

Healthcare informatics Standardization activities in Czech Republic

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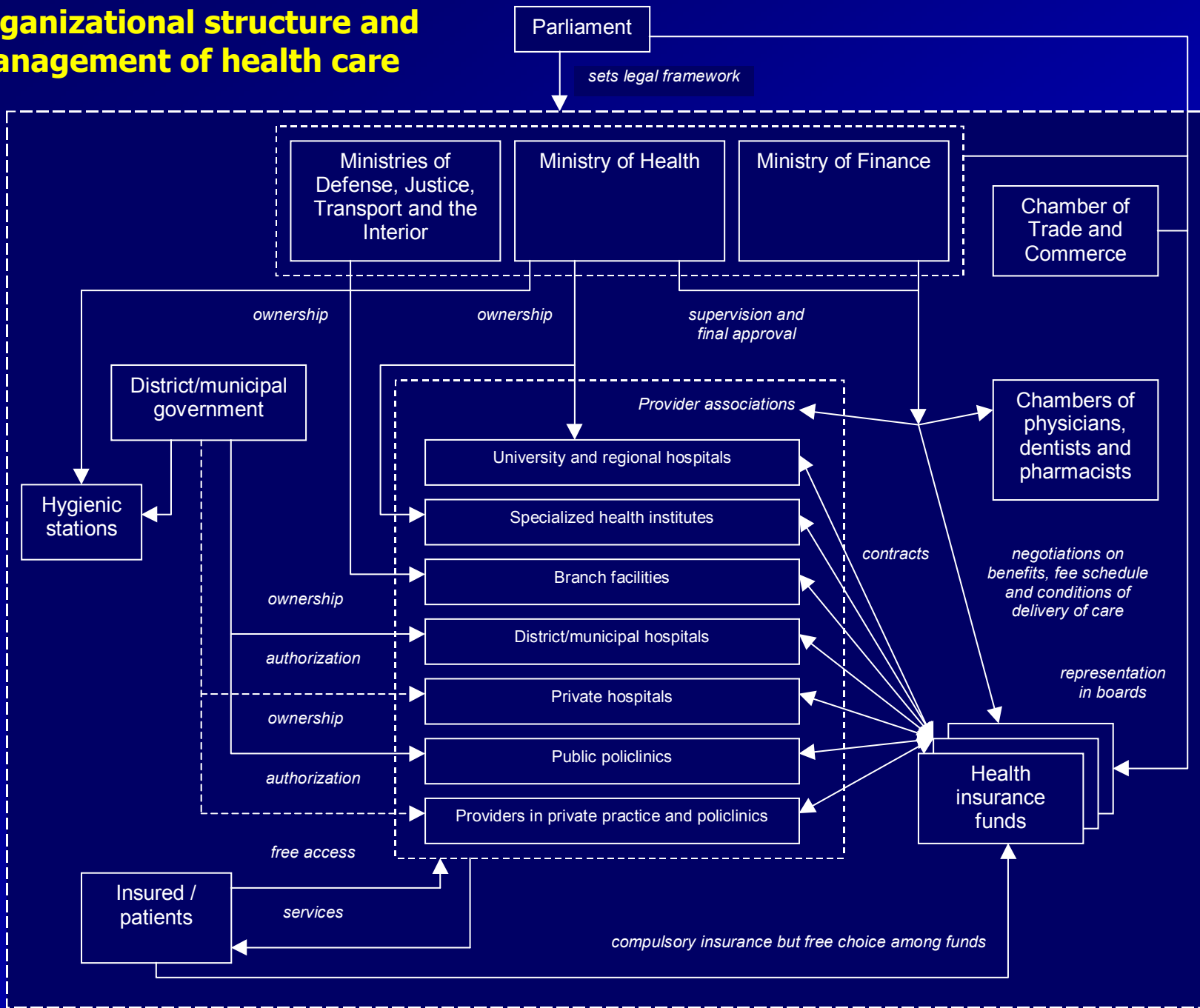
Introductory overview

- area of Czech Republic - 78867 km²
- 10.201 million inhabitants (2003)
- the GDP per capita was US\$ 15797 (purchasing power parity) (2002)
- unemployment rate 7.3% (2002)
- average inflation 0.1% (2003).

Introductory overview

- Infant mortality 4.1 per 1000 live births (2002)
- Life expectancy (2002)
 - 72.1 years for men
 - 78.5 years for women

Organizational structure and management of health care



Legislative framework

■ National laws

- law 20/1966, health care, modified by 260/2001, electronic form of healthcare documentation
- law 160/1992, non governmental healthcare providers
- law 101/2000, personal data protection
- law 227/2000, electronic signature
- law 258/2000, public health protection
- law 285/2002, transplantations
- law 470/2003, information provision to the National healthcare information system

Hospital information systems

- 207 hospitals
 - 23 large hospitals with more than 1000 beds
 - 12 private ones

	Total	low ICT equipment
hospitals	168	38
ambulatory care unit centers	198	107
healthcare centers	190	136
GPs	18810	9905

Hospital information systems

Installations in CR	HIS name	Company name
732	CLINICOM	SMS, spol. s r.o.
81	WinMedicalc 2000	MEDICALC software s.r.o.
40	MEDEA	STAPRO s.r.o.
39	AKORD PRO	AKORD SOFTWARE s.r.o.
27	AMIS*H	ICZ a.s.
27	GreyFox	MEDICON a.s.
19	NIS HiComp	HiComp Systems CZ s.r.o.
14	ISpP HIPPO	HIPPO spol. s r.o.
10	UNIS	STEINER

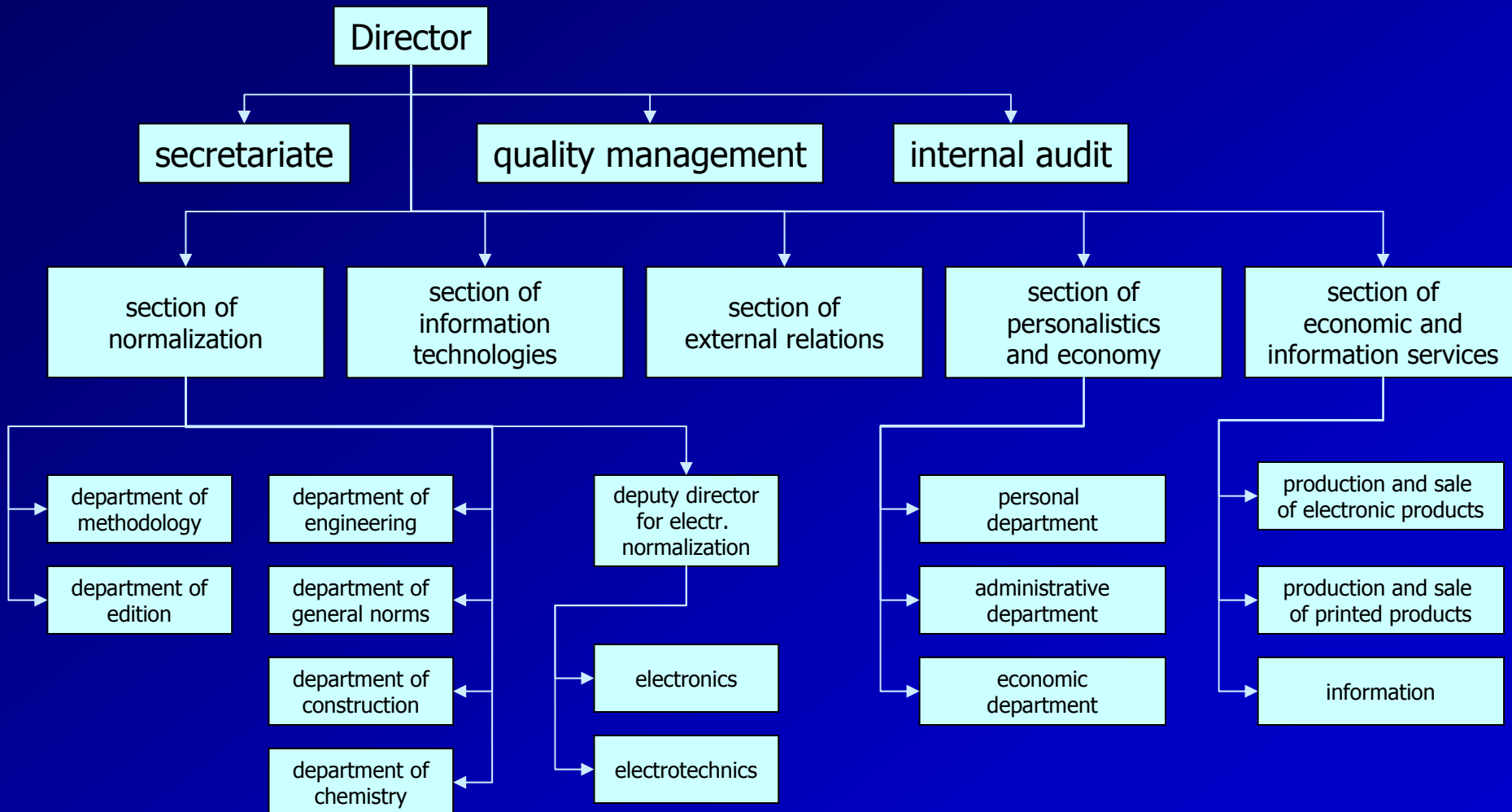
Organization of normalization

- After 1989, new legislation (laws 142/1991 and 632/1992)
 - change of status of norms from obligatory to voluntary
 - new term "harmonized Czech technical norm" introduced

Organization of normalization

- The central governmental body for national normalization - the Ministry of Trade and Industry of CR
- Executive organ - the Office for Technical Normalization, Metrology and National Probation (UNMZ)
- National normalization organization - the Czech Normalization Institute (CSNI)

Organizational schema of Czech Normalization Institute



Main activities of CSNI

- creation of Czech technical norms
- issue and distribution of Czech technical norms
- supply of information about technical norms
- cooperation with non governmental European and international organizations in the field of technical normalization

Technical work of CSNI

- The activity of CSNI is universal
- The work is based on expert advisory groups
 - Technical Normalization Committees (TNK)
- over 100 TNKs with about 1200 experts
- The information technology covered by TNK 20, founded in 1993
- Health informatics covered by subcommittee of TNK 20 with about 10 members from universities, commerce and CSNI

International and European Standards

- Ways of adoption to Czech normative structure
 - translation
 - adoption of original document
 - adoption for direct use (endorsement)
 - announcement of adoption for direct use

International and European Standards

- 50 documents from „Healthcare Informatics“ area were adopted
- Adoption done mostly by adoption of original document
- Documents available in printed form or in a PDF format

National standards

- Data standards for patient data transfer among information systems of health care providers
- National codes of laboratory items for sharing of the results of measurements between physicians and other users
- Unique person identifier (so called "birth number")
- ICD 10 widely used in Czech translation (MKN 10)
- Obligatory interface for statistics
- Obligatory interface for health insurance
- Obligatory interface for Financial Offices
- Recommendation of the Ministry of Health on data protection
- Data standards for communication with governmental offices
- Direction of the Ministry of Health towards operation of System of national healthcare registers
- Methods and standards of the National Information System that is guaranteed by the Institute of Health Information and Statistics of the Czech Republic (data for health yearbooks, OECD and WHO)

Data standard of Ministry of Health and National list of laboratory items

- Communication between hospital information systems and laboratory information systems
- Version 3.01.01, XML based, included interface for „Institute of Health Information and Statistics of the Czech Republic“
- Parts
 - data structure
 - external code lists
 - registered codes of companies
 - annotations to data file transfer
 - other data blocks

„Data standard“ – referenced documents

- ENV 1613 „Medical informatics - Messages for exchange of laboratory information“,
- ENV 1614 „Healthcare informatics - Structure for nomenclature, classification and coding of properties in clinical laboratory sciences“,
- ISO 15189 „Medical laboratories - Particular requirements for quality and competence“,
- ISO 17025 „General requirements for the competence of testing and calibration laboratories“

The Prague Declaration

of the participants at the Conference of Ministers of Health of new acceding countries – the Republic of Cyprus, the Czech Republic, the Republic of Hungary, the Republic of Lithuania, the Republic of Malta, the Republic of Poland, the Slovak Republic, the Republic of Slovenia and the Republic of Austria, the Hellenic Republic, the Republic of Italy and with participation of the World Health Organization (Regional office for Europe)

- Undertake to actively participate in the promotion of standards in the field of health and social care so as to make the quality of our solutions benefit the common interests of all Member States of the European Union;
- Undertake to fully endorse the conditions for mutual recognition of the qualifications of health workers and to ensure free movement of persons and services according to specific directives and the general system for recognizing the educational standards of candidate countries in accordance with EU requirements, including introducing a system for registering such workers so that a comparable quality of healthcare provision is provided by professionals working in health and in social care;
- Undertake to work together to create conditions for the proper use of transplantable organs on the basis of mutual exchange by designating transplant centers and connecting them to national and international databases of optimal recipients within the shortest possible time;

The Prague Declaration – cont.

- Intensify national efforts in implementing health promotion policies as well as prevention programmes against smoking, alcohol and drugs abuse;
- Shall see to it that our national legislation is implemented faster so that there is no fundamental discrepancy in the implementation of, and in compliance with, EU legislation at the time of our accession to the European Union;
- Recommend health system development as a priority within the framework of the European Union policies and in line with WHO document Health 21 and in the Programme of Community Action in the field of public health (2003 – 2008);
- Recommend encouragement of efforts to set aside European Union finances for special health care programmes to discourage unnecessary migration of patients and thus avoid instability in national health insurance resources;
- Welcome the initiative of the Czech Republic to establish a Steering Group of health ministers participating at the conference, with presidency rotating every year and co-ordinated in the first period, until 31 December 2004, by the Czech Republic.
- Signed in Prague on September 21st, 2003

HL7 Czech Republic

- Non-profit association registered by the Ministry of Interior
- Since October 2001 HL7 International Affiliate
- Organizational members (Escad, Hippo, Stapro, ICZ, SMS)
- Individual members (<10)
- Access to HL7 information, promotion

HL7 standard in Czech Republic

- Current situation
 - No known project or solution implementing HL7
 - Low interest of software vendors, competent authorities (limited resources, time, etc.)
- Future
 - A new minister of health of Czech Rep.
 - EU Accession in May
 - Increased competition