.2%), than in two villages in the forest zone (0%, 32.9%); prevalence of infection already leveled off at age 4 years [Annan et al].

The DBL's 1991 survey found 3.7% ascariis among 134 primary school children in Tamale, Northern Region.

HOOKWORM.

Usually the second most commonly diagnosed geo-helminth in laboratory reports from the Ghana Ministry of Health. Heavy infections are associated with blood and plasma loss, iron deficiency anemia in children and adult females especially. Also reduced work capacity, hypoalbuminemia.

Greater prevalence than ascariis in hospital stools data [Wen, late 1980s] in Volta, Upper West, Northern, Brong-Ahafo Regions. Prevalence in pre-school children from two villages near coast in 1982 study was 12.4%, 22.7%, vs prevalences of 27.3% and 7.6% in two villages in forest zone [Annan et al]. Northern tendency.

1973 baseline survey in Greater Accra (stool exams): 22% in under 5 year olds; 43% in 5-14 year olds; 38% in 15+ year olds. Peak prevalence in 10-19 year olds. Also, no significant association between hookworm infections and anemia in the 1973 survey of twenty rural villages in Greater Accra Region [Danfa Project].

The DBL's 1991 survey found 23.9% hookworm prevalence among 134 primary school children in Tamale, Northern Region.

STRONGYLOIDIASIS.

The third most commonly diagnosed geo-helminth in Ghana. The severe disseminated form may become more prominent because of immunocompromised AIDS patients. Heavier infections are associated with abdominal pain, diarrhea, malabsorption, and weight loss.

Supposedly greater prevalence in central and southern Ghana, lowest in northern and upper regions. 3-4.5% prevalence in stool samples from around Ghana in 1957-61. 4% overall prevalence in 1973 Greater Accra Region [Danfa Project]. Prevalence in pre-school children from two coastal zone villages in 1982 was 9.3%, 18.8%, as compared to prevalences of 9.1%, 5.1% in two villages in forest zone [Annan et al]. Southern tendency.

The DBL's 1991 survey reportedly found 11.2% strongyloides prevalence among 134 primary school children in Tamale, Northern Region.

TRICHURIASIS.

Often closely associated with ascariasis; has similar clinical effects in heavily infected children. Also diarrhea, hypoalbuminemia, iron deficiency anemia.

1982 study of pre-school children found rates of 6.2%, 64.4% in

two villages in coastal savannah zone, vs 0%, 2.5% in two forest zone villages [Annan et al]. (Latter study identified only one case of enterobiasis in the four villages.) Southern tendency.

The DBL's 1991 survey found 6.0% prevalence of trichuris among 134 primary school children in Tamale, Northern Region.

RECOMMENDATION: TARGET SCHISTOSOMIASIS, ASCARIS, HOOKWORM, TRICHURIS AND STRONGYLOIDES FOR MASS CHEMOTHERAPY.

**GHANA EXPANDED PROGRAMME OF CHEMOTHERAPY
BACKGROUND DATA (REFERENCE TABLE)**

<u>DISEASE</u>	<u>YEAR SURVEY</u>	<u>RESULTS</u>	<u>RANGE OF RESULTS</u>
Urinary Schistosomiasis	1989 (G W National)	% of All Villages infected by Region	18% — 54.6%
Schistosomiasis			
„	1973 Accra	% Positive by Age	10 — 14 yrs = 12% 15 — 19 „ = 14% All Ages = 6%
„	Jones, 1973, Villages Afram Plains (Volta Lake)	% Positive Persons	56.1 — 89.4%
„	Klumpp, 1982	% „ „	66 — 87%
„	„ „ Obusum	% „ „	70.6 — 96.7%
„	„ „ Deyi	% „ „	18.4 — 70.2%
„	„ „ Mid Volta	% „ „	38.0 — 89.2%
„	„ „ North Volta	% „ „	35.3 — 80.6%
Ascaris	1973 Danfa Baseline	% Positive by Age	45 yrs — 33% 5 — 14 yrs 51% 15 + „ 42%
Hookworm	1973 Danfa Baseline	% Positive by Age	<5 yrs — 22% 5 — 14 yrs 43% 15 + „ 38%
Threadworm (Strongyloides)	1973 Danfa Baseline	% Positive All Ages	4%
Whipworm (Tricuriasis)	1982 Annan et al	% Infected Pre-School Children (2 villages coastal)	6.2 — 64.4%

FACTS ON SCHISTOSOMIASIS

Treatment:-

The treatment of schistosomiasis should be under the direction of a doctor or a health worker (or a trained teacher). It is important to report early when symptoms appear.

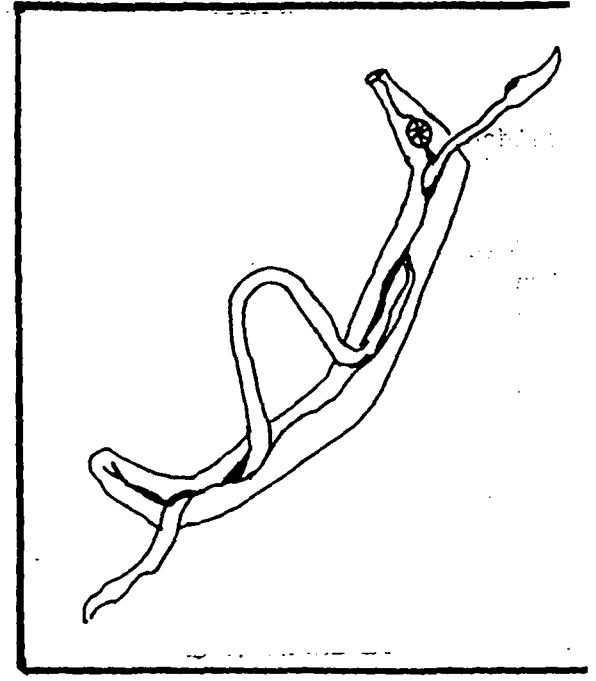
Prevention:-

Schistosomiasis can be prevented by:-

- a) using proper latrines/toilets not open spaces or the bush.
- b) Avoiding walking through water or swimming in infested rivers, streams, ponds and canals.
- c) Drinking water only from safe sources, eg. water from pipes, boreholes etc.
- d) boiling water from rivers, streams ponds etc. before drinking.

Remember:

Good nutrition helps to reduce the effects of worms on an infected person.



EXPANDED PROGRAMME OF CHEMOTHERAPY OF SCHISTOSOMIASIS

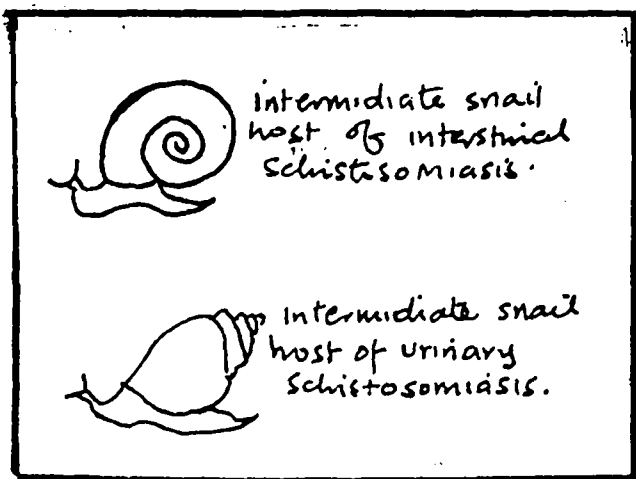
FACTS ON SCHISTOSOMIASIS

INTRODUCTION

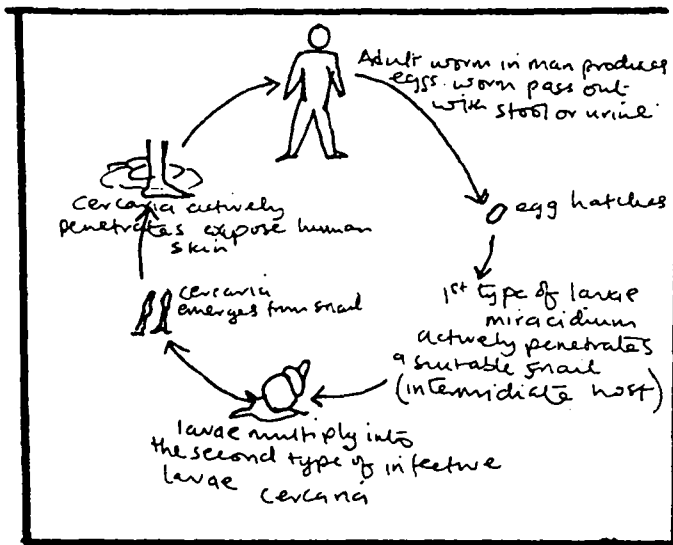
Schistosomiasis which is commonly called Bilharziasis is primarily a rural disease affecting agricultural and fishing communities.

Types:

There are two types of schistosomiasis in Ghana, the urinary type caused by Schistosoma haematobium and an intestinal type called Schistosoma mansoni. The urinary type is the best known and the most widespread. It causes blood in urine. The urinary type lives in the veins around the bladder while the intestinal type lives in the veins around the intestine.



schistosome (fluke)



Life cycle of Schistosoma

Life Cycle

Human schistosomes all have very similar life cycles. The adult worms may live in the veins around the bladder (urinary type) or in the veins around the intestines (intestinal type). The female worms produce eggs. The eggs work their way either through:

- the walls of the blood vessels into the body tissue,
- into the bladder (urinary type), or
- into the intestine (intestinal type).

From here they are expelled from the human body with his stool or urine. If the stool or urine land on wet places, within a few minutes the eggs hatch into active larvae (miracidium). If at the same time suitable fresh water snails are present in the water, the active larvae penetrate the snails.

Within the snails each larvae multipl into a second type of larva called cercaria. should an unsuspectir man walk into the water or exposes his skin to the water, the larvae will penetrate his skin and enter his body. There the larvae will travel through the human body while continuing their development until they become adults settling down finally in the veins around the bladder or in the veins of the intestines. This completes the cycle of the development.

Symptoms:-

The symptoms of schistosomiasis depend on whether it is the bladder or the intestine which is infected.

Where the bladder is involved, t symptoms are;

- Blood in urine and
- General weakness

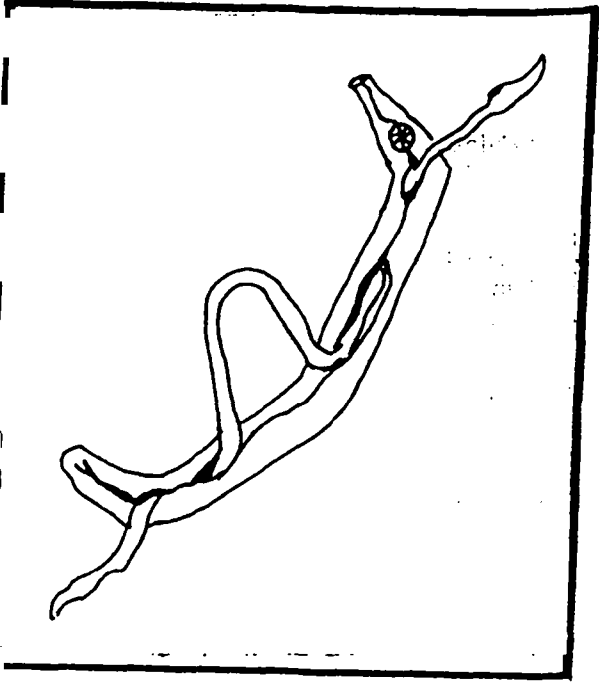
Where the intestine is affected the symptoms are;

- diarrhoea with blood and muc (slimy substance)
- fever
- abdominal pain
- general weakness
- loss of appetite
- enlargement of the liver and spleen

The disease is more severe when the instestine is involved.

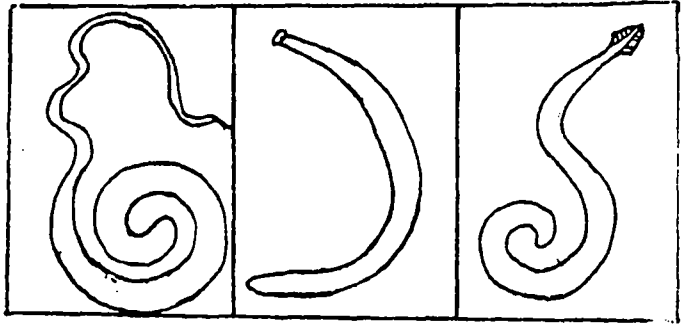
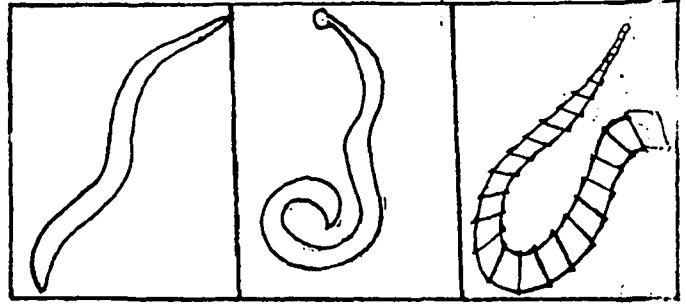
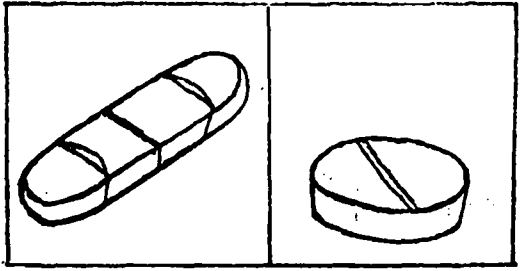
1st Draft

FACTS ON SCHISTOSOMIASIS



EXPANDED PROGRAMME OF CHEMOTHERAPY OF SCHISTOSOMIASIS

GUIDELINES FOR THE TREATMENT OF WORMS FOR TEACHERS



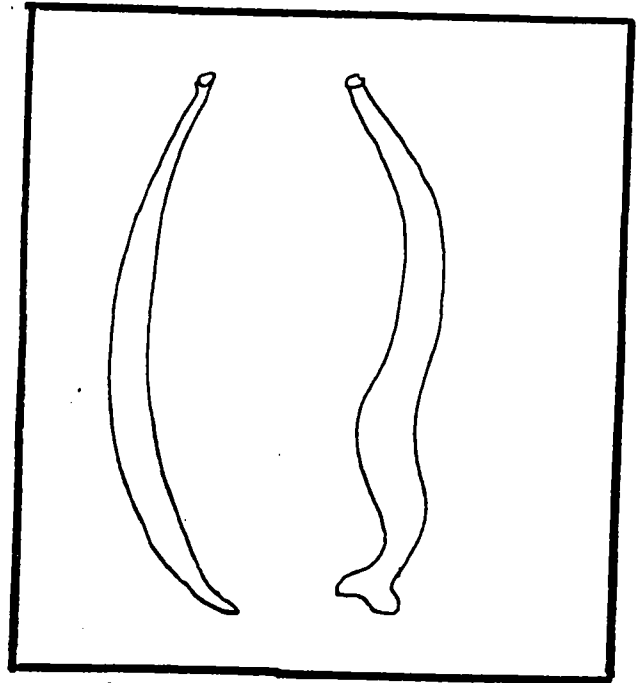
EXPANDED PROGRAMME OF CHEMOTHERAPY OF INTESTINAL WORMS

FACTS ABOUT THE LARGE ROUND WORM



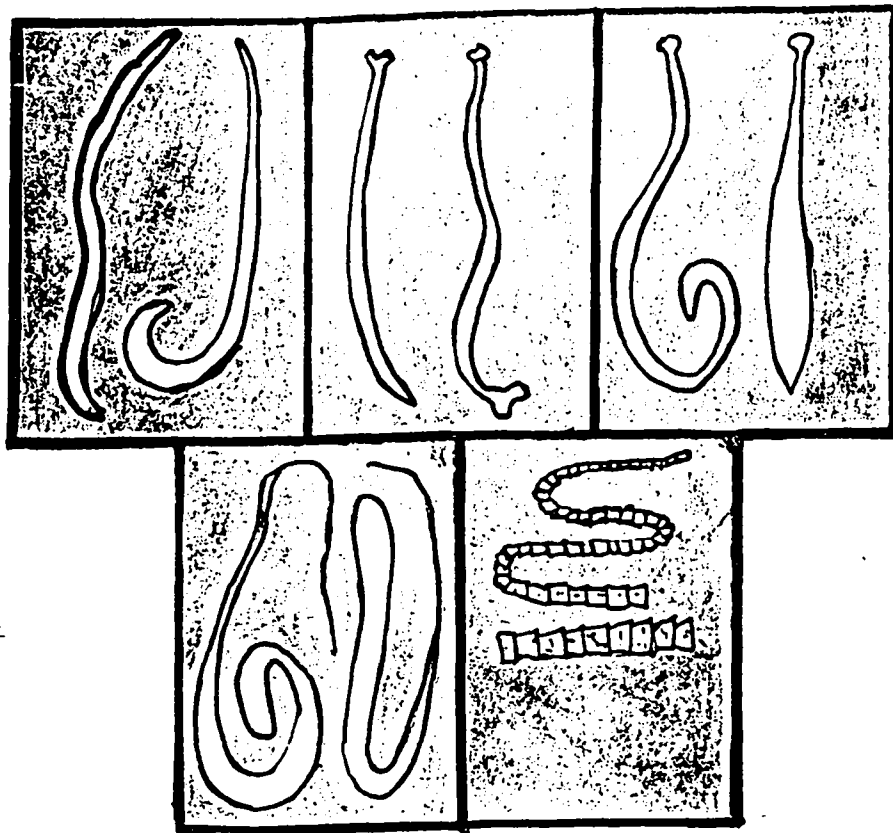
EXPANDED PROGRAMME OF
CHEMOTHERAPY OF INTESTINAL
WORMS .

FACTS ABOUT HOOKWORM



EXPANDED PROGRAMME OF
CHEMOTHERAPY OF INTESTINAL WORMS

FACTS ABOUT INTESTINAL WORMS



EXPANDED PROGRAMME OF CHEMOTHERAPY OF
INTESTINAL WORMS.

APPENDIX C: SCHOOL AGE POPULATION, ENROLLMENT

DRAFT

REGION	POPULATION (1989)	POPULATION *AGES 6-14	1989/90 ENROLL- MENT, P&JS	% ENROLLMENT	NO. OF P&JS SCHOOLS
Greater Accra	1,701,300	425,325	244,137	57.4	889
Eastern	1,892,000	473,000	359,661	76.0	2475
Volta	1,347,500	336,875	260,290	77.3	1816
Central	1,279,500	319,875	252,387	78.9	1610
Western	1,316,800	329,200	240,441	73.0	1685
Ashanti	2,425,000	606,250	435,101	71.8	2456
Brong Ahafo	1,403,600	350,900	241,343	68.8	1790
Northern	1,462,500	365,625	123,529	33.8	1161
Upper East	714,300	178,575	62,145	34.8	461
Upper West	491,900	122,975	46,491	37.8	443
GHANA	14,034,400	3,508,600	2,265,525	64.6	14,806

* applied % of this age group in 1984 census (25%) to 1989 estimates of total population in each region.

P&JS = Primary and Junior Secondary

SCHOOL TERMS AND HOLIDAYS FOR
BASIC EDUCATION SCHOOLS - 1991/92 ACADEMIC YEAR

1ST TERM

8th October, 1991 - 19th December, 1991 - 11 Weeks
HOLIDAYS: 20th December, 1991 - 13th January, 1992 - 3 Weeks

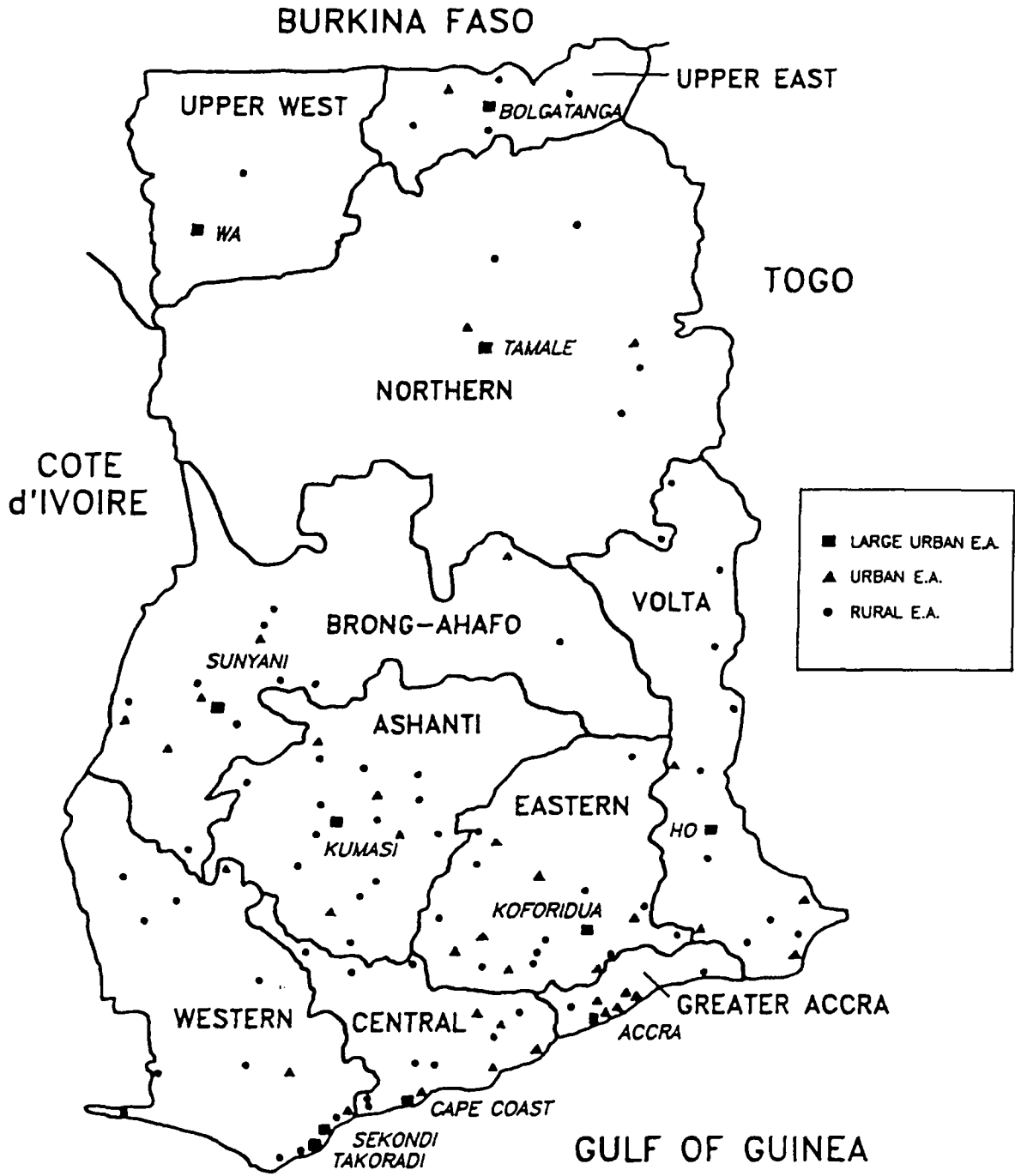
2ND TERM

14TH JANUARY, 1992 - 17TH APRIL, 1992 - 14 Weeks
(Easter Break 17th April, - 20th April, 1992)
HOLIDAYS: 24th April, 1992 - 8th June, 1992 - 7 Weeks

3RD TERM

8th June, 1992 - 24th September, 1992 - 15 Weeks
TOTAL 40 Weeks

Ghana



PROGRAMME TO DEWORM 2.5m SCHOOL CHILDREN

By Rosemary Ardayio & Andrews S. Biney

AN expanded programme aimed at treating about 2.5 million primary and junior secondary school children for Schistosomiasis and a variety of intestinal worm infections has been launched in Accra.

The programme, known as the Expanded Programme of Chemotherapy, will also include education about these infections and their prevention.

Children of school age have been targeted for this programme because studies have shown that they are more vulnerable and are usually affected at the time that they have the opportunity to education.

These worm infections result in allergic symptoms, irritability, lack of mental concentration and physical

LAUNCHED

and even intellectual retardation. Fatal effects may also occur in heavy infections.

Dr (Mrs) Mary Grant, PNDC member who launched the programme yesterday at Accra's Novotel Hotel said the geographical distribution and the intensity of parasitic worm infection have increased since the creation of the Volta Lake.

She said although intestinal schistosomiasis has a more focal distribution, the other intestinal worm infections are more widespread and they include roundworms, hookworms, threadworms, whipworms, strongyloids and

tapeworms.

Dr Grant said the programme is based on the results of pilot projects in other countries which have indicated that there are available drugs that provide effective control of worm infestations when administered.

She said the programme is expected to start in the Volta Region in March, adding that district assemblies will be responsible for the implementation of the programme.

The PNDC member said the treatment should help the children to concentrate on their studies and improve their academic performance. Other benefits include better nutrition and greater resistance to other infections.

She said the health education aspect of the programme should help to improve personal hygiene and sanitation

(Contd. on Ps. 8/9)

Programme To Deworm Children

(Contd. from P. 1)

practices.

"Reduction of parasitic infection levels in school children has also been shown to help to keep down infection rates in pre-school and adult populations" she stressed.

Dr Grant said that a major benefit of the programme should also be the strengthening of the existing school health programme by involving both the health and education sectors for the good health of children in schools.

Dr Grant said under the programme, children who are not attending school will also be targeted in the future.

Welcoming the participants, Alhaji R. Gbadamosi, Director General of Ghana Education Service (GES) described the programme as "a practical phase of the programme for child survival and development".

He said more attention is being given to the integrated, inter-disciplinary and inter-sectoral approach programme of project implementation.

Alhaji Gbadamosi stressed that the approach is clearly in the right direction and it has a very high potential for bringing to bear on the problem, maximum expertise of specialists from the different

disciplines and sectors.

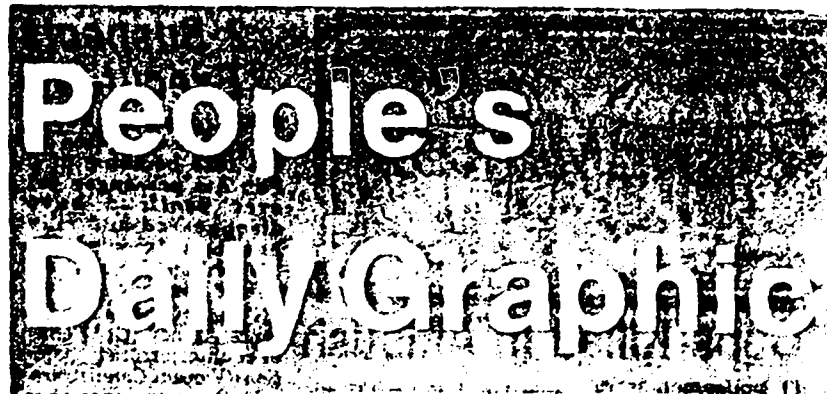
"It is in that spirit that a new programme of regular consultations and co-operation on school health education has been initiated between the Director of Medical Services and the Director General of the GES", he stressed.

He proposed the inclusion of the staff of Ministry of Mobilisation and Social Welfare in regular consul-

tations on school health education.

Dr Alex Ababio, Deputy Secretary for Health who chaired the function said worms are not only associated with children, even though they are the most vulnerable group.

He said unclean environment is a haven for parasites that produce worms in both children and adults.



WEDNESDAY, FEBRUARY 12, 1992. NO. 12819. PRICE C50.00

COMMENT

DEBILITATING DISEASES

ANYONE who has suffered from either intestinal worms or bilharzia can attest to how disabling the diseases are, sometimes causing uneasiness, itching and disorganisation of thoughts. More so, if you have ever vomited worms or got your throat choked by worms, then you would see the nauseating experience.

And although everybody is fallible to attacks, especially from intestinal worms, children are more vulnerable because of their eating habits, environment within which they play and the items they use in role-play, and when they catch the infection they grow into adults full of worms.

Accordingly, the Ministry of Health and the Ghana Education Service have teamed up to promote a programme to fight the disease and it is anticipated that 2.5 million pupils throughout the country would be treated of schistosomiasis and a variety of intestinal worm infections.

At the launching of the programme, which seeks to combine both preventive and curative health care practices to reduce the rate of infection, a PNDC member, Dr (Mrs) Mary Grant said, among other things, that there are effective drugs, some of which when administered once annually, could free the children from the troubles of the worm which can cause irritability, lack of mental concentration, as well as intellectual retardation (see lead story).

It is necessary to ensure a combined preventive and curative system since children by their nature are bound to suffer from the diseases because they are not likely to heed precautionary measures such as restrictions from bathing in water bodies which serve as habitats for the parasites that cause schistosomiasis. They are also likely to play in the dust, mud or unhygienic places in so far as adult control is relaxed.

But whilst we are pursuing orthodox methods of cure, we must also look to our roots and promote established traditional medicine or herbs that have proven efficacy, especially against intestinal worms.

The rationale behind such a move, particularly in the rural areas, is that the chemotherapy would be within the reach and knowledge of the rural people themselves.

The programme must be promoted with

PEOPLE'S DAILY GRAPHIC, Wednesday, February 12, 1992

dedication and commitment from teachers and health workers, since its success would ensure a better future.

Our hope, therefore, is that once it starts, the programme would be sustained because if we relapse, we would lose faith with the pupils and the importance of the programme would be undermined.

We are particularly interested in the preventive education for the pupils which will in time ensure that they are better informed about health issues and the causes of these debilitating diseases which are promoted through insanitary conditions.

Their levels and awareness about personal hygiene, environmental cleanliness and the necessity to look neat and decent will grow with time.



Wednesday, February 12, 1992
No. 10,816

¢50.00

Workshop on treatment of intestinal parasites opens

By Lys Hayfron Asare

A TWO-DAY workshop on the treatment of Ghana's school children for widespread intestinal parasites such as worms, opened in Accra yesterday.

The 'Ghana Expanded Programme of Chemotherapy' is to provide treatment for about 2.5 million Primary and Junior Secondary School children each year to improve their growth, nutrition, attendance at school and learning abilities.

The workshop is being organized by the Ministry of Health (MOH) for 57 participants from MOH, Ministry of Education and Development, United Nations Development Programme, United Nations International Children's Fund, United Nations Education, Science and Cultural Organization, World Health Organization, Ghana Medical School, Noguchi Institute, World Bank and the Danish International Development Agency.

Under the programme, the Volta Region has been selected as the area where information

materials, training methods, drug distributions and monitoring procedures will be tested.

Opening the workshop, Dr (Mrs) Mary Grant said parasitic worm infections constituted a heavy burden of disease throughout the world, especially in the developing world.

She said urinary schistosomiasis was prevalent throughout the country, especially in the rural areas, with that the geographical distribution and intensity of infection increasing due to the creation of the Volta Lake.

The PNDC member hoped that required resources would be mobilized so that the expansion of the programme was not curtailed by shortage of resources.

She said the programme held promise for a multitude of benefits, adding that the treatment should improve the children's concentration on their studies and academic performance.

Other benefits, she noted, would be better nutrition and **resistance to other infec-**

GHANAIAN TIMES



Chemotherapy workshop opens

A WORKSHOP on the treatment of school children for widespread intestinal parasites opened in Accra yesterday.

Dr (Mrs) Mary Grant, PNDC member responsible for Health, delivered the open-

ing address and observed that the treatment should improve the concentration of the children on their academic performance.

*** Dr Grant (left) delivering her address — See story on Page 1.**



EDITORIAL

A CASE AGAINST PARENTS

IT is encouraging to many to see the current launching of a joint programme by the Ministries of Health and Education to treat all school children for infestation with intestinal parasites (a term which in every day language simply means various types of worms). This is now taking off in the Volta Region, with a view to extending it to the whole country.

In the same vein, the revival in recent years of dental checks in schools, and the insistence of nursery and primary schools on evidence of immunization of pupils against major infectious diseases is to be commended.

But instead of being drawn into the current rather self-congratulatory mood, those of us who are in our thirties, forties, and above should recall our childhood days when medical (field unit) personnel went about our schools doing these very same things. Those programmes fell apart at the same time that, with apologies to Chinua Achebe, other things fell apart. It is good that we are now restoring them.

But it is impossible to avoid asking what were those of us who are parents doing in the meantime? Can we say that in the intervening years parents learned nothing about childcare, basic hygiene, and sanitation? These are taught in schools. Does it mean that the teachers did their work without interest and without conveying to today's adults that these were not mere subjects to be parroted in examinations, but guidelines of responsible living?

The community health personnel and sanitary inspectors went round. Did they fail to convey to us that they were not some kind of annoying police force trying to catch us out with mosquito larvae in the waterpot, but that they were trying to help us and our children to live healthier, happier, and more productive lives?

Or were we, the parents, too concerned about making a living and pursuing our own interests? If so, for whom were we doing it? For our anaemic, malnourished, worm-infested children, or for our immediate convenience?

Much as we must commend the present efforts to target the most basic health programmes towards school children, we must also ask all those of us who are parents what we have been doing all this time.

The saddest item to emerge from the news coverage of the launching of the current exercise to treat school children for worm infestation was an appeal from some parents that the Ministries of Health and Education should include in their agenda the delousing of their children! What kind of parent, finding lice in his or her child's hair, would ask a government agency to deal with the matter?

We can cite examples of children going to the poshest boarding schools who came home for their holidays with lice in their hair. It is not the fault of the schools, or of the Ministries of Health and Education. It is the fault of parents who are so busy about their own affairs that they have never found the time to train their children in the most basic rules of personal and environmental hygiene.

It is time we realized that whilst international and national agencies are once again geared to addressing the welfare of our children, it would be "back to square one" once more unless we, the parents of today, take our responsibilities seriously.

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270,000 pupils to be de-wormed in V. Region

*From Sophia Kudjordji,
Ho*

A TOTAL of 270,000 Primary and Junior Secondary School pupils in the Volta Region, are to be treated of intestinal parasites and bilharzia under the de-worming programme of school children.

Dr A. Y. Letsa, senior medical officer in charge of Public Health in the Volta Region, disclosed this in an interview at Ho at the

week-end.

He said laboratory technicians, teachers and district education officers would be trained to participate effectively in the programme.

Dr Letsa explained that it would enable all those involved in the programme to know their role and be supportive in it.

He said following the selection of the region for the pilot work on the 'Ghana Expanded Programme on Chemotherapy', inventory would be taken of laboratories in the region to ensure that they were well equipped to be used for tests during the programme.

The medical officer said the programme was a joint effort by the Ministries of Education and Health with support from the Task Force of Child Survival and Development of the United States.



AT CHILD SURVIVAL WORKSHOP

THE beginning of another phase of the practical programme for Child Survival and Development took place in Accra last Tuesday.

This was a two-day workshop organized jointly by the Ministry of Health and the Edna McConnell Clark Foundation with the theme "The Ghana Expanded Programme of Chemotherapy."

The programme includes the implementation of a plan of action which was drafted in September 1991 with the goal of providing treatment to about 2.5 million primary and junior secondary school children who suffer from schistosomiasis and intestinal parasites such as roundworm, hook worm, whip worm, pinworm, strongloides and tape worm infections.

Treatment is to be carried out each year.

The Volta Region has been selected as the place to begin the programme and information materials, training methods, drug distributions and monitoring procedure will be field tested there.

The treatment programme is scheduled to be completed by April with a target of reaching 260,000 primary and junior secondary school children.

The first nation-wide treatment programme will then follow in the last quarter of the year when all ten regions will carry treatment programmes, which will then onwards be planned annually.

Picture: Dr Mary Grant, PNDC member responsible for Health and Education and Dr Donald Hopkins, senior consultant, Task Force for Child Survival and Development who both participated in the workshop.