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Nutritional Status and Morbidity in Conakry

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NUTRITIONAL STATUS

Malnutrition among preschool-aged children is commonly measured by three indicators. The first, height-for-age, is an indicator of leanness, or retarded linear growth. In particular, a height-for-age that is low, relative to the reference population, indicates long-term or chronic malnutrition. The second, weight-for-height, is an indicator of wasting or emaciation. A low weight-for-height indicates acute, current malnutrition. A third indicator, weight-for-age, is a composite of the two. It is more difficult to interpret; either chronic or acute undernutrition, or a combination thereof, will be manifest in low weight-for-age. Therefore, we will only briefly discuss this measure.

All three sets of anthropometric measures have to be compared with a reference population, and a cutoff point has to be defined, below which a child is considered to be malnourished. Nutritionists worldwide employ the National Center for Health Statistics (NCHS) reference population (WHO 1983). Defining what values are "too low" to be considered healthy, and consequently defining malnutrition, also has a standard convention.

In particular, any value that is $\leq$ -2 standard deviations from the mean represents the normative cutoff point (WHO 1983).[1]

The overall level of chronic and acute malnutrition for girls and boys in Conakry is found in Table 1, along with comparable figures for the capitals of Côte d'Ivoire for 1985/86 and Ghana for 1988.[2] The level of chronic undernutrition of 17.2 percent is lower than the 22 percent in Accra, although higher than the 11.4 percent in Abidjan. Acute malnutrition, which affects 11.4 percent of the preschoolers in Conakry, is higher than the 9.4 percent in Abidjan and the 6.5 percent in Accra.

Next we examine the nutritional status data by age group and gender reported in Table 2 and illustrated in Figures 1 and 2. The level of chronic malnutrition is less than 1 percent for children less than 6 months, and jumps to 9.2 percent for children 6-11 months. Thereafter, the level jumps to over 20 percent, and remains relatively stable from the first birthday onward, although it is somewhat lower for children 48-59 months. As for wasting, it is highest in the 6-11 months age group, and remains high through the second year, reflecting the vulnerability of

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[1] Alternatively, percentages of the mean and median of the reference NCHS population have been used as cutoff points, but these have a number of disadvantages, including that the distribution of the percentages of the reference is not the same for age and size.

[2] We selected these two countries for comparison for a number of reasons. First, their proximity to Conakry is of interest. Second, both surveys are recent. Third, the surveys followed the same basic methodology, and are the two best examples of well executed household surveys in sub-Saharan Africa. And finally, the mode of the analysis of the data, including the choice of the reference population and cutoff points, is the same, ensuring comparability. (For further information on the results of the Cote d'Ivoire and Ghana surveys, see Sahn 1990 and Alderman 1990, respectively.)

children in the weaning period and the early stage of weaning observed in Conakry. It also reflects the fact that most women do not breastfeed exclusively, as will be discussed further below. After the second birthday, the level of acute malnutrition falls off to only 6.0 percent among children 48-60 months.

Also of note is that the level of chronic malnutrition is higher for boys and girls in the 12-23 and in the 36-47 month age groups. The prevalence of acute malnutrition is markedly higher for girls than boys at 24-35 months, and somewhat higher at 12-24 months, but girls are more acutely malnourished at 6-11 months of age. While these gender differences are quite marked, they are indeed difficult to interpret and will await a more detailed multivariate analysis.

As for the weight-for-age indicator, this is most often used in the context of the Gomez classification, which delineates the percentage of mildly, moderately, and severely malnourished children based on percentiles of the NCHS reference population median values for weight-for-age. The results of this composite indicator are that only 1.4 percent of the children are designated as severely malnourished (below 60 percent of the median), 10.4 percent are moderately malnourished (below 75 percent of the median), and 35.3 percent are mildly malnourished (i.e., 75-90 percent of the median; see Table 3). When these data are examined by gender, once again, little difference is found.

Examining the percentage who are malnourished with different education levels, we find indications that the level of chronic malnutrition generally decreases as the level of education of the child's

mother, and to a lesser extent the child's father, increases (Table 4). A look at the relationship between acute malnutrition and parental schooling shows a positive effect of mother's schooling, particularly some primary school and university education. Analyzing nutritional status by literacy showed that lower literacy levels were related to stunting, but not to wasting (Table 5), and that the influence of the mother's status is greater than that of the father's. Of course, some of the observed relationships between education and nutrition may be mediated by incomes.

While the nutritional status of preschoolers is paramount, we are also concerned with that of the adult population. Specifically, the concern revolves around the fact that worker productivity will be compromised among malnourished adults, as their productivity declines or illness precludes them from working altogether. In practice, studying the nutritional status of adults is difficult. This is because anthropometric measures, particularly height, are determined in childhood. Nonetheless, one measure that is increasingly used is the body mass index (BMI), which is defined as the weight in kilograms over height in meters squared. This makes the index relatively independent of height. According to the Royal College of Physicians, males with BMI below 18.4 and females with BMI below 17.5 can be considered at high risk.

Following from the recommendations of the Royal College, Figure 1 presents the BMIs for adult males and females. Those at health risk comprise 11.1 percent of the males and only 4.0 percent of the females.

At the same time, 17.3 percent of the males can be considered underweight, while the comparable figure for females is only 4.8 percent. At the other end of the spectrum, 15.1 percent of the females are obese, while this problem only plagues 1.8 percent of the males.

Regarding the relationship between expenditure per capita and child nutrition, Table 6 indicates that not until the upper expenditure quintile is there a marked drop of approximately 25 percent in acute malnutrition. Levels of chronic malnutrition are also relatively stable across the bottom three quintiles, falling slightly in the fourth quintile, and then decreasing by nearly 50 percent in the upper quintile.

As for BMIs, Table 7 shows little relationship with income levels, either for men or women. A couple of exceptions, however, are noted. For example, the percentage of females that are obese in the upper expenditure quintile is around 33 percent more than the rest of the expenditure distribution. Similarly, there is some indication that more men are overweight in the upper expenditure quintile, while the number of underweight women is higher in the lower expenditure quintiles. These latter associations are weak, and await further econometric analysis to draw any firm conclusions.

HEALTH AND MORBIDITY

In the questionnaire administered to the households in Conakry, family members were asked if anyone in the household had diarrhea in the last 15 days. Information on the duration of diarrhea, as well as who was consulted and how much was paid for each type of service, was also

collected. We also inquired into the incidence of any disease during the previous 30 days, and asked for the same information as on diarrheal disease. For example, the same individual that may have reported having diarrhea during the previous 15 days, would have also reported being ill during the last 30 days.

Incidence of diarrhea differs greatly between children under 5 years of age and the rest of the population. As shown in Figure 4, 10.0 percent of boys and 8.5 percent of girls under five years of age had had diarrhea in the last 15 days, compared with only 1.7 percent of the rest of the population. Most episodes (44.9 percent) of diarrhea lasted 2 or 3 days (Figure 5); in only 28.7 percent of the cases did diarrhea last 5 days or more.

Sanitary conditions worsen between April and July. April-July are the last months of the dry season and the hottest months of the year. July marks the beginning of the rainy season, which is heaviest in July. Consequently, as expected, the incidence of diarrhea for children under the age of 5 becomes much higher during this period (Figure 6).

Among the families of those who had diarrhea, 30.5 percent consulted nobody. Hospitals were consulted 21.4 percent of the time, health centers 14.4 percent of the time, and pharmacies 15.0 percent of the time (Figure 7).

Since the distribution of medications has been liberalized, most drugs are available at private pharmacies, but are very expensive. As a result, drugs were the greatest expense for each episode of diarrhea. In fact, medications represented 87.3 percent of the total average monetary

cost of each incidence of diarrhea (Figure 8). Only 8.2 percent of the total outlay associated with a diarrhea episode went to the care provider, with the remaining 4.5 percent going to the clinic, hospital, or institution through which the care provider offers services (Table 8). Disaggregating this information on fees by whom the families consulted, we found that 93.2 percent who went to the hospital paid money for care and treatment, at an average cost of GF 8,137. However, 85.7 percent of the financial outlay was for medication. Similarly, 89.8 percent of the persons who went to a health center had some associated health expenditures, which averaged GF 10,268. Once again, the 92.2 percent for medications was the vast majority of the payments. The highest average price per visit was to the private doctor at GF 11,675. Outlays for medication as a share of total express is lowest for this source of care, although still quite high at 70 percent. The lowest of fees on average were those who consulted a traditional healer, partially reflecting that only 42.9 percent to make some payments, all of which, however, was for medications. This should not be construed to imply that the healer did not receive a fee for her service. Rather, the medications were presumably, for the most part, sold by the healer at a reasonable profit.

As indicated above, the statistics on the other diseases have been compiled from information recalled from the previous 30 days. The respondent was asked to recall the most recent episode of disease if there were 2 or more cases. Even if someone reported having diarrhea during the previous 15 days, if that episode of diarrhea was the most recent episode of disease, it would be repeated here. Specifically, in

the previous question, if diarrhea was associated with malaria, for example, it would still be included as a diarrheal episode. If it was mentioned in response to the question to which we now turn, it would be categorized as malaria, not diarrhea. Similarly, diarrheal diseases not associated with another specific illness would be characterized as intestinal disease in the latter question. One final caveat concerning the most recent episode of disease; fever and malaria have been grouped together, since households usually do not know the difference or do not go to a doctor to have a diagnostic test done.

The incidence of disease by age groups and gender is shown in Table 9. Of the total population, 9.4 percent have been sick in the previous 30 days (Table 9); 19.0 percent of children under 5 have been sick, 20.0 percent of boys and 18.1 percent of girls. Intestinal problems are most troublesome for children younger than 5, followed by fever and malaria, the latter affecting 4.2 and 4.4 percent of the boys and girls, respectively. In the other age groups, the incidence of disease ranges from 6.3 to 7.0 percent for males, where fever and malaria is the most serious class of problems. For females, the incidence of disease increases with age; it goes from 6.5 percent in the 5 to 14 age group to 11.8 percent over the age of 45, with other diseases becoming the single largest cause of illness (4.5 percent).

Duration of illness has been reported in Table 10. Of those with intestinal problems, 42.4 percent tend to last less than 5 days, and over 75 percent of the episodes are less than 10 days. Infections generally have a longer duration, with the mean being 10.1 days, compared with

intestinal disease. Childhood and other diseases often last 20 to 24 days.

In 30.9 percent of the cases of intestinal problems, nobody is consulted (Table 11). This figure corresponds quite closely to the one presented above for diarrheal disease during the previous 15 days. For fever and malaria, and infection, medical care is sought more frequently, with only 11.4 and 10.5 percent not seeking any attention, respectively, for the two categories of disease. In both categories, health centers and hospitals are the primary source of care.

There appears to be a slight gender bias in the use of medical facilities (Table 12) Females of all age categories were less likely than males to consult someone when they were ill. In addition, men used doctors and hospitals considerably more frequently than females, especially in the over 45 age group.

As in the case of diarrhea, the cost of medical treatment per episode of illness was mostly for medications (82.3 percent), followed by payment to the hospital or health care institution (10.9 percent) and the care provider (6.8 percent) as shown in Figure 9.

Once again disggregating these costs, we find a pattern in Table 13, very similar to that reported for diarrhea in Table 8. For example, when the care provider is a private doctor, the overall costs of treatment are highest at GF 14,426, and 76.5 percent of those seeking services from a private doctor make at least some payments in connection with their illness. In turn, 77.5 percent of the outlays are for medication, with less than one-quarter going for fees to the doctor herself. However, it

may well be that some of the medications are purchased from the provider, whether it be the doctor or other provider. Despite the similarities, however, the costs per episode of all illnesses, as reported in Table 13, are approximately 50 percent greater than for diarrhea. This, in part, is because 67.6 percent of those who reported having an illness during the past 30 days sought medical attention, as opposed to only 56.6 percent for those with diarrhea.

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Table 1 — Percentage Malnourished Children in Conakry, Abidjan, and Accra

	Chronic Undernutrition	Acute Undernutrition
	Percentage	
Conakry	17.2	11.4
Abidjan	11.4	9.3
Accra	22.0	6.1

Source: CFNPP/ENCOMEC 1990 Survey data.

Table 2 — Percentage of Children Malnourished by Age and Sex

Age Category	Chronically Malnourished[a]			Acutely Malnourished[b]		
	Boys	Girls	All	Boys	Girls	All
Months	Percentage					
0-5	0.0	1.3	0.6	7.3	5.3	6.3
6-11	8.1	10.2	9.2	27.9	18.0	22.9
12-23	24.6	19.3	22.0	14.8	19.9	17.2
24-35	20.8	20.5	20.6	6.3	14.0	10.1
36-47	25.0	10.1	20.8	8.7	9.2	9.0
48-60	16.8	17.9	17.4	6.5	5.6	6.0
Total	18.2	16.2	17.2	11.0	11.9	11.4

Source: CFNPP/ENCOMEC 1990 Survey data.

[a] ≤ -2 Z-score height-for-age.
[b] ≤ -2 Z-score weight-for height.

Table 3 — Nutritional Status According to the Gomez Classification

	Boys	Girls	All
	Percentage		
Normal	51.8	53.7	52.9
Mildly malnourished	36.0	34.8	35.3
Moderately malnourished	10.9	10.0	10.4
Severely malnourished	1.3	1.5	1.4
	n=820	n=857	n=1077

Source: CFNPP/ENCOMEC 1990 Survey data.

Table 4 — Nutritional Status by Education of Mother and Father

	Chronic Undernutrition		Acute Undernutrition	
	Percentage	N	Percentage	N
Father's Education				
None	19.7	704	13.0	707
Some primary	22.2	117	12.8	117
Some secondary	17.0	289	10.7	290
Some university	14.0	150	8.7	150
University	10.0	140	10.6	141
Mother's Education				
None	20.1	918	13.9	922
Some primary	20.0	115	9.6	115
Some secondary	14.7	334	9.3	334
Some university	9.0	100	10.0	100
University	6.7	45	4.4	45

Source: CFNPP/ENCOMEC 1990 Survey data.

Table 5 — Malnutrition by Literacy of Parents

	Chronic Malnutrition		Acute Malnutrition	
	Father	Mother	Father	Mother
	Percentage			
Literate	14.7	12.7	10.3	11.7
Illiterate	20.3	19.5	13.0	12.1

Source: CFNPP/ENCOMEC 1990 Survey data.

Table 6 — Acute Chronic Malnutrition of Children Per Capita by Expenditure Quintile

Per Capita Expenditure Quintile	Acute Malnutrition	Chronic Malnutrition
	Percentage	
1	11.19	17.64
2	12.65	18.73
3	11.86	19.94
4	11.27	15.33
5	8.28	8.97

Source: CFNPP/ENCOMEC 1990 Survey data.

Table 7 — BMI for Adults by Per Capita Expenditure Quintiles

	Quintile				
	1	2	3	4	5
Males					
Health Risk	11.65	7.41	11.36	11.63	13.49
Underweight	15.41	18.93	17.73	19.38	15.79
Acceptable	61.29	59.47	57.50	56.07	54.61
Overweight	9.68	12.76	10.91	11.37	14.47
Obese	1.97	1.44	2.50	1.55	1.64
Total	100	100	100	100	100
N	558	486	440	387	304
Females					
Health Risk	4.13	3.95	4.10	3.80	3.64
Underweight	6.67	4.16	5.40	3.80	2.55
Acceptable	50.79	49.27	51.62	48.37	41.09
Overweight	24.29	28.90	25.70	28.80	31.27
Obese	14.13	13.72	13.17	15.22	21.45
Total	100	100	100	100	100
N	630	481	463	368	275

Source: CFNPP/ENCOMEC 1990 Survey data.

Table 8 – Total Payment Per Episode of Diarrhea, Percentage of Patients Who Make Any Payment, and The Share of Costs Between Health Care Provider and Medications, by Type of Health Care Provider

Health Care Provider	Mean Total Payment/ Episode	N	Care Provider/Institution		Medications		Total Cost	
			Share of Patients Who Made A Payment	Share of Total Costs Incurred Per Episode	Share of Patients Who Made A Payment	Share of Total Costs Incurred Per Episode	Share of Patients Who Made A Payment	Share of Total Costs Incurred Per Episode
	GF		Percentag					
Nobody	19	104	n.a.	n.a.	2.9	100.0	2.9	100.0
Private doctor	11,675	16	50.1	29.9	62.5	70.1	68.8	100.0
Traditional healer	1,417	21	0.0	0.0	42.9	100 0	42.9	100.0
Health center	10,268	49	77.5	7.8	69.4	92.2	89.8	100.0
Hospital	8,137	73	98.6	14.3	82.2	85.7	93.2	100.0
Pharmacy	2,322	51	9.8	2.3	70.6	97.7	74.5	100.0
Other	336	27	3.7	11.0	74.1	88.9	74.1	100.0
All	4,232	341	36.7	12.7	50.4	87.3	56.6	100.0

Source: CFNPP/ENCOMEC 1990 Survey data.

Note: "n.a." is "not applicable."

Table 9 — Incidence of Disease by Age and Sex

	0 to 4	5 to 14	15 to 44	45 and older	All
	Percentage				
Males					
Fever/Malaria	4.19	2.82	2.54	3.17	2.94
Infections	3.33	0.79	0.36	0.69	0.97
Intestinal	8.49	1.70	1.79	0.96	2.71
Childhood	1.51	0.46	0.21	0.28	0.49
Other	2.47	1.11	2.11	1.24	1.81
Total	20.00	6.88	7.01	6.34	8.92
N	930	1,527	2,795	726	5,978
Females					
Fever/Malaria	4.39	3.04	2.23	3.24	2.78
Infections	2.76	0.68	0.77	1.52	1.10
Intestinal	7.65	1.22	2.12	2.10	2.71
Childhood	1.53	0.61	0.26	0.19	0.54
Other	1.73	0.95	3.04	4.76	2.33
Total	18.06	6.48	8.41	11.81	9.45
N	980	1,481	2,734	525	5,720
ALL					
Fever/Malaria	4.29	2.93	2.39	3.20	2.92
Infections	3.04	0.73	0.56	1.04	1.06
Intestinal	8.06	1.46	1.95	1.44	2.77
Childhood	1.52	0.53	0.24	0.24	0.52
Other	2.09	1.03	2.57	2.72	2.11
Total	19.01	6.68	7.70	8.63	9.39
N	1,910	3,008	5,529	1,251	11,698

Source: CFNPP/ENCOMEC 1990 Survey data.

Table 10 — Days of Sickness by Disease

	Fever/Malaria	Infections	Intestinal	Childhood	Other
	Percentage				
0 to 4	42.40	30.65	64.81	18.03	27.44
5 to 9	35.38	38.71	23.15	26.23	20.22
10 to 14	7.02	4.84	2.78	9.84	5.78
15 to 19	7.02	11.29	6.48	9.84	9.03
20 to 24	8.19	14.52	2.78	36.07	37.55
25 +	0.00	0.00	0.00	0.00	0.00
Total	100	100	100	100	100

Source: CFNPP/ECONMEC 1990 Survey data.

Table 11 — Consulted by Disease

	Fever/Malaria	Infections	Intestinal	Childhood	Other	ALL
	Percentage					
Nobody	11.40	10.48	30.86	18.03	13.72	17.82
Doctor	11.99	8.06	5.25	8.20	9.03	8.69
Traditional	5.85	4.03	5.25	8.20	11.19	6.91
Health Center	23.10	25.00	16.05	21.31	12.27	18.53
Hospital	24.85	33.87	19.14	37.70	41.52	28.99
Pharmacy	17.25	12.90	16.05	6.56	10.47	14.18
Other	5.56	5.65	7.41	0.00	1.81	4.88
Total	100	100	100	100	100	100
N	342	124	324	61	277	1128

Source: CFNPP/ENCOMEC 1990 Survey data.

Table 12 — Person Consulted by Age and Sex

	0 to 4	5 to 14	15 to 44	45 and older
	Percentage			
Males				
Nobody	15.59	17.14	16.33	14.47
Doctor	7.53	7.62	10.71	17.11
Traditional	5.91	4.76	9.69	7.89
Health Center	22.04	20.95	16.84	7.89
Hospital	30.65	24.76	28.06	34.21
Pharmacy	14.52	17.14	13.27	13.16
Other	3.76	7.62	5.10	5.26
Total	100	100	100	100
N	186	105	196	76
Females				
Nobody	18.64	20.83	20.43	17.74
Doctor	4.52	4.17	10.00	11.29
Traditional	2.82	7.29	9.13	6.45
Health Center	27.12	21.88	12.61	14.52
Hospital	29.94	29.17	28.70	25.81
Pharmacy	12.43	12.50	14.78	17.74
Other	4.52	4.17	4.35	6.45
Total	100	100	100	100
N	177	96	230	62

Source: CFNPP/ENCOMEC 1990 Survey data.

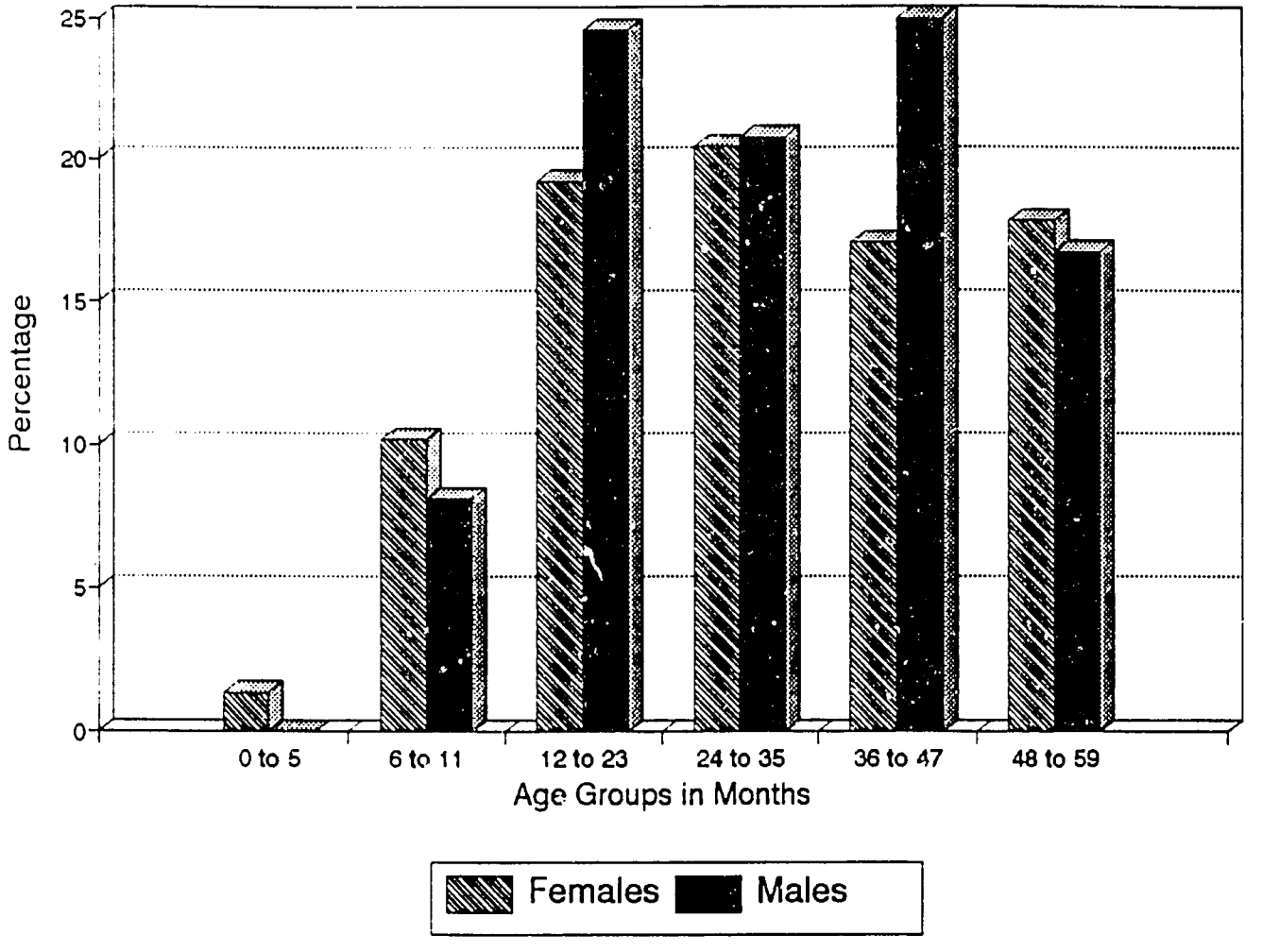
Table 13 – Total Payment Per Episode of Illness, Percentage of Patients Who Make Any Payment, and The Share of Costs Between Health Care Provider and Medications, by Type of Health Care Provider

Health Care Provider	Mean Total Payment/ Episode	N	Physician		Hospital/Institution		Medications		Total Cost	
			Share of Patients Who Made A Payment	Share of Total Cost Incurred Per Episode	Share of Patients Who Made A Payment	Share of Total Costs Incurred Per Episode	Share of Patients Who Made A Payment	Share of Total Costs Incurred Per Episode	Share of Patients Who Made A Payment	Share of Total Costs Incurred Per Episode
	GF		Percentage							
Nobody	51	201	n.a.	n.a.	n.a.	n.a.	5.0	100.0	5.0	100.0
Private doctor	14,246	98	38.8	11.4	13.3	11.2	72.4	77.5	76.5	100.0
Traditional healer	927	78	n.a.	n.a.	1.3	1.4	53.8	98.6	55.1	100.0
Health center	6,056	209	60.8	7.4	15.3	5.4	72.2	87.2	88.0	100.0
Hospital	12,274	327	64.5	5.9	30.0	13.9	76.8	80.2	90.2	100.0
Pharmacy	3,407	160	4.4	1.7	3.8	3.3	73.8	95.1	75.6	100.0
Other	526	55	1.8	3.5	n.a.	n.a.	63.6	96.5	63.6	100.0
All	6,532	1,128	34.0	6.8	13.3	10.9	60.1	82.3	67.6	100.0

Source: CFNPP/ENCOMEC 1990 Survey data.

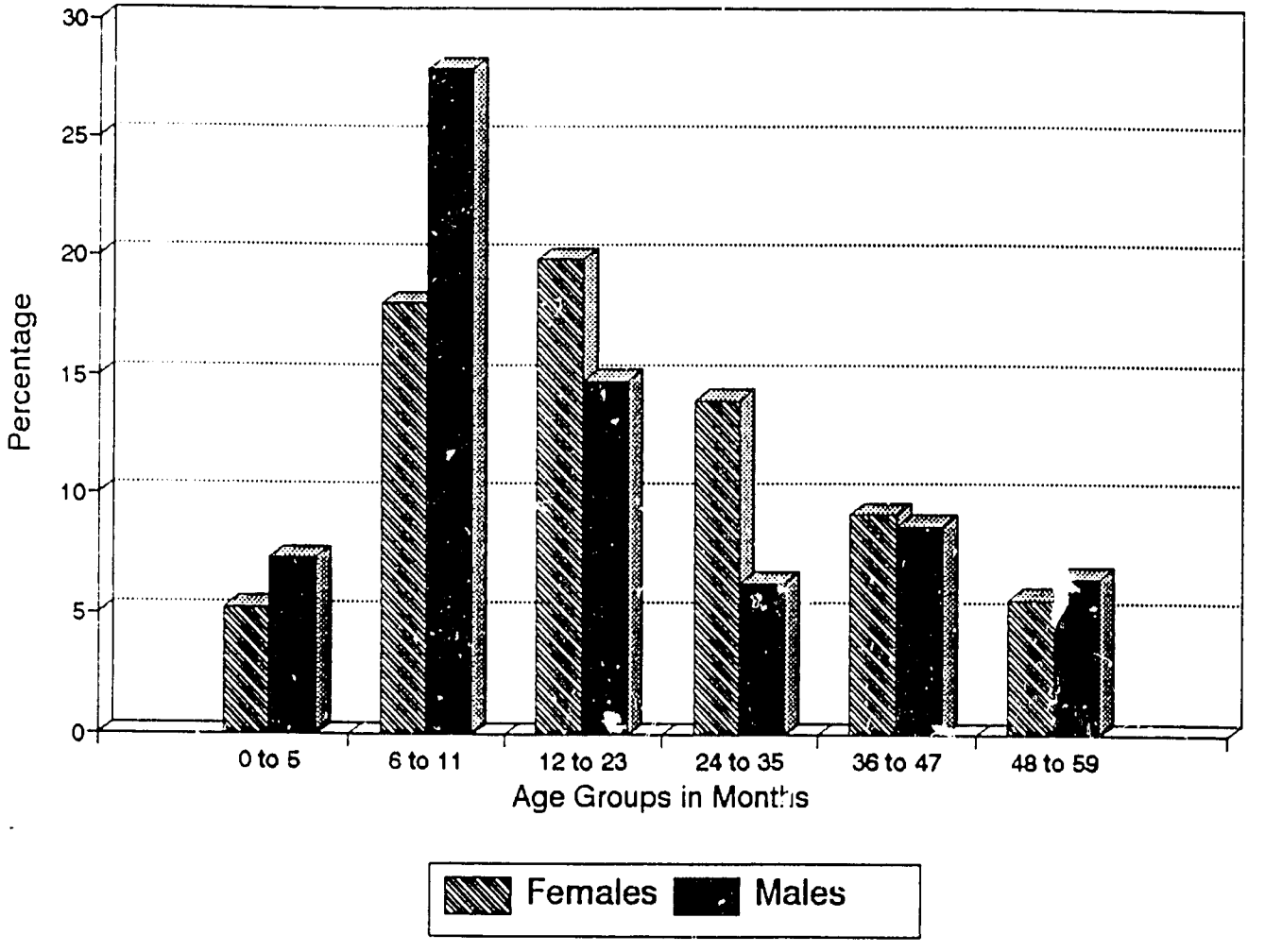
Note: "n.a." is "not applicable."

Figure 1: Chronic Malnutrition by Age



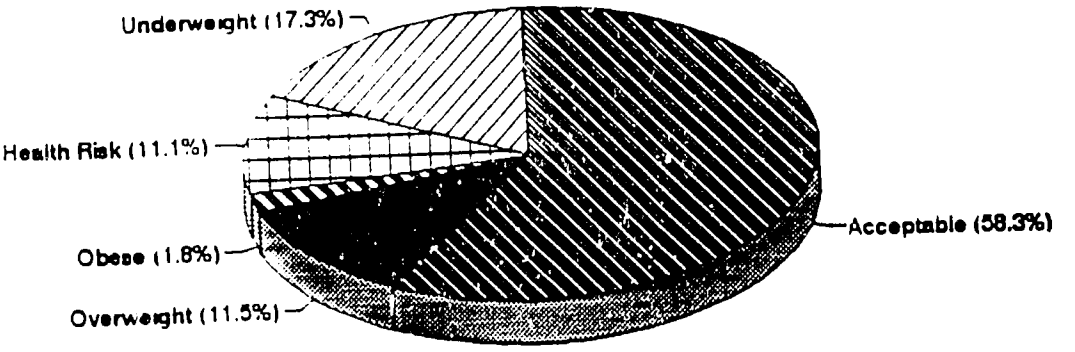
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 2: Acute Malnutrition by Age

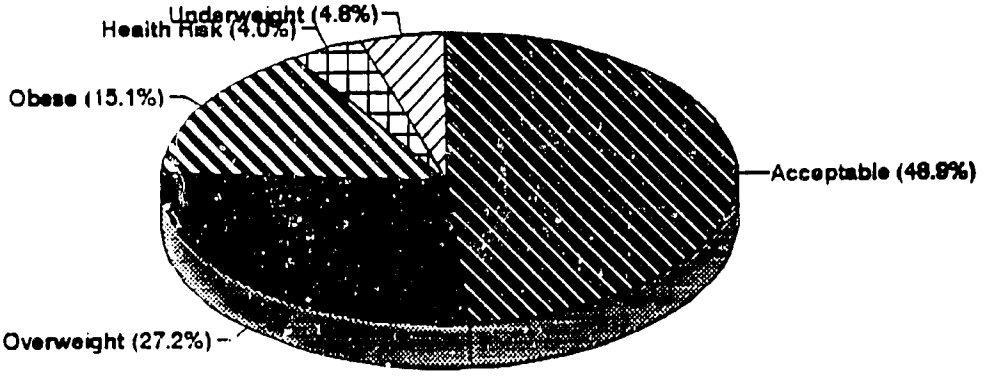


Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 3: BMI for Adults by Gender



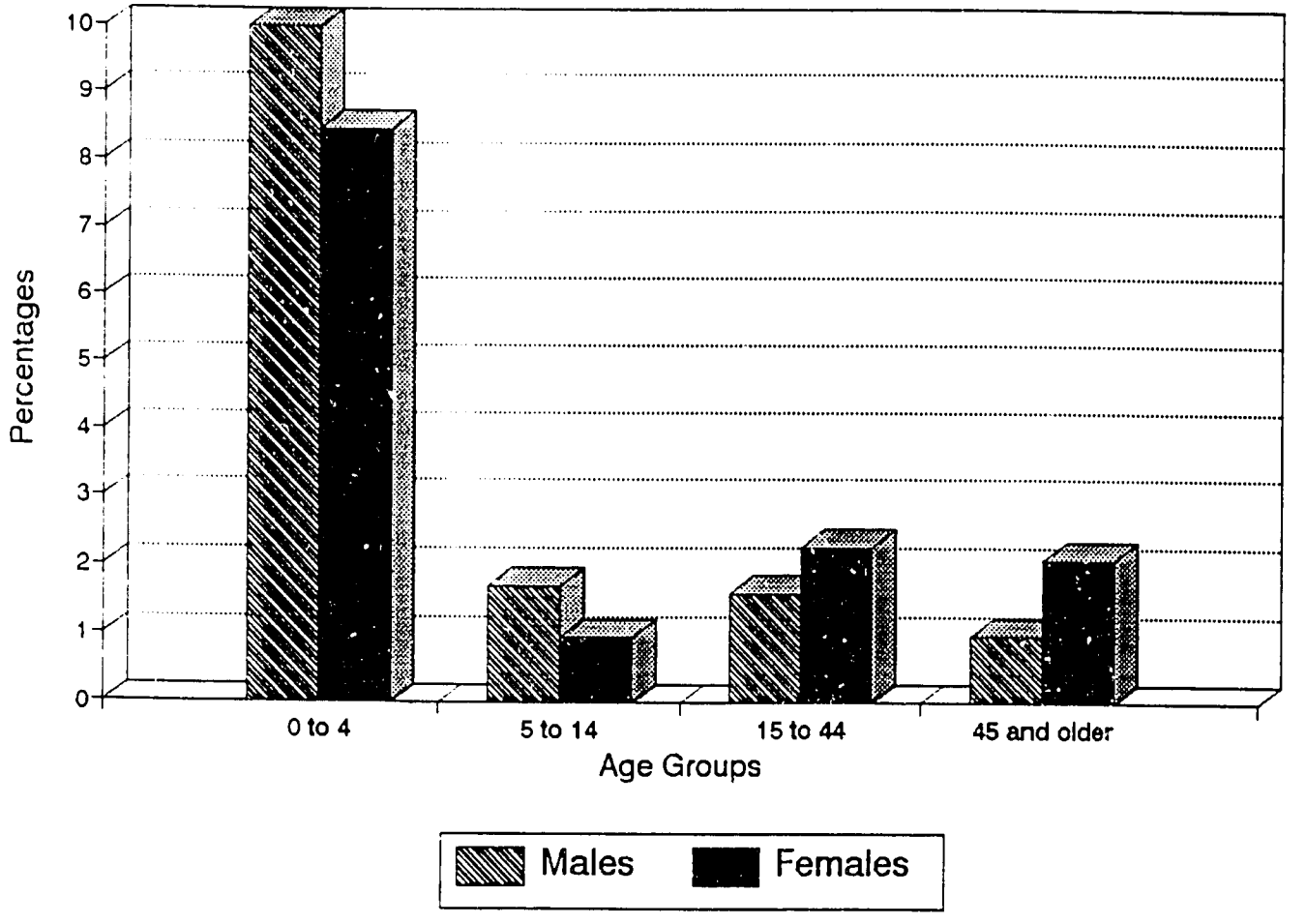
Male



Female

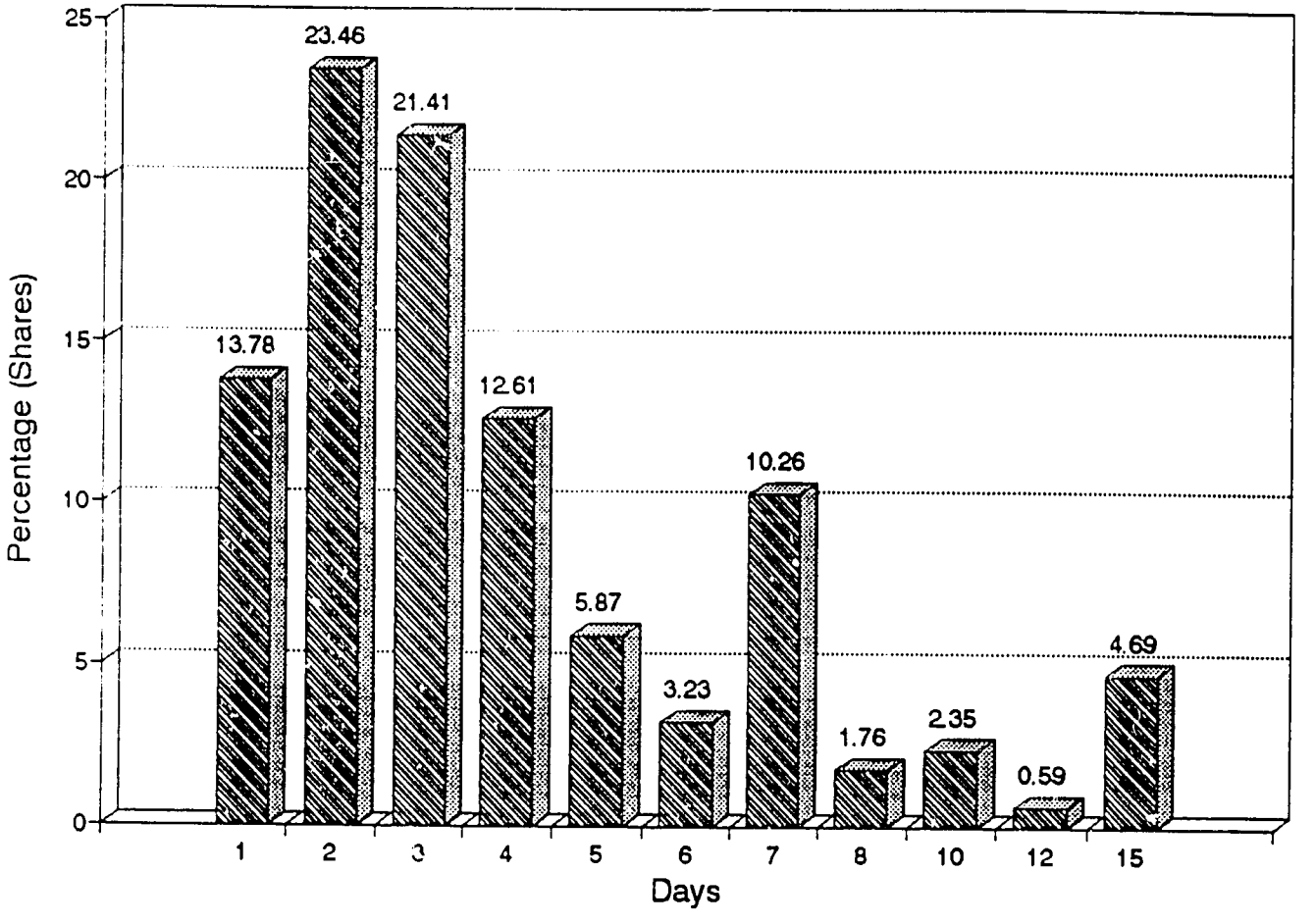
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 4: Incidence of Diarrhea
During Previous 15 Days



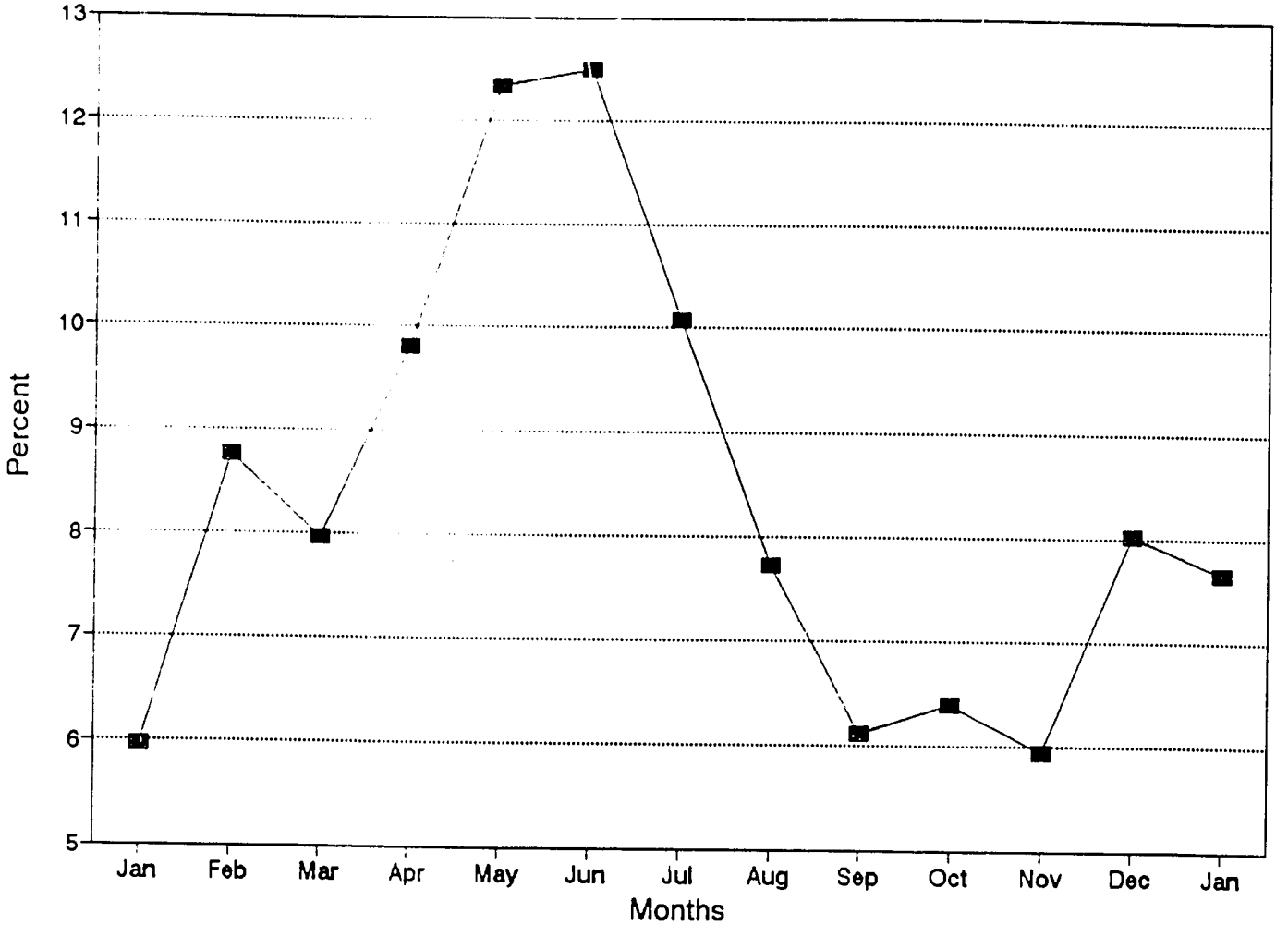
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 5: Days with Diarrhea
During Previous 15 Days



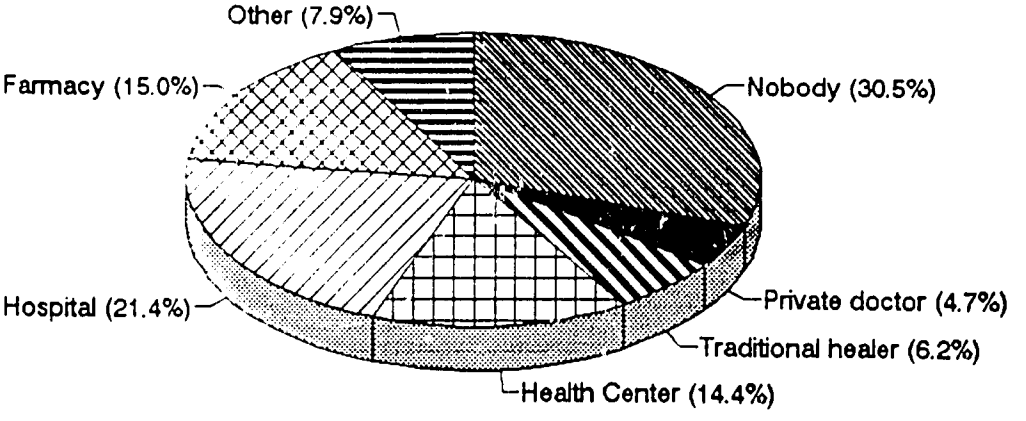
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 6:Incidence of Diarrhea by Month
Children under 5



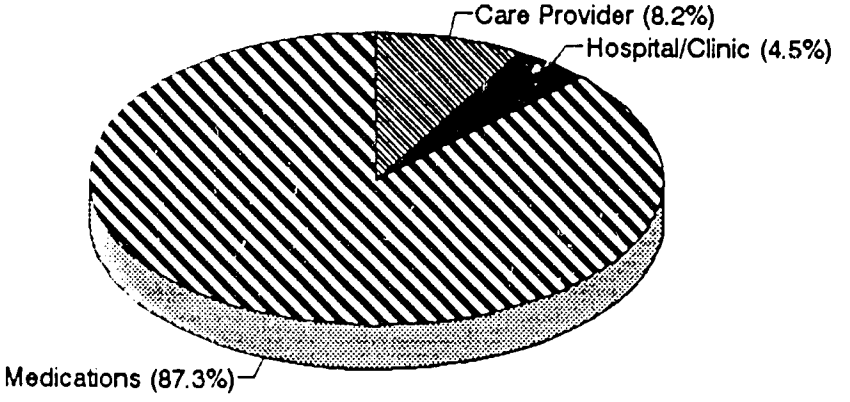
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 7: Place of Initial Consultation for Diarrhea



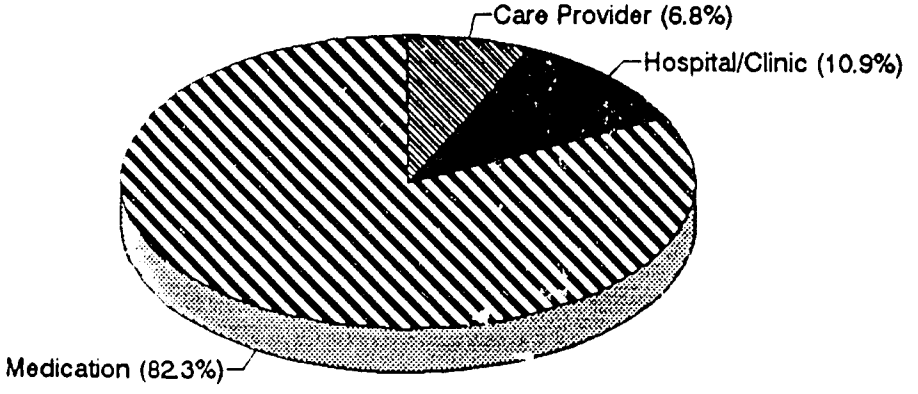
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 8: Average Distribution of Cost per Incidence of Diarrhea



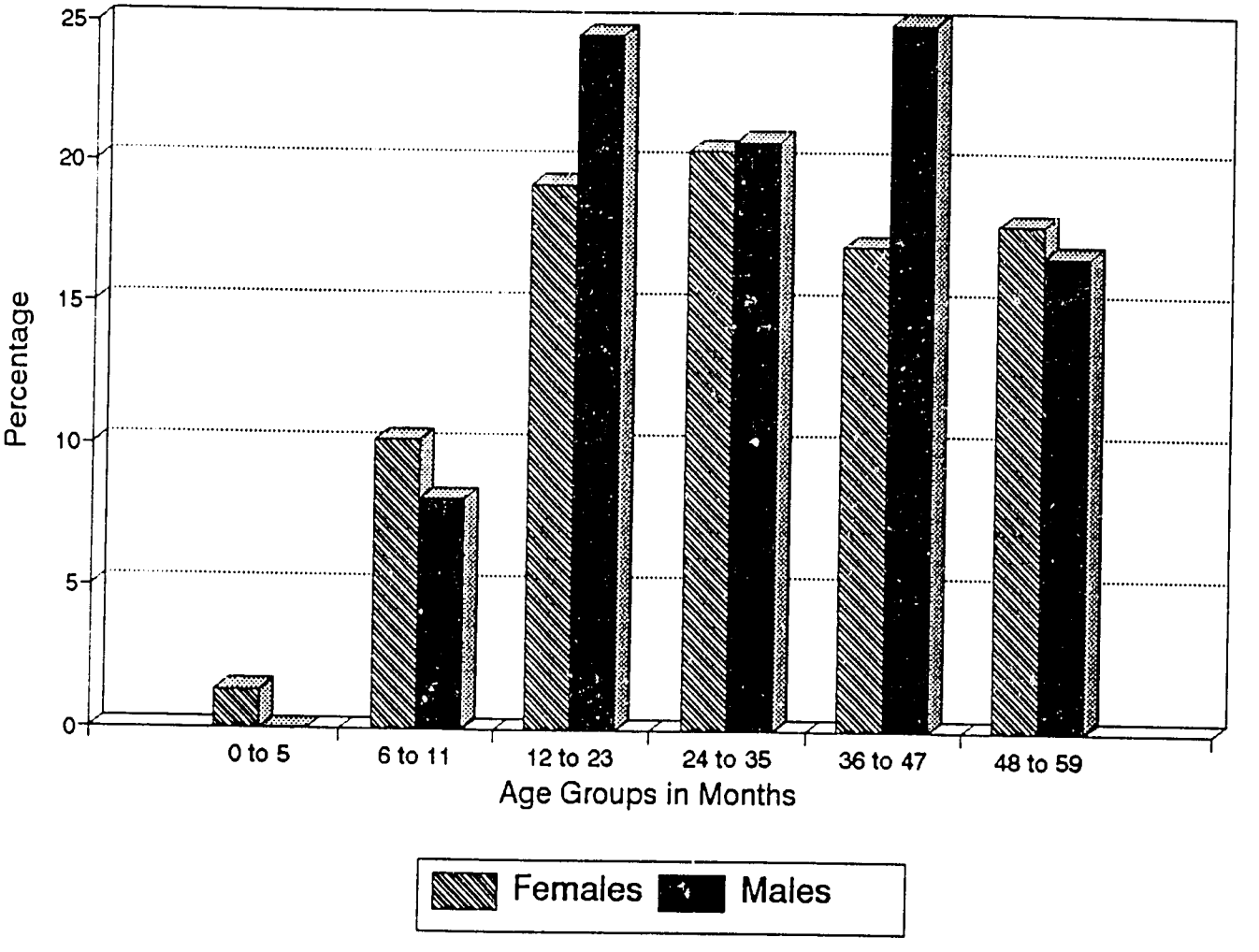
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 9: Average Distribution of Cost per Incidence of Disease



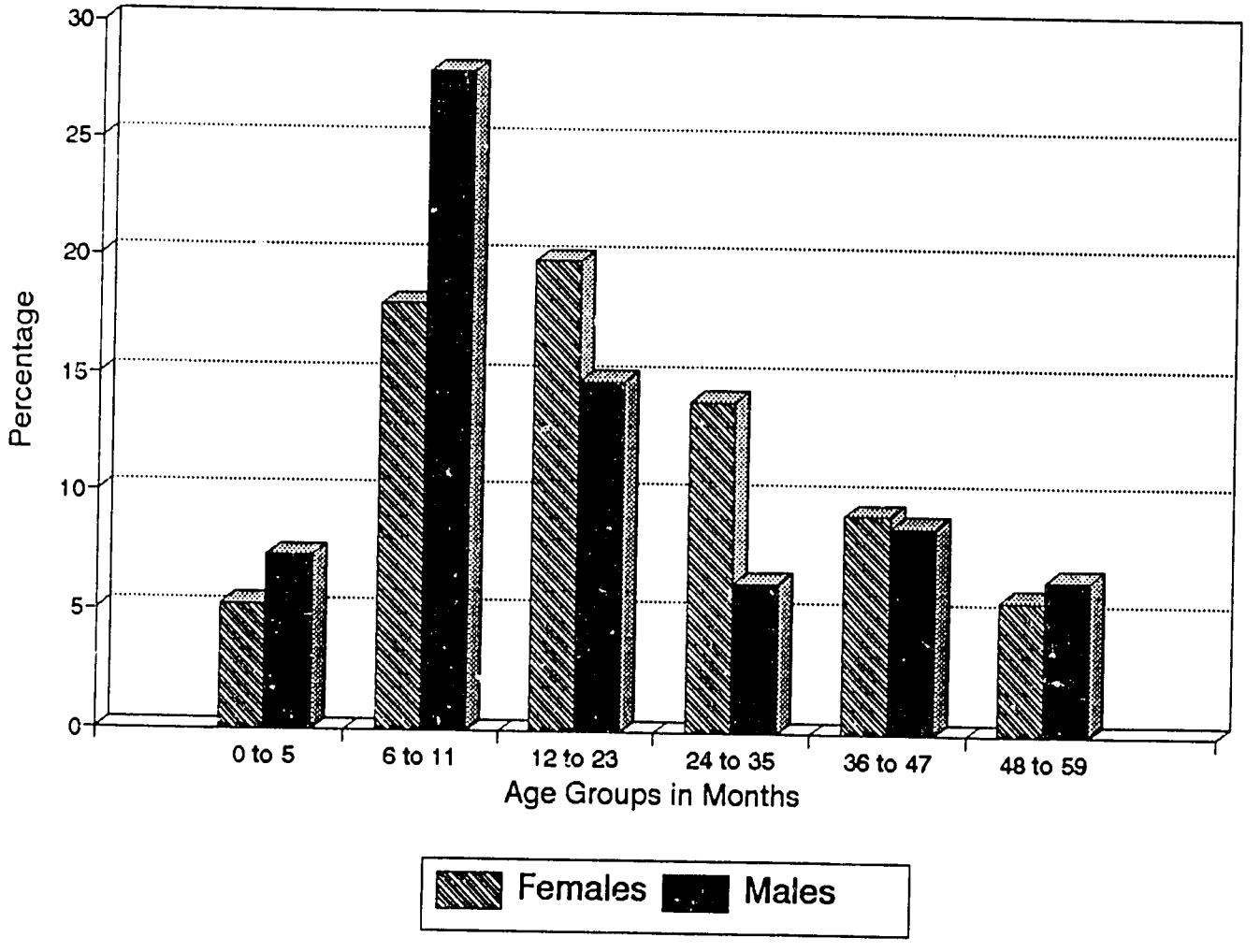
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 1: Chronic Malnutrition by Age



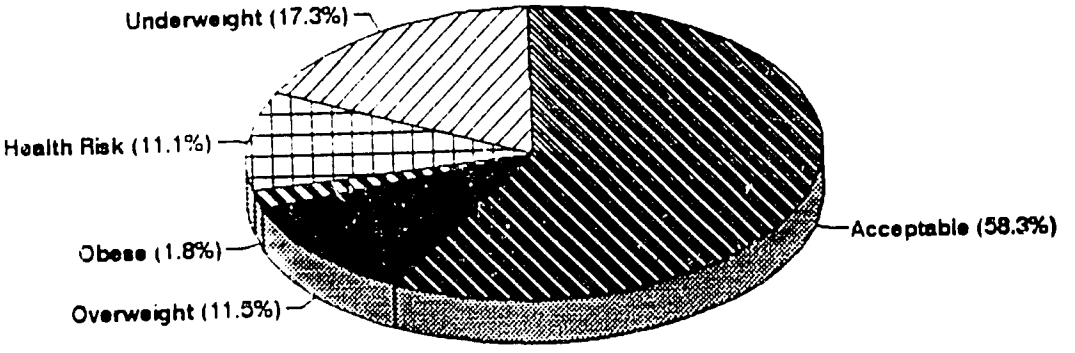
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 2: Acute Malnutrition by Age

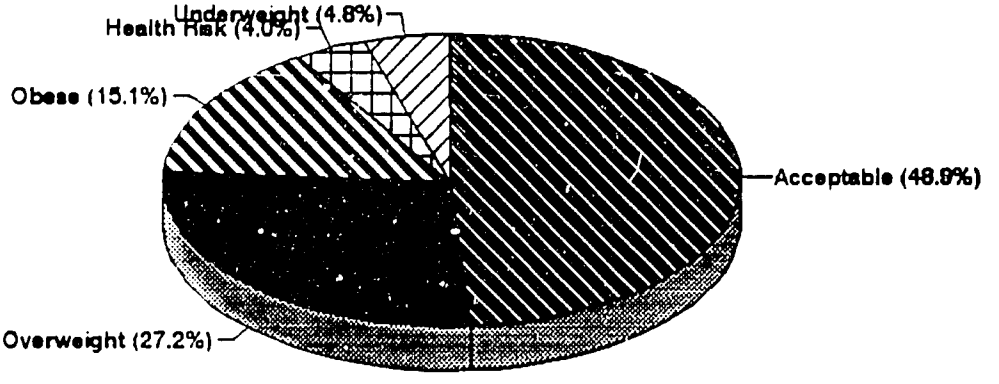


Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 3: BMI for Adults by Gender



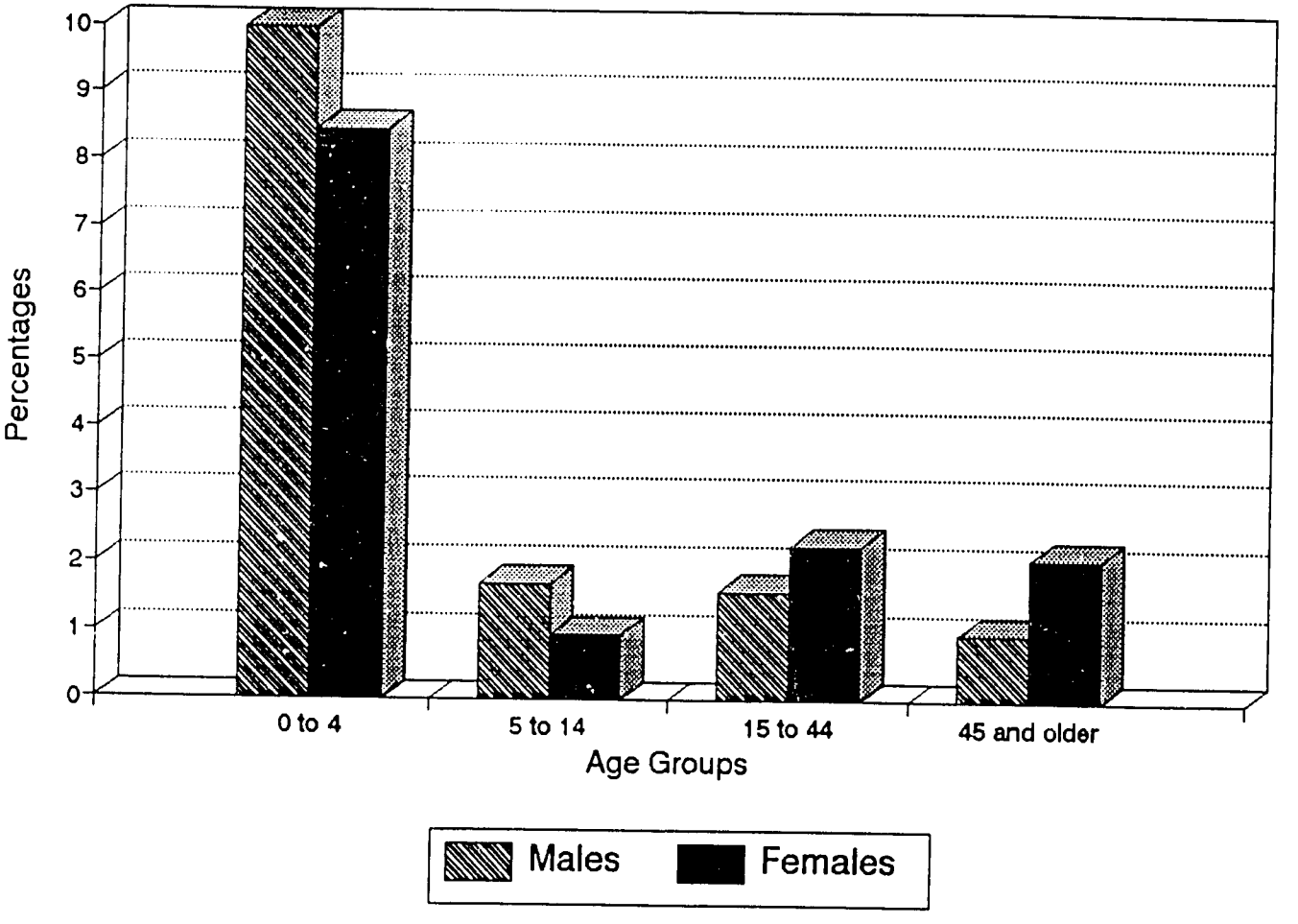
Male



Female

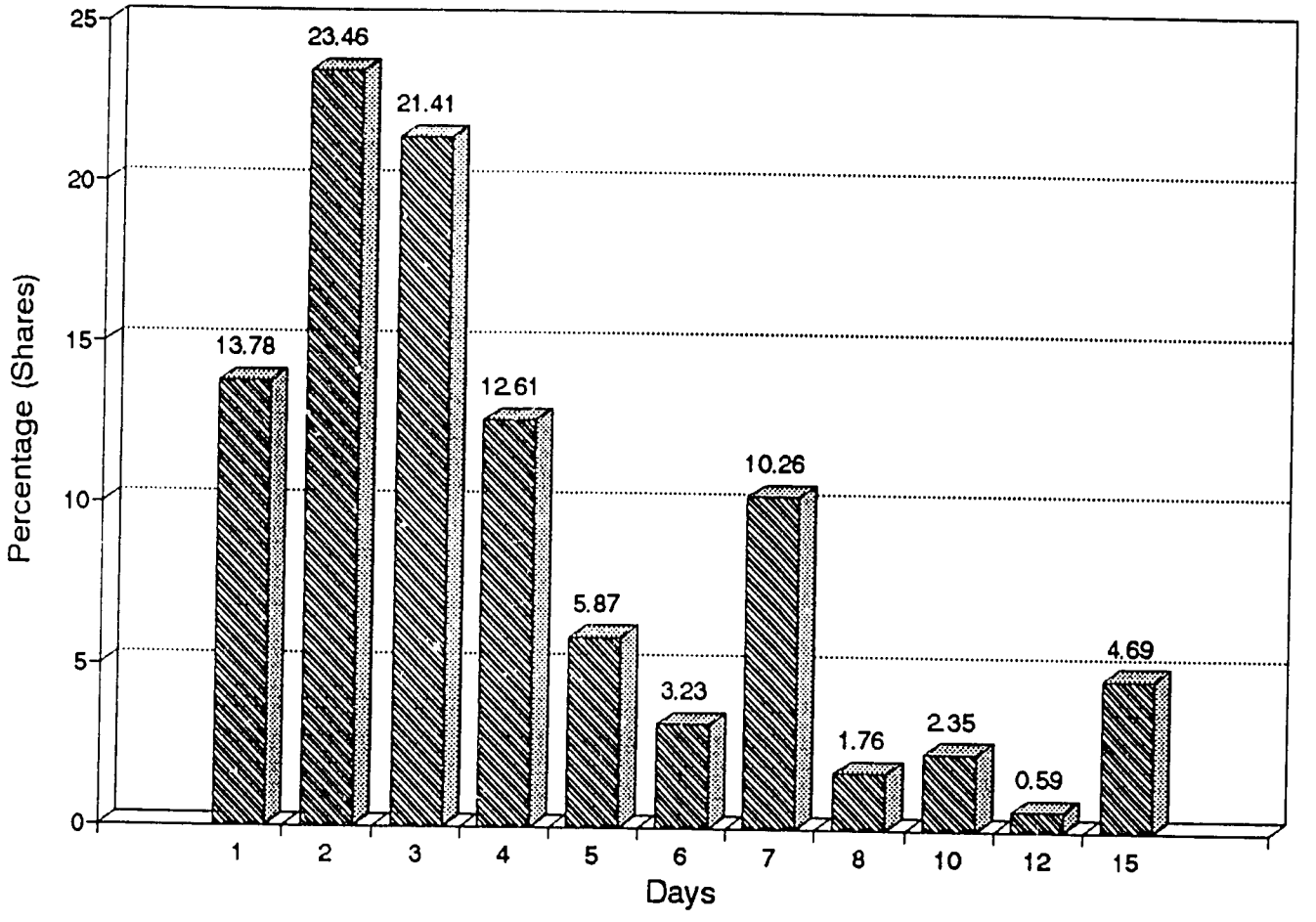
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 4: Incidence of Diarrhea
During Previous 15 Days



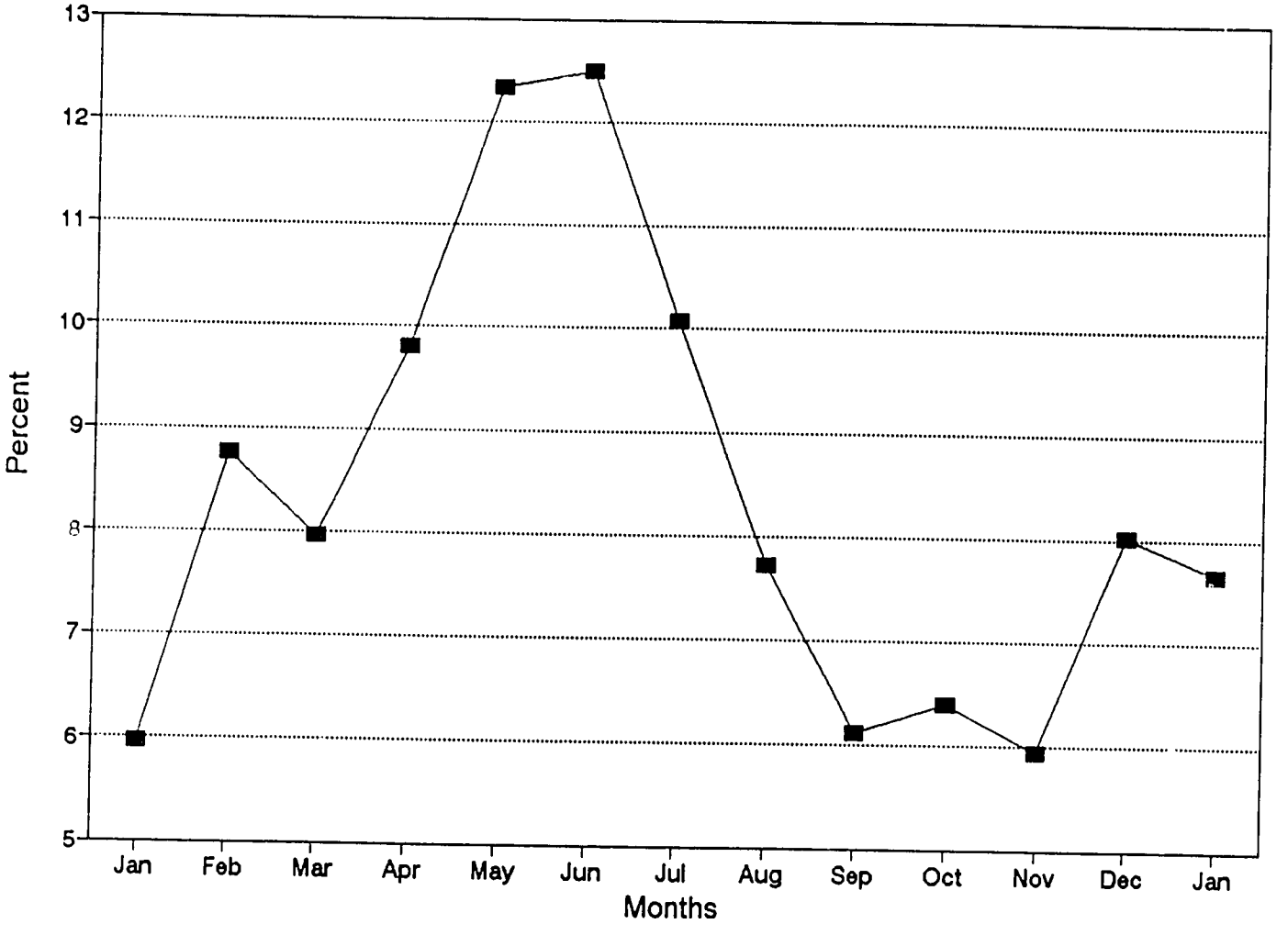
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 5: Days with Diarrhea
During Previous 15 Days



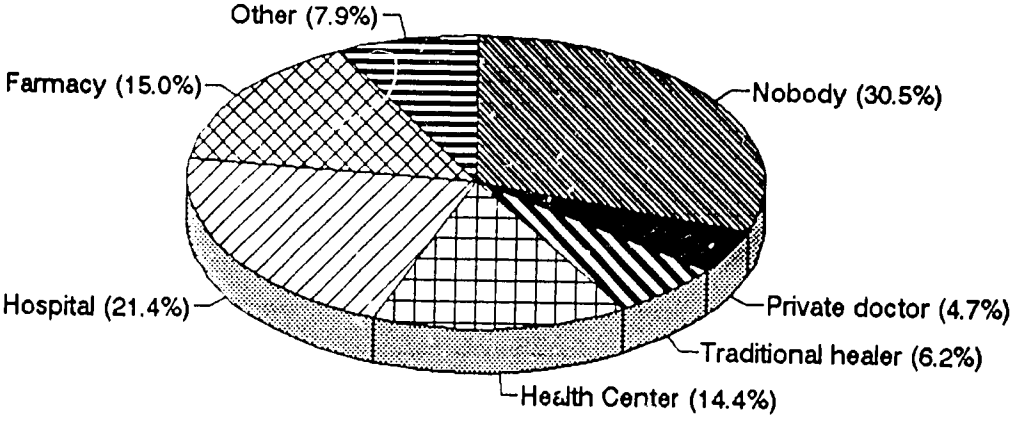
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 6:Incidence of Diarrhea by Month
Children under 5



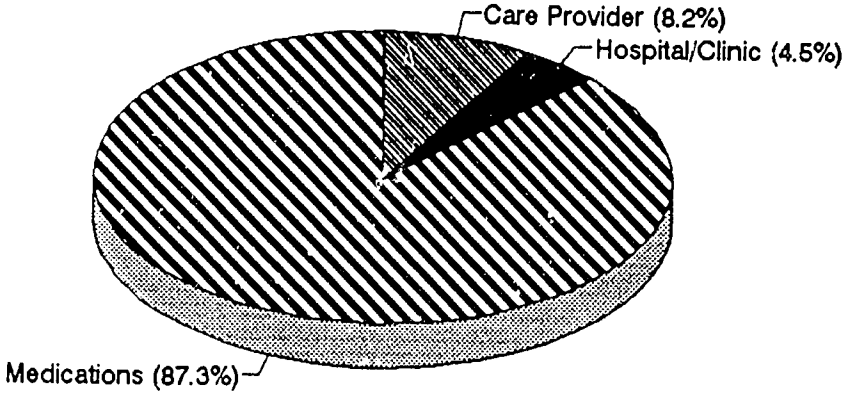
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 7: Place of Initial Consultation for Diarrhea



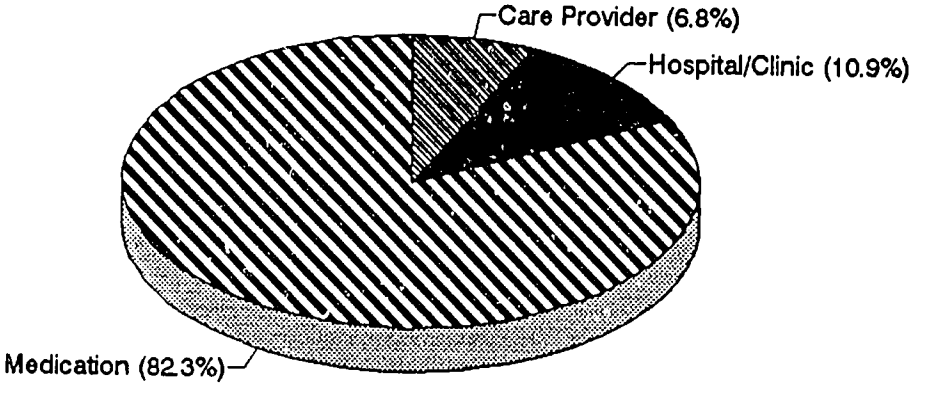
Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 8: Average Distribution of Cost per Incidence of Diarrhea



Source: CFNPP/ENCOMEC 1990 Survey data.

Figure 9: Average Distribution of Cost per Incidence of Disease



Source: CFNPP/ENCOMEC 1990 Survey data.