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Child Health Problems in Indonesia.*

by

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Abstract

Community survey and hospital data related to morbidity in children was presented.

Morbidity point prevalence rate by age per 1000 population was found highest in preschool children. Acute respiratory infections, infection and inflammation of the skin and subcutaneous tissues and diarrheal disease were the most prevalent diseases among this age group.

Hospital data showed that Tetanus was the most serious disease.

Data on the availability of health services and the utilization of these services for prevention and in case of illness as well as steps to strengthen these services was also presented.

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First of all I would like to thank the Organising Committee of the third KONIKA* for inviting me to participate as guest lecturer. I had the same opportunity in the first and in the second KONIKA and on those occasions I discussed specific problems of child health.

Today I would like to present to you an overall picture of child health problems in Indonesia and possible steps to take for solving some of these problems. I have been asked by the committee, verbally, to make my presentation in English. I will do so although according to the rules "Bahasa Indonesia" will be used in the sessions except for foreigners.

During this week most of the presentations will be concerned with hospital data except for one or two papers. So, I thought that you may be interested in data from other sources.

In preparing the health sector of our Second Five-Year-Development Plan community oriented data were required.

In this connection a household sample survey was conducted in urban and rural areas in 6 provinces in Indonesia. Interviews and physical examinations of sick persons were done by young medical doctors or medical students in their last year of study. I will discuss only those results which may be of interest to this Congress.

The total survey covered around 21.000 households consisting of 112.000 persons of which around 3000 were less than 1 year and around 14.000 were 1 to 4 years old. The sample size provided precisions of + or - 20% at the 95% probability level of prevalences of 1‰. Prevalences of less than 1‰ may not become apparent in this survey.

Five thousand five hundred and forty seven (5547) persons or five percent of the study population were reported ill during the month prior to the survey, and 5167 persons (4.6%) were found ill at the time of visit. The morbidity by age group is presented in table 1.

Morbidity per 1000 population was high in infants (8.4‰), in children of 1 — 4 years (8.0‰) in the age group of 45 — 49 years (7.5‰) and among the 50 years and over (11.4‰) and lowest in the 10 — 14 and 15 — 19 years age group (2.0‰ and 2.1‰). Table 2 shows the age specific prevalence rate of the 10 major diseases per 1000 population.

In almost all age groups acute respiratory infections and infections of the skin and subcutaneous tissues were the most prevalent diseases.

There was a striking difference in the prevalence rate of lung tubercu-

* KONIKA = Konggres Nasional Ilmu Kesehatan Anak
= National Indonesian Paediatric Congress.

losis and diarrheal diseases between the age groups.

Tuberculosis was highest in the oldest age group and diarrheal diseases in the under-five age group, resp. 55‰ and 9‰.

Tables 3 and 4 show the proportional rate of the 10 most prevalent diseases in infants and 1 — 4 years age group. In both age groups:
Acute respiratory infections
Infections and inflammations of the skin & subcutaneous tissue and
Diarrheal diseases, were the most prevalent.

A similar morbidity pattern was presented to us this morning by Prof. Soetedjo. In this case the hospital data reflected more or less the disease pattern in the community.

This household survey was undertaken in the last quarters of the year, so that it did not take into consideration seasonal variations. However, a longitudinal survey undertaken in 1969 in children less than 5 years of age during one year gave a similar disease pattern.

Results of this survey were presented in the second KONIKA held in Bandung. The main causes of death were found to be bronchopneumonia, diarrheal diseases and malnutrition.

Before discussing possible steps to take to overcome these problems in child health I would like to present some additional data from our survey. People were asked what treatment was sought during illness.

Table 5 shows treatment by disease: In general, the pattern of utilization of treatment facilities were about the same, irrespective of the type of illness 40 — 50% of the people did not seek treatment except in the case of diarrheal disease. Seventy percent of patients suffering from diarrheal disease sought treatment since diarrheal diseases were mostly occurring in children under 5, this gives us hope that people would respond when a diarrheal disease control programme would be initiated.

There was also a tendency to obtain treatment from medical or para medical persons for malaria and tuberculosis.

Surprisingly, people did not go so often to "dukuns" (witch doctors) for treatment when they are sick. In the case of malaria this may be more a reflection of the government malaria control programme which provides free treatment.

A similar tabulation of treatment utilization has been made for the different age groups. No significant differences were found in treatment utilization between the various age groups (Table 6).

It is often said that health problems in developing countries are not always medical, but rather economical and political. This may be true for some of the problems; however

it should not be used as an excuse for not doing anything or used as the reasoning why no improvement in child health has been achieved.

I believe that much can be done if we use simple and effective health-technology and implement health programmes down to the community reaching all those persons in need of it. This is what I would call community medicine.

I would like to give as an example the smallpox eradication programme in Indonesia. Only 6 years ago there were at least 100.000 smallpox cases annually in Indonesia of which 80% were in children. With an effective vaccin and a well organised surveillance containment programme, Indonesia succeeded to become free of smallpox. Another example is the TCPS programme. Using one or two shots of penicilline and also a strict surveillance system, control of yaws in Indonesia is nearing completion.

We should not blame the low educational level of the people for our failures.

We should look for solutions.

Taking into consideration the existing disease pattern in children less than 5 years of age in Indonesia it should not be difficult to improve child health.

In fact, the health technology to cope with these problems is already known. I hope therefore that the grim picture of child health in Indonesia outlined by Prof. Soetedjo this morning will become different in the very near future.

In the first KONIKA held in Semarang I proposed a program of dehydration prevention and rehydration to prevent death from diarrheal disease.

Although the use of oral rehydration in Mexico and Venezuela indicated that this simple action on a community scale can decrease dramatically mortality, yet diarrheal disease is still a leading cause of death throughout much of the world.

Also in Indonesia this technique had only restricted use up till now. With the help of I.D.A.I. (Indonesian Paediatric Association) I would like to change this.

Based on the data from the household survey the Directorate General of Communicable Disease Control (D.G.C.D.C.) of the Ministry of Health has submitted a rehydration programme for treating cholera and gastro-enteritis patients in health centres and policlinics which has now been approved as a project in the Second Five-Year Development plan or PELITA II.

The first training course will start August this year sponsored by the D.G.C.D.C. and the Dept. of Child Health, Medical School, University of Indonesia.

Immunization — a subject discussed in a symposium during the second KONIKA — will be also expanded during PELITA II.

Prevention of malnutrition and vitamin A deficiency is also an important programme in promoting child health. More funds are now made available for such activities.

If these 3 activities could be undertaken to the peripheral level and also improvement of general hygiene, the majority of child health problems existing now in Indonesia would be overcome.

In the second PELITA budget provisions have been made for expanding the peripheral health services, improving sanitation and water supply in rural areas, for undertaking immunization, rehydration and nutrition programme. So it is up to us to draw up appropriate programmes and implement them down to the community level.

One way the Ministry of Health is attempting to do this is the development of "health packages." In this context MCH package being developed at the L.K.N. (Institute of National Health) is worth mentioning. Since this subject will be discussed on next Friday, I will not dwell on it.

Since all faculty members of paediatric departments of Medical Schools in Indonesia are members of I.D.A.I., I would like to propose to work together. I believe that the programmes I mentioned before i.e. rehydration, immunization and prevention of malnutrition and Vit. A deficiences if carried out down to the community level will bring us very far in improving child health condition in Indonesia.

If the subjects of child health in Medical Schools were taught describing the existing disease pattern in the child population in Indonesia with the relevant epidemiological factors and emphasizing the already available techniques in coping with the prevalent children diseases, young physicians may be better equiped to work in rural area and act as the leader of the health team.

I would very much welcome the views of paediatricians gathered here on how we could reduce morbidity and mortality in children in the shortest possible time.

TABLE 1 : *Household survey, Indonesia 1972. "Morbidity by age group"*

Age Group (years)	Population		Cases		Morbidity per 1000 Population
	No.	%	No.	%	
Less than 1 Year	3,112	2.8	262	4.8	8.4
1 — 4 Years	14,177	12.7	1,132	20.4	8.0
5 — 9 Years	17,706	15.8	589	10.6	3.3
10 — 14 Years	14,063	12.6	297	5.4	2.1
15 — 19 Years	11,000	9.8	225	4.1	2.0
20 — 24 Years	7,932	7.1	247	4.4	3.1
25 — 29 Years	7,874	7.0	279	5.0	3.5
30 — 34 Years	7,378	6.6	306	5.5	4.1
35 — 39 Years	7,470	6.7	340	6.1	4.5
40 — 44 Years	5,817	5.2	318	5.7	5.5
45 — 49 Years	4,214	3.7	315	5.7	7.5
50 and Over	10,817	9.7	1,237	22.3	11.4
Unknown	283	0.2	0	0.0	0.0
T o t a l	111,843	100.0	5,547	100.0	49.7

TABLE 2 : *Ten Major Diseases by age* (Age specific preferency rate per thousand).*

No.	Diseases	AGE GROUP					
		Less than 1 year	1 — 4 years	5 — 14 years	15 — 24 years	25 — 44 years	45 years and over
1.	Acute upper respiratory Infections	21.2	20.0	7.2	5.2	6.4	8.0
2.	Infection & Inflammations of the Skin & Subcutaneous tissues	19.3	18.0	4.8	3.8	3.5	4.7
3.	Tuberculosis	0.3	0.4	0.8	1.2	4.9	25.5
4.	Acute lower Respiratory Infections	11.2	6.8	1.9	1.1	2.7	8.9
5.	Diarrheal diseases	8.7	9.1		0.7	2.7	3.0
6.	Malaria	2.3	1.8	1.7	2.8	2.0	4.1
7.	Infections of the eye	1.9	3.7	2.1	1.3	1.5	0.2
8.	Anemia	0.3	1.1	0.8	1.1	2.1	4.0
9.	Other diseases of the eye	0.6	0.8	1.9	0.1		6.1
10.	Nutritional deficiencies including Hypo/Avitaminosis	2.6	4.2	0.7	0.4	0.5	1.5

*) Source: Household survey, Indonesia 1972.

TABLE 3 : *Household survey, Indonesia 1972. Disease pattern in infant. (Less than 1 year).*

Rank	Disease	Number of cases	Proportion *)
1.	Acute upper respiratory infection.	66	25.2
2.	Infections and inflammations of the skin & subcutaneous tissues	60	22.9
3.	Acute lower respiratory infections	35	13.4
4.	Diarrheal disease	27	10.3
5.	Infections of the ear	10	3.8
6.	Accidents	10	3.8
7.	Nutritional Deficiencies	8	3.0
8.	Measles	7	2.7
9.	Malaria	7	2.7
10.	Infections of the eye	6	2.3
11.	Others**)	26	9.9
	Total	262	100.0

*) Total Population in the age group = 3,112.

**) Other diseases not classified above.

TABLE 4 : *Household survey, Indonesia 1972. Disease pattern in pre school children (1 — 4 years)**).

Rank	Disease	Number of cases	Proportion*)
1.	Acute upper respiratory infections	284	25.1
2.	Infections and inflammations of the skin & subcutaneous tissues	265	23.4
3.	Diarrheal diseases	129	11.4
4.	Acute lower respiratory infections	96	8.5
5.	Nutritional deficiencies	59	5.2
6.	Infections of the eye	53	4.7
7.	Other infections and parasitic diseases	40	3.5
8.	Infections of the ear and mastoid	32	2.8
9.	Malaria	25	2.2
10.	Measles	20	1.8
11.	Others **)	129	11.4
	Total	1.132	100.0

*) Total Population in the age group = 14, 177.
**) "Others": Diseases not classified above.

TABLE 5 : *Type of treatment for illness by disease *).*

No.	Disease	Medical and para medical treatment		Dukun (witch-doctor) and other treatment		Self treatment		No treatment		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%
1.	Acute Upper Respiratory Infections	308	36	16	2	136	16	399	46	859	100
2.	Infections of the Skin	169	26	31	5	123	19	328	50	651	100
3.	Acute Lower Respiratory Infections	111	39	22	8	31	11	124	43	288	100
4.	Diarrheal Diseases	118	47	20	8	43	17	71	28	252	100
5.	Malaria	98	45	8	4	25	11	86	40	217	100
6.	Tuberculosis	105	53	11	6	11	6	69	35	196	100
7.	Infections of the Eye	32	17	6	3	40	21	114	59	192	100
8.	Others	533	40	87	6	137	10	585	44	1342	100
	Total	1474	37	201	5	546	14	1776	44	3997	100

*) Source : Household survey, Indonesia 1972.

TABLE 6 : *Type of treatment for illness by age group**).

Age group (Years)	Medical and Para medical treatment		Dukun (witch-doctor) and other treatment		Self Treatment		No Treatment		T o t a l	
	No.	%	No.	%	No.	%	No.	%	No.	%
< 1	96	36	11	4	29	11	129	49	265	100
1 — 4	391	35	66	6	162	14	513	45	1132	100
5 — 14	278	31	33	4	134	15	441	50	886	100
15 — 24	181	38	26	6	61	13	204	43	472	100
25 — 44	528	43	65	5	160	13	489	39	1242	100
TOTAL	1474	37	201	5	546	14	1776	44	3997	100

*) Source : Household survey, Indonesia 1972.