SELECTED MEASUREMENT OF POPULATION HEATH IN AL-NASSIRIYAH CITY

Dr .Ali Abid Sadoon*

ABSTRACT

A cross sectional study was carried out in Nassiriyah city, southern Iraq from 1st of February to 20th of May 2007. The main objectives of the study were to describe selected variables related to fertility, morbidity, mortality, socio-demographic characters, utilization of prenatal care and immunization. The study included 264 families (1432) persons. The study was a household survey done in four different areas in Al-Nassiriyah city (Hay Ur, Hay Al-muntazah, Hay Al-Iskan. Hay Sumer). These quarters are located on both sides of Euphrates which traverse the city from north west to south east, and of different socioeconomic and demographic characterstic. Interviews were made to each family about the age, sex, marital status, level of education, no. of families in house, any death or birth in the last year, any current pregnancy with ascertainment of trimester, any acute illness during the 2 weeks prior to the day of interview & the action taken in response to such illness. Chronic conditions were also inquired about & the level of utilization of prenatal care by pregnant women & immunization by children aged under 2 years were explored. In the family(whether acute or chronic) & the action was taken by family. The result showed that the population is highly fertile (crude birth rate = 41.2/1000) but suffer from high mortality (crude death rate=25.1/1000).Also 17% reported to have acute illneses during a 2 weeks recall period & 8% had chronic diseases. Use of prenatal care was practice by 75% of pregnant women & 41.2% of children aged less than 2 years had complete immunization. Further 45% had partial immunization. Illiteracy is high and only 13%of the population are engaged in governmental jobs.

Key word: House hold survey, health status, population health, Nassirriayah

INTRODUCTION

Household Surveys are a multi-purpose activities carried out to collect information from people living in private households. They help in providing information on demographic characteristics, employment, education, health status with in specified time period, habits &using of health care service. In addition the help to identify aspect of population behavior in response to illness and identify gap in population need health care.[1]
Important health status indicators that can be quantified in house hold surveys include fertility rate include crude birth rate, general and specific fertility rate and total fertility rate.[2] The extent of ill health in term of incidence & prevalence rate of various morbidities can also be measured. In addition the burden of disease in term of fatality by measuring various mortality rates can also be studied in this surveys. Common mortality rates are:Crude death rate, perinatal mortality rate, maternal mortality rate, infant mortality rate, child mortality rate & standerized mortality rate (SMR) or age-specific mortality rate (ASMR) [3] Factors affecting a country's death rate

* Lecturer assistance Community medicine Medical college Thi-qar university

- Age of country's population
- Nutrition levels
- Standards of diet and housing
- Access to clean drinking water
- Hygiene levels
- Levels of infectious diseases
- Levels of violent crime
- Conflicts
- Number of doctors[4]

House hold survey are important in population with no or scanty routine statistics as for example in rural areas

They are used as a complementory source of information in many counteries.

We thought that the constructionof epidiemilogical health indicatores for the populationhealth at wider scale is agood research topic.only few previous researcheres used a householdapproach in handling health of populationin nassiriayah [5,6]

We could not find any study which uses household. This study I a pilot one in this context.

OBJECTIVES

1- To give a profile on sociodemographic & health status of population of nassiriayh ciy.
2- To identify action taken in dealing with reported illnesses.
3- To measure the coverage rate of immunization &prenatal care.

METHODOLOGY

A cross sectional study was done from the beginning of February till the 20th of May in 2007. This study include 264 families, these from four different areas. The four quarters included in the study were with different demographic & socioeconomic characters as fallow:

1- Hay Ur: this area with moderate to high socioeconomic standard & located about 3 Km north-east the city center. 66 families,356 persons were included in this study.
2- Al-Iskan: this area located about 2.5Km south the city center. about 76 families,410 persons were included in this study, these families were with low-moderate socioeconomic standard.
3- Hay Al-Muntazah: this area located about 3.5Km south-wast the city center. about 62 families,336 persons were included in this study, From socioeconomic view point the area similar to Hay Ur.
4- Hay Sommer: this area located about 2.5Km north the city center. about 60 families,330 persons were included in this study, these families were with low-moderate socioeconomic standard.

COLLECTION OF DATA

A questionnaire form was prepared for the purpose of study as in appendix it include the following variables:

1- Personal information for each member of family.
2- Event of death or birth during 2006.
3- Any pregnancy in the household at the time of study & if any, whether the pregnant women using prenatal care or not.
4- Any illness reported among household member during the last 2 weeks recall period &type of action taken to deal with it.
5- specfic chronic disease were inquired about (hypertension. Diabetes, Bronchial asthma, heart disease,…etc)
6- Immunization status of children aged less than 2years.

The data were collected by a team of fourth year medical students who were carefully trained to carry out the visits & interview under supervision of teaching faculty.

Data checking was made daily to insure high quality and consistency of information. The data were coded and fed on SPSS (statistical package of social sciences version 15) computer system for statistical analysis.

RESULT

A total of 246 households were successfully visited and interviewed with a total population of 1432. The total number of live bith was 59 giving a crude birth rate of 41.2 per 1000 population and total population reported in the same year was 36 giving a crude death rate of 25.1 per 1000 population.

Age & sex:

A tale 1 showing the distribution of the population according to age and sex. There is slight excess of female over male in the studied population. Age wise, children aged less than 15 years formed 29% of males and females. People aged 15-44 formed 40.7% and 41% of males and females. The remaining 30.3n% of male & females were people aged 45 years & above.

Other sociodemographic characteristics

Table 2 show the distribution of the studied population according to education, marital status, occupation and place of residence. Illiteracy rate is very high accounting for 30% of the population, 12.5% whoever had education beyond secondary stage. Only 13% were engaged in governmental jobs and the distribution according to place of residence was very close.

Heath status Table 3 describes the population according to health status indicators.75%reported no illness during the two week recall period,17%reported some sort of acute illness and further 8%reported to have chronic disease.

Action taken in response to acute illness:

The various actions taken by people in response to reported acute illnesses in the two week recall period or to care for chronic diseases are shown in table4.The most frequently reported action was to visit private clinics (35%)followed by visits to governmental hospitals or primary care centres. Home treatment(self-medication)was reported in23% of the cases & no action at all in 17%.

Immunization status of children aged less than two years were either completely immunized(41.2%) or partially immunized (54.0%).Only 4.8% were not immunized at all.As shown in table5

Use of prenatal care by pregnant women:

Of the currently pregnant women,75%were using prenatal care while 25%were not using prenatal care at all .Most of the pregnant women who did not use prenatal care were from Hay Ur where local prenatal care clinics were not available .The details are shown in table6.

Discussion

Health indicators in Thi-qar governorate were nearly unclear for last years because there is no accurate measurement or reliable research which tackled the measurement of population health .This study has its justification from the fact that it is among very few studies in this context[5,6] as a trial to clarify these indicators. The result in this study represent part of what household survey can provide to support the measurement of the health indicators obtained from routine statistics generated by health care institution. the study result must be interpreted with reference to possible limitation.

representiveness of the sample: in this cross sectional study in four main areas in Al-nassiriyah city reflect the four area only. Generalization may be possible at least to give reasonable profile of health in Nassiriayah city population . Since the study depend on interview and recall time bias could have been introduce but the short recall period and the few question included should have minimized such bias. The demographic characteristics of the study population regarding age structure,fertility and education are more or less similar to characteristics reported in the southern Iraq[7,8]. The mortality as

indicated by crude death rate of 25.1 per 1000is extremely high as compared to figures reported by other researchers in other part of Iraq(habib2008). Such high rate may reflect the deterioration in health and health care services in the late 20 years and part of deaths are certainly accidental associated with violence and car accidents. Indicators of morbidity are high in Nassiriyah City as about 25%reported to have acute or chronic illnesses. This rate is higher than figures reported were due to respiratory & gastrointestinal disease ,to less extent were with urinary or other systemic disease. About 8% of the total population were with chronic illness,38% of them suffering from diabetes mellitus,28% suffering from hypertension & its complication ,other suffering from other diseases.

The response of people to illness clearly describes a common pattern in southern Iraq [9] but high proportion were consulting private clinics that 1\3 of patient consulting private clinic. The number who are getting home treatment were nearly the same of those getting treatment from PHCC,while those without treatment were represent 17%of the sick population. This might indicate the failure of PHCC & hospital to accommodate the population needs.

Although the use of prenatal care and immunization among children aged under two years of age seem reasonable ,the results

DISCUSSION

Health indicators in Thi-qar governorate were nearly unclear for the last years because there is no accurate measures introduce into special directorate, therefore our study was the first trial to clarify these indicators. The result in this study represent part of whate household survey can provide to support the measurement of the health indicators.Depending on the main

epidemiological measurements (rates) which were:

1-Fertility rates: represented by crude birth rate which was 41.2/1000 in year of 2006.

2-morbidity rate: represented by

A-Incidence rate which was 170/1000 in year of 2006.

B-prevalence rate of chronic illness which was 80/1000 in 2006.

3-mortality rate: represented by crude death rate which was 25.1/1000 in year 2006. About 25% of the total population were suffering from acute & chronic illness(about 65% of non healthy persons were with acute illnesses in the last 2 weeks, most of them were due to respiratory & gastrointestinal diseases less percent were with urinary & other system diseases). About 8% of the total population were with chronic illness, 38% of them suffering from D.M, 28% suffering from hypertension & its complication, other suffering from other diseases. The response of people to illness as shown in the table(4), it clearly describe that 1/3 of patient consulting private clinic. The number who are getting home treatment were nearly the same of those getting treatment from PHCC, while those without treatment were represent 17% of the sick population. This might indicate the failure of PHCC &hospital to accomidate the population needs.

Although the use of prenatal care and immunization among children aged under two years of age seem reasonable ,the results indicated a substantial gap in these two aspects of preventive health care. More than a quarter of pregnant women and more than half children were without complete care . Information provided by the health authorities in Thi Qar about immunization revealed that 100% coverage rate of poliomyelitis ,while this house hold survey revealed coverage for poliomyelitis immunization is lower than that documented in most areas which have 95% coverage rates, Coverage for

diphtheria-pertussis –tetanus (DPT) is 70% No child has got immunized against Measles in 2006 because of unavailability of this vaccine in that year. It is highly recommended that specific studies are required to further understand the reasons behind defects in the immunization program and the high crude death in the population of Nassiryah City and extending such studies to other parts of governorate .In the light of very low utilization of curative care , the health care services provided by primary health care centers need substantial improvement in preventive, curative and educational aspects.

RECOMMENDATIONS

1-program for the health education about the importance of vaccination & prenatal health care services.

2-improve the quality of health care centers in city by providing good services &availability of investigation &interventional methods.

3- improvement of the planning of the health directorate about the import of vaccines & drugs.

4-improvement of the quality & quantity of water supplement to decrease the chance of occurrence of water born infection.

5-monitoring of the imported food that available in markets , especially caned food, that reduce the chance of food born diseases.

6-reduction in the air pollution by stopping the large electric generators which aggravating the occurrence of respiratory diseases.

TABLES

Table 1
Distribution according to age & sex

Age in years	Male	Percentage	Female	Percentage
1-14	196	29%	235	31%
15-29	143	21.7%	163	22%
30-44	135	19%	141	19%
45 &above	206	30.3%	213	28%
Total	680	100%	752	100%

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Table 2
Distribution according to other demographic character

Educational status	Frequency	Percentage
Illiterate	437	30%
Primary	365	25%
Intermediate& Secondary	461	32.5%
>12 year	169	12.5%
Total	1432	100%
Marital status		
Ever married	642	44.8%
Unmarried	790	55.2%
Total	1432	100%
Occupation		
Employed	186	13%
Unemployed	1246	87%
Total	1432	100%
Place of residence		
Ur	356	25%
Al-Iskan	410	28.6%
Hay Al-muntazah	336	23.4%
Sommer	330	23%
Total	1432	100%

Table 3
Distribution according to
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Health status	Frequency	Percent
Healthy	1075	75%
Acute illness	246	17%
Chronic illness	121	8%
Total	1432	100%

Table 4
Distribution of action taken by patient in the last 2 weeks

Action taken	Frequency	Percent
No action	62	17%
Home treatment	83	23%
PHCC or hospital	91	25%
Private clinic	131	35%
Total	367	100%

*PHCC=primary health care centres

Table 5
Distribution of infant according to vaccination status among those bellow 2years

Vaccination status	Frequency	Percent
Fully vaccinated	52	41.2%
Partially vaccinated	68	54%
Non vaccinated	6	4.8%
Total	126	100

Table 6
Distribution of pregnant women according to health services

Pregnant women	No.	Percent
Get services	53	75%
Non	18	25%
Total	71	100

Table 7
Fertility &mortality rate among studied population

	No.	percent
No. of death in2007	36	2.51%
No. of birth in 2007	59	4.12%

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قياسات مختارة للحالة الصحية في مدينة الناصرية

د.علي عبد سعدون *

ملخص

أنجزت هذه الدراسة المقطعية العرضية في مدينة الناصرية خلال شباط-أيار ٢٠٠٧.وكانت تهدف إلى إعطاء لمحة عن مؤشرات الخصوبة والمراضة والوفيات واستخدام الخدمات.شملت الدراسة ٢٦٤ مسكنا(عائلة)أو ١٤٣٢ شخصا تم اختيارهم من أربع مناطق حي أور والإسكان والمنتزه وسومر.

تقع هذه الأحياء في أجزاء مختلفة من المدينة وتمثل مستويات اجتماعية متباينة نسبية.

استخدم استبيان خاص تناول معلومات شخصية عن كل فرد من أفراد العائلة كالعمر والجنس والحالة الزوجية والتعليم والعمل كذلك تم جمع المعلومات عن الولادات والوفيات وحالات الحمل واستخدام الخدمات الصحية المختلفة بضوء المراضة والحاجات للخدمات الوقائية.

أظهرت النتائج ان نسبة الولادات الخام كانت ٤١،٢ لكل ١٠٠٠ نسمة ونسبة الوفيات الخام ٢٥،١ لكل ١٠٠٠ كما شكى١٧%من مرض حاد و٨%من مرض مزمن وكانت العيادات الخاصة المصدر الرئيسي للعلاج(٣٥%)يليه المركز الصحي (٢٥%)وكانت نسبة عالية استخدمت العلاج بدون استشارة طبيب أو لم تتخذ أي إجراء للتعامل مع المرض بخصوص خدمات رعاية الحوامل ذكر ٧٥% من الحوامل استخدمن تلك الخدمات وكان ٤١،٢% من الأطفال دون سن الثانية من العمر قد أكملوا اللقاحات المطلوبة إضافة الى٥٤،٠% آخرين أكملوا اللقاحات جزئيا.تتفشى الأمية في المجتمع وهناك ١٣% فقط يعملون بوظائف حكومية.

* جامعة ذي قار / كلية الطب/ مدرس مساعد طب مجتمع