Czech Databases of Health Indicators

**17th February 2010
Faculty of Science
Charles University in Prague**

Abstract   Institute of Health Information and Statistics of the Czech Republic (UZIS CR) has adapted the WHO Data Presentation System and has further developed its own web-based tool for presentation of health indicators. The database systems facilitate analysis of health data at subnational level. A content and structure, way of maintenance, main data sources and users are described in general. The focus is on introducing development and features of the web-based tool.

Introduction

A development of databases of health indicators in the Czech Republic started in early 1990th and covered adaptation of the original DPS software application, translations, indicators development, data processing, distribution of the database and its promotion (including holding seminars and preparation of information materials).

Electronic databases
- DPS - Districts (DPS-o): 77 districts, about 600 indicators, data since 1970
- DPS - Regions (DPS-k): 14 regions, about 750 indicators, data since 1995
- DPS - Regions and districts (DPS-mix): regions and districts, about 750 indicators, data since 1995
- Dynamic Data Tables (DPS-k HTML): regions, 750 indicators, data since 1995

Maintenance of the databases
- Update of data twice a year
- Changes in data collections and methodologies reflected
- Checks and corrections of errors
- Revision of indicators based on indicated needs
- Distribution of the databases and promoting them via seminars

Main data sources
- National Health Registries
- Registries and information systems in the area of public health protection
- Statistical reports on capacities, activities and economics of health institutions
- Information systems of the Czech Statistical Office, Ministry of Labour and Social Affairs, Czech Administration of Social Security and other systems.

Main users of the databases
- Public Health Authorities
- High schools and universities
- Health researchers
- Regional government authorities
- Health statisticians

Methods & Materials

Dynamic Data Tables
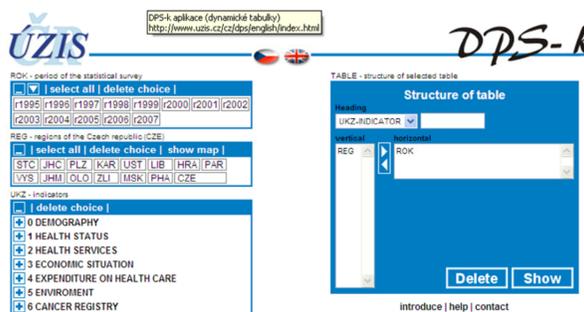
General features of the tool
- Web-based application
- Free access
- 2D tabulation of years, regions, indicators
- Czech and English version
- Definitions of indicators (only in Czech)
- User instructions (only in Czech)

Content and structure of the database
- Indicators: in total 747 indicators in 7 main groups; there are first-level indicators in each group with maximum of 9 second-level indicators (which are modifications or subcategories of the first-level indicators)
- Years (1995 onwards)
- 14 regions (NUTS 3) and the Czech Republic

Topical areas
- DEMOGRAPHY
- HEALTH STATUS
- HEALTH SERVICES
- ECONOMIC SITUATION
- EXPENDITURE ON HEALTH CARE
- ENVIROMENT
- CANCER REGISTRY

Steps in creation a table
- Selection of a language version
- Selection of a heading (a fixed dimension)
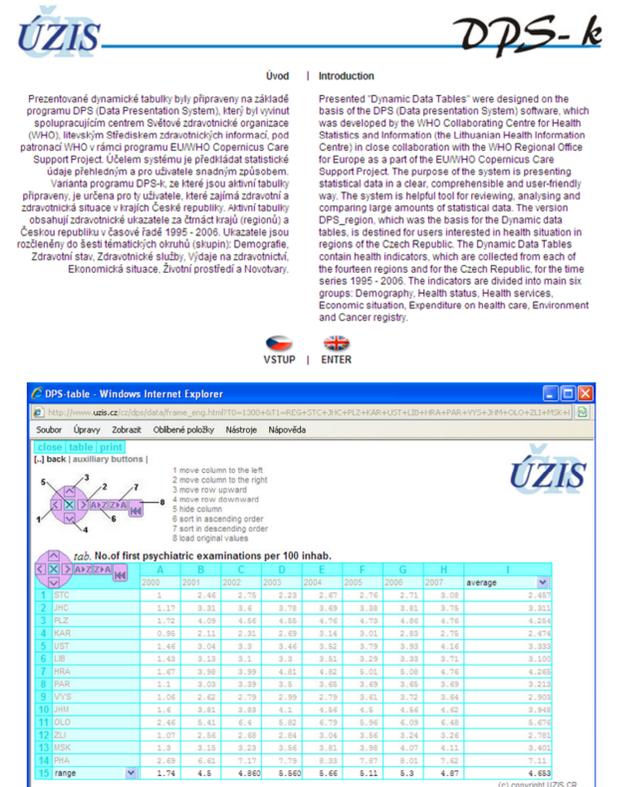- Selection of row and column dimensions (two flexible dimensions)

Table manipulation
- turning heading (exchange rows and columns)
- moving a selected column to the left/to the right
- moving a selected row upward/downward
- hiding a selected column
- sorting (rows or columns) in ascending/descending order
- reloading original values
- marginal row and column summary functions (sum, average, minimum, maximum, range, standard deviation, median, lower quartile, upper quartile)

Results

Access to the Dynamic Data Tables:
http://www.uzis.cz/cz/dps/uvod.html

Conclusions

Present status
- The DPS is useful and exploited system for presentation and analysis of health data at subnational level in the Czech Republic.
- The original (off-line DPS) system provides various statistical tools and visualizations but is a bit old-fashioned.
- The Dynamic Data Tables is a web-based free-access user-friendly application but with limited functionality.

Ongoing activities and developments in the Czech Republic
- Continuous maintenance and promotion of the current databases
- Development of a new database of selected indicators for 205 municipalities with extended field of action.

Ideas for future developments and collaboration
- Exchange of countries' experience in developing and using database systems of health indicators
- Cross-border databases (?)
- Adaptation of on-line HFA for country-specific purposes (?)

Further information and contact:
www.uzis.cz
uzis@uzis.cz

Ústav zdravotnických informací a statistiky ČR
Institute of Health Information and Statistics of the Czech Republic