

STUDY OF MORBIDITY AND MORTALITY OF CHILDREN UNDER 5 YEARS OF AGE IN BEHBAHAN CITY , IRAN

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Abstract

In a survey of the Population of Behbahan city , carried out in years 1990-91 , the mean age was approximated up to 15.2 and 17.5 in the villages and the city , respectively. Furthermore , about 27.4% and 27.9% of the corresponding populations were under 5 years of age. The birth rate in the urban and rural areas were about 31.2 and 33.3 per thousand live births. Mortality rate related to the immaturity and low-birth weight were two times more in villages than in the city. There is a meaningful relationship between infant's body weight and IMR in the villages but not in the city.

Introduction

One of the most important index determining the health situation of a population is the infant mortality rate (IMR) (1). From 122 million annual birth in the world , more than 14 million die in the first year of their lives and from these about 12 millions belong to the developing countries.

IMR in the year in 1985 shows this figure to be dropped down to about 51 per 1000 (2).

In the 1987 sampling study , it was 44.8 per 1000 (1). The major causes of newborn mortality in Iran are ; immaturity , low birth weight , pulmonary problems , newborn infections and congenital malformations. The causes of infant mortality in Iran include : Bacterial infections , diarrhea.

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Malnutrition , accidents , and diseases of major organs (2).

At the present , some welfare-oriented goals with respect to high-risk groups of population have been proposed by the international societies , mostly WHO (5). To reach these goals , a complete knowledge about the morbidity and mortality of children is required (4). This study is performed within the Nemune plan , in 1989 , 90 in Behbahan city , aiming at the evaluation of PHC program activities in urban and rural areas.

Materials and methods

This study was done on a survey basis followed by cross-sectional analysis of the data collected in the city of Behbahan in the province of Khoozestan. The method of sampling was clustering from a population of 11530 people (5315 from the city and 6215 from the villages).

Data were collected using questionnaires and interviews. The target population included families with a live birth from the year 1990 to 1991.

Results and discussion

According to this study about 27.4% of the population of the city and 27.9% of the villages were children under 5 years old (Table 1)

The crude birth rate in the city was 31.2 per thousand and in villages 33.3 per thousand of general population. IMR in city and villages were 22.2 and 33.2 per thousand live births respectively. New-born mortality rate in the city was 12.1 per thousand and in villages was 20.0 per thousand live births.

Studying the causes of mortality and morbidity , out every 10,000 live births, 44.4 die in the city and 88.9 die in villages from acute respiratory infectious diseases. The same number die from immaturity and low birth weight. The above numbers indicate that these figures are two times more in villages than in the city and hence more significant. The mortality rates of children under 5 years of age from diarrhea and complications of pregnancy and delivery were the same in the city and villages and equal to 22.2 per 10,000 live births in a year. (Table 2).

According to the data of Ministry of Health , in 1987 , the mortality of children under 5 years of age from diarrhea were 9.5 and 24.6 per 1000 live births in the city and villages , respectively. IMR from infectious diseases in villages were equal to 55.6 in 10,000 live births and 10.5 in the city (Table 2). This is important in term of health care delivery system.

Mortality rate from congenital malformations were about 66.7 and 33.7 per 1000 live births in the city and villages respectively.

90% of deliveries in the city and 66.6% in villages take place in hospital under the supervision on expert midwives. The rate of low birth weight (< 3000 grams) was about 5% in the city and 4% in villages. Table 3 shows the relationship between low birth weight VS. Infants mortality in the studied population. About 5% of the infants in the city and about 3.3% of them in villages die during the first year of life. Using Fisher's test it was shown that the infants body weight and IMR are independent in the city , but have a meaningful relationship in villages. These results collectively imply poor health conditions in villages and especially for children in rural areas compared to the city.

Table 1- Age group distribution of the studied population in the city and the villages of Behbahan

Place	City		Villages		Total	
	No	%	No	%	No	%
Age group						
Under 5 years	1460	27.4	1737	27.9	3197	27.7
5 years and above	3855	72.6	4478	72.0	8333	72.3
Total	5315	100	6215	100	11530	100

Table 2 - Health Indexes in the Studied Population

Health status indices	City	village	Total
Population size	5315	6215	11530
Delivery in hospital	98.7	66.6	82.7
Expert	98.7	73.9	86.3
Nonexpert	1.3	26.1	13.7
NMR (per 1000 live birth)	12.1	20.0	16.1
IMR (per 1000 live birth) (1 month- 1 year)	10.0	13.3	11.7
IMR (per 1000 live birth)	22.2	33.3	27.75
Birth rate	31.2	33.3	33.3
(Crude death rate	5.5	5.8	5.6
Mortality rates in 10.000 live birth	44.4	88.9	66.6
ARI	22.2	22.2	22.2
Diarrhea	44.4	88.9	66.6
Imaturity-LBW	66.7	33.3	50.0
Conjenital malfor-mation	22.2	22.2	22.2
Pregnancy complications	11.1	55.6	33.4
Infectious disease			
Infant birth weight < 2500 gr.	5.0	4.2	4.6
% of twins	1.3	0.9	1.1
Illiterate male over 15 years old.	16.8	28.6	22.7
Illiterate female over 15 years old.	28.5	27.2	42.9
Family size	6.0	7.0	6.5

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