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SESSION I: Problems associated with the lack of coordination in national and international health statistics

#### **HEALTH INFORMATION SYSTEM IN GEORGIA**

Supporting paper submitted by the Centre of Medical Statistics and  
Information of Georgia, Ministry of Health<sup>1</sup>

1. A health information system (HIS) existed in the country before 1995 and was based on reporting and recording data gathered by the Ministry of Health (MOH) from all medical facilities. The system was centralized and had the same structure as in the other republics of the former Soviet Union. According to the order of the MOH of the USSR every medical facility had to submit 366 recording and 56 reporting formats, approved by the central statistical department. These data, gathered by the centre for medical statistics of the MOH were processed and analysed together with the office for national statistics and then all results were submitted to the MOH of the USSR.

2. Statistical reference books, published that time, did not reflect the real situation, e.g. they never gave distribution by gender and age. Real data on the incidence, prevalence and mortality from certain diseases have never been published.

3. The goal of the system was to submit a statistical report from the republic to the MOH of the USSR in time. There were no aims to use those data for the estimation of the health status of the population or for a division making in the low levels of the hierarchy. The main problem of the system was

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that any medical facility had to submit their statistical data to several different levels at the same time, e.g. medical statistics department of the MOH, chief specialists, different scientific - research institutes.

4. Along with negative features, the system had positive characteristics, which have to be kept in the modern system. The system had possibility for acquiring a good knowledge of the Georgian health care system, including mapping the main medical service providers at the local and national levels; data were brought into a system and could be analysed in separate informational blocks. Our country could compare its indicators with the main international standards and indicators.

5. In the existing health information system (HIS) the main sources of the information are different medical facilities (hospitals, outpatient clinics, maternal homes and etc.), which gather the information in recording formats, when they fill 56 reporting formats and send them to a higher level of the hierarchy. Regional public health centres collect those formats and send them to the centre for medical statistics and information (CMSI), where data are processed and indicators are calculated. Main demographic indicators such as birth rate and mortality rate are calculated in the State Statistics Department, using data from registrar offices.

6. Drastic changes in the political and economic orientation of the country provoked changes in the health system. In the process of the reform new health information system has a very important role, because statistical data have to reflect the real situation in the country and serve as a basis for strategy and policy formulation. Economical and political problems in the country as well as conflicts changed for the worse the health system in Georgia and affected the HIS. In the beginning of 1990s, there were big problems with gathering statistical reports from medical facilities and the information did not reflect the real health status of the population in the country. This lack was partially improved in 1995. According to the order No 296/o from 13.09.95 of the MOH of Georgia, a Centre for Medical Statistics and Information (CMSI) was created on the basis of Health Management Centre and Health Centre for Information and Statistics. CMSI with collaboration of experts from WHO, World Bank and other international agencies and organizations analysed the existing information system and created a work plan for HIS development.

7. In 1997, monthly forms and their annual report were processed for all regions of Georgia. Data from the annual report from medical facilities were processed and analysed for all regions.

8. Hardware is the most expensive part of the modern system. Because of that several work places were supplied with the necessary technical equipment and employees were trained.

9. In 1997, case based forms and a data base were worked out. Extracts from medical records in hospitals and outpatient clinics would be collected

and once a quarter processed in the CMSI for each region. This gives possibility for more detailed analysis of morbidity and mortality.

10. Centralized data processing and analysis are practiced in many developed countries all over the world. Analysis of extracts from medical records gives possibility to reduce data in the traditional annual report and leave there only data concerning activities without any information on morbidity and mortality.

11. HIS in Georgia would consist of the four level hierarchy - facility, rayon, region and national levels .

12. The goal of the HIS would be to provide the information for working out a correct strategy, for policy and decision making in order to achieve the national priorities. To achieve this goal it is necessary to work out all the components of the system in co-ordination. At the beginning, tasks on implementing a computer network in the country have to be the initial stage. This will create conditions for development of the technology for data processing (necessary for operative decision making) and for implementation it.

13. In the HIS the principle of integrity is very important, but at each level of the hierarchy the system has its peculiarity.

14. The level of the medical facility is the basis for the whole information system and for evaluation. The reports from the medical facilities give complex and detailed information. In the future such facilities must have possibilities for their own data analysis and provide their managers with the information for decision making. Information about all discharged patients (including died persons) and incidence of the diseases are to be processed in the statistical system. Especially important is that all necessary indicators must have as the source a patient's medical history.

15. The goal of the rayon and regional HIS is to monitor health services. For this reason at those levels reliable and timely information is necessary for the concrete activities. Those systems have to be a part of the national HIS with capability of independent activities. Information for planning and management at the local levels varies from the quantitative data (e.g. number of cases) to special demographic, epidemiological and administrative indicators. Knowledge of social, economical, geographical and etc. peculiarities of the region is a background for decision making. Demographic data are very important for calculation indicators on incidence, prevalence, availability of medical services and resources, coverage with the vaccination and other health activities. Data on resources are necessary for monitoring public health.

16. The goal of the national HIS is to work out the state policy for public health, planning and financing, distributing the state budget for the health

care system, control of medical services and programmes and evaluation of their performance.

17. National HIS has to provide decision makers with demographic data, information on morbidity and mortality in the country, on the distribution of the medical services and the cost of medical services. National HIS has to show the tendency of all processes in the health system and has to offer possibility for projections. Indicators for the programme "Health for all" were studied in the Centre for Medical Statistics and Information in collaboration of the experts from WHO, CDC / Atlanta and specialised programmes and institutes of the country and the draft list of indicators for the National HIS was created.