

dently organize their own health operations and draft their own health policy. At present, however, only a small number of districts is able to do its own statistical work.

The greatest role in furthering the development of health statistics in the districts is played by frequent visits by persons from the central statistical bureaux of the republics, through which efforts are made to increase the interest of medical officers and political leaders in the work; professional training and advice to the statistical personnel in the district are also provided. An important step in improving the statistical work is the holding of courses and professional meetings of district staff either from the whole republic or from different areas within a republic.

The Federal Institute of Public Health compiles the data obtained from the people's republics, but its work primarily consists of determining and establishing a uniform method of work; this is done by frequent meetings, by submitting problems to commissions of experts in various branches of health work, and by studying the problems in the subcommittees of the Permanent Commission for Vital and Health Statistics.

The greatest attention is given to stimulating the interest of the health personnel in health statistical work and in learning its importance in each professional health activity. Health statistics have been introduced as a compulsory subject in all schools for nurses, midwives, and sanitary technicians and in other similar schools, where it is taught during one or two semesters for two to four hours weekly. So far it has not been possible to introduce this subject in any university faculty of medicine, with the exception of that at Zagreb, because the medical profession is the least acquainted with it and consequently is not greatly interested.

The use of sampling surveys to collect a considerable body of data for statistical analysis might prove very valuable, but it has not yet been attempted. It constitutes, however, an essential part of future work.

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## VITAL AND HEALTH STATISTICS IN INDONESIA \*

### **Births, deaths, and stillbirths**

Statistical measures were not introduced in Indonesia in any single year, but they were gradually spread throughout the country over the course of years. They were introduced in the towns earlier than in the countryside and could be started earlier in the more developed areas. Furthermore, there was a difference between the registration of the relatively small group of foreign people, who were already accustomed to registration and who

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\* Abridged from an unpublished communication prepared by the Government of Indonesia.

came with their own systems, and the large group of Indonesians, for whom a good system of registration had to be found.

### *Indonesian population*

At the end of the 19th century a system of counting the births and deaths among the population was introduced all over the country and was mostly under the control of the Department of Internal Affairs. The recording was done by the headmen of villages, who were responsible for the figures collected. The village figures were sent to the head of the district, who was responsible for controlling the figures, assembling them, and forwarding them to the central office. There they were controlled once more and published annually. The medical service was also very much interested in the figures, because they might serve to indicate epidemics or that something was going wrong in a faraway district that was not under direct medical control.

In 1912 this system was improved considerably ; a very good control system was worked out, and the figures could be easily controlled from source to centre.

After 1880 the results of the figures for births and deaths were controlled by a five-yearly count of the population. This form of census could not be complete, and the more the population increased the more dubious became its reliability. In 1909, it was decided that the census should be taken in a more modern and scientific way every 10 years and for the first time in 1915. However, owing to a variety of circumstances, the first modern census was not taken until November 1920. In 1930, a second census was held in Java and Madura and in the Outer Islands (including Sumatra, Borneo, Celebes, the Lesser Sunda islands, and the Moluccas).

As the country developed quickly and was increasingly opened up, the need arose for some sort of personal registration. This, based on birth-forms, was started in 1933 in the Regency of Purwakarta on the island of Java, and was followed in 1935 by a system of registration based on death-forms. The system proved to be practical and useful and rapidly spread over 13 regencies by the end of 1938. During the war and the revolution no registrations were made, but they were started again in 1950.

Registration by death- and birth-forms is done in most of the regencies of Java, and is now also finding acceptance in some areas of the outer provinces. In some regions the old system is still used while in others no registration has yet been begun or restarted.

While, for a number of reasons, the registration of births and deaths is far from perfect, good and reliable figures are obtained for some regions.

*Birth.* For the registration of births each village headman keeps two sorts of forms : pink for girls and blue for boys.

A birth certificate consists of three parts : the stub, which remains in the book ; a middle section, which is sent by the headman to the office of the regency health unit or, if there is no health unit, to the office of the residency doctor ; and a large section, which is given to the parents of the child.

On the certificate are entered the names of the mother, father, and child, and the date and place of birth. When the child is brought for vaccination, the vaccinator or the headman places the thumb-print of the child on the birth certificate. There is also a place on the certificate for a second thumb-print in case of a change of name or marriage. The back of the birth certificate is reserved for recording immunizations, and there are special columns for vaccination against smallpox, typhoid, dysentery, plague, etc. Arrangements also exist for the issue of a duplicate birth certificate in case of loss of the original.

Each book of certificates contains instructions concerning the recording of births and the supplying of certificates. These instructions include details concerning the colour of the certificate, the serial number, the use of the three sections, the issue of duplicates, the recording of immunizations, and the special instruction that the child must be registered in the village in which it was born, regardless of the mother's address. In the instructions emphasis is placed on the fact that a birth certificate must be issued for a child even if it has died a short time after birth. In this case the certificate need not bear the name of the child, but it should have the names of the parents.

*Death.* The death certificates are also issued by the village headmen and again consist of three sections : the stub, which remains in the headman's archives ; the middle section, which is sent to the regency health unit or the residency doctor ; and the third section, which is given to the family.

At present, the most important point is to secure accurate registration of deaths with details concerning the name, age, sex, etc. of the person. The cause of death is not accurately reported, since in the rural areas so many people die without having had medical care.

There are also detailed instructions concerning the use of the death certificates. These details concern the use of serial numbers ; the mailing of the certificate to the health unit office ; and the fact that if the deceased was born after the adoption of the birth certificate system, the birth certificate must be attached to the death certificate when this is sent in.

*Stillbirth.* Certificates for stillbirths consist of only two sections : the stub for the village headman's archives, and a section to be sent to the regency health unit. Instructions are also given to distinguish stillbirth from abortion.

For many reasons, the registration of birth and death is far from perfect ; from some regions, however, good and reliable figures are obtained.

### *Foreign population*

In early times, foreigners used to be registered according to their own systems, in special books or in churches. A system of central registration of all foreigners was, however, developed in the 19th century, in accordance with Western standards. This was done for Europeans, Chinese, Arabs, and the Indonesian nobility. A system based on the Dutch " *Burgerlijke Stand* ", with registration of the person and his family on a card system, was worked out and introduced in the years 1925-30 by the Central Office of Statistics in Indonesia. It was discontinued during the war, but was reintroduced thereafter for Europeans, Chinese, and Arabs.

### **Diseases, injuries, and causes of death**

Figures for sickness and causes of death were compiled as early as the 19th century, fairly systematically on some estates—especially on the east coast of Sumatra—but for most of the country only during epidemics.

At the end of the 19th century very good statistical figures were published from the Deli Estates in Sumatra ; the International Classification was always used, according to every revision.

Before the second World War, the results were very good. The official death certificates were filled in by doctors, and were checked, assembled, and published yearly. In many districts, those who died without being seen by a doctor were visited by a qualified nurse. The figures returned by nurses were not officially published, being intended rather for use by the health service only as an indication of possible epidemics.

Morbidity figures were collected in the hospitals and polyclinics. They were also published yearly.

During the war, no figures were collected. After the war, however, preparations were made for the reintroduction of the international system according to the fifth revision, which had to be translated into the Indonesian language. It is hoped that the translation will be published at an early date. Until it is, the nomenclature according to the fourth revision will unfortunately have to remain in use. Results will certainly improve after the introduction of the new nomenclature, when detailed instructions to the many new doctors will also be given.

Before the war, the statistics covered 98% of births and deaths among Europeans, 95% of births and deaths among the Chinese and Arab population and the Indonesian nobility, and 90%-92% of all mortality and morbidity among these groups. For the population as a whole, under all systems of registration, the coverage was nearly 100% in some districts and 80% in others. Figures from the Outer Islands were not sufficiently reliable.

Although registration was reintroduced after the war, it is insufficient in a number of districts. However, a census of several municipalities and rural areas will shortly be taken. The Indonesian Government is aware

of the deficiencies in the recording of vital statistics and is taking action to bring about an improvement. The Ministry of Health has made a number of proposals to this end, among them that the registration of births and deaths should be carried out in future by the Central Office of Statistics rather than by the Ministry of Health, and that better-trained staff and better office equipment should be provided.

### SUMMARY REPORT OF THE INDIAN VITAL STATISTICS COMMITTEE \*

In 1948, a committee on Indian vital statistics was appointed for the purpose of reviewing the existing forms for vital statistics returns so as to ensure uniformity in the collection of data and simplicity in the maintenance of records. The committee observed that Indian vital statistics suffered from two major types of defects : (a) quantitative, resulting from the large numbers of omissions in the registration of births, deaths, and notifiable diseases ; and (b) qualitative, arising from incorrectness in the recording of age, cause of death, etc.

The existing system for the registration of vital statistics in rural areas was reviewed, and the committee was guided in its work by the recommendations and observations made by the Health Survey and Development Committee of the Government of India, which had published a comprehensive report discussing mainly the development of health work and, in this connexion, making specific recommendations for the improvement of Indian vital statistics.

The registration of Indian vital statistics has been the responsibility of the Health Departments both at the central and at the provincial or State levels. At the periphery, such agencies as police and revenue have participated in recording data directly reported from the villages.

The committee recommended simple forms to be used by the village reporting agencies and specified the particulars that should be recorded in respect of births, stillbirths, and deaths. A simple classification of causes of death was suggested.

The main recommendation of the Indian Vital Statistics Committee was that in those areas where, in pursuance of the recommendations of the Health Survey and Development Committee, health services were to be considerably expanded, the work of registration of vital and health statistics at the local level should be undertaken by the expanded health staff, sanitary inspectors, midwives, etc.

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\* This is a summary of the report of the Indian Vital Statistics Committee appointed by the Second Health Ministers' Conference, held in Delhi in August 1948.