# EVALUATION OF HEALTH SERVICES IN EL-WASTANIA

*by*

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Community household surveys of health behaviour, attitudes and knowledge of the existing health agencies and the services they offer are essential tools in public health research oriented to evaiuate health services in the community.

Through such surveys, basic facts concerning the utilisation of existing health services can be obtained and be of value in orienting, modifying or developing the strategy of medical care to meet its objectives in satisfying the needs of the public.

The present study is the first phase of a project of evaluating health services in a rural, primarily aggraian, community servid by a rural health unit. It will be followed by a compreheusive Exa (health appraisal) or screening test of the population concerned.

**Natorial and methods**

The survey is based on intariews with all houscwives in the village of El-Wastania, Behiera Governorate. The interview was conducted at the homes by final year students of the Higher Institute of Nursing, Alexandria University. After a period of training, each interviawer visited on the average four families in every working day which was a period of about three hours. Part of the time was spent in collecting information included in the study questionnaire schedule and the rest of the visit was spent in assessing the housing condition and the standard of sanitation.

The interview schedule covered the folloing :

— Household composition : Age, sex, level of education and occupation of all the members of the household.

— Sanitation : Housing condition, number of rooms and purpose used for water supply, refuse, sewage and waste water disposal, and the presence of animals and the place of their breeding.

— Knowledge about the available govermental and non governmental health services in the area and their functions.

— Attitude of the family in time of medical emergencies and whom they seek for care.

— Registration of birth and deaths.

— Maternal care (Pre ratal, natal and Postnatal) during the last pregneancy.

— Practice of family planning.

— Medical care for the last child.

— History and age of occurrence of the common diseases of infancy and preschool age namely, measles whooping cough and the occurrence of diarrhea during the last month.

— Immunization practice for the last child against particularly cumently by commpulsory vacumalims (small pox Diph and Rale).

— Knowledge about the medical services offered to school children.

Description of the village of Al-Wastaniah, its geography, lattitude prap. to prographm-chimate cultivation village design R. H. C. schools, mosque, walin transport climate housing.

**Refrence Population**

Details of the method used for the collection of census data were presented in a previous publication (Kamel et al 1969) At the time that study was carried out, 815 families were residing in El-Wastania, the population totaled 3852

individuals, of whom 1910 (49.4%) were males and 1942 (50.4%) were females. The distribution of the population by age and sex is shown in table (1) comparing the demographic pyramid with that of Egypt and that of Behirah gover. shows that the population of El-Wastania is a relatively young one, Almost half (49.1%) under the age of 15 years and the preportion of individuals 65 years and over was only 1,5% and those in the working age (15-65 years) were 49.4%. The age distribution in the two sexes was very similar.

TABLE 1.

Population of El-Wastania by age and sex

| Age | Both sexes | | Males | | Females | |
|---|---|---|---|---|---|---|
| | No | % | No | % | No | % |
| Under 1 | 138 | 3.6 | 74 | 3.9 | 64 | 3.3 |
| 1—4 | 569 | 14.8 | 291 | 15.2 | 278 | 14.3 |
| 5—9 | 611 | 15.9 | 299 | 15.7 | 312 | 16.0 |
| 10—14 | 564 | 14.6 | 287 | 15.0 | 277 | 14.3 |
| 15—24 | 657 | 17.0 | 332 | 17.4 | 325 | 16.7 |
| 25—34 | 476 | 12.4 | 207 | 10.8 | 269 | 13.9 |
| 35—44 | 414 | 10.7 | 200 | 10.5 | 214 | 11.0 |
| 45—54 | 242 | 6.3 | 122 | 6.4 | 120 | 6.2 |
| 55—64 | 123 | 3.2 | 71 | 3.7 | 52 | 2.7 |
| 65 & over | 58 | 1.5 | 27 | 1.4 | 31 | 1.6 |
| Total | 3852 | 100.0 | 1910 | 100.0 | 1942 | 100.0 |

The crude birth rate in 1968 was 50.6% and the crude death rate was 14.2%

Table to shows C.R.R. during last 5 years.
C.D.R. during last 5 years.

**Family size**

The population of El-Wastania comprised 815 families. The family size ranged from one to 14 individuals. The distribution of families by size in presented in table (11). There were 49 families (6.0%) with only one member, all of them were widow females living alone after their chilaren have married. Nearly half the families of El-Wastania were composed of five members or more The average family size was 4.7 individuals.

TABLE 11

Distribution of the Family Size

| Family size | Number | Percent |
|---|---|---|
| 1 | 49 | 6.0 |
| 2 | 102 | 12.5 |
| 3 | 110 | 13.5 |
| 4 | 141 | 17.3 |
| 5 | 118 | 14.5 |
| 6 | 106 | 13.0 |
| 7 | 84 | 10.3 |
| 8 | 66 | 8.2 |
| 9 | 21 | 2.6 |
| 10 + | 18 | 2.2 |
| Total | 815 | 100.0 |

**Population in the labour force**

In the U. A. R., particularly in rural areas, the preportion of females in the labour force is very small. In rural areas, even thouh females take an active part in their husband's agricultural activities, yet this is consldered that as part of their home work.

Analysis of the occupational categories of males (Table III) showed that of the 1910 males and 1% were 60 years of age or more and not working and 37.7% under the age of 11 years, 61.3% were above 11, of these 10.5 were at school age of 11 and still students and the rest 970 (50.8%) were above the age of 11 years and not attending schools. The distribution of the occupations shows that 48.5% were working in agriculture, nearly half of them as farm labourers and the other half were farm owners or tenants, 30.8% were working in factories in the near by Kafr El Dawar city, 5.7% civil servants 5.1% as merchants or proprieters and 7.6 % were unemployed at the time of the interview.

**Level of education**

Of the 3852 persons living in El-Wastania, there were 850 under the age of 6 years and the rest (3002) were 6 years of age or more. The level of education for these above the age of 6 years is shown in table (IV).

TABLE III

Distribution of males according to occupation

| Occupation | Number | Percent | |
|---|---|---|---|
| Farm laourers | 250 | 25.8% | |
| Farm owners | 110 | 11.3 | |
| Farm tehants | 110 | 11.3 | |
| Factory workers | 299 | 30.8 | |
| Civil servants | 55 | 5.7 | |
| Merchants and proprietors ' | 49 | 5.1 | |
| Other | 23 | 2.4 | |
| Unemployed | 74 | 7.6 | |
| Total 11 years or more and not students | 970 | 100.0 | 50.8% |
| Under 11 years of age | 720 | | 37.7 |
| Over 11 years and students | 201 | | 10.5 |
| 60 years or more and not working | 19 | | 1.0 |
| Total Males | 1910 | | 100.0 |

TABLE IV.

The level of education by age for both sexes

| Age group | Just read Illiterat and Primary | | | | | | Seconcary Preparatory or higher | | | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| 6—11 | 356 | 52.4 | — | — | 324 | 47.6 | — | — | — | — | 680 | 100.0 |
| 12—14 | 218 | 61.9 | 23 | 6.5 | 68 | 19.3 | 42 | 11.9 | 1 | 0.3 | 352 | 99.9 |
| 15—19 | 284 | 70.3 | 53 | 13.1 | 5 | 1.2 | 43 | 10.6 | 19 | 4.7 | 404 | 99.9 |
| 20—24 | 190 | 75.1 | 47 | 18.6 | 5 | 2.0 | 2 | 0.8 | 9 | 2.4 | 253 | 99.9 |
| 25—44 | 674 | 75.7 | 200 | 22.5 | 8 | 0.9 | 1 | 0.1 | 7 | 0.8 | 890 | 100.0 |
| 45—+ | 379 | 89.6 | 41 | 9.7 | 1 | 0.2 | — | — | 2 | 0.5 | 423 | 100.0 |
| Total | 2101 | 70.0 | 364 | 12.1 | 411 | 13.7 | 88 | 2.9 | 38 | 1.3 | 3002 | 100.0 |

It appears that 70.0% of those over 6 years are illitorate, 12.1% can just read and write, 13.7% have attended primary education, 2.9 preparatory and only 1.3 % have attended secondary education of higher levels.

The propertion of illiterates increased by age from 52.4% among those aged 6-11 years to 89.6% among these over the age of 45 years. The majority of these having any formal edccation were under the age of 20 years, a reflection

of the recent changes in the education policy in the U. A. R. However, the high proportion of illiterates in the primary school age group (6-11 years) needs careful consideration. The attendance rate for children aged 6-12 years at El-Wastania by sex was calculated and it was found that while 71.9% of the boys were enrolled in the schools, the corresponding rate for girls was only 21.3%.

The level of education of the husbands and wives was studied and table (V) shows that 60% of the husbands and 97 5% of the wives are illiterates. Most of the rest knew how to read and write and only 17 husbands and two wives had education to a standard higher than primary education.

TABLE V

The level of Education of husbands and wives

| Level of education | Husbands | | Wives | |
|---|---|---|---|---|
| | No | % | No | % |
| Illiterates | 394 | 60.0 | 793 | 97.5 |
| Just read and write | 246 | 37.4 | 20 | 2.3 |
| Primary of higher | 17 | 2.6 | 2 | 0.2 |
| Total | 657 | 100.0 | 815 | 100 |

**Registration of births**

The public heatlth law requires that every live born sould be notified and registered within 8 days of birth. When the housewives were questioned about registeration of births. and the time and place of registration 53.7% mentioned that notification and registration was done within 8 days of birth, 35.0% after two weeks and the rest mentioned that registration was done after more than two weeks, nobody replied that tose was no registration.

No significant differences were observed among the responses of housewives as regards time of registration when the level of education of husbands was aken as a variable.

Registration of still births. All the mothers who had their confinement in village (97.1%) mentioned that the baby was registered in the rural health unit of the 68 mothers who ever had a still born baby only 17 (25%) stated that such an event was registered.

**Registration of deaths**

The Public Health Law requires that notification of deaths should be done to the local health authorities and burial could not be done without a parmit which is issued as notification is done. Only 2.6% of the interviewed mothers, mentioned that death registration is not required.

Registration of deaths in the first month if life was found to be incomplete. Deaths occuring during the early neo-natal period was mentioned to have been reported in only 52% of cases and deaths in the late neonatal period in 59% of cases.

## HOUSING

The 815 families residing in El-Wastania were living in 413 houses. There were instances in which more than one family were living in the same compouns the maximns being sever up to even families were living in the same house but allyusu in different quarters. Major differences were occasionally obserfeg among different sections of these houses. With such a set up of the housino condition, data pertaining to housing in El-Wastania are presented in relation to individual families as units of observation and not to houses.

**Building materials**

Three of every four families (75.3%) were living in houses constructed of good building materials namely red bricks while one forth were living in houses built of mud bricks. The relatively high propertion of industrial workers residing in El-Wastania might explain the high percent of red brick houses, in this village as compared to other villages.

The same could be said for roof material. In 60.1% of the dwellings it was made of concrete, in 32.2% of wood and in the remaining 7.7% it was made

of thash and other similar materials. The walls were covered with mortar in 57.4% of houses and left without cover in 39.0% and with mud in 3.2% of the houses.

The floor of the rooms was made of wood in only 8 dwellings (0.9%), covered with tiles in 69 dwellings (8.5%), with coment in 507 (62.2%) dwellings and in 232 (28.5%) the floor was left as untreated earth.

**Crowding index**

The number of persons per room was calculated for the families by dividing the number of persons ctually living in the house by the total number of rooms whether bed rooms or living rooms. Table (VI) presents the distribution of families according to the number of persons per room. The average number of persons per room was 3.68. It appears from the table that more than half the the families (56.1%) were living as three or more persons per room and 21.8% of them were living as five or more persons per room.

TABLE VI

The Crowding Index

| persons per room | Number | Percent |
|---|---|---|
| Less than one | 24 | 3.0 |
| 1— | 148 | 18.1 |
| 2— | 186 | 22.8 |
| 3— | 155 | 19.0 |
| 4— | 125 | 15.3 |
| 5— | 67 | 8.2 |
| 6— | 45 | 5.5 |
| 7— | 32 | 4.0 |
| 8— | 22 | 2.7 |
| 9+ | 11 | 1.4 |
| Total | 815 | 100.0 |

Analysingthe data for bed rooms, it was found that 696 (85.4%) of the families had only one bed room, 96 (11.9%) had two bed rooms and only 23 (2.8%) of the families had three of more bed rooms. The mean number of persons per bed room in the surveyed families was 4.0.

**Ventilation**

No definite standards were put for the assessment of the standard of ventilation and it was left to the interviewer to make this assessment.

The standard of ventilation as mentioned by the interviewer who visited the house and its different rooms was considered suitablein 454 dwellings (55.7%) and in the rest it was thought to be inadequate.

**Water supply**

Potable water from Abu-Hommos water works was avaible for consumplin from two public stands. These were installed near the natural water sources (the canals) were easily accessiken and within easy reach consumers. Except for 8 families (1%) who obtained their drinking water from a private pump in their house, 99% of the families of El-Wastania obtained their drinking water from the two public water stands.

Water used for other purposes (culivary, waship, balhng) was obtained from the purified water in 696 (85.4%) of the families, from the canals in 111(13.6%) and 1% obtained it from a private pump in the house. The difference brween the proportions using it for other purposes as well may be due to wrong beliefs that purified wafer is only for drinking and canal water is safe for other purposes. Another cause for using canal water for other purposes in the problem of disposal of waste water in the instances of taking the purified water home for utilization in washing clothes and utensils and for the purpose of personal hygiene as cathing.

**Toilet facilities and sewage disposal**

Table (VII) shows that 373 families (45.8%) had no closets at all in their homes, 252 (30.9%) had a tary closet that was used by the family. in a sauitary way 161 (19.8%) had an insanitary closet which was used by the family and in 29 families (3.6%) there was a closet in the house but not used by the family.

Occupants of dwellings depnied of dseals urinate and doefecate promiscuously in the farm, a dangerous behaviour, causing public health problems. However, some of the men utilised public toilets, in the three mosques in the village.

These data call for proper guidance as regards the installation of cheap suitable closets and search for the non use of the available toilets and proper maintenance of the insanitary cnes.

TABLE VIII

Presence and utilisation of toilet fecilities

| | Number | Percênt |
|---|---|---|
| Eloser present, used and sanitary | 252 | 30.9 |
| Eloser present, used and insanitary | 161 | 19.8 |
| Eloser present, not used and insantitary | 29 | 3.6 |
| No eloser | 373 | 45.8 |
| Total | 815 | 100.1 |

Excreta disposal for the 442 dwellings with closets was through cesspits in the majority of cases of the permeable or semipermeable type (378 «85.5%») and the rest 64 (14.5%) were of the non permeable type. One of the main problems of this area is the high level of underground water.

Disposal of waste water does not present a problem to the inhabitants of El-Wastania where 745 families (91.4%) dispose of it in the strects and only 70 (8.6%) dispose of it in the tanks they have in their homes for sewage disposal.

**Presence of animals in the house**

It was found that 72.3% of the families are keeping animals (cos. buffalows, camels, donkeys, sheep or dogs) or chicken in their houses. These animals were kept mostly inside the dwellings in the yard (66.5%) or in a stable (25.8%) for the few custaues of the bulding (3.0%) & in one of the rooms in 4.6% table (VIII).

**Knowledge and utilisation of health services**

In El-Wastania, the only Governmental health agency providing medical care is a rural health unit which started providing its services in June 1964. Yet, since the city of Kafr-El-Dawar is only two kilometers from El-Wastania, it is likely that medical care could be sought in the Government hospital there or in the clinics of the private physicians practicing in the city or through the pharmacies.

The days (3) and the local dressers (2) are ate handly local persons whose services could be available at low cost, the famer mostly in delivery and the latter for chrcumcission, injections or dressing of wounds.

All the 815 housewives residing in El-Wastania, were asked about the existence of the above mentioned health persondal and also about the services they provide.

TABLE VIII

Prrsence of animals and birds in the house and their breeding places

| | Number | Percent |
|---|---|---|
| No animals present | 226 | 27.7% |
| Animals present | 589 | 72.3% |
| *Place* : | | |
| In the Yard | 392 | 66.6 |
| In the stable | 152 | 25.8 |
| On theofroof | 18 | 3.0 |
| In one the rooms | 27 | 4.6 |
| Total | 589 | 100.0 |

**The rural health unit**

Only 15 women (1.7%) were not aware of the presence of the rural health unit in the village. They were mostly eldarly widowed females. Although this is a small proportion, yet it is not to be expected in such a small community perticularly as the R.H.U. has been functioning for four years.

**Private Phqsicians**

Although no private phsicians had a clinic in El-Wastania, yet 45 (5.5%) women clained that a private physician was practicing in the village and another 40 (4.9%) did not know.

It is likely that those montioning the practice for private physicians in the village. Such an interpretation in the response of the housewives interviewed did not vary when the education of the husband or the number of individuals in the household was taken as a variable in the analysis of the data.

**Pesence of a Daya**

Although the writers confirmed through investlgations that three days were practicing in the village, yet only 44% (g59) admitted t6e presence of a daya in El-Wastania 52.4% denied her presence and the remaninder 3.6% did not know whether a day is present or absent.

The large proportion of women who were not of the presence of a daya is likely to be a reflection of the fact that the aactivities of the two assistant midwives who are members of staff of the R.H.U. overtook most of the functions of the daya and were accepted by the community. This will not ejplain the finding groth publish later on macar piely.

There was no relation between the education of the husband or the family size and the knowledge of the presence of adaya in the village.

Among the women who mentioned that there are dayas in the village. 93.4% stated that her only job was delivery and 3.3% mentioned that she has other functions as treatment of minor ailments during pregnancy.

**The local dresser :** (Halak El-Seha)

It was mentioned by 246 wives (30.2%) that there is alocal dresser in the village, 51 (6.3%) did not know of his presence and 518 (63.6%) denied his presence. Such a response is expected since the R.H.U. has been functioning for only four years. It takes time for the R.H.U. to take over the previous activities of the local dresser which were confined to circumcission, dressing of wounds and other minor services.

No significant relation was found between the occupation of the husband his level of education or the number of individuals within the household when taken as variables which might influence the needs for the services of the local dresser.

The services of the local dresser was given as circumcission 35% prescribing medicines in 34%, first aid in 12.6% and treating illness 12.1%.

**Treatment at time of illness :** Personnel, Institutions saught for medicare.

All the housewives were asked about the medical and parapedical personnel whom they call upon to treat emergencies, acute or chronic condit ons that might occur among members of the family. The interview included questions about treatment in the cases of occurrence of cough, large wounds, haemorrhage during pregnancy, gastre-enteritis, renal cloic, fever, and red eyes. Such a list was considered to cover a wide spectrum of diseases which most of even the lay persons are familiar with. The responses of the housewives are expected to portray the attitudes of the housewives and could then be considered an index of their acceptance and confidence in the medicare services in the village and the other available services within their reach.

Since the concept of health and disease is likely to differ according to the social class of the individual in concern and likewise differences are expected as regards, the agency, person or method consideed appropriate for the management

of the disease in question, the views of the housewives were categorised according to two variables; the husband's level of education as a monitor of the social and cultural class and the disease in question as the other variable related to the gravity of the condition.

Table (IX) represents a summary of the results obtained. The rural health centre ranked first in order as a treatment institution irrespective of the gravity of the disease in question. The percentage of housewives who considered the V.H.C. as the proper institution that would mange and care for the diseases included in the interview was 72.4% in the case of gastro-enteritis ans was only 53% in red eyes. The acceptance of the village health centre as a medicare institution was almost the same wen the husband's level of education was taken into consideration as an index of the social class which might influence the decission concerning the choice of the medicare agency.

TABLE IX

Treatment at times of illnesses

| Condition Care | Cough | Large wound | H. during pregnancy | Gastro enter | Renal colic | Fever | Red eyes |
|---|---|---|---|---|---|---|---|
| R.H.U. | 70.8 | 66.5 | 63.2 | 72.4 | 59.5 | 68.7 | 53.1 |
| In the city | 16.1 | 17.4 | 24.4 | 7.5 | 10.3 | 16.1 | 6.9 |
| Consult a doctor | 2.7 | 2.2 | 4.5 | 2.3 | 2.0 | 3.1 | 1.6 |
| Call a Dr. Call first aid | 0.9 | 0.6 | 0.6 | 0.6 | 1.0 | 0.5 | 0.5 |
| aid | 0.9 | 2.2 | 3.9 | 1.2 | 1.7 | 1.0 | 1.0 |
| Pharmacist | 2.7 | 1.1 | 0.6 | 3.3 | 1.8 | 3.4 | 6.5 |
| Local dreser | 0.5 | 2.8 | 0.1 | 0.1 | 1.0 | 1.2 | 1.5 |
| Folk Medicin | 5.5 | 14.2 | 10.3 | 15.8 | 33.6 | 13.7 | 24.3 |

Seeking medicare in the nearby institutions in the city came next in order after the V.H.C. Such a choice showed wide variations according to the disease in question. The highest proportion was 24.4% was in the case of haemorrhage during pregnancy followed by 17.4% and 16.1% in large wounds and fevers respectively.

Consulting a physician in his private offic or calling a physician to treat the case at home or calling for the first aid was considered by only very few housewives as the measure to be taken in any of the siseases included in the interview.

Seeking the assistance of the pharmacist or procuring drugs from the nearby drug stores in Kafr El-Dawar was viewed as the measure to be taken in attending to the disease in considration by only a small proportions of the housewives. The proportion was highest in the case of red eyes and was least (0.6%) in the case of haemorrhage during pregnancy. The impression gained from these findings might be a reflection of the awareness of the housewives of the limitations of capabilities in handling serious conditions.

The local dreweser was felt to be the man to be consulted by only about one percent of the housewives and the proportion was relatively higher when the condition required topical treatment or simple dressing. The proportion in red eyes was 1.5% and in wounds 2.8% respectively.

A relatively unexpected high proportion of the housewives reported that they would be contented with folkmedicine. The proportion ranged from 33.6% in renal colic and was lowest (10.3%) in haemorrhage during pregancy. This finding is rather serious since folkmedicine or self medication are not always without risk or danger and calls for the need of intensive program of health education in rural areas to word off the risks fro such practices.

*References*

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