



Title	レイテ島における日本住血吸虫症の保健予防対策
Author(s)	小坂, 光男
Citation	熱帯医学 Tropical medicine 24(2). p103-114, 1982
Issue Date	1982-06-30
URL	http://hdl.handle.net/10069/4327
Right	

This document is downloaded at: 2018-07-19T00:27:27Z

Health Knowledge, Attitudes and Practices Related to Schistosomiasis in Leyte

Teodora V. TIGLAO*

Abstract: ^{**}This investigation was performed to obtain information on the health knowledge, attitudes and practices related to schistosomiasis due to *S. japonicum* in Leyte.

The province in northeastern Leyte selected as a target endemic area contains 22 municipalities and a total population of about a half million people, and the estimated number of persons infected with schistosomiasis is 87,000 or an average infection rate of 18%. In addition to all the household heads or their espouses from the 16 sample villages, the municipal officials and the teachers from the 4 municipalities were interviewed. The total respondents consisted of 1,935 household heads or espouses, 172 teachers and 49 municipal officials.

The study revealed that majority of the people of Leyte were knowledgeable about their community health problems and were aware that the degree of awareness about schistosomiasis was positively related to the prevalence rate of the disease in the village, i. e. the higher the prevalence the greater the awareness about disease. The municipal officials on the other hand, were more knowledgeable about the disease and had wider range of knowledge about other community health problems. They ranked schistosomiasis as the first of public health problems. The teachers were the most knowledgeable of the three categories of respondents. From these results of epidemiological investigation, the author insists as follows; the schistosomiasis educational programme should concentrate on the formal and the non-formal education of youths. And the educational programme also should go hand in hand with other community development programmes such as those of the Ministry of Social Service and Development, Ministry of Education, Culture, Agriculture and Public Works, National Irrigation Authority and others. Further, the educational programme should run parallel with other programmes aimed at improving the economic and educational status of the population as it can not stand in isolation. In the conclusion, it is important that the linkages with other agencies should be strengthened and sustained not only for the educational component of the schistosomiasis control programme but also for the initiation of other programmes designed to uplift the socio-economic status of the population.

Accepted for publication, February 26, 1982.

*Professor of Public Health Administration, Institute of Public Health, University of the Philippines System, Manila, Philippines.

This report was presented at 10th International Congress of Tropical Medicine and Malaria held in Manila, Philippines in November 9-15, 1980 and is, upon the suggestion of Doctor Kenneth Mott of the Parasitic Diseases Prevention of the World Health Organization, introduced by Professor Mitsuo Kosaka of the Department of Epidemiology, Institute for Tropical Medicine, Nagasaki University.

**abstracted and summarized by Prof. M. Kosaka.

INTRODUCTION

One of the important components of a schistosomiasis control programme is the education of the public in the prevention and control of the disease (1, 3, 4). An organized, systematic, and sustained health education programme is essential to support such a control programme. Furthermore, it is essential that planners are familiar with the knowledge, attitudes, and practices of the people relative to the disease to make the educational programme relevant and acceptable to the people.

The objectives of this study were to: a) obtain information on the people's knowledge of the causes, transmission and control of schistosomiasis; b) identify the existing attitudes towards the current schistosomiasis control programme and the health personnel responsible for such programme; c) identify the important messages that should be emphasized in the educational programme; and d) formulate guidelines for planning the educational component of the schistosomiasis programme.

The Study Area

Schistosomiasis due to *S. japonicum* is endemic in 21 provinces of the Philippines affecting 621,015 persons with an infection rate of 16 %. Schistosomiasis control activities have been undertaken since the early 1950's.

The endemic area in northeastern Leyte, the province selected for this study, contains 22 municipalities and a total population of about 475,000 people. The estimated number of persons infected with schistosomiasis is 87,000 or an average infection rate of 18 %. The highest prevalence rates are found in a group of municipalities lying west and south of Tacloban City, with a mean prevalence rate of 38 %, with Sta. Fe showing an index of 45 % (7).

Sampling Procedure

Multi-stage cluster sampling was used to determine the study villages. Four municipalities (see map) were randomly selected from the 22 municipalities of northeastern Leyte where *S. japonicum* is endemic using a table of random numbers after stratification. Four barangays* were then selected randomly, using table of random numbers, from each of the four municipalities, giving a total of 16 barangays. All the household heads or their spouses from the 16 sample barangays were interviewed.

The municipal officials and the teachers from the four municipalities were likewise interviewed. The total respondents consisted of 1,935 household heads or spouses, 172 teachers and 49 municipal officials.

Socio-demographic Characteristics of Respondents

The distribution of 1,935 surveyed households in Mayorga-high prevalence (21.5 %), coastal town; Sta Fe-high prevalence (45 %), interior town; Tolosa-low prevalence

*The smallest political unit corresponding to a hamlet or village.

(8.5 %), coastal town; and Javier—low prevalence (13.9 %), interior town is found in Table 1.

A great majority of respondents were females (78.7%), the wives being the ones available for interviews; only 21.3% were males. The age range of respondents were from 25 to 56 and above. About one-third (32.5 %) were below 45 years of age.

A predominant number of household members (77.4 %) belonged to the low-income bracket. A little over one-third (34.3 %) were gainfully employed; more than half (53.9 %) were housekeepers and 11.9 % were jobless. Of the employed 21.2% were farmers; 3.6% laborers; and 1.9% service people (laundry women, handymen, etc.).

The 172 teacher—respondents were predominantly females (83.7 %). The age ranged from 25 to 60; more than half (54.7 %) belonged to the younger age group.

All the teachers had college education with 24 (13.9%) having taken some study for a Master's degree. The majority (89 %) were elementary school teachers, while only 0.6 % were high school teachers; the rest served as administrative personnel. A meeger 8.1 % had attended a workshop on schistosomiasis.

Of the 49 municipal officials 23 were males and 26 were females. Of these, 13 or 26.5 % were medical and paramedical personnel of the Rural Health Units, 8 or 16.3 % were administrative personnel and 28 or 57.2 % were clerical and non-administrative staff.

Table 1. Frequency and percentage distribution of households surveyed by municipality, Leyte, 1978

Municipality	No. of Households	%
Mayora	508	26.3
Sta. Fe	322	16.6
Tolosa	642	33.2
Javier	463	23.9
Total	1935	100.0

RESULTS

The study revealed that majority of the people of Leyte were knowledgeable about their community health problems and were aware that schistosomiasis is one of such problems (Table 2). Schistosomiasis was mentioned as fourth of the leading health problems by 13.2 percent of respondents, the first three being upper respiratory infection, gastroenteritis disease and fever. However, about one-fourth (23.5 %) were not yet aware of the disease. The degree of awareness about schistosomiasis was positively related to the prevalence rate of the disease in the barangay, i.e. the higher the prevalence the greater the awareness about the disease.

The municipal officials, on the other hand, were more knowledgeable about the disease and had a wider range of knowledge about other community health problems.

They ranked schistosomiasis as the first of such problems. The teachers were the most knowledgeable of the three categories of respondents.

Of the 1,935 surveyed households, 307 or 15.8 % reported they had members sick with schistosomiasis. While 244 (74.4 %) had only one member sick, there were some who had up to seven members afflicted with the disease. There was a total of 424 cases.

Of the 307 household respondents with schistosomiasis cases, 10% did not consult anyone. Of those who consulted, only one-fourth (25.1%) consulted within the week; one-eighth (12.6 %) consulted within a month's time; another one-fourth waited from one month to six months; another one-eighth (12.9 %) waited from six months to one year while another one-fourth (24 %) waited more than one year. Delay in action is attributed to financial difficulties and distance of health services. As a result, about one-half (48.1 %) resorted to self-medication and herbal medicine. A little over one-half (52.3 %) of the respondents considered schistosomiasis as "somewhat serious" to "very serious;" the rest were not threatened by its severity (Table 3).

About half (44.4 %) of the respondents admitted they did not know how schisto-

Table 2. Frequency and percentage distribution of respondents by ratings on seriousness of identified community diseases Leyte, 1978

Rating	Respira- tory		Gastro- intestinal		Fever		Schisto- somiasis		Skin Diseases	
	No.	%	No.	%	No.	%	No.	%	No.	%
Very serious	92	13.6	26	5.3	69	14.9	104	24.2	26	12.3
Somewhat serious	64	9.5	112	23.0	48	10.3	92	21.4	89	18.4
Neither serious nor not serious	253	37.5	189	38.8	142	30.6	98	22.8	81	38.2
Somewhat not serious	161	23.8	56	11.5	152	32.8	86	20.0	32	15.1
Not serious at all	102	15.1	85	17.5	50	10.8	49	11.4	34	16.0
Do not know	2	0.3	19	3.9	3	0.6	—	—	—	—
Total	674	100.0	487	100.0	464	100.0	429	100.0	212	100.0

Table 3. Distribution of 307 households with schistosomiasis cases according to how they rated seriousness of the disease Leyte, 1978

Rating of Seriousness	No.	%
Very serious	94	13.3
Somewhat serious	63	21.0
Neither serious nor not serious	76	22.2
Somewhat not serious	37	12.3
Not serious at all	30	10.0
Did not rank	7	0.2
Total	307	100.0

somiasis was transmitted nor how it was controlled. Of those who knew something about its transmission, emphasis was placed on contact with bodies of water (Table 4). Little importance was given to improper waste disposal. Many misconceptions regarding the cause of the disease were expressed such as weak blood; not drinking "tuba" (local alcoholic drink), eating infected food and snails, direct contact with infected person. Therefore, people gave emphasis to avoiding water contact as a control measure, with only 8 % mentioning environmental sanitation.

The respondents knew little about the nature and role of the snail (*oncomelania*

Table 4. Method of schistosomiasis transmission as identified by 1935 household respondents Leyte, 1978

Knowledge of Schistosomiasis Transmission	No.	%
Going to stagnant water, canals and streams	631	32.6
Going to the ricefield	466	24.1
Weak blood (mahina and dugo)	84	4.3
Not wearing protective footwear	74	3.8
Not eating anything	49	2.5
Improper waste disposal	42	2.2
Direct contact with infected person	18	0.9
Not drinking tuba	12	0.6
Eating contaminated food	12	0.6
Do not know	860	44.4

Table 5. Frequency and percentage distribution of protective measures against schistosomiasis, as identified by respondents, by rank, Leyte, 1978

Protective Measures	Rank			Total	%
	1st	2nd	3rd		
Avoid moving in swamps and streams	855	72	14	941	81.4
Environmental sanitation	59	75	22	156	13.5
Wearing protective footwear	41	93	17	151	13.1
Having strong blood	40	57	13	110	9.5
Bathing regularly	25	43	24	92	8.0
Regular check-up	29	44	14	87	7.5
Drinking tuba	23	36	21	80	6.9
Drinking anything hot	15	29	12	56	4.8
Do not go to ricefield	33	38	8	79	6.8
Personal hygiene	22	26	10	56	4.8
Not eating raw or half-cooked foods	11	14	2	27	2.3
Drinking salabat	8	3	4	15	1.3
Stray animals should be tied	7	3	2	12	1.0
Contact with infected person	3	5	2	10	0.9
Avoid eating anails	2	3	—	5	0.4
Poison infected areas with molluscicides	1	—	1	2	0.2

quadrasi) in schistosomiasis transmission. Only 8.9 % of the 1,935 household respondents and 38.8 % of municipal officials knew that the snail is the intermediate host. Some even believed the snail to be edible.

It was noted that the people's knowledge about the role of the snail in schistosomiasis control is a prerequisite to their willingness to participate in snail control.

While the people emphasized that schistosomiasis is acquired through water contact, they continued to frequent bodies of water (Table 6). About one-half (42.7 %) continued to go to the river; about one-fourth (24.7 %) to the beach; 18.6 % to streams; 13.5 % to rice fields and 5.5 % to canals. More than 40 % go almost daily to these bodies of water to bathe, launder, cross, fish, gather vegetables, and defecate as there were rather limited alternatives for accomplishing these domestic and economic chores.

Water usage is described in Table 7. Only one-tenth (10.6 %) of the population

Table 6. Activities in bodies of water, number and percentage by 1935 household respondents, Leyte, 1978

Activities	Bodies of Water									
	River		Stream		Sea/Beach		Canal		Rice field	
	No.	%	No.	%	No.	%	No.	%	No.	%
Bathing	441	53.4	89	13.1	454	67.7	—	—	—	—
Washing clothes	447	54.1	183	50.8	9	1.3	12	11.3	—	—
Swimming	44	5.3	19	5.3	136	20.3	—	—	—	—
Defecating	13	1.6	11	3.1	5	0.7	3	2.8	10	3.8
Fishing	64	7.7	31	8.6	100	14.9	6	5.6	—	—
Crossing	46	5.6	48	13.8	1	0.1	71	67.0	1	0.4
Gathering vegetables	42	3.1	47	13.1	3	0.4	14	13.2	14	95.8
Farming	—	—	—	—	—	—	—	—	239	90.6

Table 7. Sources of water for various uses, number and percent, Leyte, 1978

Sources	Uses							
	Drinking		Laundry		Bathing		Cooking	
	No.	%	No.	%	No.	%	No.	%
River, stream, canal	37	1.9	481	24.9	308	15.9	45	2.3
Pitcher pump	777	40.2	449	23.2	524	27.1	754	39.0
(Closed) deep well	252	13.0	173	8.9	204	10.5	246	12.7
Rain water	5	0.3	16	0.8	15	0.8	5	0.3
Open dug well	490	25.3	579	29.9	612	31.6	520	26.9
Public artesian well	139	7.2	66	3.4	83	4.3	124	6.4
Piped municipal water	205	10.6	139	7.2	157	8.1	203	10.5
Spring	20	1.0	13	0.7	12	0.6	16	0.8
Did not specify	10	0.6	19	1.0	20	1.1	22	1.1

were served by piped municipal water. More than two-thirds (68.7 %) had unsafe sources of water (open dug well, pitcher pump, rain water and open spring). The river still served as their source of domestic water for laundering (24.9 %), bathing (15.9 %) and even for drinking (1.9 %) and therefore exposed them to infection.

Sanitary facilities (toilets) even if in existence, were not utilized. While 82.2 % had adequate toilets, only 41.5 % "always used" them, with 24.7 % being maintained very poorly. Open fields (13.0 %), bodies of water (10.0 %), public toilets (10.3 %), or pit toilets (0.8 %) were used by those without sanitary facilities.

None of the respondents noted that domestic animals can serve as reservoirs of infection in schistosomiasis—39.1 % of pigs, 89.6 % of dogs and 16.1 % of carabaos were left astray in the villages.

The attitude of the respondents towards their Rural Health Unit was favorable. Only about five percent rated the RHU services as not satisfactory. More than 70 % have availed of its services. However, only one-fourth (26.8 %) of those who availed of its services said they were given health information which most claimed to be useful. Only a small percentage (4 %) said they received information on schistosomiasis.

Only more than one-fourth (27.6 %) of the respondents have availed themselves of the services of the Palo Schistosomiasis Control Project, understandably because not all were sick of schistosomiasis. Of these, 26.6 % acknowledged having received schistosomiasis information. Majority of those who used the services rated the services satisfactory.

CONCLUSIONS AND RECOMMENDATIONS

The ultimate control of schistosomiasis in Leyte will involve creating an awareness for the need to change behaviour patterns (8). The majority of the sample population had attained a certain degree of "problem awareness" in so far as schistosomiasis is concerned. They are aware of the existence of the disease in their area; they are aware that it poses a pressing health problem as indicated by the more than 50% who considered the disease as serious; they are aware of the dramatic symptoms and of the parts of the body affected; they knew the needed action to take when afflicted by the disease. In this area, a significant (25 %) "hard core" or "hard to reach group" remain unaware of the problem.

Problem awareness does not guarantee that the desired action or behaviour change will take place. Not only should people believe that they are susceptible to the disease; they should likewise believe that the disease can be so serious as to pose a real threat on their lives; they should feel that the health services are accessible and available to them; they should be convinced that the action that they take will be of decided benefit or would lead to a more desirable state of affairs (9).

About 50 % of the respondents were still not aware of the severity of schistosomiasis. Delay in seeking consultation was attributed to financial difficulties and distance of health services. Such is the case with the 159 schistosomiasis cases encountered in the study who did not consult a health personnel or who delayed consultation. While they were aware that they needed to see a doctor, 79 said they were financially hard up and could not afford to pay for the transport and other incidental expenses; five said they did not know where the Palo Schistosomiasis Control Project is; and two said it is far. While people were aware that contact with infected bodies of water would expose them to the disease, yet they continued their water contact practices. Why? Because of economic and/or infrastructure constraints. Therefore, hand in hand with the educational programme should be infrastructure development. In all endemic areas, provision of water supply will be important contribution to control schistosomiasis and other communicable diseases.

Public education through mass media supported by radio programmes, posters, hand-outs, exhibits, films, TV programmes and the like have not been fully utilized. Mass media should be further complemented by personal contact either through individual approach in clinics, or through group approach in study groups, barangay health councils, community meetings, and community organization. "Gatekeepers" in the community could serve as "multipliers" in the dissemination of information or serve as models with whom the population could identify. Instead of telling people what to do, they could be involved in finding realistic and relevant solutions to their problems. By so doing, greater commitment from the people could be generated.

Radio programmes could be made more effective by interviewing people in the barangays. Those interviewed would surely spread around the word that they will be in the air thus building an audience for the radio programme. The use of video-tapes, which are available in the National Media Production Center and the Ministry of Information Regional Office, may also prove effective in spreading schistosomiasis awareness.

Another important ingredient in changing people's behaviour is relationship between the "providers" and "consumers" of health services. Such relationship should be one of mutual trust. The providers of services should have faith in people and should believe that people, irrespective of their economic or social status, have the potentials to charter their own path. Planners and providers of health and related services should consider people not merely as *objects* of change but as *partners* in development. If such concept were to be operationalized, the people should be involved in the identification of their own health problems and through group discussion, and decision, should agree on the solution to the problems. Help from outside the system should be provided only when people see the relevance of such to their problems; only when the people have expressed a desire for such. If help should be sought the helping relationship should promote self-reliance rather than dependency. They should develop enough confidence and skill to identify and eventually to cope with their problem. The development of such capa-

bilities depend on the skills of the providers of services (10).

The consumers, on the other hand, should have trust and confidence on the providers of health services. They should believe that the providers are genuinely interested in their welfare.

After creating awareness about the problem and establishing relationships, the next important steps in planned change are: the clarification or diagnosis of the consumers' or client systems problems; the examination of alternative routes or goals; and the transformation of intention into action.

Many health development programmes in the past had objectives that were pre-established by technical personnel. The needs perceived by the community were disregarded and the attitudes and behaviour of the members were ignored. The problems of the community were diagnosed by the technical personnel; people were told about their problems, together with instructions on what to do about them. This seems to have been true in the sample population as evidenced by the great number of existing toilets that are not used. The study also showed that the people do not know the relationship between indiscriminate waste disposal and schistosomiasis.

What is important is to assist the people in understanding their problems and to translate these insights and understandings into goals and courses of action toward desired improvements. The providers of services during the social preparation phase could find out what the consumers think and how they perceive their problems. The preferred method is asking questions rather than telling them what their problems are. It is better to start with felt needs rather than imposing a problem not recognized. Priorities are then established and the people decide what problem to attack first. Alternative solutions to such problems may be discussed.

The transformation of intentions into action is the criterion for the success of the change effort. It is here when outside help may be needed. Linkages with other agencies may be essential at this stage. Technical and material assistance could help transform intentions to action, such as the provision of water supply to motivate people to construct toilets and technical assistance on the construction of toilets.

The last two stages in the process is the stabilization and generalization of the change and terminal relationship. Here, people have internalized the changed behaviour so that even without the prodding of the health personnel, they maintain a toilet; it has become part of their life style.

The content of the health education programme in schistosomiasis control should be derived on knowledge of the community. About one-half of the respondents did not know how schistosomiasis is transmitted; even those who claimed they know had many misconceptions. People did not associate the disease with indiscriminate waste disposal; they did not know why bodies of water make them sick and few household respondents knew the role of the host snail. This was true not only among household respondent but also among some municipal officials and teachers. Hence, the message of the health

education programme should emphasize methods of schistosomiasis transmission and the role of proper waste disposal and domestic animals in the spread of the disease.

While proper waste disposal may help to break the cycle of transmission, the presence of many infected bodies of water warrant the inclusion of the role of the host snail in the educational content. Greater awareness of the characteristics of the snail and the bodies of water that are infected should be created.

Corollary to the mode of transmission is the method of prevention and control. The importance of these should be emphasized are the essential action to take to prevent and control the disease; e.g. construction of toilets, avoiding infected bodies of water, putting up footbridges, host snail elimination by clearing irrigation dams, filling pools of water, practicing modern agricultural techniques, tying or enclosing stray animals, and the like. Information on what the services of the RHU and the PSCP in connection with the prevention and treatment of schistosomiasis need to be disseminated. A climate of helpfulness and acceptance should predominate and attempts should be made to make the indigents get over the fear of expense. The value of early consultation could also be stressed.

This study indicates that the knowledge of the household respondents on common

Table 8. Mean score on knowledge of household respondents according to selected characteristics, Leyte, 1978

Characteristics	No. of Respondents	Scores	Standard Error	F Ratio	P Value
A. Sex				8.037	.05
Male	412	10.7354	0.0897		
Female	1523	10.4373	0.0490		
B. Age				4.008	.05
25 and below	229	10.1485	0.1187		
26 - 35	480	10.6292	0.0875		
36 - 45	448	10.6629	0.0917		
46 - 59	376	10.5079	0.0949		
96 +	398	10.3493	0.0951		
C. Educational Attainment				8.064	.05
Elementary	1213	10.3322	0.0539		
High school	395	10.7342	0.0957		
College	132	11.1288	0.1642		
D. Occupation				2.806	.05
Farmer	410	10.5634	0.0889		
Housekeeper	1042	10.4376	0.0578		
Government employee	62	11.1613	0.2604		
Sales	86	10.7791	0.2177		
Service	36	10.6667	0.3518		
Laborer	70	10.3429	0.2398		
E. Economic Class				8.064	.05
Class AB	42	11.2857	0.2898		
Class C	395	10.7241	0.0957		
Class DE	1462	11.4097	0.0494		
F. Experience with the Disease				7.2303	.05
Yes	752	0.5725-01	5.1089.03		
No	565	0.7982-01	6.9829-03		

community health problems and the transmission, prevention, treatment and control of schistosomiasis is affected by *sex, age, educational attainment, occupation, economic status, and experience with the disease* (Table 8). The females, the younger and oldest age group, those with low educational attainment and economic status, the non-professionals (laborers), those who have not had any experience with the disease are less knowledgeable about the disease. It further shows that *age, educational attainment and economic class* exert significant influence on the attitude towards elimination of snails. On the other hand, *age, prevalence of the disease and experience with the disease* are significant in influencing attitudes towards willingness to participate in snail campaign.

In consideration of the above findings, the target population should be *females, the younger age groups, those with low educational attainment and the low socio-economic class*. It is here where knowledge is meager, where facilities are lacking and where misconceptions abound.

The various existing channels that reach out to these groups should be utilized. The schistosomiasis educational programme should concentrate not only on the formal but also on the non-formal education of youths. Out-of-school youths could be reached through the schools as well as through the youth organizations.

The educational programme should go hand in hand with other community development programmes such as those of the Ministry of Social Service and Development, Ministry of Education and Culture, Ministry of Agriculture, Ministry of Public Works, National Irrigation Authority and others. The educational programme should run parallel with other programmes aimed at improving the economic and educational status of the population as it cannot stand in isolation. The linkages with other agencies should be strengthened and sustained not only for the educational component of the schistosomiasis control programme but also for the initiation of other programmes designed to uplift the socio-economic status of the population.

REFERENCES

- 1) WHO Technical Report Series No. 372, (Epidemiology and Control of Schistosomiasis, Report of a WHO Expert Committee, 1967).
- 2) Resigan, T. P. *et al.* Studies on *Schistosoma japonicum* Infection in the Philippines (General Considerations and Epidemiology), Bulletin of the World Health Organization, 18: 345, 1958.
- 3) Dalton, P. R. and D. Pole. Water-contact patterns in relation to *Schistosoma haematobium* infection. Bulletin of the World Health Organization, 55(3): 471-426, 1978.
- 4) Dalton, P. R. A socio-ecological approach to the control of *Schistosoma mansoni* in St. Lucia, West Indies. Bulletin of the World Health Organization, 54: 587-575. 1977.
- 5) Nosenas, J., Tanaka, H., Matsuda, H. & Santos, A., Estimation of Annual Incidence of Schistosomiasis japonica among school children in the Philippines. Southeast Asian Journal of Tropical Medicine and Public Health, 6(3): 359-365, 1975.

- 6) Annual Report (1976): Schistosomiasis Control and Research Service, Ministry of Health, Philippines.
- 7) Philippines, National Irrigation Systems Improvement Project I, Schistosomiasis Control Program, SRCP handouts.
- 8) Lippit, Wesley and Watson, The Dynamics of Planned Change, Harcourt, Brace and Co., New York, 1958.
- 9) Rosenstock, Irwin M. *et al.* The Impact of Asian Influenza on Community Life, Department of Health, Education and Welfare, Public Health Service.
- 10) Primary Health Care, a joint report by the Director General of the World Health Organization and the Executive Director of the UNICEF, Geneva-New York, 1978.

レイテ島における日本住血吸虫症の保健予防対策

紹介：小坂光男（長崎大学熱帯医学研究所疫学部門教授）

日本住血吸虫症の予防対策の重点事項は予防対策教育の推進や疾病治療に関するものである。予防対策プログラムとしては、機構上からも系統的かつ恒久性のある保健教育プログラムが必須とされ、その計画設立に当ってはこの疾病に関する保健・予防対策に熟知の専門家を配する必要があり、かつ、その教育プログラムは住民に受け入れられ易いように作成する事が肝要である。本研究論文には①日本住血吸虫症の原因・伝播（媒介）・予防対策などに関する住民の知識調査報告、②レイテ島で現在実施されている予防対策プログラムの動向やこれに関わる統計データの報告、③教育プログラムで特に強調すべき重点事項や④日本住血吸虫症の予防対策の教育プログラムの企画に関する基本指針などの詳細が報告されており、当「熱帯医学」雑誌編集委員会で推薦論文として紹介されたものである。

熱帯医学 第23巻, 第4号, 103-114頁, 1982年6月