

ReFEEHS Project Structured Study Visit

Hungary, Pécs, April 26-28, 2017



Financing of the Hungarian health care system

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Topics of the presentation

- **Geography, history, economy**
- **Structure of the Hungarian health care system**
- **Financing methods in the Hungarian health care**

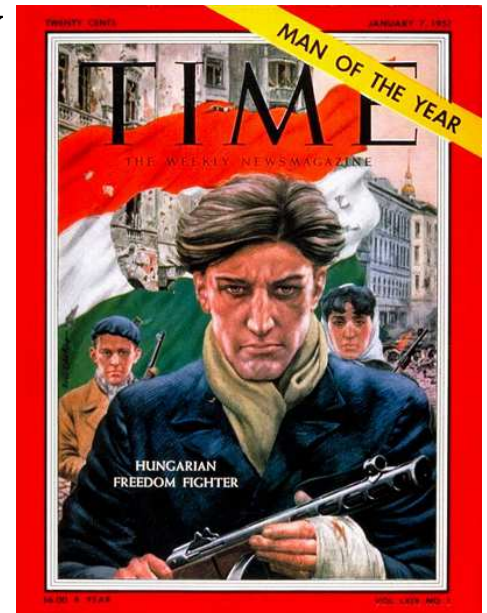
Geography, history, economy

Hungarian history (1)

- **435. Hun empire (Attila the Hun)**
- **896. Carpathian Basin was conquered by the Hungarians**
- **896-955. Fierce campaigns and raids as far as today's Spain**
- **996. First school was established in Pannonhalma**
- **1000. Stephen was crowned by the Holy Crown of Hungary**
- **1000-1038. Stephen established a network of 10 episcopal and 2 archiepiscopal sees**
- **1000-1301. Árpád dynasty**
- **1222. The Hungarian Golden Bull was the first constitution in Continental Europe (\approx England's Magna Carta).**
- **1241-1242. Mongol attack against the Hungarian Kingdom**
- **1367. First university was established in Pécs**

Hungarian history (2)

- **XIV-XV. century: a golden age**
- **1526. Lost battle of Mohács against Ottoman Empire**
- **1526-1686. Turkish occupation**
- **1704-1711. Rákóczi uprising ('lost')**
- **1825-1848. reform period**
- **1848-1849. Revolution, and War of Independence (Kossuth)**
- **1867-1918. dual Monarchy of Austria–Hungary**
- **1914-1918. World war I.**
- **1939-1945. World war II.**
- **1945-1990. Soviet occupation**
- **1956. Revolution**
- **1990. Democracy and social market economy**



Hungarian science: list of Nobel laureates

YEAR	NAME	NOBEL PRICE IN:
1905.	Lénárd Fülöp	physics
1914.	Bárány Róbert	medicine
1925.	Zsigmondy Richárd	chemistry
1937.	Szent-Györgyi Albert	medicine
1943.	Hevesy György	chemistry
1961.	Békésy György	medicine
1963.	Wigner Jenő	physics
1971.	Gábor Dénes	physics
1986.	Polányi János (John C. Polanyi)	chemistry
1986.	Wiesel Elizér	peace
1994.	Harsányi János	economics
1994.	Oláh György	chemistry
2002.	Kertész Imre	literature
2004.	Herskó Ferenc (Avram Hershko)	chemistry

Hungary at glance

- Territory of 93,000 km²
- 10.0 million inhabitants
- GDP/capita (2015 est): 27,200 USD (PPP)
- Life expectancy at birth (2015):
 - Female: 79.8
 - Male: 72.2
- Solidarity based health insurance system
- One health insurance fund (single payer):
National Health Insurance Fund Administration (NHIFA)



Serbia at glance



- **Territory of 77,474 km²**
- **7.1 million inhabitants**
- **GDP/capita (2015 est): 15.828 USD (PPP)**
- **Life expectancy at birth (2015):**
 - **Female: 78.5**
 - **Male: 72.6**
- **Solidarity based health insurance system**

Comparison

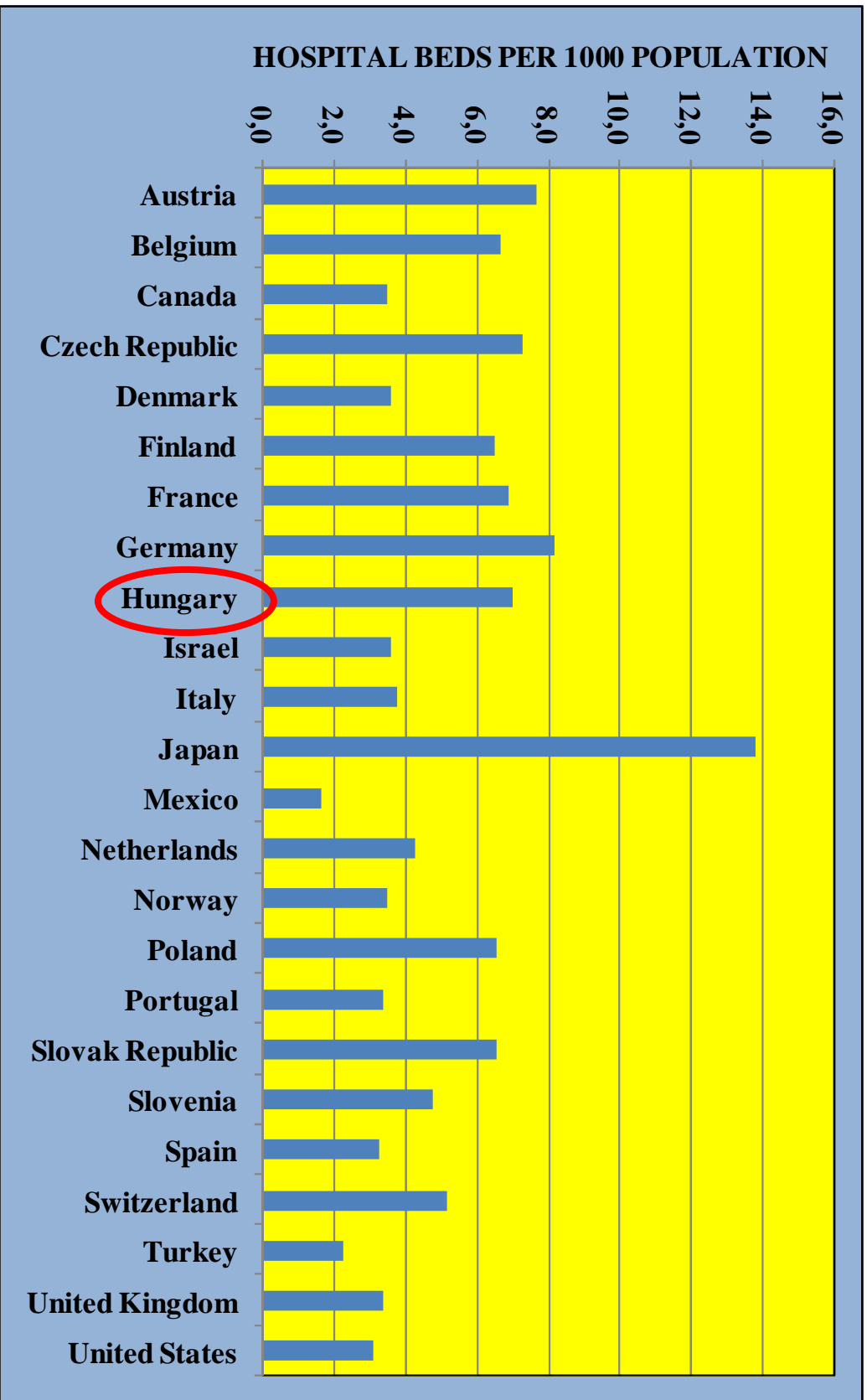
Hungary

Serbia

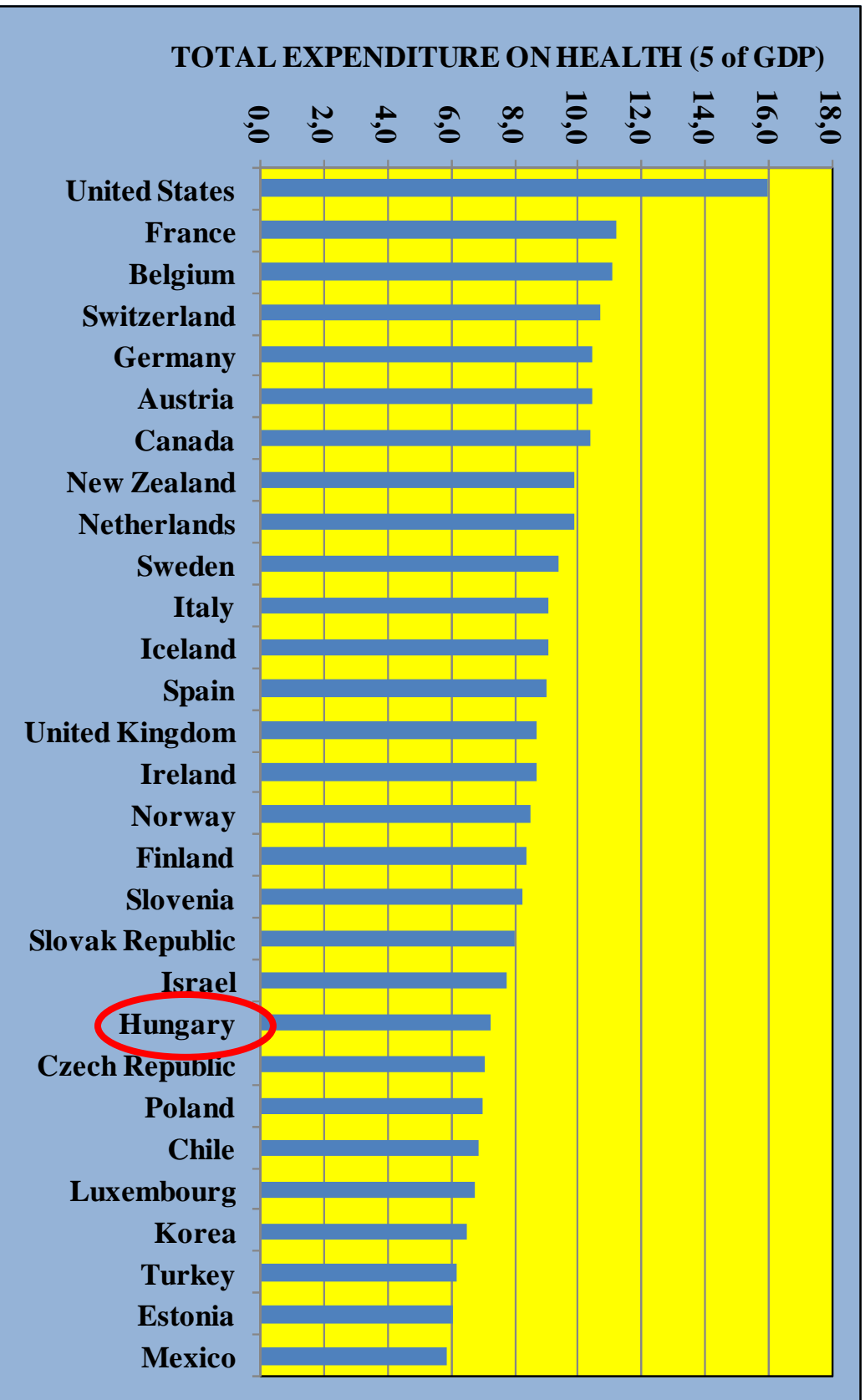
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Structure of the Hungarian health care system

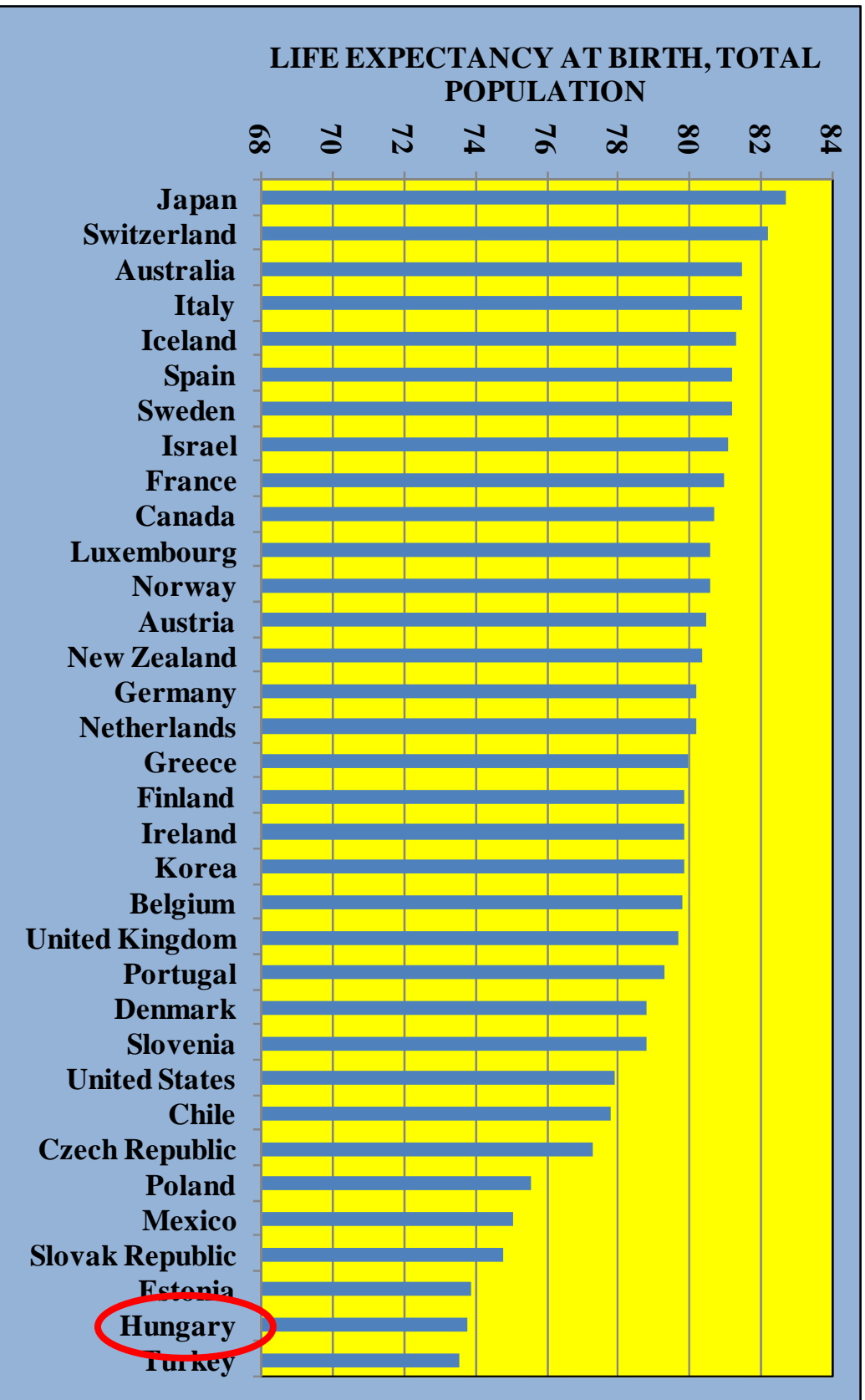
Total number of hospital beds per 1000 population (OECD)



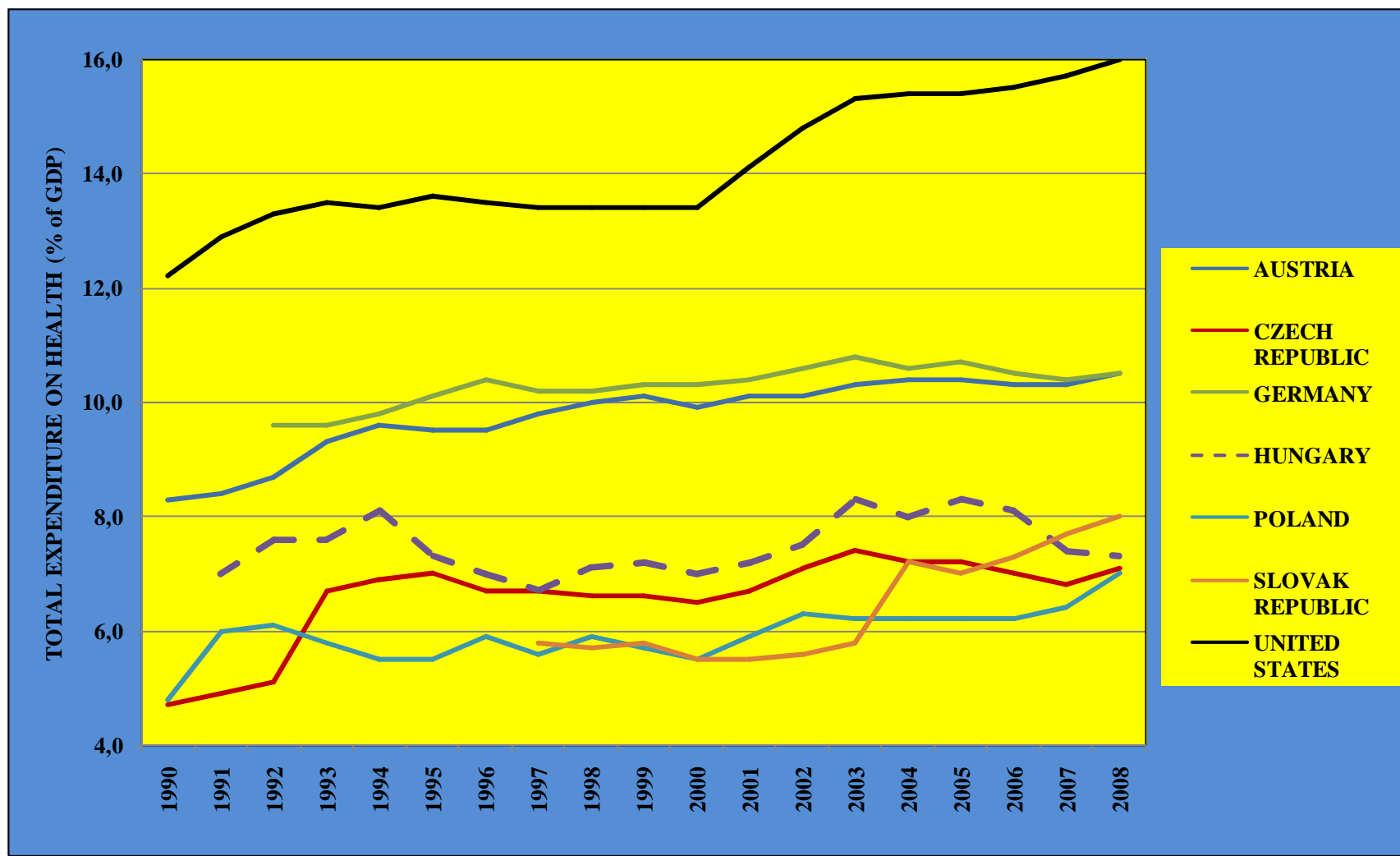
Total expenditure on health as % of GDP (OECD)



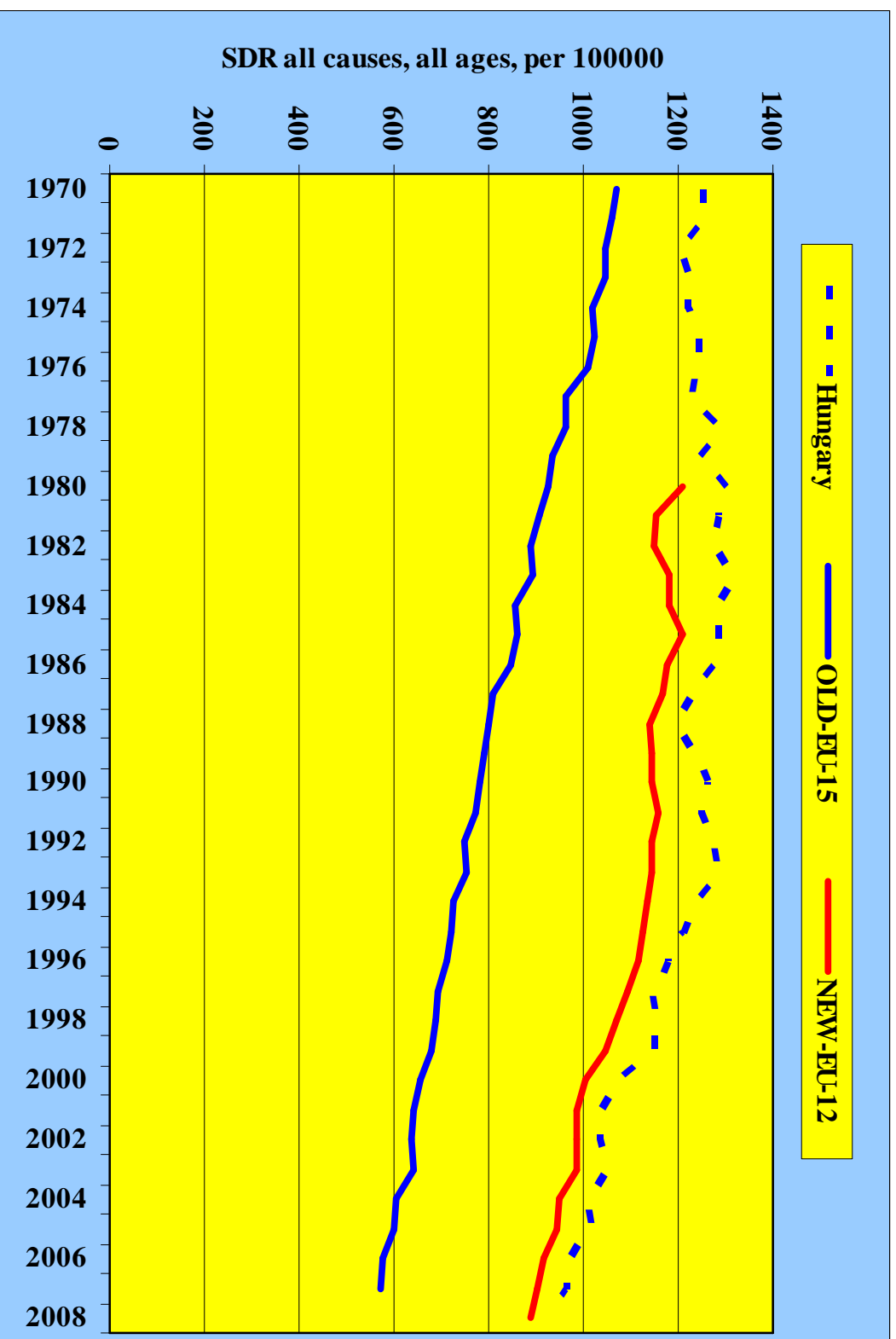
Life expectancy at birth, total population (OECD)



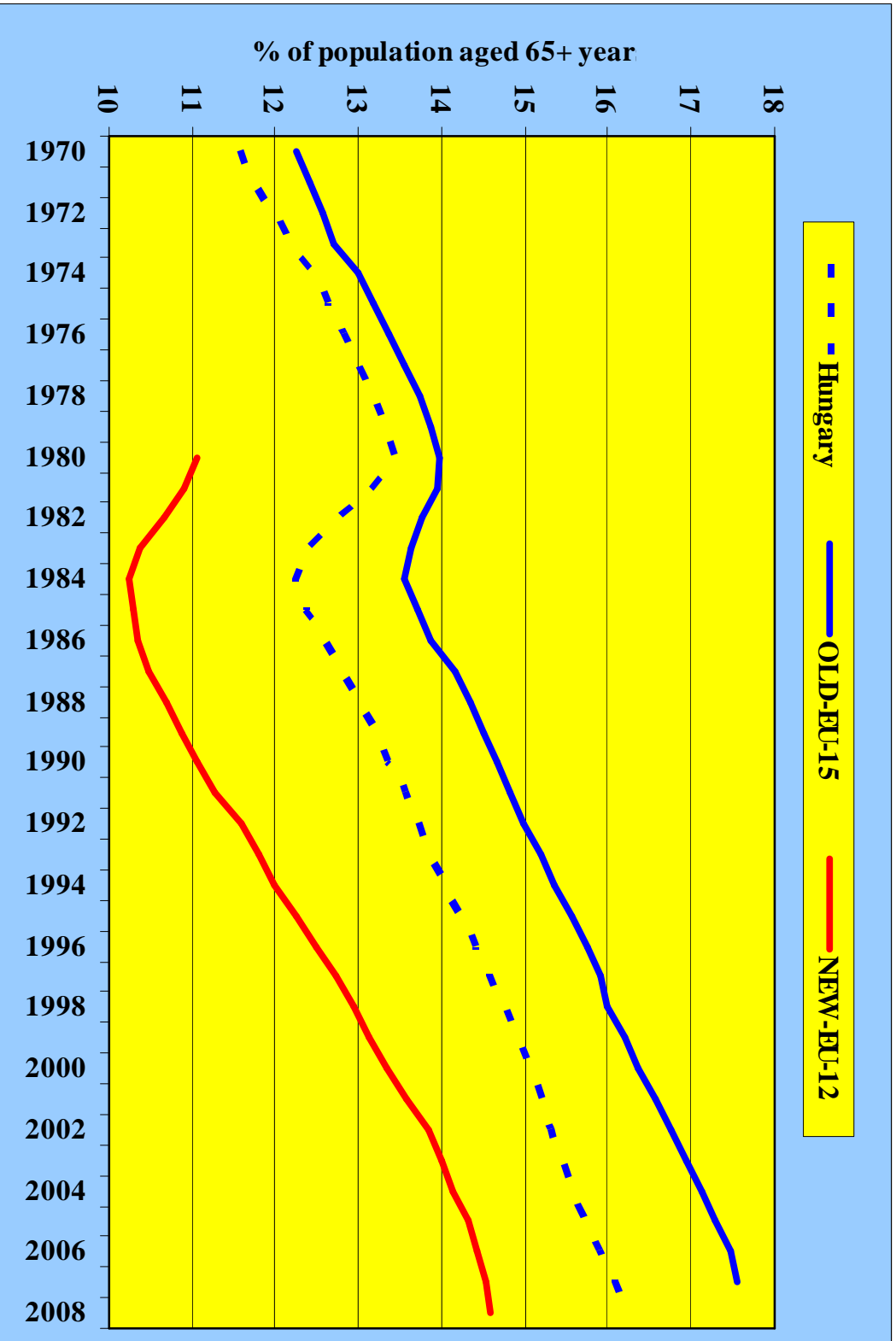
Total expenditure on health as % of GDP (OECD)



Standardized death rates, all ages, all causes per 100.000



% of population aged 65+ years



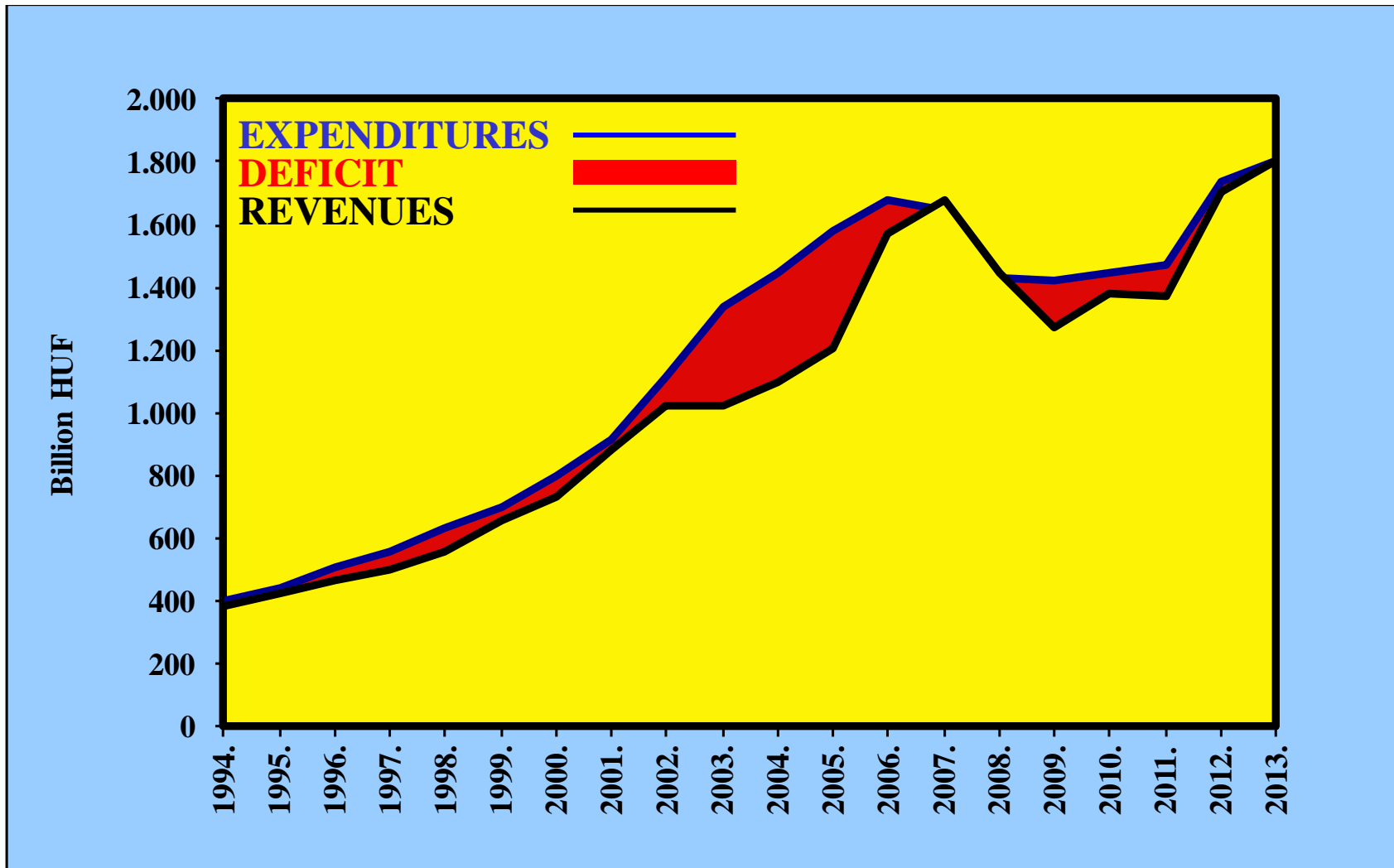
Hungarian third party payer

- **Single payer**
- **National Health Insurance Fund Administration (Nemzeti Egészségbiztosítási Alapkezelő, NEAK)**
- **‘Monopoly’ – no competition**
- **Universal health insurance premiums:**
 - **Employers: 2 %**
 - **Employees: 6 %**
- **Contract with health care providers**

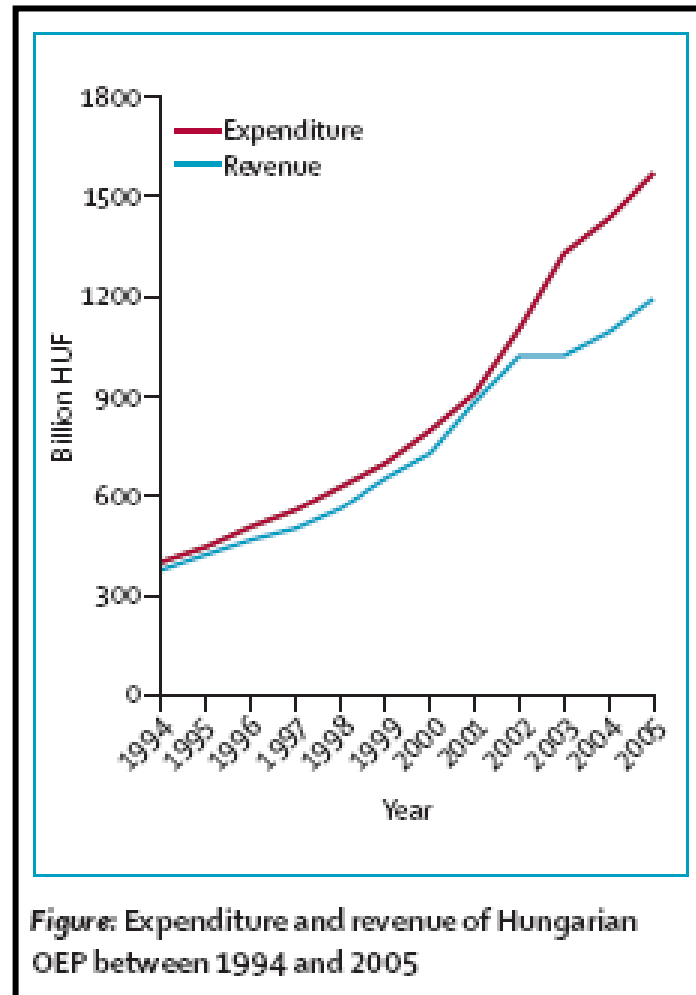
Providers (Health care delivery)

- **Type of services**
- **Primary care**
 - **General practitioners**
 - **Health visitors**
 - **Dentists**
- **Out-patient departments**
- **Hospitals:**
 - **City hospitals**
 - **County hospitals**
 - **University teaching hospitals**
 - **National medical institutes**
- **Form of operation**
- **Private entrepreneurs**
- **Employers (public servants)**
- **Private entrepreneurs**
- **Employers (public servants)**
- ~~City council~~ **Government**
- ~~County council~~ **Government**
- **Government**
- **Government**

Deficit of health insurance fund in Hungary

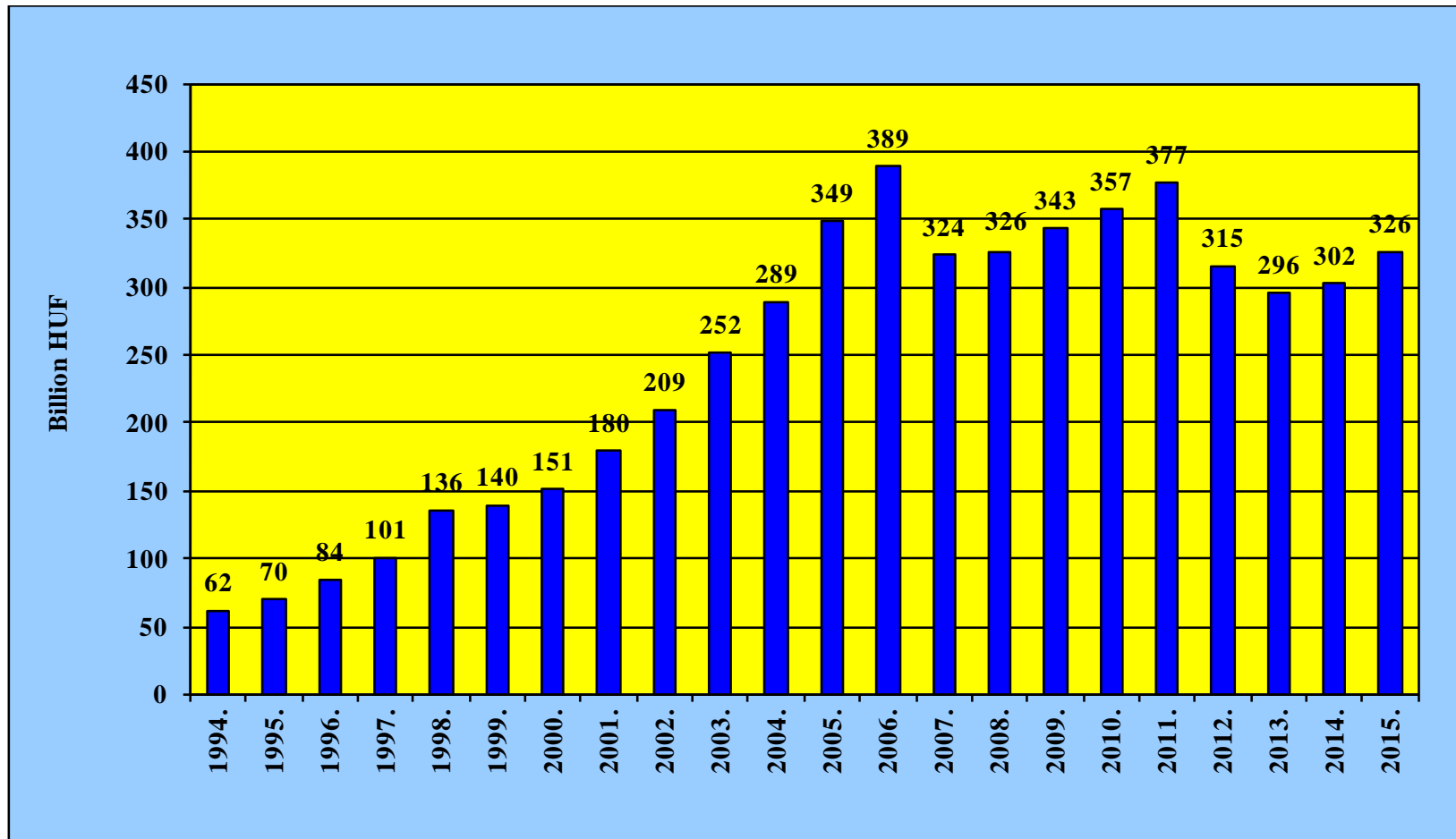


Deficit of health insurance fund in Hungary

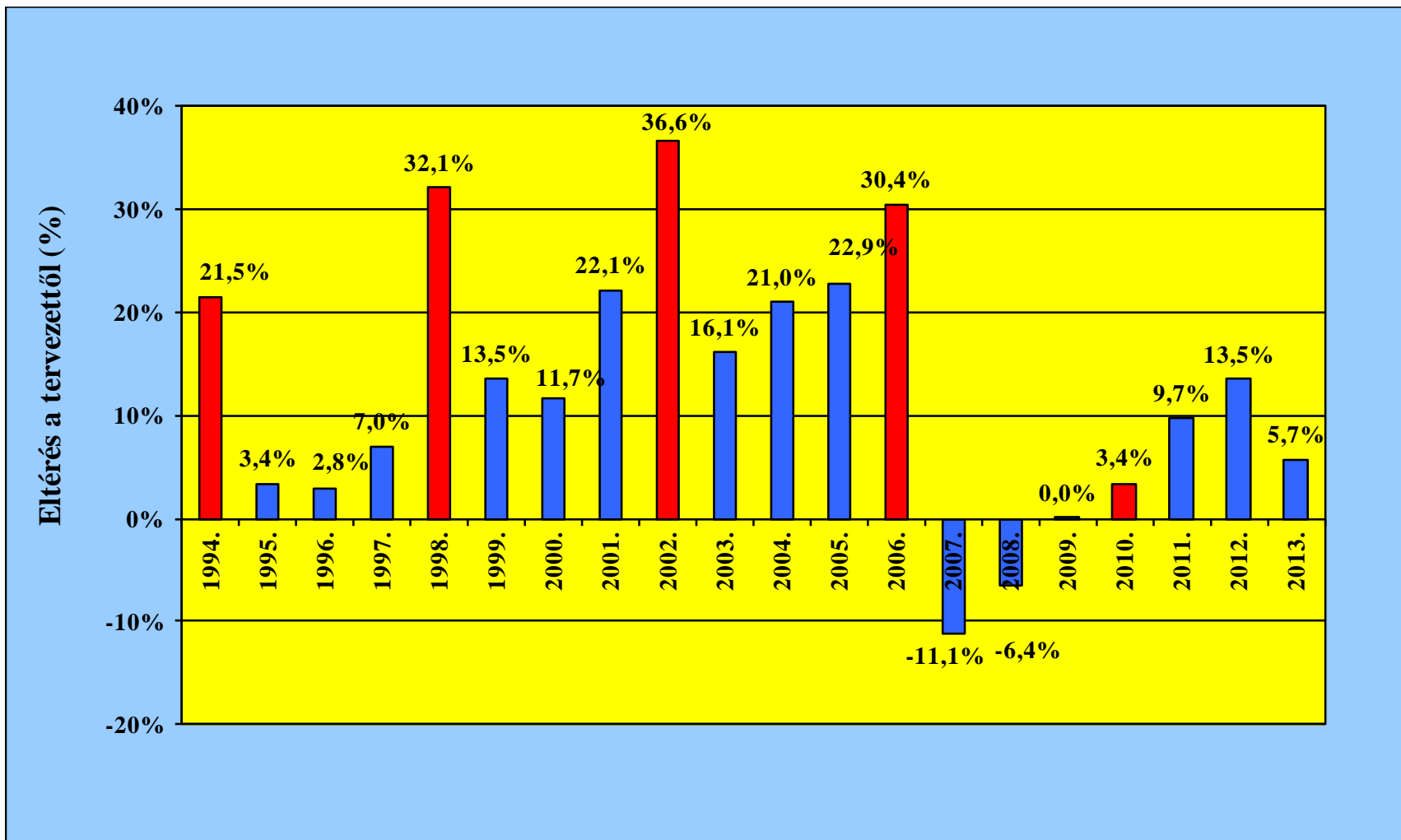


Source: Boncz I et al. *Lancet*, 2006, 368:917-918.

Actual expenditures of the Hungarian drug-budget



Deficit (overspending) of the Hungarian drug-budget (planned-actual)/actual

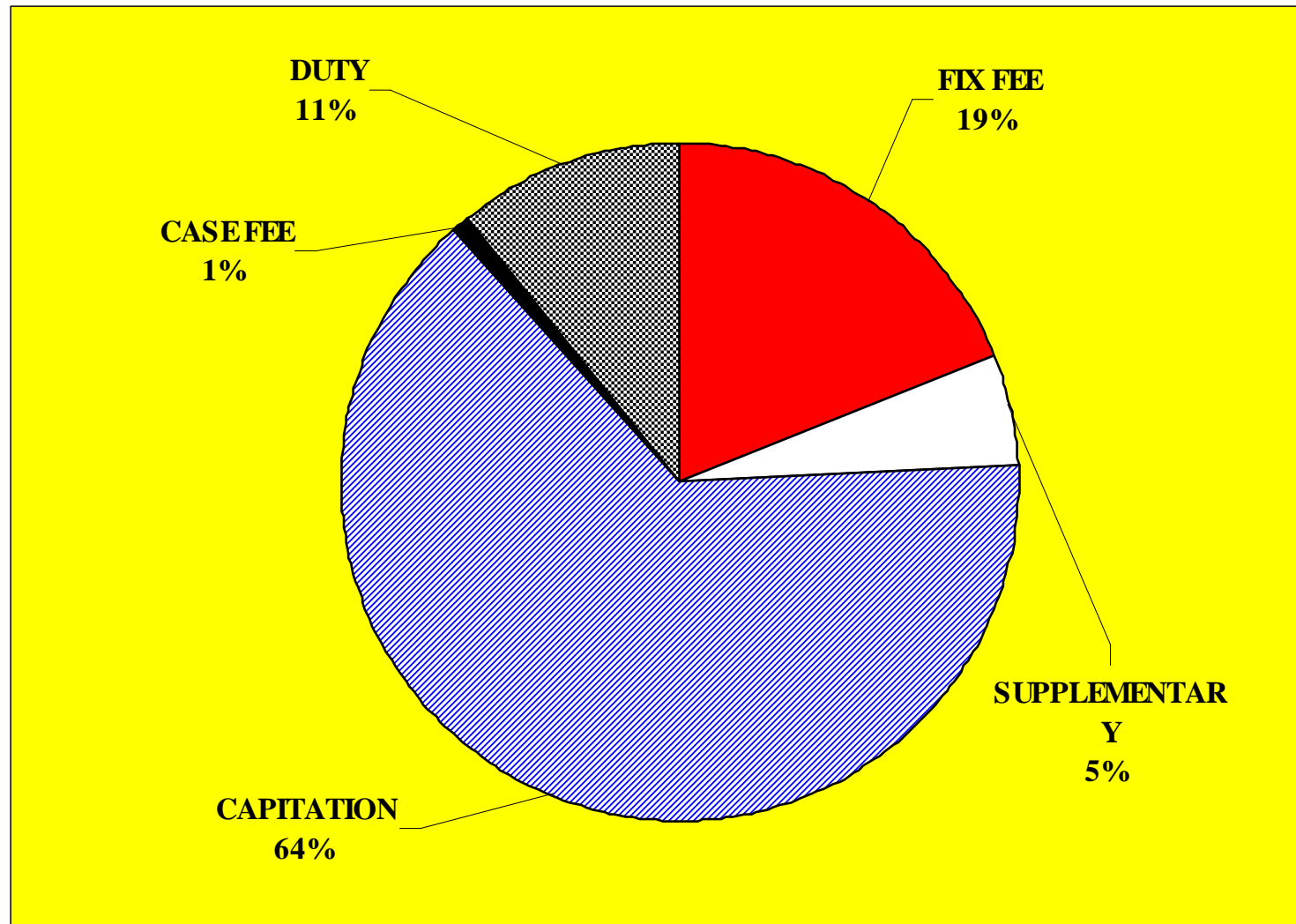


Financing methods in the Hungarian health care

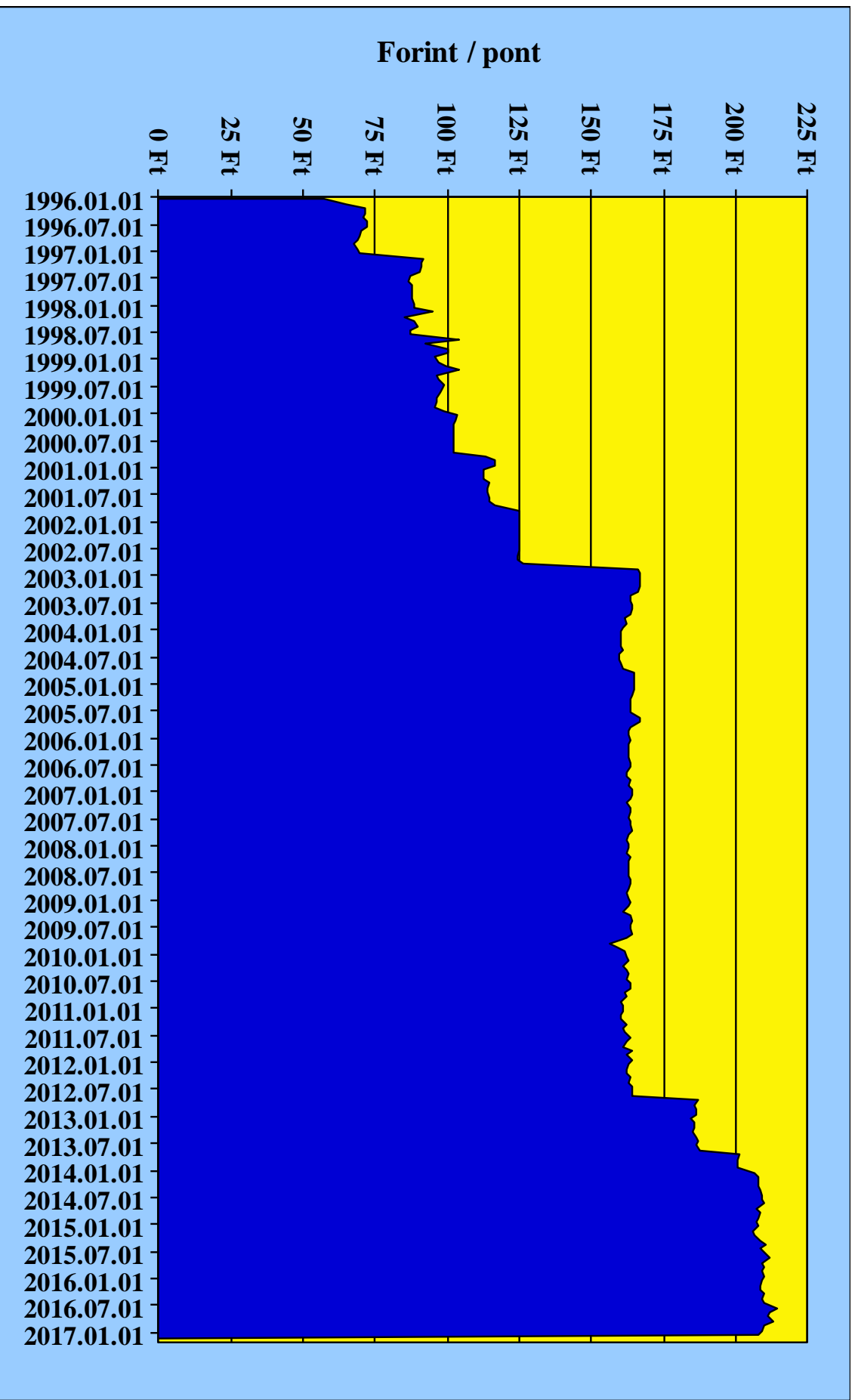
General practitioners

- **Capitation fee**: based on patients age, with a special point system for different age groups
- **Fixed fee**:
 - covers the GPs' costs, such as heating, cleaning, etc.
 - varies according to the type of practice (adult, child or mixed)
- **Supplementary fee**: equals the differences of practice locations (capital or big city, village, practice in more than one village or in outer areas).
- **Duty fee**: for being on duty (nights, weekends)
- **Case fee**: for patients not registered at the GP

The distribution of the average health insurance revenues of a general practice



Changes in the monthly Forint value of 1 capitacion point of GP's



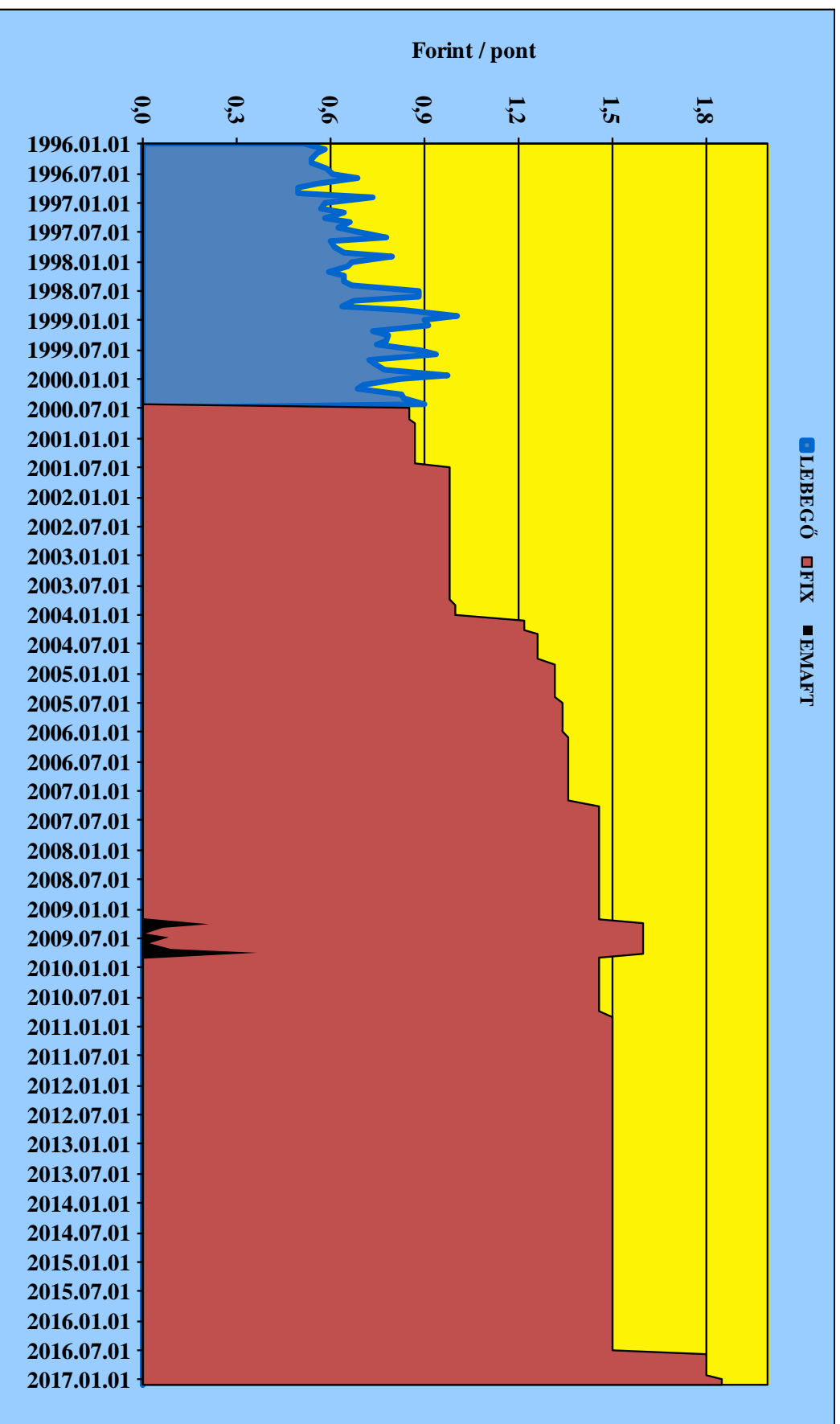
Financing of outpatient care

- **Performance based financing (\approx adjusted fee for service)**
- **Medical procedures are listed according to the ICPM (International Classification of Procedures in Medicine) code system of the WHO**
- **German point system**
- **Closed budget until June 2000:**
 - **Monthly changes in point-forint value (floating rate)**
- **Fix Forint value for 1 point (from July 2000)**
 - **currently 1 point = 1,85 HUF (April 2017)**
- **From 2004: global volume contract**
- **From April 2009: fix and floating**
- **From November 2009: global volume contract again**

Sub-budgets of outpatient care

- **General outpatient care**
- **CT-MRI**
- **Renal dialysis**
- **Laboratory examinations**

Monthly changes in the Forint value of 1 outpatient point



Acute inpatient care: DRG-HBCS

- **Normative financing**
 - **Diagnosis Related Groups**
 - **Based on U.S. DRG system**
- **HBCS**:
 - **Homogén Betegségcsoportok**
 - **Homogeneous Disease Groups**
- **Pre-arranged fees**
 - **PPS: prospective payment system**
 - **Currently 1 DRG cost-weight (point) = 185.000 HUF (April 2017: 600 EUR)**
- **Main elements:**
 - **Cost of care**
 - **Professional knowledge**

DRG: international background

ABBREV.	NAME	COUNTRY
HCFA-DRG	Health Care Financing Administration DRG	USA
RDRG	Refined Diagnosis Related Groups	USA
AP-DRG	All Patient Diagnosis Related Groups	USA
APR-DRG	All Patient Refined Diagnosis Related Groups	USA
SR-DRG	Severity-Refined Diagnosis Related Groups	USA
IAP-DRG	International All Patient DRG	USA
AR-DRG	Australian Refined Diagnosis Related Groups	AustrAlia
NordDRG	Nordic Diagnosis Related Groups	Skandinavia
GHM	Groupes homogènes de malades	France
LDF	Leistungsbezogene Diagnosen-Fallgruppen	Austria
HRG	Health Related Groups	U.K.
GR-DRG	German Refined Diagnosis Related Groups	Germany
HBCS	Homogén Betegségcsoportok	Hungary

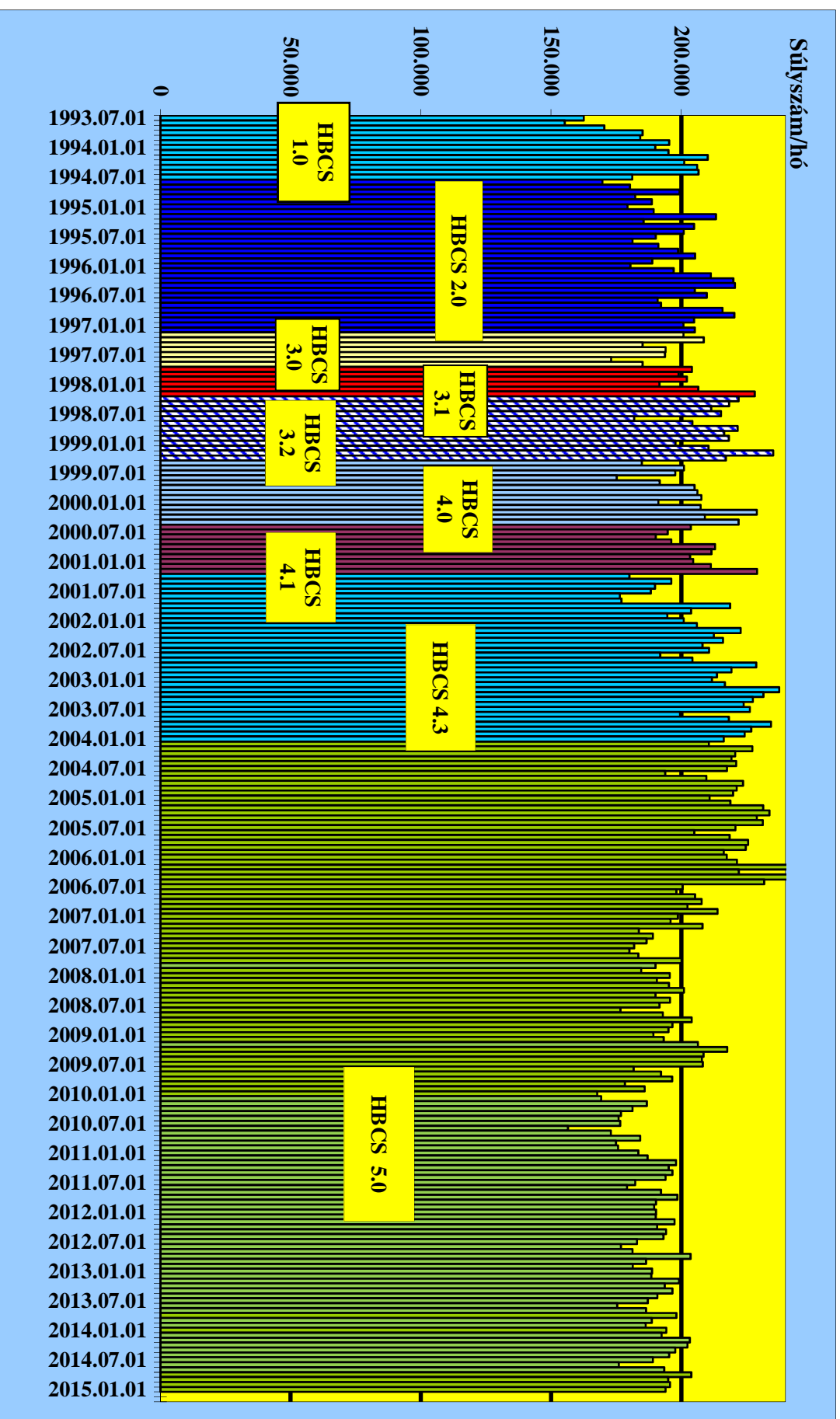
Cost content of average hospital case of HBCS system (investment cost excluded)

TYPE OF COST	PERCENT (%)
Medical services	
1.1. Drug	11,55
1.2. Diagnostic and therapeutic services total	25,33
1.3. Other physician's activities at department	12,23
1. Medical activities total	49,11
Nursing activities	
2.1. Staff	11,13
2.2. Nursing materials	4,75
2.3. Other nursing cost	0,14
2. Nursing activities total	16,02
Other departmental cost	
3.1. Staff	0,80
3.2. Materials, others	2,66
3. Other departmental cost total	3,46
4. Medical and nursing activities total (1.+ 2.+ 3.)	68,58
Accommodation services (hotel)	
5.1. Staff	4,53
5.2. Non medical materials	1,59
5.3. Ancillary services total (Maintenance, energy, laundry, etc.)	16,81
5. Accommodation services total	22,93
6. Total cost of medical, nursing and accommodation services (4.+ 5.)	91,52
7. Overhead cost for central management	8,48
8. TOTAL COST (6.+ 7.)	100,00

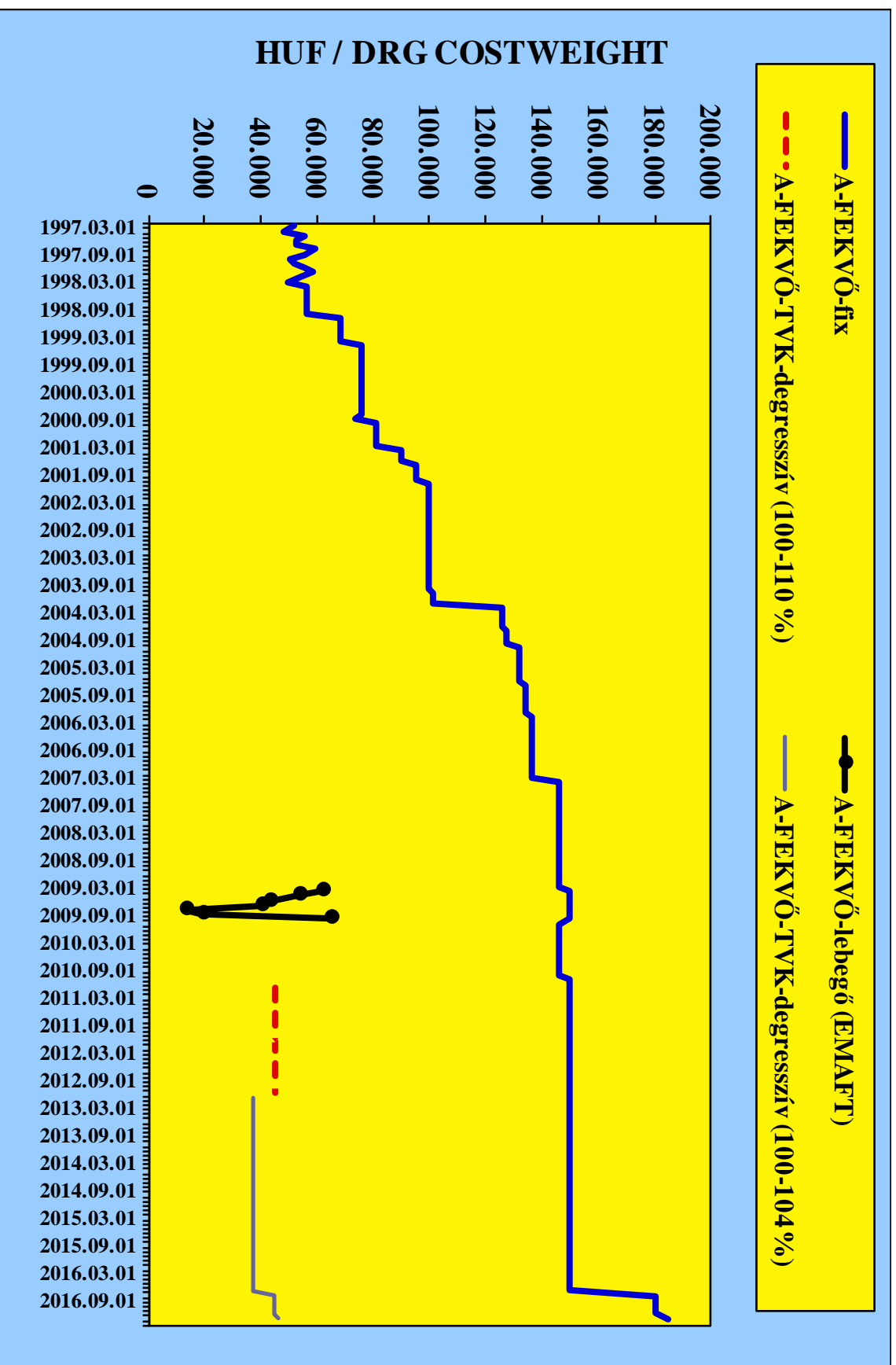
Changes of the Hungarian HBCS system

VERSION	PERIOD OF AVAILABILITY	USED FOR	MAIN CHARACTERISTICS
HBCS 1.0	01 July 1993 – 30 June 1994	13 months	The first Hungarian DRG like version. No general correspondence of operation and ICD code.
HBCS 2.0	01 July 1994 – 28 February 1997	32 months	The operations and ICD codes are ordered to each other. From 1 January, 1996: application of IDC-10.
HBCS 3.0	01 March 1997 – 30 September 1997	7 months	Changes in the number of groups, the process of classing the very serious, complicated cases.
HBCS 3.1	01 October 1997 – 31 March 1998	6 months	Changes of upper day limit according to the application of guaranty-rule.
HBCS 3.2	01 April 1998 – 30 April 1999	13 months	New groups in the field of cardiac-surgery, haematology and pulmonology.
HBCS 4.0	01 May 1999 – 31 May 2000.	13 months	The version with some very special Hungarian solution, where some grouping rules are not based on foreign DRG system.
HBCS 4.1	01 June 2000 – 31 March 2001	10 months	New groups in the field of short-term cases and emergency cases.
HBCS 4.3	01 April 2001 – 31 January 2004	34 months	Decrease in the number of groups of smaller diseases with attached disease. New groups according to age groups in child-care and in some groups for adults.
HBCS 5.0	From 1 February 2004		Changes in DRG weights due to an increase in public servants' wages of 50 % on average. Preference of disease groups with operations (surgery, urology, gynecology).

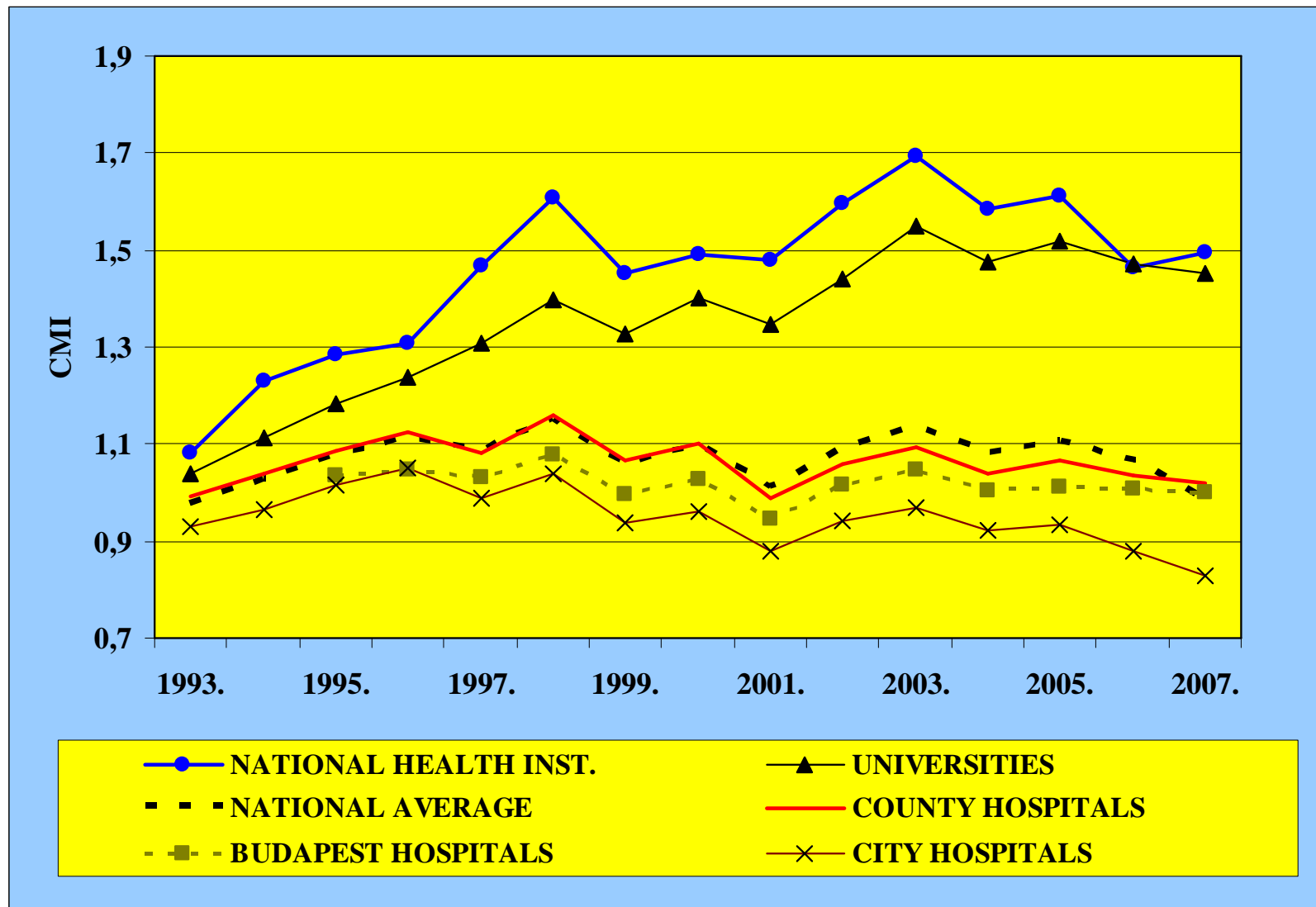
Crude total monthly DRG costweight



UNIFORM reimbursement rates of HBCCS cost-weight from February 1998



Changes in case-mix index (CMI) according to the levels of progressive care



Financing of chronic care

- **Daily fee**
- **Current value: 6.300,- HUF/day**
- **Daily fee is adjusted with the correction factor**

Other financial techniques outside of DRG-HBCS

- **Progressive fee:**
For higher level of care (university, national medical institutes)
- **Special tools under individual reimbursement (e.g.: heart valves, stents)**
- **Very expensive medical interventions (e.g.: transplantations)**
- **Extra financing:**
Significant difference between DRG-HBCS reimbursement and real hospital costs

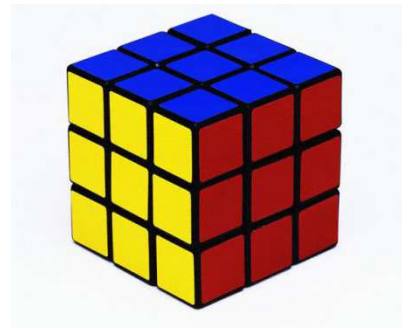
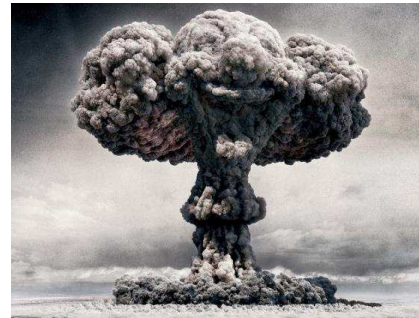
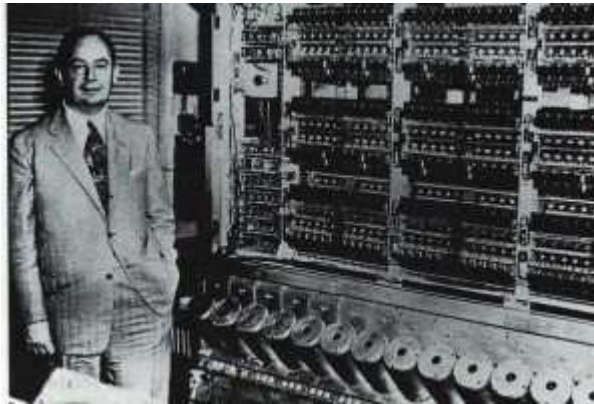
Global volume contract

- **Background:**
 - Higher activity of health care providers
 - Increased number of outpatient care (German) point and DRG-HBCS cost-weights
- **Implemented in both**
 - Outpatient care
 - Inpatient care
- **Provides a ceiling in addition to the German points and DRG-HBCS cost weights**

Summary

- **Solidarity based health insurance system**
- **Single payer (National Health Insurance Fund Administration)**
- **Strong governmental role**

Hungary: you might remember



**Thank you for your
kind attention !**

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