

## Health in south-eastern Europe: a troubled past, an uncertain future

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**Abstract** The political and economic turmoil that occurred in south-eastern Europe in the last decade of the twentieth century left a legacy of physical damage. This aspect of the conflict has received considerable coverage in the media. However, surprisingly less has been reported about the effects of that turmoil on the health of the people living in the region. In an attempt to identify and synthesize data on these effects, we carried out a systematic review and used the results to put together a searchable online database of documents, reports, and published material, the majority of which have not previously been easily accessible (<http://www.lshtm.ac.uk/ecohost/see/index.php>). The database covers the period from the early 1990s to 2003 and will be of considerable interest to policy-makers. It contains 762 items, many of them annotated and available for downloading. This paper synthesizes the main findings obtained from the material in the database and emphasizes the need for concerted action to improve the health of people in south-eastern Europe. Furthermore, we also recommend that agencies working in post-conflict situations should invest in developing and maintaining online databases that would be useful to others working in the area.

**Keywords** Health status; Health status indicators; War; Chronic disease/epidemiology; Communicable diseases/epidemiology; Child welfare; Mental health; Delivery of health care; Review literature; Europe, Eastern (*source: MeSH, NLM*).

**Mots clés** Etat sanitaire; Indicateur état sanitaire; Guerre; Maladie chronique/épidémiologie; Maladie transmissible/épidémiologie; Protection enfance; Santé mentale; Délivrance soins; Revue de la littérature; Europe orientale (*source: MeSH, INSERM*).

**Palabras clave** Estado de salud; Indicadores de salud; Guerra; Enfermedad crónica/epidemiología; Enfermedades transmisibles/epidemiología; Bienestar del niño; Salud mental; Prestación de atención de salud; Literatura de revisión; Europa Oriental (*fuentes: DeCS, BIREME*).

**الكلمات المفتاحية:** الحالة الصحية؛ مؤشرات الحالة الصحية؛ الحرب؛ إبيدميولوجيا الأمراض المزمنة؛ إبيدميولوجيا الأمراض السارية؛ عافية الأطفال؛ إيتاء الرعاية الصحية؛ مراجعة الدراسات المنشورة؛ أوروبا الشرقية (المصدر: رؤوس الموضوعات الطبية المكتب الإقليمي لشرق المتوسط).

Bulletin of the World Health Organization 2004;82:539-546.

Voir page 544 le résumé en français. En la página 545 figura un resumen en español.

يمكن الاطلاع على الملخص بالعربية في صفحة 545.

### Introduction

The violence that afflicted south-eastern Europe in the last decade of the twentieth century, which was on a scale unknown in Europe since the Second World War, has at last given way to peace. While the physical damage sustained during the various conflicts is easily visible, other damage, including that affecting the long-term health of the population, is less obvious.

This paper describes the results of a project designed to cast light on the challenges that continue to threaten health in this region; these challenges risk becoming even less visible as the world's attention shifts to other countries devastated by war, for example, Afghanistan and Iraq. This paper is one of the outcomes of a collaborative effort by four organizations, each providing complementary inputs. These were the London School of Hygiene and Tropical Medicine (LSHTM), the Open Society Institute (OSI), the United Kingdom's Department for International Development (DFID), and UNICEF. The intention of the

project was to provide information to inform the development of appropriate policy responses at national and local levels and by the international community.

### Methods

At the outset it is necessary to define the region of south-eastern Europe. For our purposes it is the countries that form the core of the Stability Pact for south-eastern Europe, an international partnership established in the aftermath of the wars in the former Yugoslavia. These countries are the "western Balkans" (Albania, Croatia, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Serbia and Montenegro, and three neighbouring countries that, while spared the direct effects of war, suffered indirectly from the disruption of trading links: Romania and Bulgaria (both candidates for European Union (EU) membership) and the Republic of Moldova, a former Soviet republic bordering Romania. (Bosnia and Herzegovina is composed of

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Ref No. 03-009647

(Submitted: 16 November 2003 – Final revised version received: 11 February 2004 – Accepted: 17 February 2004)

two entities, the Federation of Bosnia and Herzegovina and the Republic of Srpska. However, since December 2002, Serbia and Montenegro has been a loose union of two semi-independent states sharing defence and foreign ministries but with most other functions retained by each individual state. The Republic of Serbia also contains the province of Kosovo, which is an international protectorate.)

The challenges of describing patterns of health in this region are considerable. The first problem is how to define the population. We must consider both the borders within which populations live, for example the disputed status of the province of Kosovo, as well as the size of the population in a defined area, which may have changed due to large-scale population movements triggered by both conflict and economic crises. In 2001 in Kosovo, for example, estimates of the population ranged from 1.61 million to 1.96 million people (1). However, the situation is improving as recent censuses in many countries are providing more accurate enumerations of denominators.

The challenge of defining the population is exacerbated by the breakdown of long-standing information systems, in particular in Bosnia and Herzegovina, Serbia and Montenegro, Kosovo, and Moldova (2, 3) as well as by the limited capacity in the region to undertake any meaningful analysis of health data and to act when problems emerge. For example, unexplained swings in cancer mortality in Croatia were eventually shown to be due to inconsistent definitions of the Croatian population (4, 5). Although the international donor community has undertaken surveys to fill gaps in the data, their work is often not widely known beyond those who are most immediately involved in data collection (6).

One goal of this project was to identify and synthesize the available information on health by means of a systematic review. Having defined the countries covered, the search strategy was iterative, following up leads from each document recovered until no new material was identified. The primary sources were PubMed and Google but, as it was anticipated that much relevant information would either not be in the published literature or on the Internet, this was supplemented with requests to the headquarters and national offices of international agencies and nongovernmental organizations (NGOs) active in the health sector (OSI, UNICEF, WHO, World Bank) as well as bilateral aid agencies (DFID and the United States Agency for International Development) and national health ministries. The process was facilitated greatly by the existing links developed through participation of two of the partners (LSHTM and OSI) in the European Observatory on Health Care Systems, a partnership that also includes WHO and the World Bank. This made it possible to involve staff in each country, who often had access to information that would otherwise have been difficult to obtain. Documents were sent to London where abstracts and summaries were screened. Material was included if it addressed issues relating to contemporary population health. Relevant information was extracted from each document and summarized on a database. Themes were developed by a process of constant comparison, augmented by discussions within the project's steering group and brought together in a systematic review.

## Results

Contrary to what was expected, this search uncovered a large number of documents, including articles published in academic journals, survey results, and publications of national statistical

offices, ministries of health and international donors. Until now, many of these documents have not been easy to access. A total of 762 documents judged to be the most relevant were included in a searchable database. The database contains the following fields: author, year of publication, title, countries concerned, and annotation (summary of document). The number of documents included increased from the early 1990s, with the highest number (233) published in 2002 (Table 1). The largest single source of documents was the World Bank (51 documents) followed by WHO (36 documents) and UNICEF (35 documents). Many of these documents have been annotated and are available for downloading from <http://www.lshtm.ac.uk/ecohost/see/index.php>.

We summarize the main findings of our systematic review of these information sources below.

## The legacy of war and the challenge of transition

To begin with, it is important to stress the obvious: it is often difficult to separate the consequences of conflict from either the long-term effects of conditions before the 1990s or the political transitions that took place during the 1990s. However, Table 2 shows that even a superficial examination of the countries that once made up Yugoslavia distinguishes those countries that suffered most in the Yugoslav wars (Bosnia and Herzegovina, Croatia, and Serbia and Montenegro) from Slovenia (not a member of the Stability Pact but included here for comparison) which was largely unscathed (7).

The scale of the human tragedy was enormous. Of a pre-war population of 4.4 million in Bosnia and Herzegovina, an estimated 250 000 people were killed, 240 000 wounded and 25 000 permanently disabled (8, 9). An estimated 20 000 to 50 000 women were raped. More than 2 million people lost their homes or fled the country (8). In Croatia, which had a population of 4.8 million in 1990, up to 20 000 people were killed or reported missing, and more than 30 000 people were disabled (10). More than 385 000 were displaced or became refugees (5). In 1999 in the war in Kosovo an estimated 10 000 people were killed and 800 000 displaced out of an estimated 1991 population of 2 million (the Albanian population boycotted the 1991 census) (1). In addition, war destroyed infrastructure and ruined systems of education, social support and health care. Slovenia, in contrast, was spared the violence that afflicted its neighbours; has seen sustained economic growth; and is the only country to

Table 1. Distribution of documents in the database by year of publication<sup>a</sup>

Year of publication	No. of documents
1993	1
1994	1
1995	4
1996	11
1997	24
1998	30
1999	90
2000	125
2001	169
2002	233
2003	48

<sup>a</sup> 26 documents were undated.

Table 2. Selected indicators from countries of the former Yugoslavia (16)

Country	Life expectancy at birth in years <sup>a</sup>	Gross national product per capita <sup>a</sup> (US\$)	Infant mortality rate per 1000 live births
Bosnia and Herzegovina	72.7 (1991)	1240 (2001)	15 (1999)
Croatia	74.6 (2001)	4550 (2001)	7.7 (2001)
Macedonia	73.4 (2000)	1690 (2001)	11.8 (2000)
Serbia and Montenegro	72.7 (2000)	1060 (1999)	13.3 (2000)
Slovenia	76.5 (2001)	9780 (2001)	4.3 (2001)

<sup>a</sup> Figures in parentheses are latest years for which data are available.

emerge from the former Yugoslavia that has met the criteria for membership in the EU.

However, the consequences of war for the health of the population in this region extend beyond its direct effects. While Albania, Bulgaria, the former Yugoslav Republic of Macedonia, the Republic of Moldova, and Romania were spared large-scale bloodshed, the wars in neighbouring countries added to their problems with economic recovery during political and economic transitions that were already difficult (Table 3).

Regardless of the precise cause, the economic downturn during the 1990s was profound throughout the region, and the most optimistic forecasts suggest that Bosnia will not return to its pre-war level of gross domestic product (GDP) until 2010. By 2000, only Albania had achieved its pre-1990 level of GDP. Unemployment throughout the region has increased dramatically (11), as has the number of people living in poverty: in 1999 66% of the Moldovan population was living below the national poverty line (12). Increasing numbers of people live on the margins of society. Their needs are especially poorly recognized and they include street children, children in state institutions, victims of domestic violence, women forced into prostitution, drug users and growing numbers of elderly people (6). The Roma population has been particularly badly affected, with research revealing a multitude of health problems, fuelled by poverty, as well as poor housing, sanitation and nutrition, and by a lack of access to health care (13, 14).

### Health status

Now that recent censuses in most countries make it possible to enumerate populations more accurately, it can be seen that life expectancy is at last beginning to improve in some countries. However, in those countries for which data are available throughout the 1990s (Albania, Bulgaria, Croatia, Moldova and Romania) the rate of improvement is slower than in the EU, so that the gap between the EU and south-eastern Europe is growing (15). Among males, the gap in life expectancy at birth between this group of countries and the EU increased from 5.25 years in 1989 to 7 years in 1999 (16), however data from Croatia are problematic and the sudden increase in life expectancy between 2000 and 2001 is unlikely to be accurate. Yet some countries have done much better than others, which emphasizes the importance of considering the local context. Thus in 2000, Albania, which has maintained its traditional lifestyle and Mediterranean diet (17–19), has the highest life expectancy in the region, at 78.04 years for women and 72.03 years for men; while in Moldova in 2001 life expectancy was only 64.54 years for men and 71.94 for women. However, increased rates of smoking, reduced amounts of physical exercise, and the growing consumption of junk food may soon jeopardize the Albanian advantage (20).

### Non-communicable diseases

As in other countries in central and eastern Europe there is a large burden of noncommunicable disease. In 1999, death rates from cardiovascular disease for people from birth to age 64 were 3.5–4 times higher in Romania, Moldova and Bulgaria than in the EU (16). Yet while rates of death from cardiovascular causes are falling in several countries, most likely because of changes in diet and, in particular, micronutrient content (21), deaths from cancer are projected to rise over the next decade, largely because of the effects of the smoking epidemic (22). As Table 4 shows, there are high smoking rates in most countries in the region.

As in other parts of the world, the tobacco epidemic is driven not only by the large-scale marketing activities of transnational tobacco companies but also by the widespread smuggling of cigarettes (23). A breakdown of law enforcement, coupled with political corruption at all levels, has led to this region playing a major part in tobacco smuggling throughout Europe, a situation in which both the transnational tobacco companies and local and national authorities are complicit (24).

While greater access to fruit and vegetables throughout the year is bringing about some benefits, the overall result is not uniformly positive, especially when combined with declining levels of physical exercise. The region is experiencing a rise in obesity and, with it, diabetes. In Bulgaria, the prevalence of diabetes has increased tenfold in the past two decades compared with the period 1946–80 (25), and in Albania it has increased fourfold since 1980 (26).

Injuries and violence also have important effects on health, and men especially are at risk. Obviously, homicide, in some cases in the form of mass killings, was a significant problem in the countries affected by wars and civil conflicts. The large number

Table 3. Real gross domestic product (GDP) in 2000 as percentage of 1989 value (6)

Country	Real GDP
Albania	101.7
Bosnia and Herzegovina	35 <sup>a</sup>
Bulgaria	69.6
Croatia	80.4
Former Yugoslav Republic of Macedonia	77.4
Republic of Moldova	30.6
Romania	76.8
Serbia and Montenegro (including Kosovo)	41.6 <sup>b</sup>
EU average	156

<sup>a</sup> This value is for 2001 compared with 1990.

<sup>b</sup> This value is for 1999.

of weapons in circulation, and in some areas landmines, represent a direct legacy of conflict. Yet there is also much violence that is largely invisible, in particular domestic violence which affects many women (27).

Women also suffer from inadequate access to effective contraception (6, 28), and there are persistently high rates of abortion, in particular in Romania, Moldova and Bulgaria. In addition, throughout the region death rates from cervical cancer are very high, in some places five or six times higher than the average in the EU (16).

### Child health

There is a mixed picture of the health of children. Infant mortality continued to fall throughout the 1990s, except in Bulgaria and Kosovo, although the regional average in 1999 was still almost three times higher than in the EU (16). Among older children, the number of deaths from injury remains unacceptably high: landmines (29), the easy availability of firearms, and weak enforcement of traffic laws increase the risks.

Research on nutrition reveals a paradox (Table 5). For example, in Albania in 2000 one study found that 31.7% of children had signs of chronic undernutrition while another study found 11% of children were overweight (30, 31).

The iodine deficiency that persists in many areas is preventable, yet in 2000 the proportion of salt sold that was iodized was only 13% in the semi-autonomous Transdniestrian region of Moldova, 44% in Albania, and 35% in Moldova in general, although it was 73% in Serbia and Montenegro (12, 31, 32).

Another poorly-recognized threat to the health of children is the decline in the quality and coverage of educational services during the 1990s. Although school enrolment rates in the region have increased again in some areas, such as Bulgaria, they have still not reached pre-1991 levels (33). In 2002, UNICEF reported that in Kosovo less than 56% of Albanian girls and less than 40% of girls from Roma, Turkish and Muslim Slav communities were enrolled in secondary school (34).

Finally, a review of child health cannot ignore the steady stream of young children, of both sexes, sold into sex slavery in western Europe (35), with estimates of the number of women involved as high as 10 000 from Bulgaria and 30 000 from Albania (6).

### Mental health

The impact of war and the political transition, coupled with weakening family and social networks, has had severe consequences for mental health. The most vulnerable groups include refugees and people who have been internally displaced, orphans, children, the elderly and soldiers (36). Many women have experienced the sequelae of rape and domestic violence (37). In Bosnia and Herzegovina, 15% of the population is estimated to have suffered significant psychological trauma, often leading to post-traumatic stress disorder (38). There are few community-based services; people with mental disabilities are relegated to psychiatric hospitals, social care homes and orphanages, where conditions often violate human rights standards (39). A large number of children, especially those with mental disabilities,

Table 4. Prevalence (%) of tobacco use in south-eastern Europe (6)

Area	Population <sup>a</sup>	Males	Females	Both
Albania	20–44 years old (1995–96)	44.4	6.3	NA <sup>b</sup>
	Medical students in the fifth year of studies (2002)	55	34	NA
	Older than 15 years (2001)	60 (in 2000)	NA	39%
	25 years and older in Tirana (2001)	37.6	19.3	28%
Bosnia and Herzegovina	All over 15 years (1995)	NA	NA	48%
	All older than 15 years (2000)	NA	NA	60
Bulgaria	Older than 15 years (1996)	49.2	23.8	NA
	Older than 18 years (1997)	38.4	16.7	NA
	11–17 years (1998)	23.5	31.4	NA
Croatia	18–64 years (1995)	34.1	26.6	31
	All older than 15 years (1999)	NA	NA	33
Republic of Moldova	Older than 15 years (1998)	43	3	NA
	All older than 15 years (2001)	50	15	NA
	All older than 15 years (1997)	46	18	NA
Romania	Doctors (1997)	61	51	NA
	15 years and older (1994)	42.7	15.2	NA
	All older than 15 years (2000)	32	10	NA
Republic of Serbia (excluding Kosovo)	Refugees and internally displaced persons aged 20 years and older (2000)	NA	NA	61.2
	Resident population aged 20 years and over (2000)	NA	NA	60.4
Former Republic of Yugoslavia	All older than 15 years (1999)	NA	NA	57
	Older than 18 years (2000)	NA	NA	69
EU average	Older than 15 years (2000)	NA	NA	29

<sup>a</sup> Years in which the study took place are given in parentheses.

<sup>b</sup> NA = not available.

Table 5. Percentage of children younger than 5 years affected by stunting, wasting, being overweight, or being obese in south-eastern Europe, by area (6)

Area	Year of study	Low height for age (stunting)	Low weight for height (wasting)	Overweight	Obese
Albania	2000	31.7	11.1	NA <sup>a</sup>	NA
	2000	17	4	11	NA
Bosnia and Herzegovina	2000	10	6	13	5
Republic of Serbia	2000	11	8	21	5
Former Yugoslav Republic of Macedonia	1999	7	3.5	NA	NA
Former Republic of Yugoslavia (excluding data from Kosovo)	1996	9	2	NA	NA
	2000	5	4	14.3	NA

<sup>a</sup> NA = not available.

are confined to institutions for life, in particular in Bulgaria and Romania. In Bulgaria, nearly half of the 2500 children with mental disabilities live in institutions (40). Unfortunately, mental health is a topic that has been a low priority for policy-makers in this region.

### Communicable diseases

While non-communicable diseases account for the greatest share of the burden of disease, communicable diseases cannot be ignored. In 2001 the highest reported rates of tuberculosis were in Romania, Moldova, Bulgaria, and Bosnia and Herzegovina (6), but given the risk of under-reporting, the stigma attached to the disease, and the inability of many patients to afford medical care, the actual rates may be much higher (41, 42). Prisons are major foci of disease. For example, in Moldova, the incidence in penitentiaries in 1999 was 6000 cases per 100 000 inmates, more than 40 times higher than the national average (42).

In the case of HIV/AIDS, poorly developed surveillance systems, underdiagnosis, under-reporting and the long incubation period between infection and the onset of AIDS symptoms mean that official data on people with HIV/AIDS are gross underestimates, especially among vulnerable groups (6). If no decisive action is taken, a major epidemic in south-eastern Europe is inevitable (43). There are a number of factors in place that could fuel an epidemic, including trafficking of people and drugs, an increasing number of people becoming sex workers, and the increased use of injected drugs. In Bulgaria, for example, the number of heroin users is estimated to have increased from 1500 in the beginning of the 1990s to 25 000–30 000 by the end of the decade (44, 45). High rates of unsafe sex and increasing rates of sexually transmitted diseases (STDs) further increase the risk of a rapid spread of HIV (46). There is also a lack of public awareness about HIV and AIDS; and there is also a lack of access to testing and treatment for STDs and counselling and testing for HIV (31, 47, 48).

### Collapsing health-care systems

Health-care systems have been weakened greatly in those countries experiencing conflict. During and immediately after hostilities, health facilities became inaccessible and essential drugs became unavailable, even though need was increasing. In Bosnia and Herzegovina and in Kosovo, public health services suffered an almost complete breakdown (1), leading to an increased number of deaths from many common, treatable

conditions (49). The collapse of health systems impacts especially on those whose lives are dependent on drug treatment to manage chronic disorders, such as diabetes and hypertension (6). Real governmental expenditure on health declined dramatically in all countries in the region, while the cost of drugs escalated. Total health expenditure per person per year in 2000, adjusted for domestic purchasing power, amounted to only US\$ 63 in Moldova and US\$ 67 in Albania, compared to US\$ 2123 in the EU (16).

An increasing share of health-care expenditure shifted to households, undermining the principle of equitable access to care. This happened formally, through the introduction of co-payments for health services and drugs, and also through a growth in informal payments to health professionals. A representative survey in Moldova in 1997, for example, revealed that 80% of mothers giving birth had to pay for the care they received (27). A representative survey in the Republic of Serbia (excluding Kosovo) in 2000 found that almost 62% of established households could not cover the costs of basic health care. The figure among refugee households was almost 84% and among internally displaced households was almost 95% (50). Restricted funding has precluded capital investment so that, for example, in Bulgaria about 75% of medical equipment is more than 20 years old (25).

### Discussion

One of the most important findings in this study was that a surprisingly large volume of information already exists on threats to the long-term health of the population in this region. However, in many cases those working in the region did not know about the data and the data were not easily accessible. In part this reflects a frequently observed dichotomy between academia and policy. The academic community documents its findings in journals that are indexed on databases and thus serve as an accessible repository of information. However the articles published in this way are a limited subset of the information that is available. The policy-making community, including governments, NGOs, and multilateral and bilateral agencies, documents its findings in reports, which often contain large volumes of primary data. These reports, however, may not be easily accessible. As a consequence, dialogue is often constrained, and different parties make quite different assessments based on the information available to them. Consequently, the main implication for policy is that agencies working in post-conflict

situations should consider whether it may be appropriate to invest the small amount that would be required to develop and maintain a repository of relevant information that can be accessed via the Internet. Such an investment would facilitate information sharing and implementation of best practice as well as supporting improved cooperation between different governmental and civil agencies that are working in the area.

Another finding relates to the region being studied. We conclude that the business of improving health in south-eastern Europe is unfinished. Although, with peace, international attention has moved on to the next crisis area, much more needs to be done if the progress made so far is to be sustained.

First, the most immediate need is to find out more about the health of the population in this region and to understand the most appropriate way to meet their needs. The findings in this paper summarize evidence available in the first half of 2003, and although a large amount of material has been discovered, more work is necessary to understand better the challenges to health and the most appropriate ways to respond to them. In particular, there is an urgent need for investment in capacity building in public health and related areas that will enable the information that does exist, and that which has yet to be gathered, to inform policy-making.

Second, an appropriate health-care financing and delivery system needs to be established to ensure the quality of care and access to care, especially for vulnerable populations. In the area of finance, the question of informal payments, which adversely affect the poor, requires decisive action. In the area of delivery, successful pilot projects, such as community-based mental health services and harm reduction services for drug users, need to be expanded rapidly.

Third, while a wide range of policies are needed to tackle threats to health, there are some areas that should be prioritized because they are getting worse. These areas should include:

- halting the spread of sexually transmitted diseases;
- halting the spread of tuberculosis;
- implementing policies that can prevent the development of what is otherwise likely to be a major HIV/AIDS epidemic.

The tobacco epidemic also threatens to jeopardize the health of millions of people in the region. Other areas to be targeted

should include those where the gap with western European countries is especially large, such as the high levels of injuries and violence, the many environmental health threats, and the growing prevalence of noncommunicable diseases. Immediate action is also called for to reverse alarming trends of malnutrition among children and pregnant women.

The international donor community has given health in this region a low priority. Post-emergency development aid largely focused on infrastructure and neglected the need for a sustainable health sector as well as putting insufficient emphasis on increasing the capacity of public health services (6). While not ignoring needs arising elsewhere, the international community must play its part in addressing the challenges to health of the people in south-eastern Europe. If it fails to do so, this region may be condemned to repeat its troubled past. ■

### Acknowledgments

This paper has been written as part of a collaborative project of the Open Society Institute, the UNICEF Regional Office for Central and Eastern Europe, the UK Department for International Development and the London School of Hygiene and Tropical Medicine. More detailed information on the project is available at <http://www.lshtm.ac.uk/ecohost/see>.

We are especially grateful to Persephone Harrington, Laura Silber, Emilia Tontcheva, and Mabel Wisse Smit of OSI; Mary Black and Ann-Lis Svensson of UNICEF; and Alison Forder, Jürgen Schmidt, and Rebecca Terzeon of DFID. None of these organizations can accept any responsibility for views expressed.

**Funding:** Bernd Rechel's work was financed by a grant from the Open Society Institute, managed within the framework of the United Kingdom Department for International Development's Health System Development Knowledge Programme and the European Observatory on Health Care Systems. Both of these organizations also support Martin McKee's work in countries in transition. None of these organizations can accept any responsibility for the views expressed.

**Conflicts of interest:** none declared.

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## Résumé

### La santé en Europe du Sud-Est : un passé perturbé, un avenir incertain

Les troubles politiques et économiques survenus en Europe du Sud-Est pendant les dix dernières années du XX<sup>e</sup> siècle ont laissé derrière eux d'importants dégâts matériels. Cet aspect du conflit a fait l'objet d'une importante couverture médiatique. En revanche, bien moins a été rapporté sur les effets de ces troubles sur la santé de la population. Afin d'essayer d'identifier et de synthétiser les données sur ces effets, nous avons procédé à une revue systématique de la littérature dont nous avons utilisé les résultats pour constituer une base de données interrogeable en ligne à partir de documents, rapports et publications, dont la plupart étaient jusqu'alors difficilement accessibles (<http://www>.

[lshtm.ac.uk/ecohost/see/index.php](http://www.lshtm.ac.uk/ecohost/see/index.php)). La base de données couvre la période allant du début des années 90 à 2003 et sera d'un très grand intérêt pour les décideurs. Elle contient 762 objets dont un grand nombre sont annotés et disponibles pour le téléchargement. Le présent article résume les principales observations tirées du contenu de la base de données et souligne la nécessité d'une action concertée en vue d'améliorer la santé des populations d'Europe du Sud-Est. Nous recommandons en outre que les organisations œuvrant dans des situations de post-conflit investissent dans la création et l'entretien de bases de données en ligne, utiles à tous ceux qui travaillent dans la région.

## Resumen

## La salud en Europa sudoriental: un pasado problemático, un futuro incierto

La inestabilidad política y económica por la que atravesó Europa sudoriental en el último decenio del siglo XX ha dejado un legado de daños físicos. Este aspecto del conflicto ha sido abordado con frecuencia en los medios de comunicación. Sin embargo, sorprendentemente, se ha informado mucho menos acerca de los efectos de esa inestabilidad en la salud de los habitantes de la región. Con miras a identificar y sintetizar los datos existentes sobre esos efectos, llevamos a cabo una revisión sistemática con cuyos resultados desarrollamos una base de datos consultable en línea de los documentos, los informes y el material publicado, material al que en su mayoría no se podía acceder antes fácilmente (<http://www.lshtm.ac.uk/ecohost/see/index.php>). La base de datos

abarca el periodo de principios de los noventa a 2003 y será de gran interés para los formuladores de políticas. Contiene 762 ítems, muchos de ellos anotados y descargables. En este artículo se sintetizan los principales resultados obtenidos a partir del material que figura en la base de datos y se subraya la necesidad de una acción concertada para mejorar la salud de las personas en Europa sudoriental. Por último, recomendamos también que los organismos que actúan en situaciones de posconflicto inviertan en el desarrollo y el mantenimiento de bases de datos en línea que puedan ser de utilidad para otras personas que trabajen en la zona.

## ملخص

## الوضع الصحي في جنوب شرق أوروبا: ماضي مثقل بالمشكلات ومستقبل مجهول

وتغطي قاعدة المعطيات الفترة من أوائل التسعينات إلى عام ٢٠٠٣ وسوف تحوز اهتماماً بالغاً من قِبل واضعي السياسات. وتحتوي قاعدة المعطيات هذه على ٧٦٢ بنداً، العديد منها مزود بشروح ويمكن تحميلها وتخزينها على الحواسيب. وتجمع هذه الورقة البحثية حصيلة المعلومات المسجلة في قاعدة المعطيات، كما تؤكد على ضرورة اتخاذ إجراءات متناسقة لتحسين صحة السكان في جنوب شرق أوروبا. كما نوصي بضرورة قيام الوكالات العاملة في مرحلة ما بعد النزاعات بالاستثمار في إعداد قاعدة معطيات إلكترونية متاحة على شبكة الإنترنت لتتفح بها سائر الوكالات العاملة في نفس المجال.

ملخص: لقد خلف الاضطراب السياسي والاقتصادي الذي شهدته بلدان جنوب شرق أوروبا في العقد الأخير من القرن العشرين ميراثاً ثقيلاً من الدمار المادي. وقد لقي هذا الجانب من الجوانب المختلفة للصراع تغطية إعلامية جيدة. غير أن التبليغ عن تأثيرات هذا الميراث الثقيل على صحة سكان هذه المنطقة كان محدوداً. وفي محاولة منا لتحديد وجمع معطيات حول هذه التأثيرات، قمنا بمراجعة منهجية لهذه التأثيرات واستخدمنا النتائج في إنشاء قاعدة معطيات إلكترونية قابلة للبحث فيها تضم وثائق وتقارير ومواد منشورة معظمها لم يكن من الممكن الوصول إليها من قبل، وصارت متاحة الآن على الموقع: (<http://1shtm.ac.uk/ecohost/see/index.php>).

## References

1. United Nations Development Programme. *Kosovo human development report*. New York: UNDP; 2002.
2. UNICEF. *Ten years of child rights in Yugoslavia, 1990–2000. A review*. Belgrade: UNICEF; 2001.
3. World Health Organization. *Highlights on health in the Republic of Moldova*. Copenhagen: World Health Organization; 2001.
4. Bozicevic I, Oreskovic S, Stevanovic R, Rodin U, Nolte E, McKee M. What is happening to the health of the Croatian population? *Croatian Medical Journal* 2001;42:601-5.
5. World Health Organization. *Highlights on health in Croatia*. Copenhagen: World Health Organization; 2000.
6. Rechel B, McKee M. *Healing the crisis. A prescription for public health action in South Eastern Europe*. London: London School of Hygiene and Tropical Medicine; 2003. (Information Review.) (Also available at: <http://www.lshtm.ac.uk/ecohost/see>)
7. McKee M, MacLehose L, Nolte E, editors. *Health policy and EU enlargement*. Buckingham: Open University Press; 2004.
8. World Bank. *Interim poverty reduction strategy paper, Bosnia and Herzegovina*. Washington, (DC): World Bank; 2002.
9. Department for International Development Resource Centre. *Bosnia health briefing paper*. London: DFID; 1999.
10. Babic-Banaszak A, Kovacevic L, Kovacevic L, Vuletic G, Mujkic A, Ebling Z. Impact of war on health related quality of life in Croatia: population study. *Croatian Medical Journal* 2002;43:396-402.
11. WIIW Balkan Observatory [The Vienna Institute for Economic Studies]. *Macroeconomic developments in the southeastern European countries*. Available at: <http://www.wiiv.ac.at/balkan/data.html>
12. UNICEF. *The situation of children and women in the Republic of Moldova 2000: assessment and analysis*. Geneva: UNICEF; 2000.
13. Zoon I. *On the margins. Roma and public services in Romania, Bulgaria, and Macedonia*. New York (NY): Open Society Institute; 2001. [With a supplement on housing in the Czech Republic.]
14. Turnev I. *Common health problems among Roma – nature, consequences and possible solutions*. Sofia, Bulgaria: Open Society Foundation; 2001.
15. Levett J. Contributing to Balkan public health: a school for Skopje. *Croatian Medical Journal* 2002;43:117-25.
16. WHO European Region. European health for all database: June 2003. Available at: <http://www.who.dk/hfadb>
17. Nuri B, Healy J. *Health care systems in transition: Albania*. Copenhagen: European Observatory on Health Care Systems; 1999.
18. Gjonca A, Wilson C, Falkingham J. *Can diet and life style explain regional differences in adult mortality in the Balkans?* Rostock, Germany: Max-Planck Institute for Demographic Research; 1999.
19. Gjonca A, Bobak M. Albanian paradox, another example of protective effect of Mediterranean lifestyle? *Lancet* 1997;350:1815-7.
20. Shapo L, Gilmore AB, Coker R, McKee M, Shapo E. Prevalence and determinants of smoking in Tirana City, Albania: a population-based survey. *Public Health* 2003;117:228-36.
21. Dolea C, Nolte E, McKee M. Changing life expectancy in Romania after the transition. *Journal of Epidemiology and Community Health* 2002;56:444-9.
22. Bray I, Brennan P, Boffetta P. Projections of alcohol and tobacco related cancer mortality in Central Europe. *International Journal of Cancer* 2000;87:122-8.
23. Simpson D, Stambolovic V, McKee M. Yugoslavia: jobs or health? *Tobacco Control* 2002;11:92-3.
24. UNICEF, Office of the United Nations High Commissioner for Human Rights, OSCE Office for Democratic Institutions and Human Rights. *Trafficking in human beings in Southeastern Europe. Current situation and responses to trafficking in human beings in Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Federal Republic of Yugoslavia, the Former Yugoslav Republic of Macedonia, Moldova, Romania*. Geneva: UNICEF, UNOHCHT, OSCE-ODIHR; 2002.
25. Ministry of Health. *National health strategy, Bulgaria*. Sofia, Bulgaria: Ministry of Health; 2001.

26. Shapo L, McKee M, Coker R, Ylli A. Type 2 diabetes in Tirana City, Albania: a rapid increase in a country in transition. *Diabetic Medicine* 2004;21:77-83.
27. UNICEF. *Women in transition. Regional monitoring report No 6*. Florence: UNICEF; 1999.
28. Kovacs L. Abortion and contraceptive practices in Eastern Europe. *International Journal of Gynaecology and Obstetrics* 1997;58:69-75.
29. Adopt-A-Minefield. Minefields: Bosnia and Herzegovina. Available from [http://www.landmines.org.uk/Countries/Minefield\\_Clearance/Bosnia+and+Herzegovina](http://www.landmines.org.uk/Countries/Minefield_Clearance/Bosnia+and+Herzegovina)
30. UNICEF, Ministry of Health, Macedonia. *Multiple indicator cluster survey in FYR Macedonia with micronutrient component*. Skopje: National Institute of Nutrition; 1999.
31. Albania Health Reform Project. *Towards a healthy country with healthy people. Draft public health and health promotion strategy*. Tirana: Albania Health Reform Project; 2001.
32. UNICEF. *Multiple indicator cluster survey II: the report for the Federal Republic of Yugoslavia*. Belgrade: UNICEF; 2000.
33. United Nations Development Programme. *Bulgaria human development index: municipalities in the context of districts*. Sofia, Bulgaria: United Nations Development Programme; 2002.
34. UNICEF. *Consolidated donor report for South Eastern Europe*. Geneva: UNICEF; 2002.
35. International Labour Organization. *Unbearable to the human heart. Child trafficking and how to eliminate it*. Geneva: International Labour Organization; 2002.
36. Porter M, Haslam N. Forced displacement in Yugoslavia: a meta-analysis of psychological consequences and their moderators. *Journal of Traumatic Stress* 2001;14:817-34.
37. UNICEF. *Young people in changing societies. The MONEE project CEE/CIS/ Baltics. Regional Monitoring Report No 7*. Florence, Italy: UNICEF Innocenti Research Centre; 2000.
38. UNDP. *Human development report: Bosnia and Herzegovina 2002*. Sarajevo: UNDP; 2001.
39. Amnesty International. *Bulgaria. Far from the eyes of society. Systematic discrimination against people with mental disabilities*. London: Amnesty International; 2002.
40. Gesellschaft für Versicherungswissenschaft und -gestaltung (GVG), European Commission. *Study on the social protection systems in the 13 applicant countries: Bulgaria country report. (Draft)*. Cologne: GVG, European Commission; 2002.
41. Project Coordinator Unit, World Bank, Health Investment Fund. *Executive summary: institutional assessment, TB and HIV/AIDS*. Chisinau, Republic of Moldova: Project Coordinator Unit, World Bank, Health Investment Fund; 2001.
42. Ministry of Health. *Public health in Moldova 1999*. Chisinau, Republic of Moldova: Scientific and Practical Center for Health and Health Management, UNICEF; 2000.
43. Novotny T. *World Bank Southeastern Europe HIV/AIDS assessment*. Washington, DC: World Bank; 2002.
44. Ministry of Health. *National programme for prevention, treatment and rehabilitation of drug abuse in the Republic of Bulgaria 2001–2005*. Sofia, Bulgaria : National Centre for Drug Abuse; 2001.
45. National Committee to fight AIDS and tuberculosis. *Prevention and Control of HIV/AIDS/TB among the groups most at risk in Bulgaria 2003-2007*. Sofia, Bulgaria; 2002.
46. Velik-Stefanovska V. *Former Yugoslav Republic of Macedonia: an overview of the HIV/AIDS situation*. Skopje: UNICEF; 2000.
47. Wong E. *Rapid assessment and response on HIV/AIDS among especially vulnerable young people in South Eastern Europe*. Sarajevo: UNICEF; 2002.
48. UNAIDS, Ministry of Health and Family, Romanian Government, United States Agency for International Development, United Kingdom Department for International Development. *Implementing the Global Declaration of Commitment on HIV/AIDS*. Bucharest, Romania: UNAIDS; 2002. (Southeastern Europe Conference on HIV/AIDS.)
49. World Bank, Government of Moldova. *Moldova Health Sector Reform Project. Restructuring health services in central Judets*. Chisinau, Republic of Moldova: World Bank, Government of Moldova; 1999.
50. Institute of Public Health of Serbia. *Health status, health needs and utilization of health services in 2000. Report on the analysis for adult population in Serbia: Differences between domicile population, refugees and internally displaced persons*. Geneva: World Health Organization; 2000.