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STATISTICAL INFORMATION NEEDED IN RURAL HEALTH SERVICES

by

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Referring to the documents* of the WHO Regional Seminar on Health Statistics (Health Centre Records and Reports) held in New Delhi, India, from 9 to 20 October 1967, the main requirements for vital and health statistical information to be made available in rural areas can be summarized as follows:

- 1) population
- 2) vital statistics
- 3) statistics on health establishments and health facilities
- 4) statistics on health personnel and their work
- 5) statistics on communicable diseases
- 6) other morbidity statistics
- 7) other statistics needed for health improvement: on nutrition, environmental health, etc.

Analysing this statistical information, the health status of the population could be presented by calculating different rates and indices of health and diseases.

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SEA/STAT.SEM.3/3 Records and Statistics of Health Centre in Morocco.
SEA/STAT.SEM.3/6 Suggested Tabulations based on Health Centre Records and Reports.
SEA/STAT.SEM.3/7 A suggested Record System for Health Centres.
SEA/STAT.SEM.3/8 A suggested Reporting System for Health Centres.
SEA/STAT.SEM.3/10 Design and Production of Forms.
Draft Summary of Conclusions of the Seminar.

1. Population

Enumeration of the population in many countries is the responsibility of the national offices of statistics. Population census is organized periodically usually every ten years. For the years between two census, a mid-year estimates are calculated according to the most recent census and the annual increase rate of the population.

At each rural health centre or subcentre the total population of the area should be known in order to be served by health establishment and by medical and para-medical personnel. In the planning of health facilities in a rural area the following ratios are most important:

- a) population per health centre, subcentre or dispensary;
- b) population per hospital bed, if a rural hospital exist;
- c) population per physician, nurse, health visitor and other health personnel.

In addition to figures of the total population, the statistical data should be presented as a population structure by age, sex, occupation, educational background, religion and other characteristics of the population if necessary for special studies. The movement of the population to towns, density of the population, climatic factors, habits, transport and living conditions could be also very important in the determination of influencing factors on the rural health.

If the population figures are not available for any reason at the national office of statistics, then the only possibility to get reliable population data for a rural area would be a census visiting house to house as it was done in some areas by malaria eradication teams.

2. Vital Statistics

The most important vital events to be registered for calculation of vital statistical rates are:

- a) number of live births to get crude birth rate per 1000 population;
- b) number of deaths to get crude death rate per 1000 population;

- c) number of infant deaths to get infant mortality rate per 1000 live births;
- d) number of stillbirths to get stillbirth rate per 1000 live births;
- e) number of maternal deaths to get maternal mortality rate per 1000 live births.

One of extremely important aims of medical officers of health in rural areas is to specify the principal causes of death in rural population. For that reason statistics of causes of death are to be recommended. If statistics of causes of deaths are complete and reliable then specific death rates could be calculated, particularly by sex, age, occupation, marital status etc.

3. Statistics on Health Establishments and Health Facilities

The quantity and the quality of medical and health services offered to the population in rural areas depend on the number and type of health establishments and their facilities. The development of rural health establishments, to a large extent, depend on the general standard of development of the country; particularly on the number of the qualified medical and para-medical personnel.

Statistical information on health establishments and health facilities should cover:

- a) number of health establishments by categories (health centre, subcentre, dispensary, rural hospital and others);
- b) bed capacity and percentage of bed occupancy;
- c) number of visits in health establishments and home visits;
- d) number of in-patients (if offered) and daily admissions;
- e) estimate number of populations served.

4. Statistics on Health Personnel and their work

Statistical information in respect of medical, paramedical and other personnel working in rural health establishments should be presented by professional categories and preferably also by sex.

Their activities and quantity of work can be presented by rates, such as:

- a) number of examinations per physician;
- b) number of in-patients per physician;
- c) number of home visits per health visitor;
- d) number of dental intervention per dentist;
- e) number of home delivery per midwife;

Also the number of administrative staff in proportion with professional staff is very important.

5. Statistics on Communicable Diseases

Regarding the notification of communicable diseases, in some countries, a double reporting system exists. The quarantinable diseases are supposed to be declared individually at a faster way, by cable or telephone and confirmed by a report. For the other communicable diseases usually a national list of notifiable diseases is prepared in all countries. National lists of notifiable diseases differ by number and category of communicable diseases from country to country as the criteria for notification of some diseases are different.

In most countries in the Eastern Mediterranean Region, the notifiable diseases are reported to the Ministry of Health by weekly reports, except for quarantinable diseases which should be reported immediately. Although the reporting of notifiable diseases may be compulsory, the figures obtained at central level are variable and sometimes very small. The reasons for incompleteness are many and complicated.

The list of notifiable diseases, when reporting is compulsory, should be short depending on the level of organization and capacity of local health services and medical staffing.

6. Morbidity Statistics

Morbidity statistics is one of the most important indicators of health status of the population, but it is one of health statistical information most difficult to be reached.

The number of ill persons treated during a period of time as in-patients or out-patients is only a part of the population. How many ill persons stay indoors and are unknown to the health service? Many other questions very complicated could be involved to distinguish healthy and ill persons.

Hospital morbidity statistics cover one part of serious diseases, but on the other hand in rural health centres it is difficult to determine accurate diagnosis, due to the incompleteness of diagnostic facilities.

In spite of incompleteness of statistical information for all the population in an area, morbidity statistics should cover acute and chronic diseases and accidents treated in health establishments. Analysing morbidity data by sex, age, duration of illness for several years the health status of a local population and efficacy of health services could be evaluated.

To be able to compare morbidity statistical data in several areas and several countries all over the world, WHO proposed utilization of International Classification of Diseases, Injuries and Causes of Death. The Eighth Revision of this publication has been issued this year (1968) and distributed to all country members. Seven different lists of diseases and groups of diseases are presented for practical purposes. Many countries in the Eastern Mediterranean Region apply the ICD but in most of them the application should be improved.

In addition to the routine reporting on morbidity statistics in some rural areas, it would be preferable to organize a morbidity survey by random sampling method covering all population.

7. Other Health Statistics

Evaluation of health status and its improvement cannot be reached without evaluating the living conditions of the population, such as nutrition, water supply, general and health education, employment, etc. To evaluate living and hygienic conditions in a rural area statistical data are needed to measure activities and results of improvement. For that purpose, usually, separate surveys should also be carried out on a sampling basis.

There is no doubt that the statistical analyses assist in finding out the health status of a population and to plan the activities for its improvement.

In the development of vital and health statistical services in any country three factors are essential:

- a) organization of vital and health statistical units at local, provincial and central levels of a country;
- b) staffing of health and statistical personnel, trained to work on vital and health statistics;
- c) provision of laws and regulations needed to assure the completeness and accuracy of standardized vital and health statistical information and supervision for its application.

In most countries of the Eastern Mediterranean Region, the ministries of health have sections responsible for collecting health statistical information but in many countries the statistical information obtained is limited due to the incompleteness or delay of reporting from health institutions, particularly from rural areas. Therefore, the improvement of recording and reporting of statistical information is a very important factor in the organization of rural health services.