PH-SEE

PUBLIC HEALTH COLLABORATION IN SOUTH EASTERN EUROPE

PROGRAMMES FOR TRAINING AND RESEARCH IN PUBLIC HEALTH

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- Emerging Infections and the Level of Preparedness in the European Region
- Health Determinants in the Scope of New Public Health

New book!





MINIMUM HEALTH INDICATOR SET FOR PH-SEE COUNTRIES

Trend Analysis 1990 - 2004





Stabilitätspakt für Südosteuropa
Gefördert durch Deutschland
Stability Pact for South Eastern Europe
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Public Health Collaboration in South Eastern Europe
(PH-SEE)
Programmes for Training and Research in Public Health

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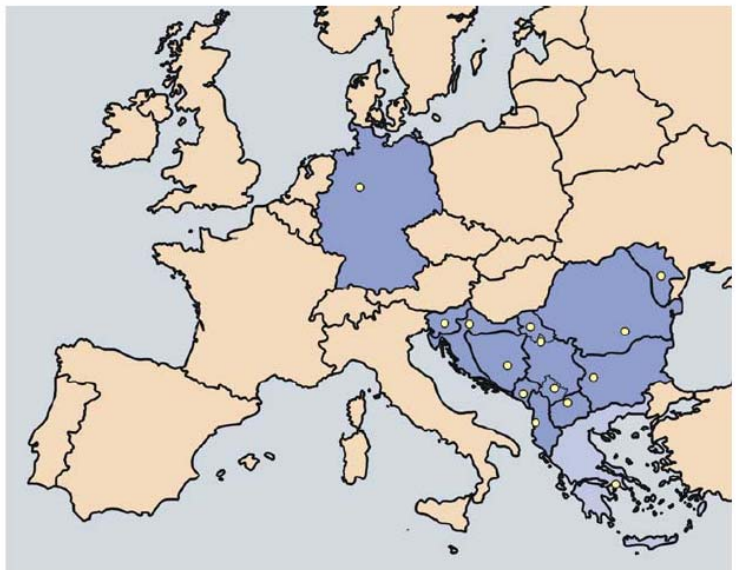
MINIMUM HEALTH INDICATOR SET FOR PH-SEE COUNTRIES

Trend Analsysis for 1990-2004



THIRD REPORT
Bielefeld, 2006

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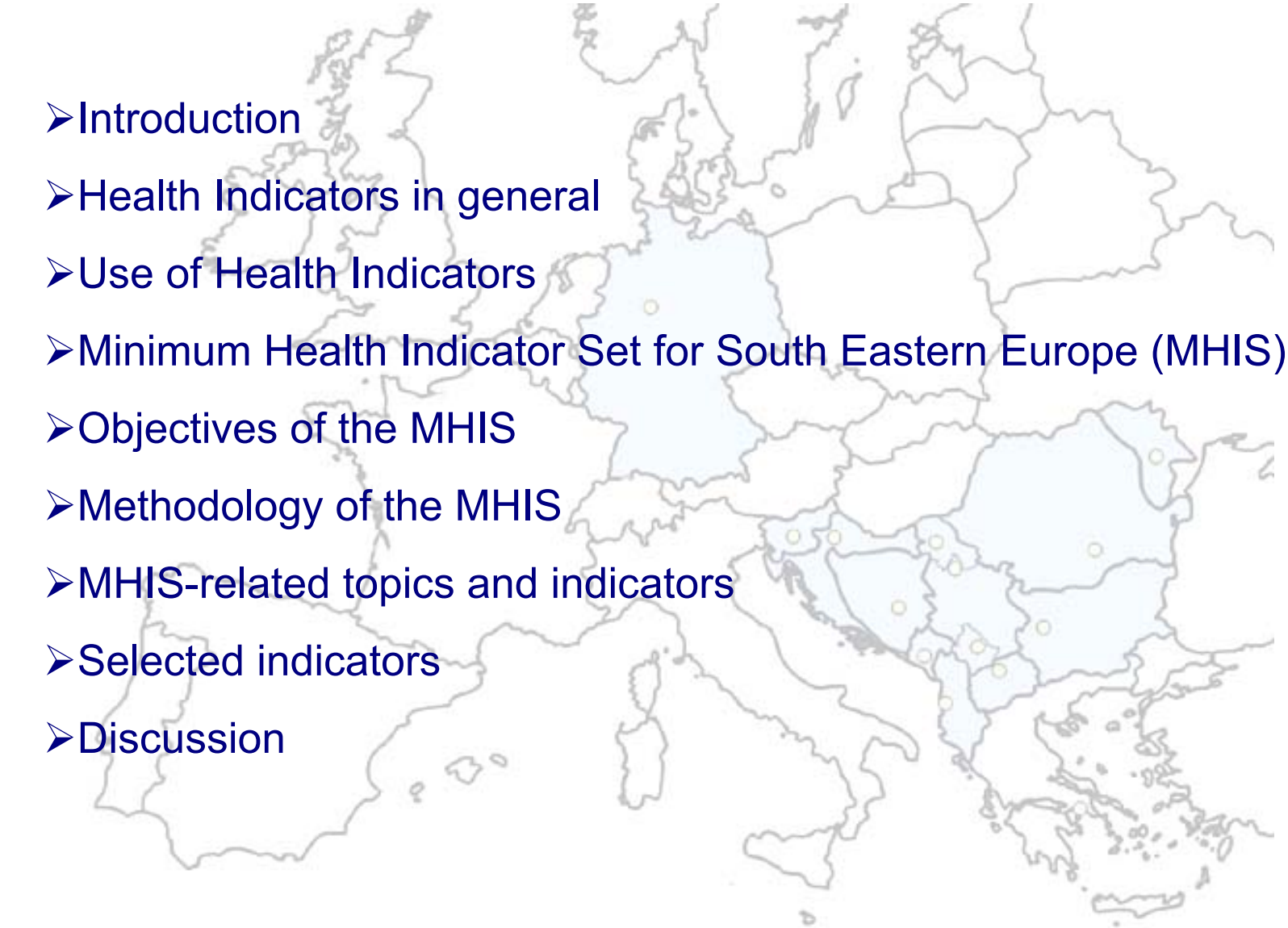
Bardehle, D./Lenz, A. (2006). Minimum Health Indicator Set for Public Health South Eastern Europe Countries. Trend Analysis for 1990-2004. Bielefeld: Institute of Public Health, North Rhine Westphalia, Germany

Overview



- Introduction
- Health Indicators in general
- Use of Health Indicators
- Minimum Health Indicator Set for South Eastern Europe (MHIS)
- Objectives of the MHIS
- Methodology of the MHIS
- MHIS-related topics and indicators
- Selected indicators
- Discussion

Introduction

„The measurement of health status is an important enterprise. Expenditures in health care are one of the fastest rising social expenditures among nations in the Organization for Economic Cooperation and Development (OECD)“ (Larson 1994).

„The prediction of international health status is dependend upon finding adequate measures of both health status and factors related to it. The first step involves the development of a health status index or scale to summerize health as a dependent variable“ (Larson 1992).

Particular politicians, decision-makers and health care researchers need to know how effectiv and cost-efficient the national health care service works.

Health Indicators – a definiton

„Indicators are markers of the health status, healthcare system performance or a availibilty of resources, defined in a way to allow the monitoring of objectives, targets and performance“ (www.who.deficrit.htm).

Types of indicators

1. outcome (health status or death)
2. process (health care delivery and management, including ressources)
3. determinant (e.g. behavioural factors and public knowledge)
   (defined in the WHO-HFA 21 catalogue)

This indicators has to meet specific criteria such as:

- relevant (regarding priorities)
- valid (regarding determinants of health)
- measurable (in quantitative and qualitative terms)
- sensitive (to changes and differences)
- comparable (inter-territorial)
- repeatable (for time series)
- affordable (in terms of relative costs)
- useful (for intervention)
- ethical (e.g. respect personal autonomy)

Main-use of health indicators

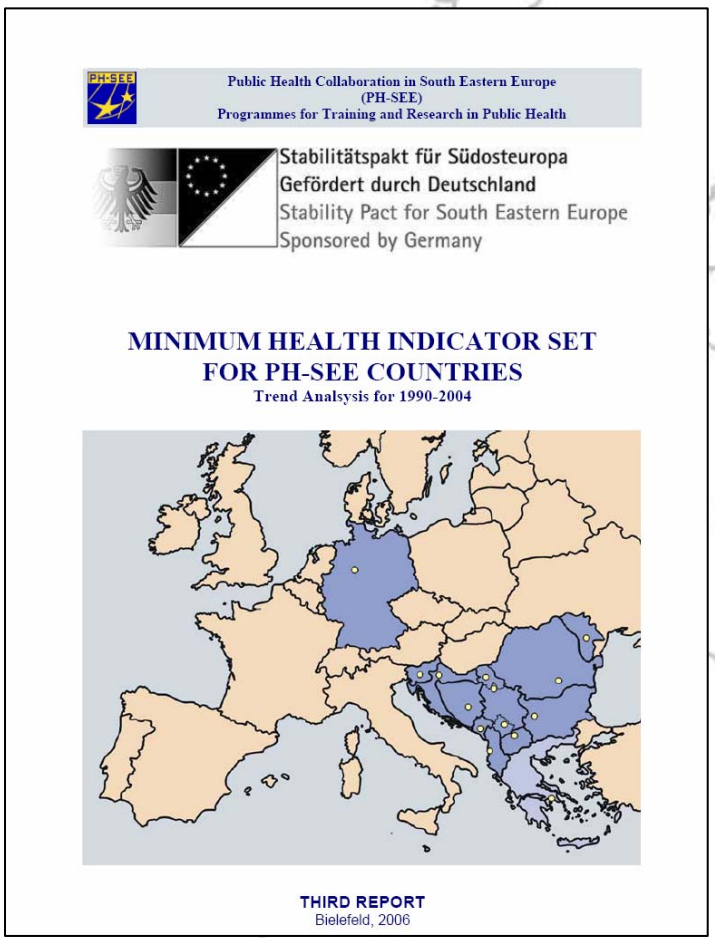
1. Health Monitoring:

   →maintenance or regular checking of ongoing activities or programmes with respect to predefined objectives.

2. Surveillance:

   →refers to the ongoing observation of the health status of a population and the factors that may affect it. Its porpuse consists in detecting possible changes at an early stage and initiating appropriate action (Bardehle 2004).

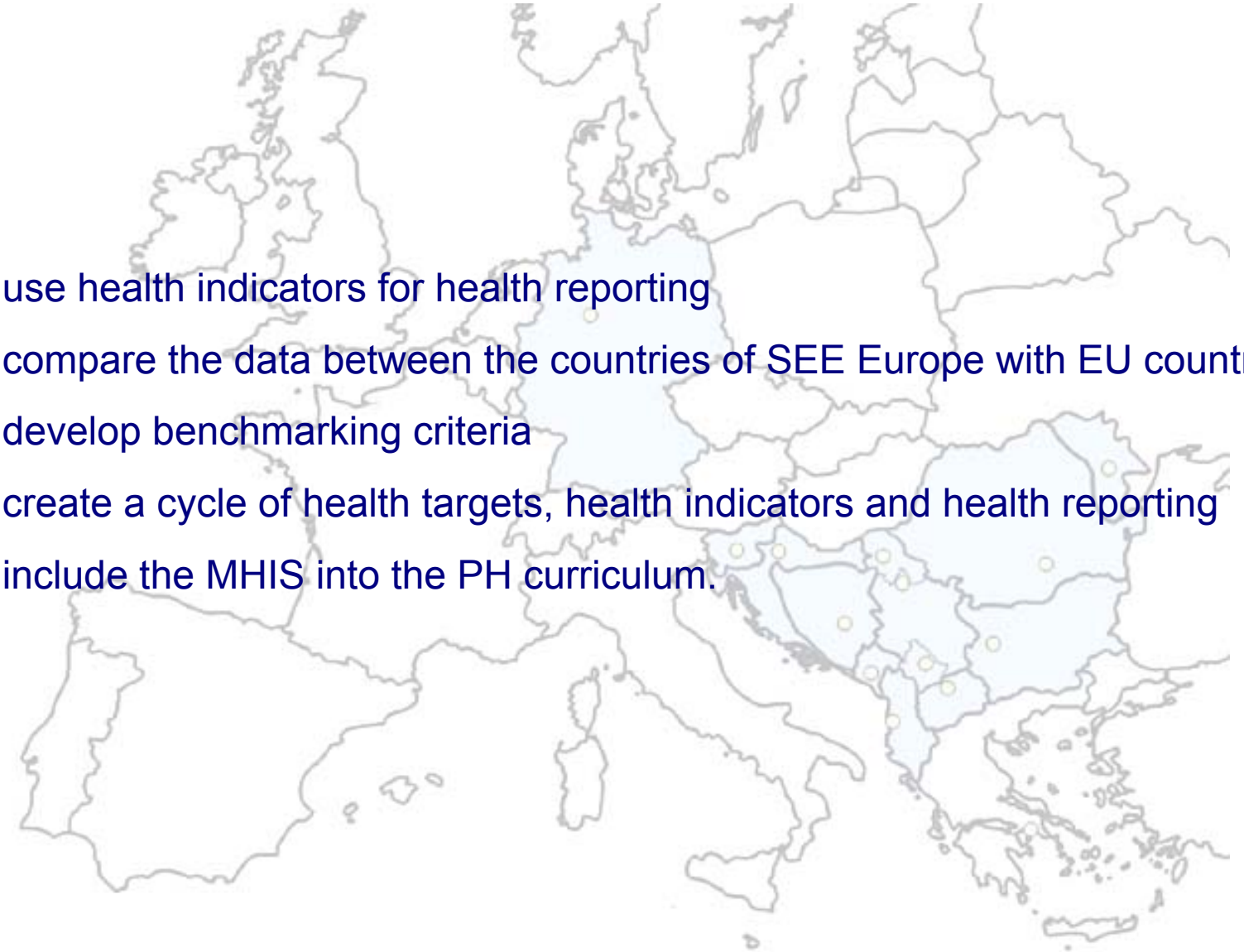
The Minimum Health Indicator Set (MHIS) for Public Health South Eastern Europe Countries



The Stability Pact for South Eastern Europe (SEE) includes a programme for the development and reconstruction of training and research in Public Health in South Eastern Europe (PH-SEE).

One of the identified priorities of national public health development is the definition of a Minimum Health Indicator Set (MHIS) for all countries of SEE. It represents one of the priority tasks of the PH-SEE-Project.

Objectives of the MHIS

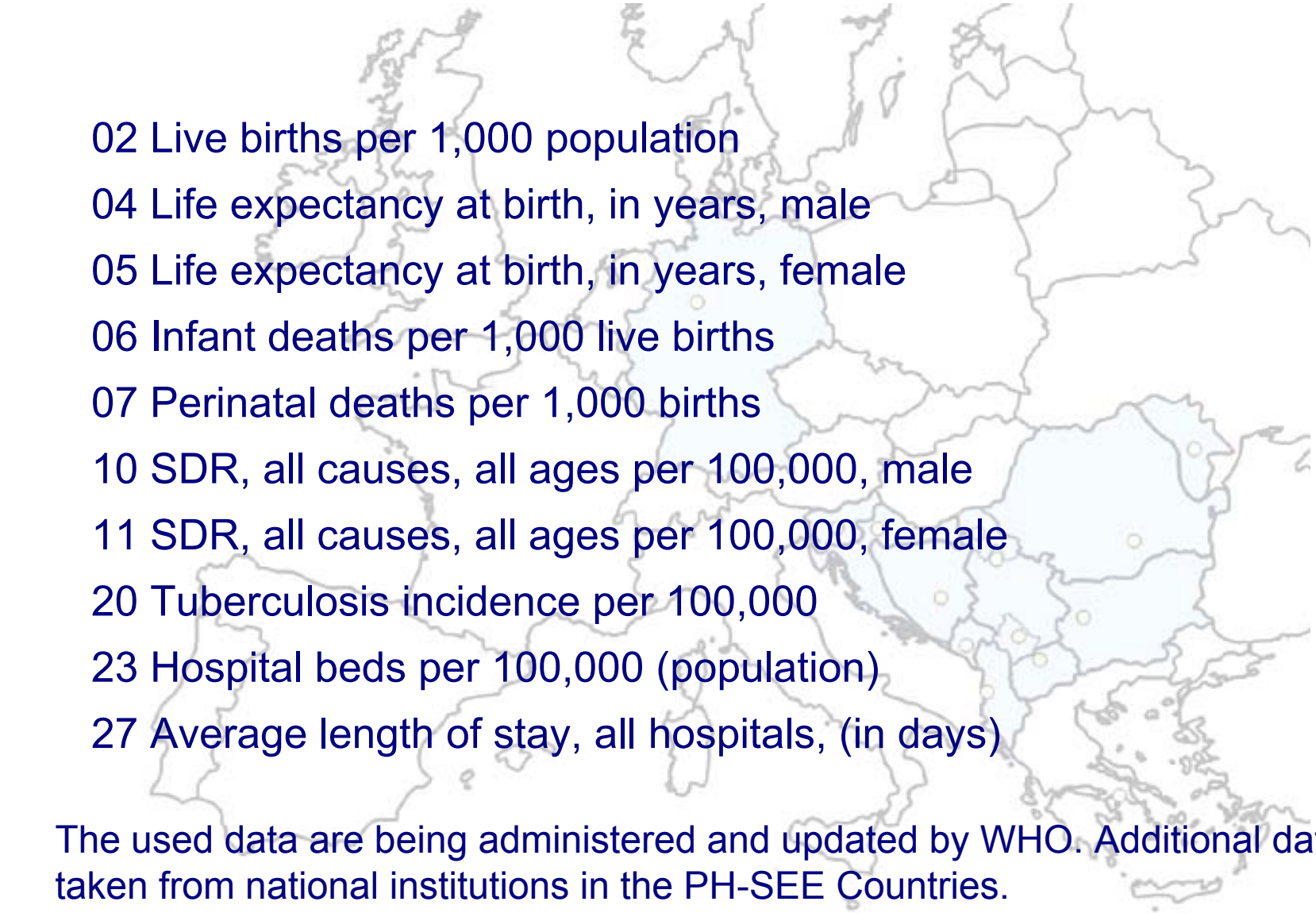


- to use health indicators for health reporting
- to compare the data between the countries of SEE Europe with EU countries
- to develop benchmarking criteria
- to create a cycle of health targets, health indicators and health reporting
- to include the MHIS into the PH curriculum.

MHIS-Indicators

Indicator	Description	HFAdb No.	
01	% of population aged 65+ years	0030 999902	demographic and socio-economic indicators
02	*Live births per 1,000 population*	*0060 998004*	
03	*Unemployment rate in %*	*0200 020501*	
04	Life expectancy at birth, in years, male	1011 060101	mortality-based indicators
05	Life expectancy at birth, in years, female	1012 060101	
06	Infant deaths per 1,000 live births	1110 070100	
07	*Perinatal deaths per 1,000 births*	*1170 070403*	
08	Maternal deaths per 100,000 live births	1210 080100	
09	*Maternal deaths, abortion per 100,000 live births*	*1211 080101*	
10	*SDR, all causes, all ages per 100,000, male*	*1811 990102*	
11	*SDR, all causes, all ages per 100,000, female*	*1812 990102*	
12	SDR, diseases of circulatory system, all ages per 100,000, male	1321 090102	
13	SDR, diseases of circulatory system, all ages per 100,000, female	1322 090102	
14	SDR, malignant neoplasms, all ages per 100,000, male	1521 100102	
15	SDR, malignant neoplasms, all ages per 100,000, female	1522 100102	
16	SDR, external cause injury and poison, all ages per 100,000, male	1721 110102	
17	SDR, external cause injury and poison, all ages per 100,000, female	1722 110102	
18	SDR, infectious and parasitic disease, all ages per 100,000, male	1821 993002	
19	SDR, infectious and parasitic disease, all ages per 100,000, female	1822 993002	
20	Tuberculosis incidence per 100,000 (population)	2010 040301	Morbidity, disability and hospital discharges
21	*Measles incidence per 100,000 (population)*	*2080 050111*	
22	*Diphtheria incidence per 100,000 (population)*	*2100 050113*	
23	Hospital beds per 100,000 (population)	5050 270205	health care resources
24	Physicians per 100,000 (population)	5250 270201	
25	General practitioners (PP) per 100,000 (population)	5290 992733	
26	Dentists (PP) per 100,000 (population)	5300 270203	
27	Average length of stay, all hospitals, (in days)	6100 992901	health care utilization and expenditure
28	Total health expenditure as % of gross domestic product (GDP)	6710 340102	
29	% of infants vaccinated against diphtheria (1st year of life)	7160 280101	maternal and child health
30	% of infants vaccinated against poliomyelitis (1st year of life)	7200 280105	
Background information	Male population by 5-year age groups (31 Dec./average)		background indicators
	Female population by 5-year age groups (31 Dec./average)		

Examples for selected indicators:



02 Live births per 1,000 population

04 Life expectancy at birth, in years, male

05 Life expectancy at birth, in years, female

06 Infant deaths per 1,000 live births

07 Perinatal deaths per 1,000 births

10 SDR, all causes, all ages per 100,000, male

11 SDR, all causes, all ages per 100,000, female

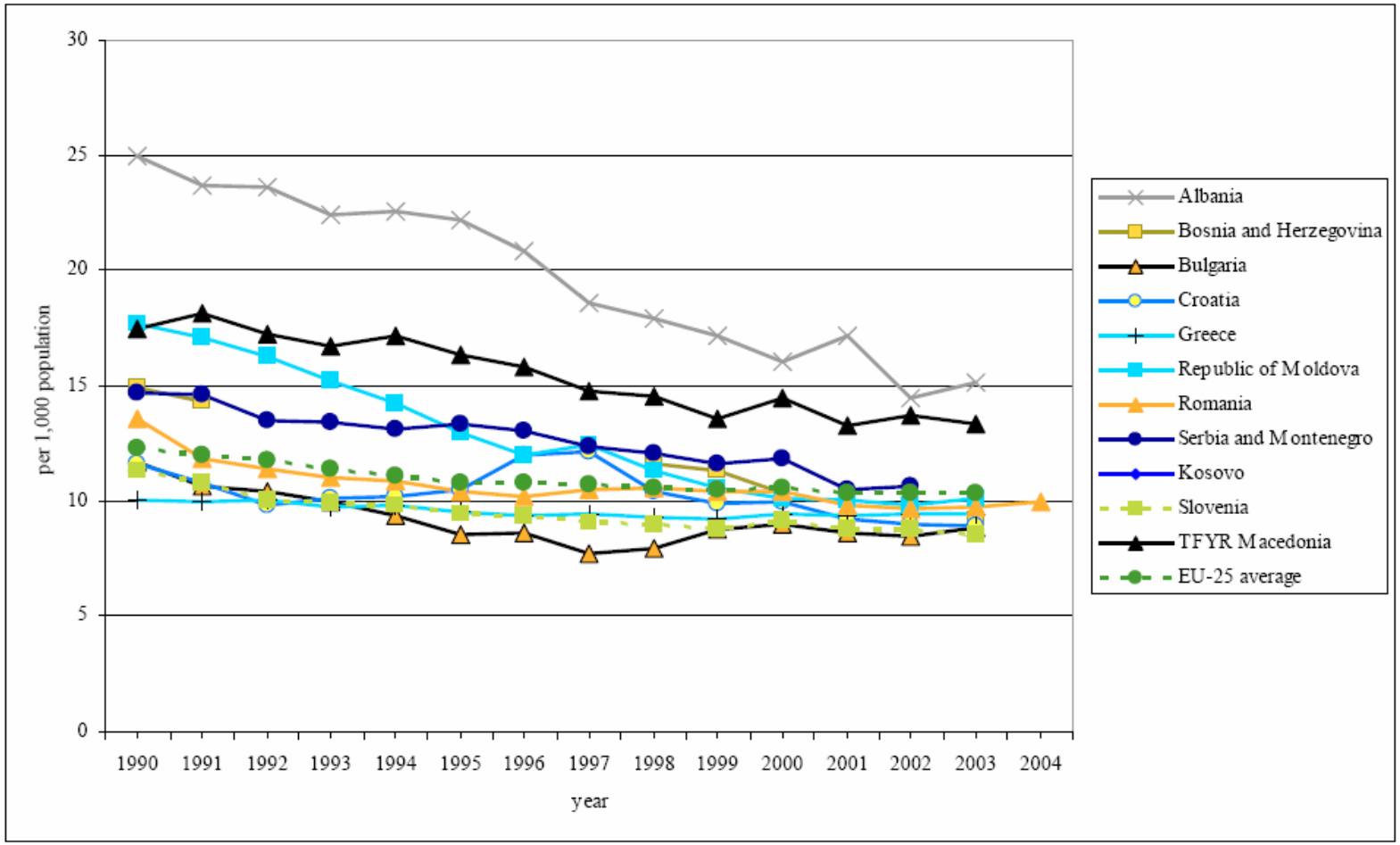
20 Tuberculosis incidence per 100,000

23 Hospital beds per 100,000 (population)

27 Average length of stay, all hospitals, (in days)

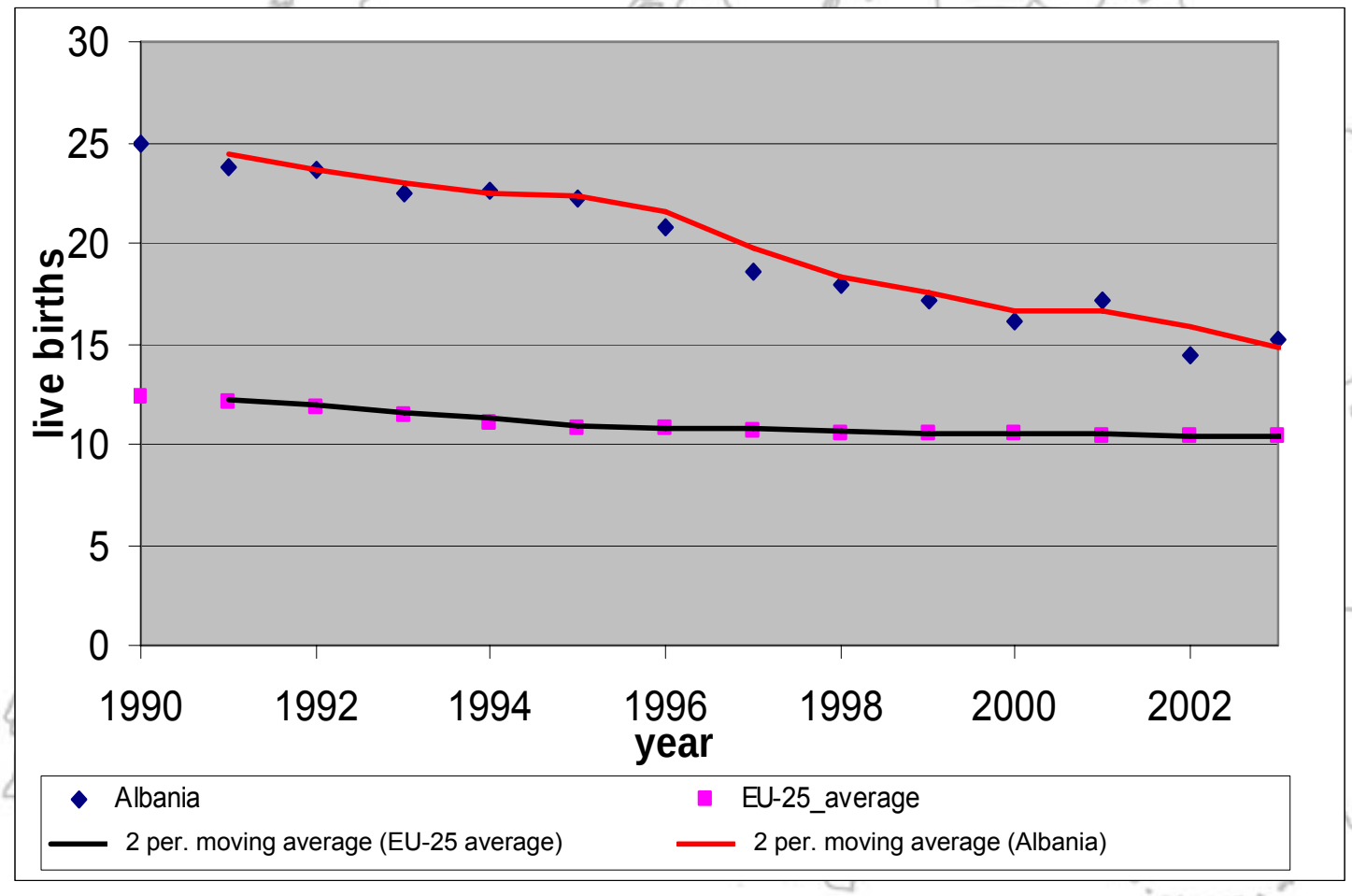
The used data are being administered and updated by WHO. Additional data were taken from national institutions in the PH-SEE Countries.

Indicator 02: Live births per 1,000 population, SEE-countries, 1990-2004

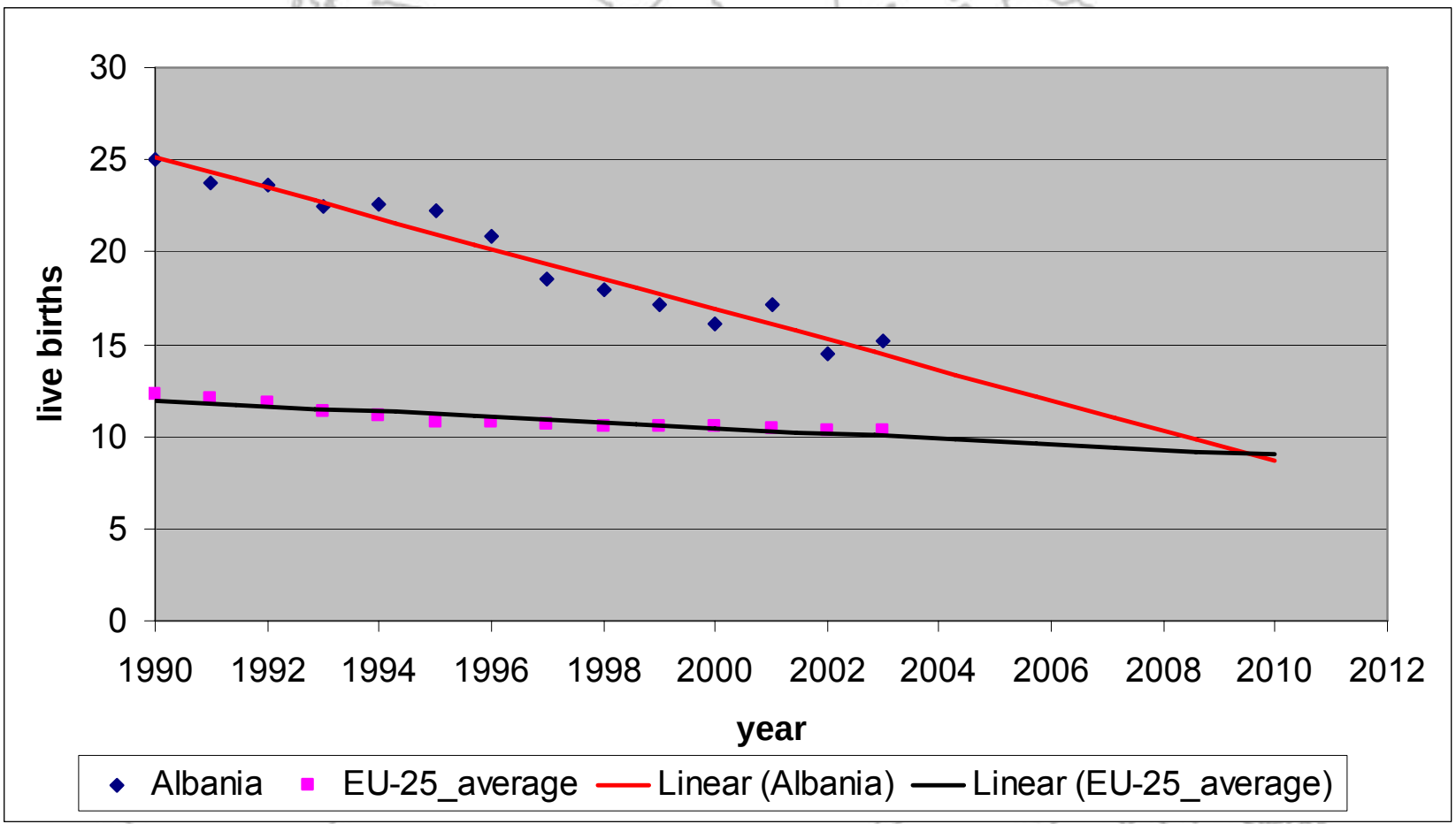


„Albania has the highest birth rate with 15.15 births per 1,000 population in 2003“ (MHIS 2006). It seems to approximate to the rate of the average of the 25 european countries.

Indicator 02: live births per 100,000, Albania and EU-countries average, 1990 – 2003 (moving average)

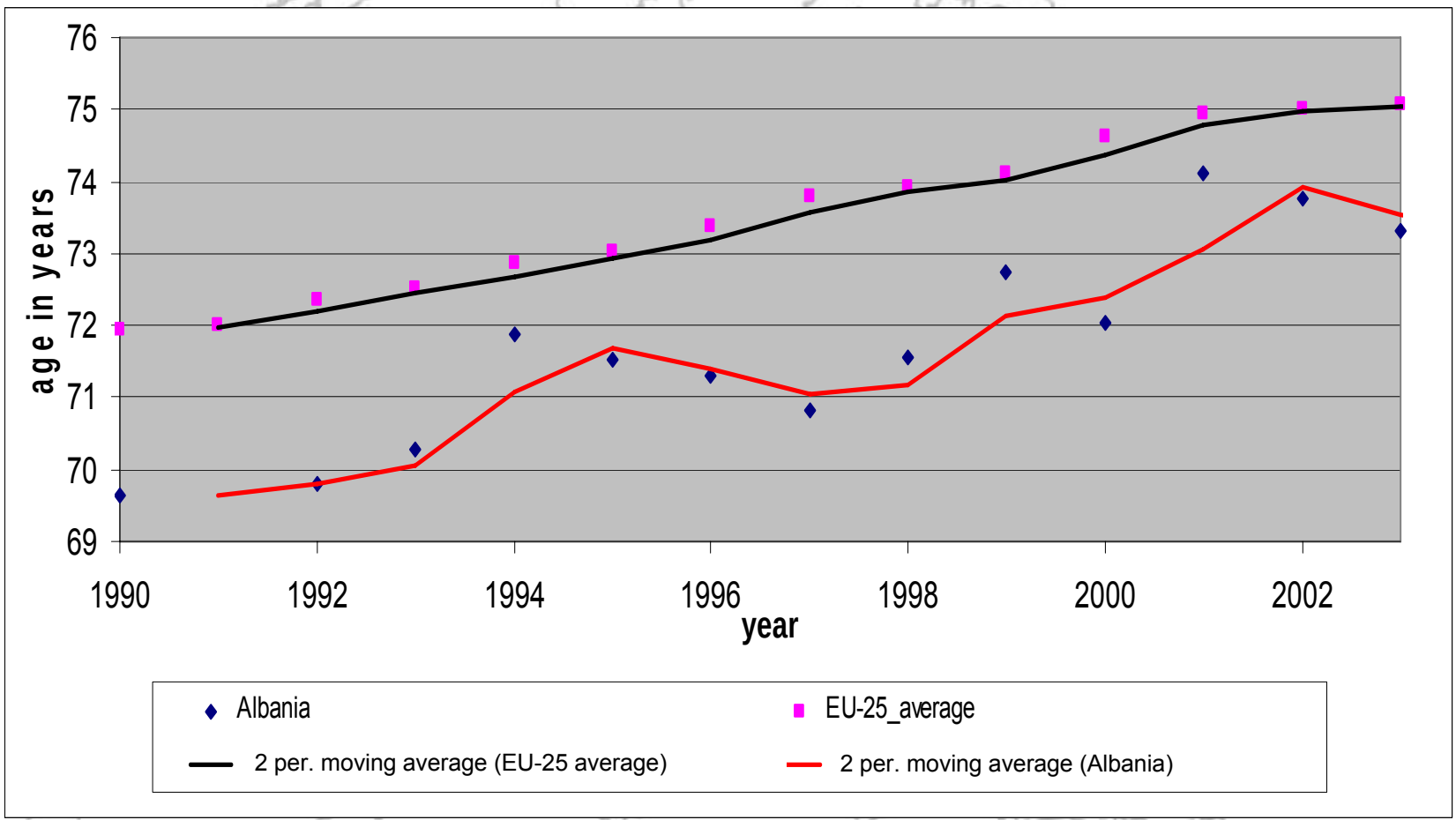


Indicator 02: live births per 100,000 population, Albania and EU-countries average – Past and possible development 1990 - 2010



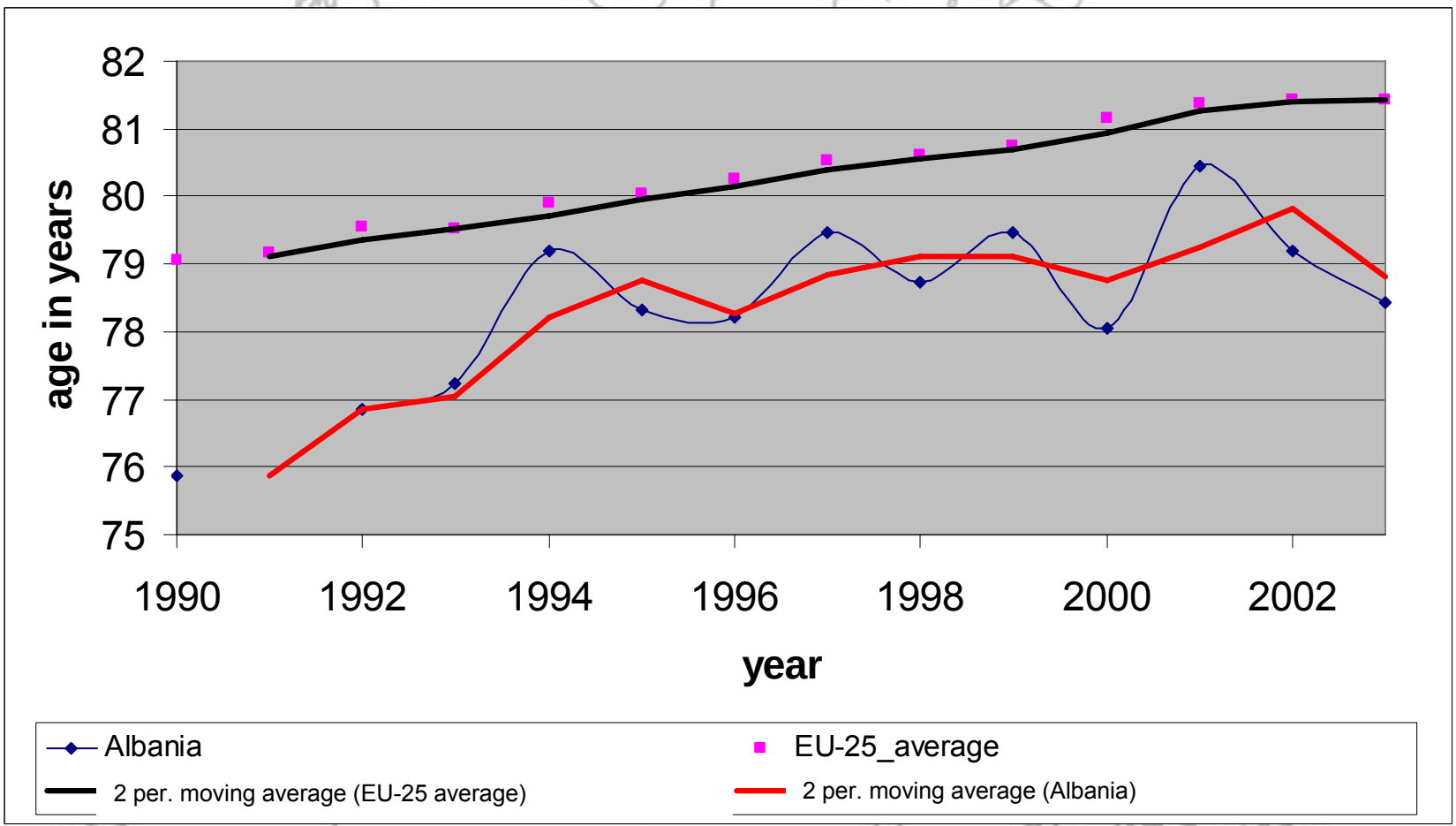
coefficient of determination: Albania: $R^2 = 0,956$; EU-countries average: $R^2 = 0,863$

Indicator 04: Life expectancy at birth, in years, male, Albania and EU-countries average 1990 – 2003 (moving average)

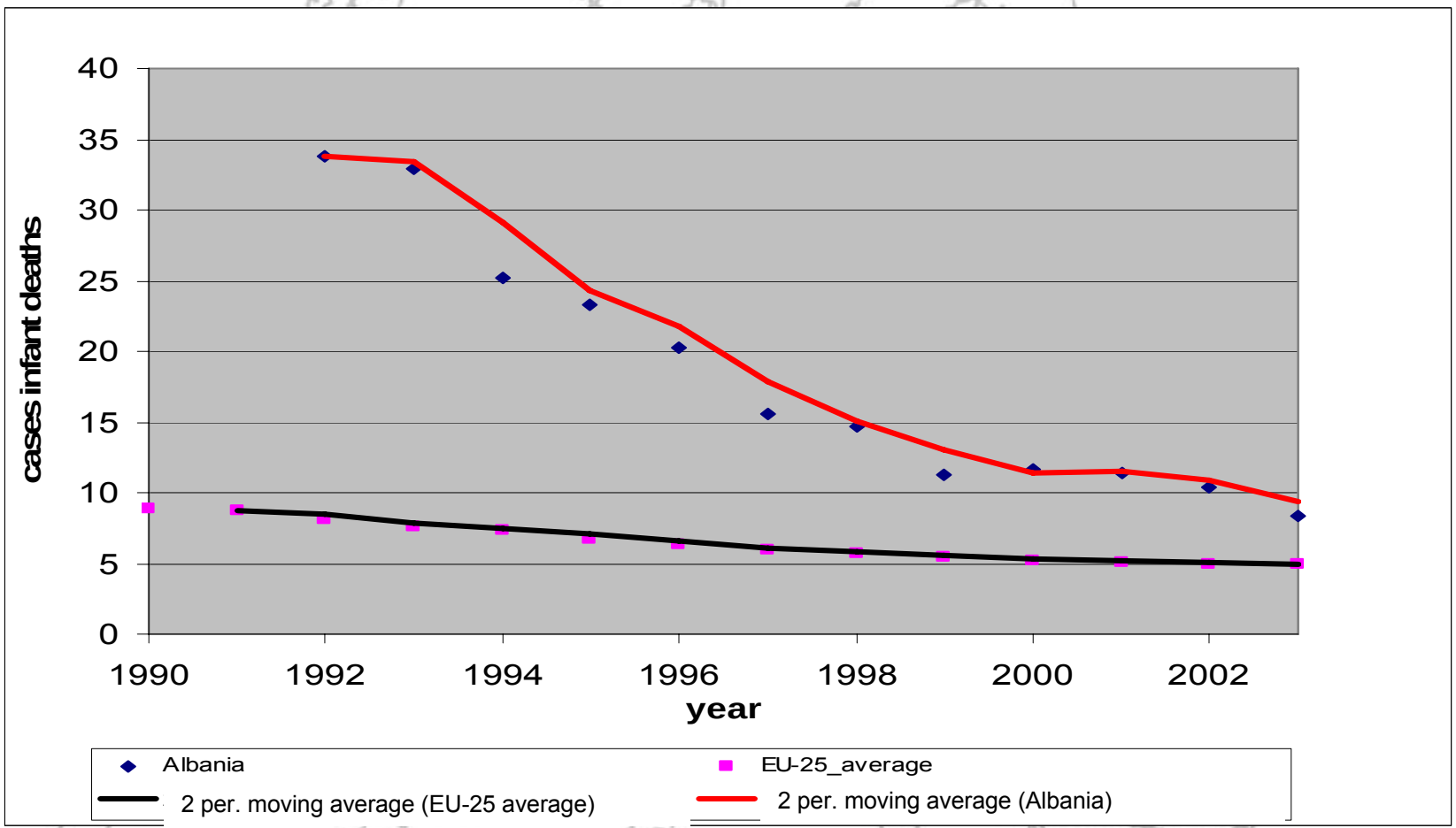


"Life expectancy is much higher than in reality due to the under-registration of death cases" (WHO, Regional Office for Europe, Issue May 2004).

Indicator 05: Life expectancy at birth, in years, female. Albania and EU-countries average 1990-2003 (moving average)

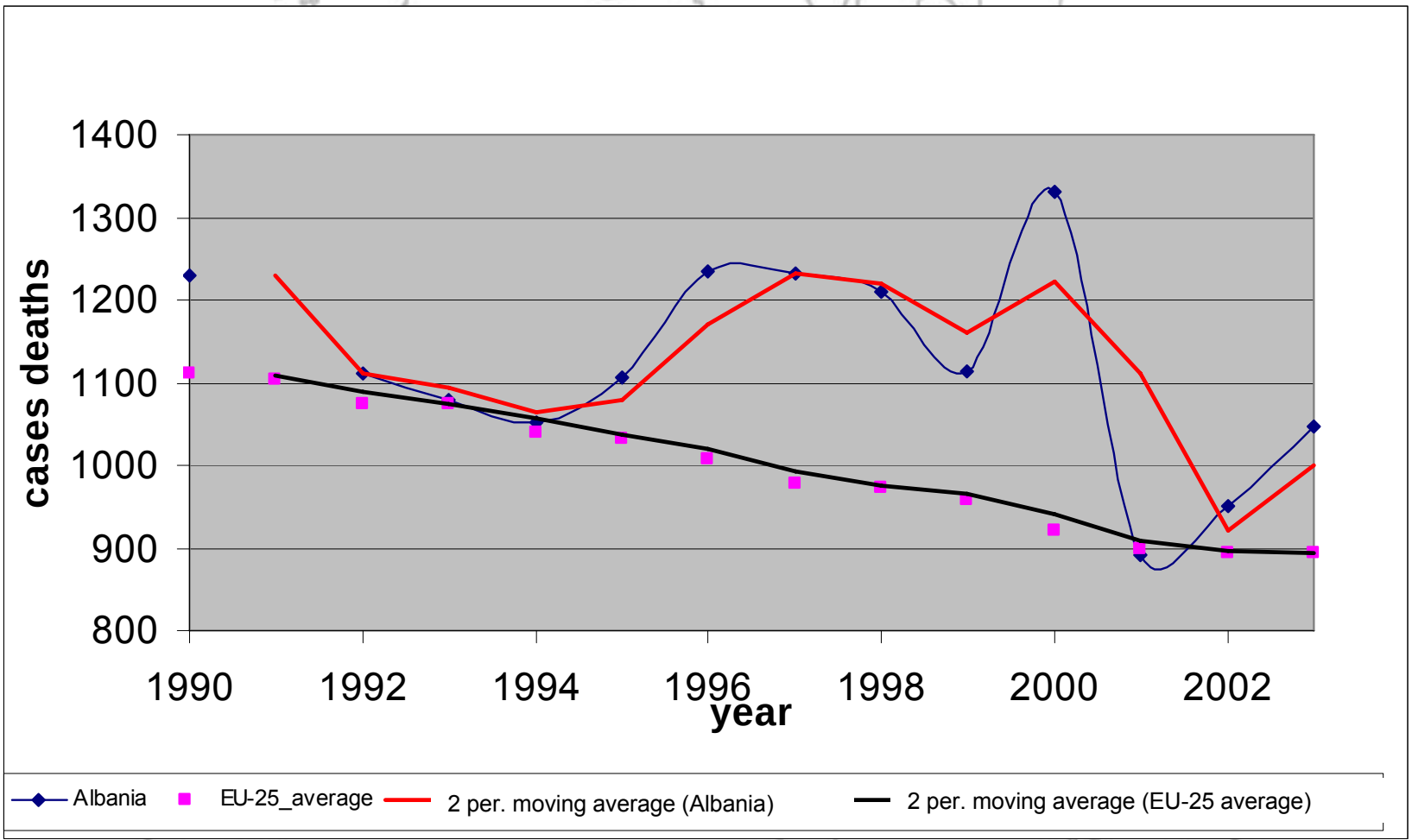


Indicator 06: Infant deaths per 1,000 live births, Albania and EU-countries average, 1990-2003 (moving average)

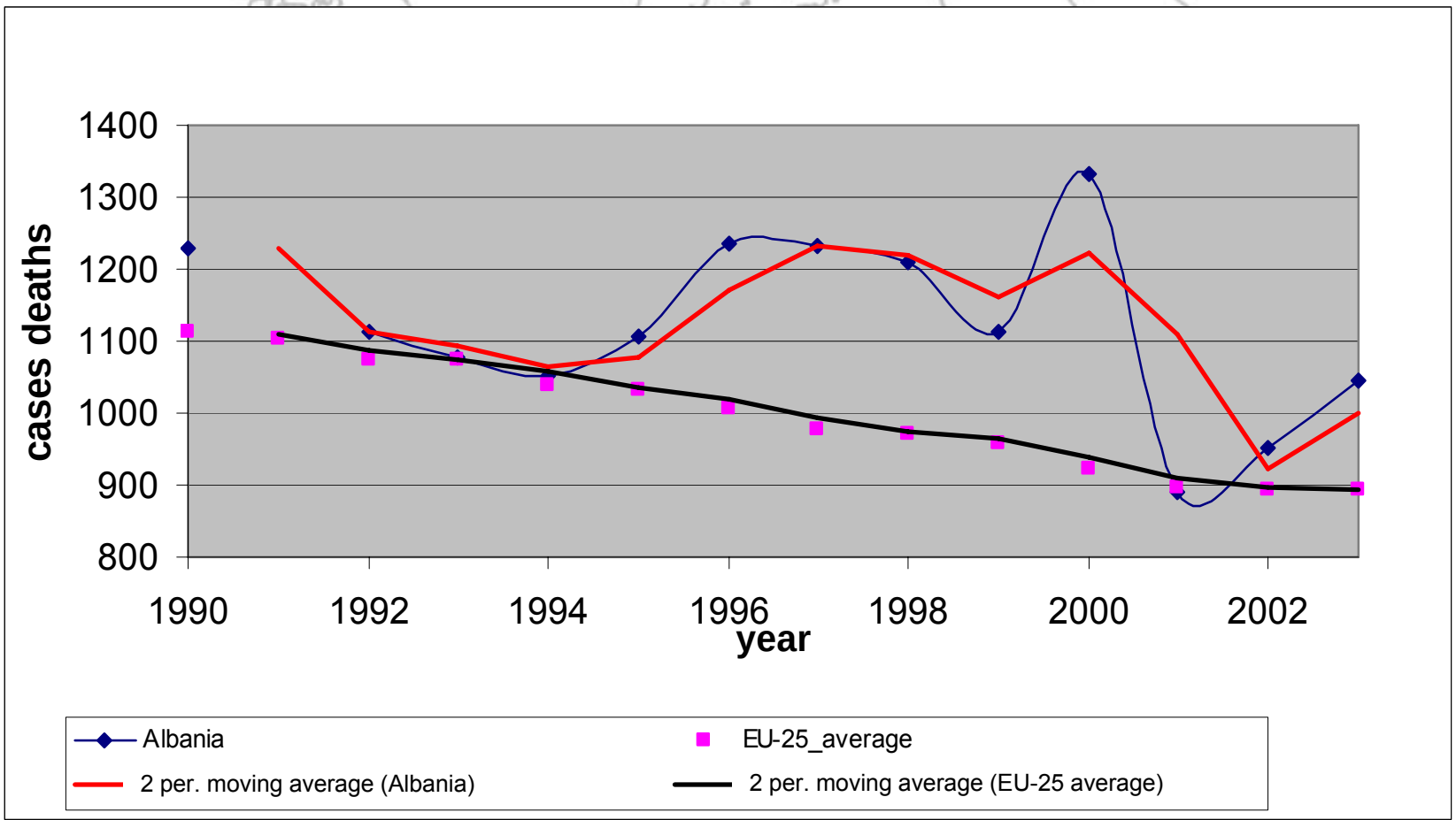


„As under-registration of infant deaths may reach 20% and more, you have to keep this in mind when making comparisons with Albanian data“ (MHIS, 2006).

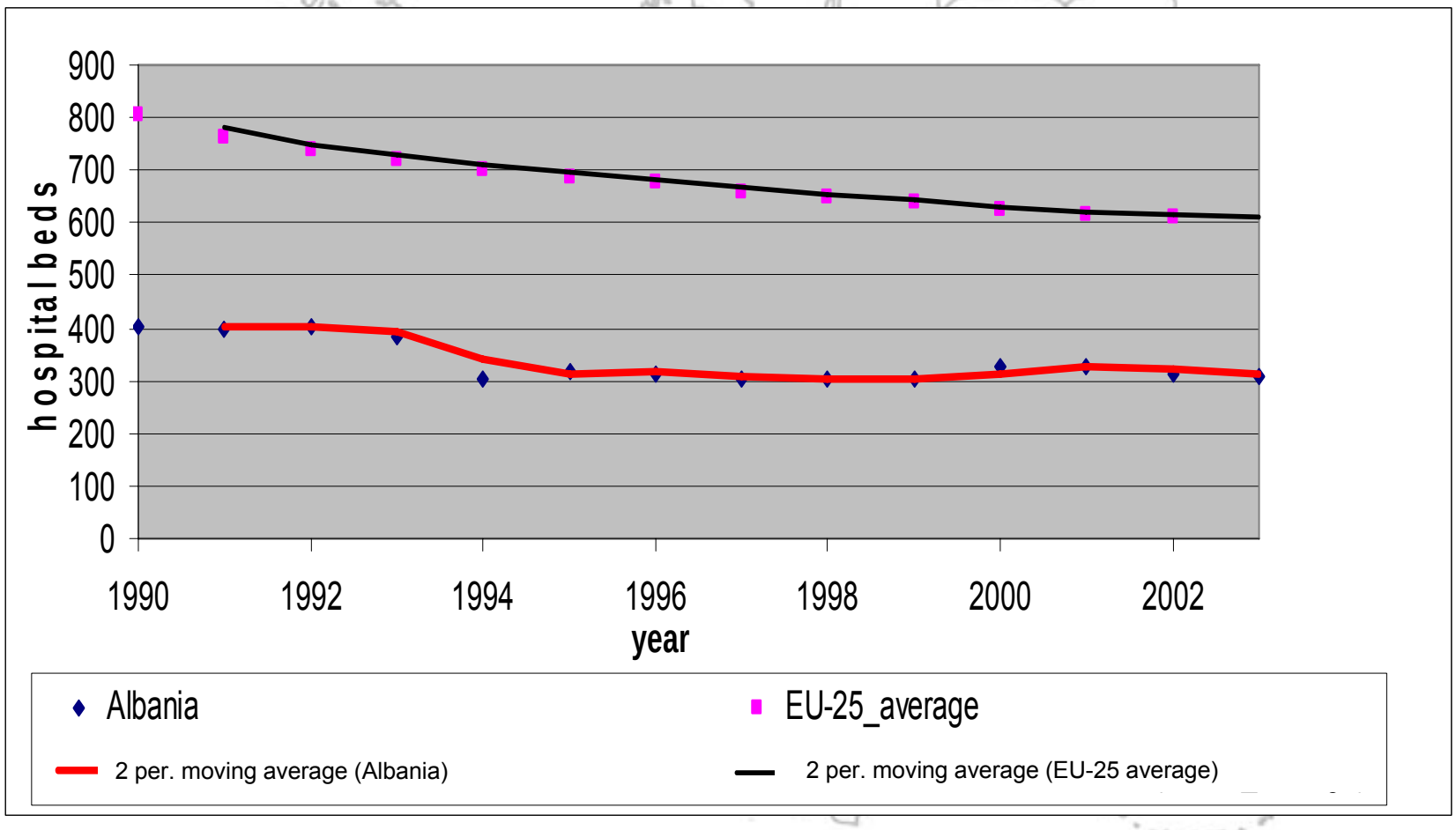
Indicator 10: SDR, all causes, all ages per 100,000, male. Albania and EU-countries average, 1990-2003 (moving average)



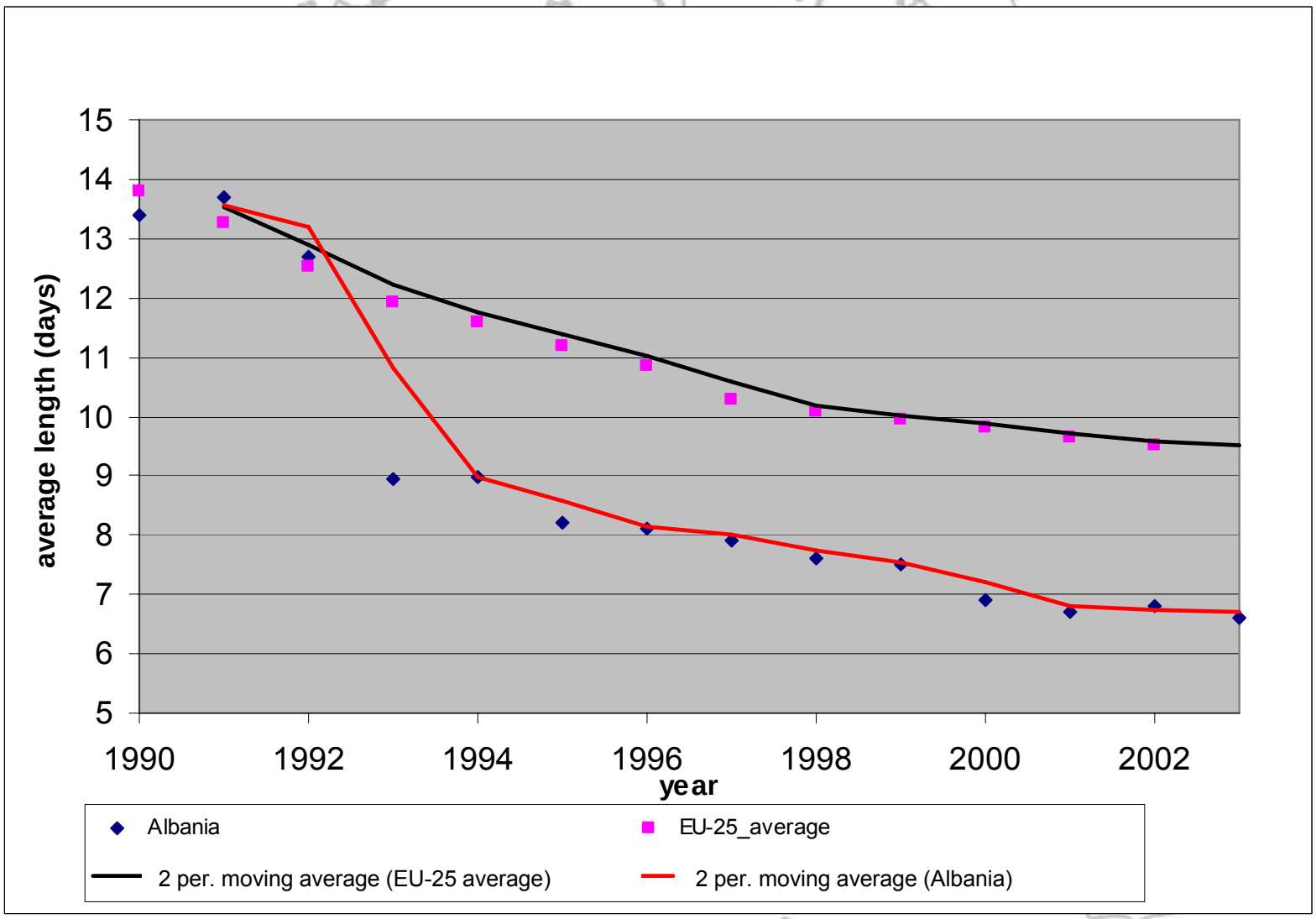
Indicator 11: SDR, all causes, all ages per 100,000, female. Albania and EU-countries average, 1990-2003 (moving average)



Indicator 23: Hospital beds per 100,000, SEE-countries. Albania and EU-countries average, 1990-2003 (moving average)



Indicator 27: Average length of stay, all hospitals, Albania and EU-countries average, 1990-2003 (moving average)



Results & Conclusion

- the up and down movements of the health indicators are dramatic
- trend surveillance for the years 1990 – 2004 is considered reasonable
- the selection of the 30 indicators was useful and
- ought to be continued.
- health status and health system can be evaluated with a limited number of indicators
- points out to the progress but also to problems of reforms in the health care systems
- up to the year 2003, the health status in the SEE countries clearly improved
- good instruments for the further training of public health specialists

Discussion

The data are not complete for each individual indicator

standards for data collection in Europe are missing for many indicators (particularly "maternal deaths due to abortion" and "total health expenditure„) (MHIS 2006).

Which steps are necessary

1. to convince the SEE-countries to implement a health indicator-based monitoring?
2. to enable the SEE-countries to implement a health indicator-based monitoring?

References

•Bardehle, D. (2004). Health indicators and health reporting. In:Bjegivic, V./Donev, D.: Health systems and their evidence based development – A Handbook for teachers, Researchers and Health Professionals. Belgrade: Sprint Beograd

•Bardehle, D./Lenz, A. (2006). Minimum Health Indicator Set for Public Health South Eastern Europe Countries. Trend Analysis for 1990-2004. Bielefeld: Institute of Public Health, North Rhine Westphalia, Germany

•Larson, J. (1992). Predictors of international health status. Evaluation and the Health Professions,15, 299-312.

•Larson, J. (1994) . The weighting of an international health status index. Social Indicators Research, 31, 265-275.

Recommended:

•Larson, J. (1991). The measurement of health. Westport: Greenwood Press