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

**HOW INFORMATION FROM HEALTH STATISTICS HELPS TO SOLVE THE TRANSFORMATION OF
HEALTH CARE IN THE CZECH REPUBLIC**

Supporting paper submitted by the Institute of Health Information and
Statistics of the Czech Republic, Prague¹

Health policy in the CR has big problems to solve. Since 1990 huge changes took place in the system of health services. The newly created system of mandatory health insurance has totally changed the financing of health care, the legal structure of health service establishments was also fundamentally changed into a network of over 24 thousand legal bodies, mostly private. New legislation is still incomplete, very often changed; solutions are still sought for basic problems, mainly in the field of financing. In comparison with highly developed European countries, it seems that the CR has more physicians and more acute beds, fewer nurses and auxiliary personnel and fewer social beds.

The main objective of health policy is of course to improve the state of health and the quality of life of the population, and monitoring of such goals requires a lot of statistics. Health statistics in the CR has very long tradition and performs also a series of new investigations (e.g., the Health Interview Surveys). We believe that some of our activities are internationally known. The acute needs of the management of health services include, however, mainly information on economy, particularly that of bed establishments, on the evolution of wages, on the network of bed

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establishments, on the age and professional structure of physicians, and international comparison of such data.

These are the tasks of the National Health Information System which must collect and process these data, not only from the sector of Ministry of Health but also from sectors which were formerly taboo, i.e., from the army and police forces, prisons, etc.

In this talk we wish to present the contents of the National Health Information System of the CR, with stressed attention to the mentioned new needs, as a contribution to the discussion of integration of national health-statistical databases. We also wish to explain the problems which we encounter and to present our future aims.

The new information needs have been analyzed very soon after 1990 and the conception of the National Health Information System (NHIS) was accepted in 1992. This System is realized by the Institute of Health Information and Statistics (IHIS) and its units in all districts of the CR.

The necessary data files are created prevalently from data provided by health establishments. The NHIS however also takes over data from information systems in other sectors and from the Statistical Office.

The contents of NHIS is conceived so that it may serve as the main information support for the Ministry of Health in creating the government health policy and as the national source for health databases of international institutions - mainly WHO, OECD, and in the future which we prepare also EU and the requirements of Eurostat. The contents of NHIS is annually reviewed and adjusted with regard to these tasks (see Annex).

The basic information ranges are:

- The state of health of the population
 - a) Total morbidity ascertained by sample surveys aimed at important frequent diseases
 - b) Information systems on selected individual serious diseases (conditions) according to the valid International Classification of Diseases
 - c) Information systems on morbidity of selected groups of the population
 - d) Indicators of health, behaviour and life style
- Health service economics
- Activities of health service establishments
- Socio-demographic characteristics of the population
- Living and working environment.

Detailed itemization, structure of data, frequency and extent of processing of individual data ranges is determined every year by the Programme of

Statistical Investigations. Details on information systems - registries, statements and performances are given in the Attachment.

Data for the NHIS are acquired on the basis of:

- a) legislative measures (obligatory information)
- b) questionnaires - population surveys
- c) agreements concluded with physical persons or legal entities
- d) information systems of other Departments, bodies of state administration, health insurance companies and other organizations
- e) international cooperation with World Health Organization and OECD. These data and information are used for international comparison.

Among prominent users of NHIS data is of course the Ministry of Health which needs them in the transformation of the health care system. Because the changes and individual steps of the transformation are new and unverified, they should be supported by internationally comparable indicators. In such situation the statisticians long for a fundamental comparative database of all necessary indicators, coded according to precise and unified definitions. These desires mostly concern beds in various types of health establishments, physicians, health personnel, data on economy. We believe that this is a problem which will ultimately be solved, although it may take some time yet.

The problems of financing mentioned in the introduction bring also the necessity to know how the financial resources are utilized. This is not an easy task for the NHIS. Presently only selected types of health establishments are followed in monthly, quarterly and annual periods; these are prevalently bed establishments (which consume over 30% of all resources spent on health services).

The Ministry of Health requires monthly accounts on economy (costs, revenues, claims, obligations, etc.) of large hospitals which are directly controlled by the Ministry. Quarterly reports are processed from all bed establishments and from large outpatient establishments, annual economic data contain also selections from accounting of private physicians.

We would greatly appreciate to hear about the praxis and experience in this branch of statistics in the highly developed European countries.

If we have to briefly summarize the greatest problems which our NHIS presently encounters (leaving out its own financial problems), we must mention:

- the continuous changes in the network of health care establishments and in opinions on optimal solutions, lack of precise definitions and clear concepts,
- the low willingness of health establishments to provide us statistical data in due time and in the necessary quality,

- the lack of information on economy and capacity of health care establishments required by NHIS but withheld with reference to legally guaranteed individual data protection.

On the other hand, Czech health statistics succeeds in providing long-range time series of many indicators, mostly concerning the state of health, and in publishing a great number of comprehensive reports as well as of topical information reports (www.uzis.cz). Our colleagues participate in a number of international projects, mainly those coordinated by WHO, and we are willing to cooperate in all activities bringing progress in this field.

The aims of NHIS in the CR are to keep up a stable comprehensive and accessible information system reacting by supplementary surveys to new and topical information needs. Connecting international data are indispensable. We support eagerly the efforts to create comparable databases containing precisely defined items. We are willing to participate in these efforts (in fact we already participate in some).

The long-term objectives of our NHIS contain the following tasks:

- improvement of data quality
- better exploitation of data
- broader analysis of information
- simplification of data processing by improvement of technology
- speeding up data transfer and feedback
- stabilization of the contents of the basic information systems
- wider recognition of health informatics on national and international level.

ANNEX

INFORMATION SYSTEMS INCLUDED IN NHIS

Registries of	Health Care Establishments Physicians and Pharmacists Cancer Tuberculosis Occupational Diseases
Individual reports on	Infectious Diseases Venereal Diseases Abortions Hospitalization Suicides Mother (of a newborn) Newborn Child Congenital Anomalies
Periodic reports on	Out-patient Care Economy Hygienic and Epidemiologic Service Bed Care Technical Equipment other information

PUBLICATIONS OF IHIS CR

Czech Health Statistics Yearbook
Health Care in the Czech Republic in Statistical Data
Directory of Health Establishments in CR
HIS CR 93 - Sample Survey of the Health Status of the Czech Population
The State of Health of the Population of the Czech Republic
Evaluation of health situation in the Czech Republic and of its trends
Activity of health establishments in selected branches of curative and preventive care
Economic Information on Health Care
Hospitalization
Surgical Care (Emergency surgical aid in the CR)
Balneologic Care
Physicians and Pharmacists
Bed Care
Bed Capacity of Hospitals in CR in Years 1990-1995 by Districts
Newborns and Infants Deaths till 1 Year of Age
Occupational Diseases
Neoplasms
Care of Diabetics
Venereal Diseases
Abortions
Infectious Diseases
Psychiatric Care
Suicides
Network of Health Establishments
Tuberculosis and Respiratory Diseases
Terminated Cases of Incapacity for Work for Disease or Injury
Congenital Anomalies
Paramedical Schools
Deaths