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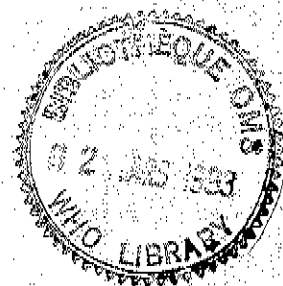
## ATLAS OF "AVOIDABLE" MORTALITY FOR COUNTRIES OF CENTRAL AND EASTERN EUROPE

Report on a WHO Meeting

Zamardi  
24 – 25 September 1992

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EUR/HFA TARGET 35

This activity was organized by the WHO Regional Office for Europe to promote work aimed at achieving the following target in the health for all strategy.<sup>a</sup>

## **TARGET 35**

### **HEALTH INFORMATION SUPPORT**

*By the year 2000, health information systems in all Member States should actively support the formulation, implementation, monitoring and evaluation of health for all policies.*

#### **Keywords**

MORTALITY  
VITAL STATISTICS  
ATLASES

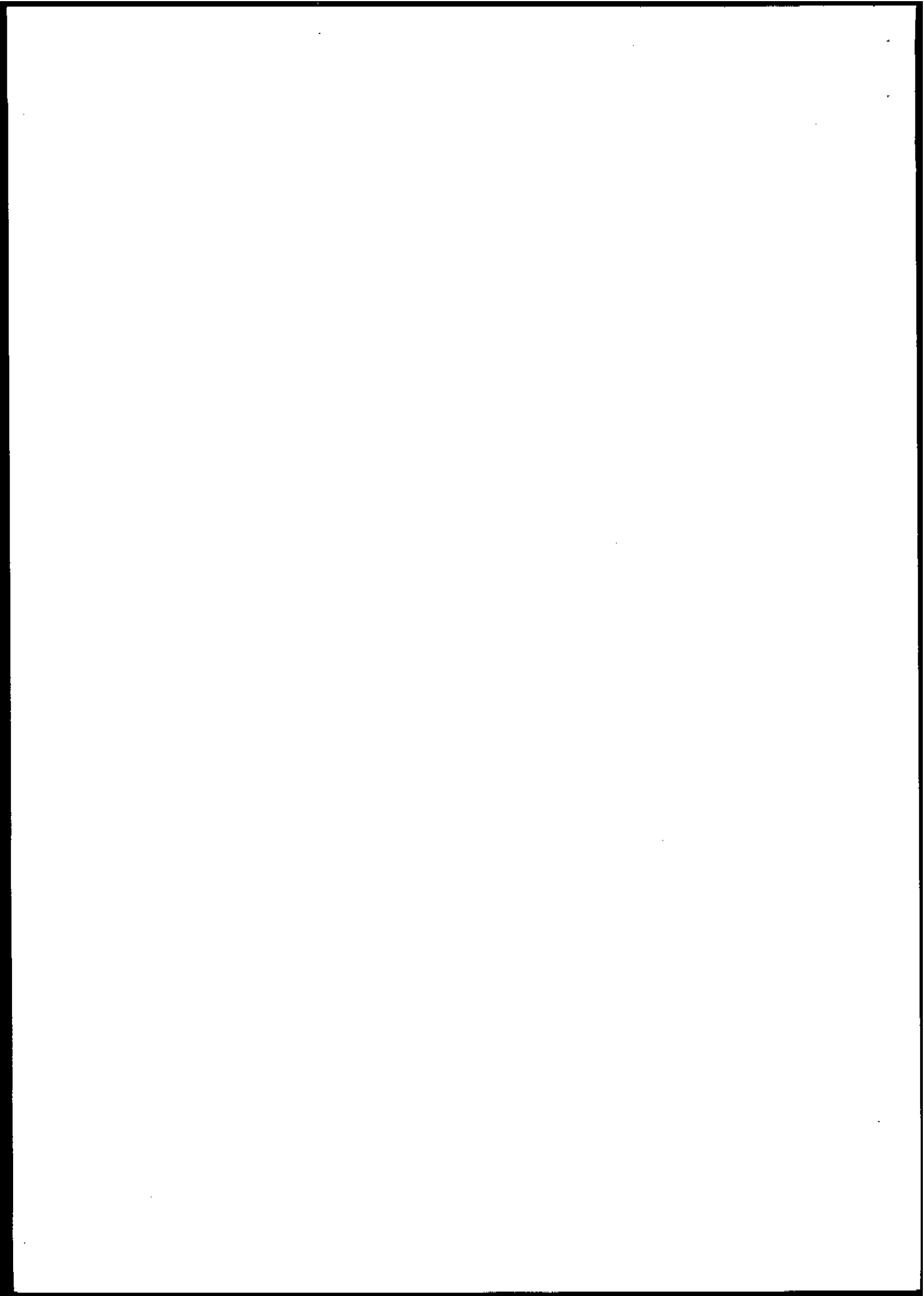
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<sup>a</sup> *Updating of the European HFA targets*. Copenhagen, WHO Regional Office Europe, 1991 (document EUR/RC41/Inf.Doc./1.Rev.1).

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## 1. Opening of the workshop

The workshop, jointly organized by the WHO Regional Office for Europe and the Hungarian Central Statistical Office (HCSO), was opened by Dr Peter Jozan. Dr Jozan welcomed the participants, Dr Andras Klinger, Deputy President of the Hungarian Central Statistical Office, Dr Remigijus Prokhorskas, Statistician, Unit of Epidemiology, Statistics and Health Information, WHO Regional Office for Europe, Professor Guillaume Wunsch, Dr Catherine Gourbin and Dr Anna Mormpart, observers from the Institute of Demography, University of Louvain, Belgium. Apologies were received on behalf of Dr Emil Mesaros of the Romanian Central Statistical Office, who had unfortunately suffered a myocardial infarction.

Dr Prokhorskas conveyed good wishes for the meeting from Dr J.E. Asvall, Regional Director, WHO Regional Office for Europe and thanked the Hungarian hosts for their help in organizing the workshop.

Dr Peter Jozan was appointed chairman of the meeting and Dr Don Forster as rapporteur.

## 2. Scope and purpose of the meeting

This was the second meeting of the working group which had been set up to produce the Atlas of "avoidable" mortality for countries of central and eastern Europe (CCEE). The aim of the first workshop (March 1991, Budapest) was to assess the availability of relevant data as well as the feasibility of producing the atlas for the CCEE and to discuss, in general, the problem of high mortality in this part of Europe. This activity has started within the project on mortality differentials in Hungary and was financially supported by the United Nations Population Fund.

The initiative to produce such an atlas for CCEE was largely inspired by a similar CEC project for the EC countries. The project description, together with data specifications were sent to the participants of the first workshop in 1992, in order to collect data before the second meeting of the group.

The purpose of this workshop was to discuss and agree on the technical details and methods for the data analysis and presentation of the atlas.

The main agenda items were as follows:

- purpose, content and use of the atlas;
- overview of the completeness and quality of data received from participating countries;
- direct/indirect age-standardization and other methodology-related issues;
- printed and computerized versions of the atlas;
- time-table for the production of the atlas.

3. Purpose of the atlas

It was agreed that the purposes of the atlas were:

- (a) to produce practical maps of "avoidable deaths" and leading causes of deaths to reveal:
  - (i) geographical inequities in mortality, both between and within countries of central and eastern Europe;
  - (ii) opportunities to select priorities in health policies to improve the health of the population;
- (b) to provide baseline mortality data in map form, against which changes could be measured, for instance as a result of alterations in health care systems, the environment and lifestyles.

4. Implications of the recent political changes in central and eastern Europe

It was noted that the recent changes in Europe have created certain problems for displaying data in the atlas. Data covers the period from 1985 to 1990 or 1991, i.e. in some cases data corresponds to countries which presently do not exist anymore. It was agreed that appropriate disclaimers and explanations should be given in the introduction or other textual parts of the atlas. It was also considered useful to send the draft atlas to the Ministries of Health of the Russian Federation, Ukraine, Belarus and Moldova, for information and comments, as the data for these Republics of the former USSR were centrally supplied.

There was no representative at this meeting from the former Yugoslavia though data at the level of Republics have been previously received from the Federal Statistical Office. The Hungarian Central Statistical Office (Dr P. Jozan) will make enquiries about the possibility of obtaining further disaggregated data for the former Yugoslavia. He would also be willing to make an informal enquiry with regard to the possibilities of including data from the former German Democratic Republic. In any case, official agreement from the Ministry of Health of the German Federal Republic would be needed before the data could be incorporated in the atlas. All of the above attempts to obtain new or more disaggregated data should not cause a delay in the agreed deadlines for production of the atlas. For example, if wide age-specific death rates are to be used for indirect standardization throughout the countries of central and eastern Europe, it will be necessary to decide which countries should be included in order to form the standard before any further analysis.

5. Types of map

There was general discussion concerning a possible minimum population size for an administrative area within a country to be included in the maps. The population of administrative areas varies significantly between countries, reaching in some cases only several thousands. This means that mortality from rare causes cannot be displayed at that level of disaggregation. There are two solutions, i.e. to display only those cause of death which would be statistically meaningful or to combine small areas into larger ones. Another extreme is that data are available only at the level of country, like Moldova or the Republics of the former Yugoslavia.

The number of administrative subdivisions of data provided by participants are as follows:

Belarus - 7  
Bulgaria (data will be resubmitted)  
Czech Republic - 86  
Slovak Republic - 38  
Estonia - 1 (will be resubmitted)  
Hungary - 23  
Latvia - 33  
Lithuania - 55  
Moldova - 1  
Poland - 49  
Romania - 41  
Russian Federation (European part only) - 54  
Ukraine - 26  
Yugoslavia - 9

It was agreed that maps should be produced at the following levels:

Type 1

Maps of the whole CCEE (or perhaps whole Europe), at the level of countries. The purpose is to show intercountry variations and to compare the central-eastern part with the other parts of Europe.

Type 2

Maps of the whole CCEE at the level of regions or administrative districts aggregated to larger areas, where necessary. It will show intercountry variations at the level of small regions.

Type 3

Maps of individual countries at district level with possibly some differentiation of districts within large cities. Only maps with statistically meaningful data will be presented.

6. Years of data to be used

The data covering the following years have been provided for the atlas:

Czech Republic	1986-90
Slovak Republic	1985-89
Bulgaria	1987-91
Poland	1986-90
Hungary	1985-91
Lithuania	1988-91
Latvia	1988-90
Estonia	1985-91 (whole country) 1986-91 (districts)
Russia, Ukraine, Belarus, Moldova	1988-89
Romania	1985-89
Yugoslavia	1985-89

It was agreed that the data for the years available from each country would be accepted even though there were some differences in time coverage.

7. Upper age limit for "avoidability"

The upper age limit for the concept of "avoidability" was discussed. Arguments were put forward for an upper limit of 70 years of age because of rising life expectancy. However, the participants of the workshop agreed that on the grounds of the compatibility with the EC atlas and other work, that 64 years should be the upper limit, although it was accepted that this decision was arbitrary.

8. Causes of death to be included

The group agreed that care should be taken in the use of terminology in the atlas. For example, the term "avoidable" was much wider than the term "amenable to medical care" since it included conditions which may be responsive to policies not involving direct medical interventions, e.g. malignant neoplasm of trachea, bronchus and lung, cirrhosis of liver and motor vehicle traffic accidents.

Members of the workshop agreed that the 20 causes of death and age groups listed in Table 1 of the project proposal (see Annex 2) should be accepted, subject to:

- (a) the age group for malignant neoplasms of the cervix uteri should be changed to 15-64;
- (b) all causes, all ages should be added to the list.

This selection of diseases meant that "avoidable" causes and age groups compatible with the EC atlas had been chosen but, in addition, three leading causes had been included, namely:

Cardiovascular diseases, 0-64  
Malignant neoplasms, 0-64  
External causes of death, 0-64

It was proposed that the title of the atlas should be "Atlas of leading and "avoidable" causes of death in the countries of central and eastern Europe". It was felt that it may be useful to check that the International Agency for Research on Cancer in Lyon was not producing a similar atlas for eastern and central Europe, based on cancer mortality. (Note: It seems that IARC is in the process of preparing maps on cancer mortality (by sites) for selected countries of central Europe, covering only years 1983-87, i.e. there is no duplication with this atlas).

9. Standardization

The following forms of standardization were agreed for use in the maps:

(a) Indirect standardization

(i) National age specific rates would be used as the standard for intra-country regional and administrative district comparisons;

(ii) CCEE wide age specific rates for appropriate years would be used as the standard for inter-country comparisons.

(b) Direct standardization

Direct standardization will be used for all causes and leading causes of death, using the WHO standard for the European population.

10. Life expectancy

Discussion took place as to whether life expectancy should be included in the maps. It was argued that it was preferable for the same method of calculation to be used, a maximum of 5 year age groups for death rates, and the need for age specific death rates up to the range 85+. National data for life expectancy (male and female) were readily available from WHO.

It was agreed that where life expectancies had already been calculated for administrative areas (e.g. Russia, Latvia and Hungary), life expectancy could be included in Type 3 maps, i.e. an intra-country comparison.

11. Other indicators

It was agreed that these should be based on the seven indicators used in the EC atlas (number of physicians per 100 000 population etc) and as recorded in the project proposal. These indicators would be produced at country level only. It was noted with regret that in this phase of the atlas production, it would not be possible to include indicators of occupational status. It was agreed that footnotes would be required to record any inter-country differences in definitions in these indicators.

12. Quality of data

It was noted that in all the countries represented at the workshop, deaths were registered according to the place of permanent residence; this was also the case for students. (N.B. The situation in Russia needs to be clarified). It was noted that different countries may use different definitions for perinatal mortality. In addition, Latvia and Lithuania adopted a gestational eligibility period of 22 weeks (instead of 28 weeks) for the registering of infant mortality in 1991. There was a general discussion on the validity of the death certification data in the individual countries. Estimates of the proportion of deaths subject to post mortem in the various countries ranged from 15 to 30%.

It was agreed that any differences in definition (between countries) or doubts about the quality of data should be specified in the introduction to the atlas and/or in footnotes.

13. Missing data

In Bulgaria, regional data are available by cause, on an all ages basis and in 55 cause categories, only in certain age groups. Two possibilities were considered:

- (a) exclude Bulgaria when relevant data for regions are not available;
- (b) since mortality data by age, sex and cause are available at national level, make estimates for the regions in the relevant age groups. Method (b) was preferred. (Action: Professor Bogdanov)

Because of the revision in age group (now 15-64) for the category of malignant neoplasm of the cervix uteri, data would need to be re-supplied by each country for this category and age group. (Action: Representatives from each country)

14. Statistics

It was agreed that the tables with data and statistics to be incorporated in the atlas should be similar in nature to those in the EC atlas.

15. Mapping of country, regional or administrative area boundaries (Type 2 maps)

There was considerable discussion as to how this could be best achieved. It was felt that it may be difficult to produce a large map by combining maps of individual countries. Participants experienced in mapping strongly advised that boundaries should be drawn on a large map.

It was decided that a large map of Europe would be sent to each participant who would be asked to draw in the within country regional or administrative area boundaries. On return to the Hungarian Central Statistical Office, these internal boundaries would be digitised.

Mrs Kamberska indicated that she would be willing to offer advice and help as a contingency, if unforeseen problems arose.

16. Other mapping aspects

Dr Jozan distributed samples of mortality maps that had been produced for the counties of Hungary based, on digitised boundaries. It was agreed that these were of good quality and it was further agreed that there should be 6 (colours) ranges for mortality. The colours would extend from dark green (lowest range of mortality) to dark red (highest range of mortality). The numerical values of SMRs or direct standardized rates related to each colour would be decided after the calculations had been completed.

17. Compatibility with the EC atlas

The cause categories chosen for the central and eastern European atlas are compatible with those of the EC atlas. The time period covered will be later than the second edition of the EC atlas. In indirect standardization, different standard age specific rates will be used in the standardization process. It was hoped that in the future, both central and eastern Europe and the rest of Europe, could be incorporated in the same mortality atlas.

Professor Walter Holland, leader of the EC atlas group, would be contacted to inform him of this project and to seek his comments and the advice of his colleagues.

18. Timetable

The following timetable was agreed:

(a) By 9 October 1992:

Statistical adjustment to the Bulgarian regional data.

Revised data from each country for the age group 15-64 for malignant neoplasms of the cervix uteri.

(b) By October 1992:

Dr Jozan to send a map of central and eastern Europe to participants.

(c) By November 1992:

Participants to return the map to Dr Jozan with the regional or administrative boundaries drawn in (for Type 2 maps). A map of the administrative districts of Estonia is also required (for Type 3 maps).

(d) By 15 January 1993:

All standardized ratios and rates to be calculated and sent to participants.

(e) By 26 February 1993:

All participants to have checked and commented on the ratios, rates etc. sent to them and have returned these to Dr Jozan.

(f) By 26 March 1993:

Hungarian Statistical Office to have produced draft maps and appropriate parts of the text for the atlas. Draft to be sent to participants for comments.

(g) By May 1993:

Participants to have returned comments on text, tables and maps.

(h) By June 1993:

Production of final version of text, tables and maps.

19. Production of the atlas

- (a) It was agreed that an English language version of the atlas should be produced although some sections, e.g. the introduction and explanation of methods, might be in more than one language.
- (b) Members of the workshop agreed that the atlas should be a joint publication between the WHO Regional Office for Europe and the Hungarian Central Statistical Office. A draft of the atlas would need to go to the WHO publications committee for approval and comment.
- (c) It was suggested and agreed that the Oxford University Press should be approached to see if they would agree to a joint publication with WHO and the Hungarian Central Statistical Office.

20. Text for the atlas

It was agreed that Dr J.E. Asvall, WHO Regional Director for Europe, should be invited to write the preface. Authors of the other sections would be identified at a later date. Clearly, the sections would need to include the background, context and purposes of the atlas; the methods and definitions; the findings and discussion. The text for the findings and discussion could only be written from January 1993 onwards when the draft calculations become available. The other sections could be written earlier. It was noted that the "volume" of text in the atlas would probably be quite small.

21. Computer versions

The representative from Lithuania brought a demonstration version of a computer package for data presentation which was developed by the Lithuanian Health Information Centre. The package is based on the main principles of display systems of the WHO "Health for All" indicators and the United Kingdom's Health Service Indicators. In addition to the maps, the package has the possibility to display data as bar charts, line charts, box plots, histograms, scattergrams and tables. After certain modifications, the system could be adapted for the computerized version of the atlas. Dr A. Gaizauskiene, Director of the above Health Information Centre, expressed willingness to assist in such an adaptation. The actual amount of work, particularly the digitalization of subnational boundaries has to be estimated and, perhaps some support will be needed. The main advantage of the computerized version of the atlas is that it can be easily updated at any time with new indicators and data for more recent years.

When standardized ratios and rates had been calculated (January 1993), the data would be sent to the Lithuanian Health Information Centre for incorporation in a PC package for computer presentation.

22. Other matters

Dr Prokhorskas asked if there were any other indicators relevant to health which were available and might be considered for mapping at a future date. Suggestions included abortion, livebirths, stillbirths, cancer registration and diabetes incidence.

Dr Jozan requested that the network of participants should be a "live" network with a quick response by fax with respect to the current project. In addition, he hoped that participants would be willing to provide help with data for future analytical studies.

It was agreed that a message should be sent to Dr Mesaros wishing him a speedy recovery, together with a copy of the published booklet on last year's workshop.

23. Main conclusions

1. The basic data for the atlas is already prepared and available for all countries of central and eastern Europe, except for Albania.

2. It was agreed to include the leading causes of death (cardiovascular diseases, cancer, external causes) in the atlas, together with the "avoidable" causes.

3. Three types of maps were recommended for inclusion in the atlas:

- (i) central and eastern Europe (or perhaps whole Europe) at country level;
- (ii) central and eastern Europe at a subcountry regional level;
- (iii) separate maps for selected countries showing intracountry variations.

4. The following deadlines were agreed:

- to supply missing data by the end of October 1992;
- data analysis completed by end January 1993;
- first draft of the atlas by end March 1993;
- final version by June 1993.

5. The atlas will be a WHO/HSCO co-publication.

It was agreed to make enquiries whether the Oxford University Press would be interested in publishing the atlas.

6. A computer version of the atlas will also be prepared, using the data presentation system which is in the process of being developed by the WHO Regional Office for Europe and its collaborating centre in Lithuania. This will, in future, allow the introduction of new indicators and the use of more recent data.

Annex 1  
**LIST OF PARTICIPANTS**  
**TEMPORARY ADVISERS**

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## *WORLD HEALTH ORGANIZATION*

### Regional Office for Europe

Dr R. Prokhorskas, Statistician, Epidemiology, Statistics and Health Information

## Annex 2

### Atlas of "avoidable" mortality for Countries of Central and Eastern Europe

#### Project proposal

#### Background

Mortality data is of vital importance for determining the health status of the population and for the planning and evaluation of the health services. There is a growing interest in using the "avoidable" causes of death as indicators of quality and outcome of health care services. The concept of "avoidable" death is based on the fact that for some diseases medical knowledge is advanced to the degree, that premature deaths should be almost completely avoided if appropriate prevention or treatment measures are applied in time.

Although the data on separate causes of death including the "avoidable" ones are virtually available in any developed country, its use is often very limited. One of the main reasons is that voluminous statistical yearbooks are the only way of presenting available mortality data. An effective way to make this data usable is to visualize it in the form of maps.

A second edition of such maps has been issued recently for the countries of the European Community (see: "European Community Atlas of "Avoidable Death", Oxford Medical Publications, 1991). This publication covers the EC countries only, leaving the rest of Europe as a "white spot".

The purpose of this project is to fill in this gap to a large extent, by producing a similar atlas for the countries in central and eastern Europe (CCEE). Same methods and definitions of "avoidable" mortality will be used as much as possible to make this atlas and the data comparable with that of the European Community.

The atlas will help to indicate areas with excess of "avoidable" mortality by comparing them with other areas within and between countries. As stated in the EC atlas, the "avoidable death indicators" can be used for the following two purposes: "(i) to examine whether there is geographical equity of outcome for specific areas of health service activity and (ii) to give warning signals to be investigated by local studies, which would aim at identifying avoidable factors and other problems so that management of local health services could be improved".

The atlas will assess the situation in 1985-1989, a period which includes the latest available data for most CCEE.

A computer-based interactive mapping system is also planned. It will allow to accept new data as soon as it becomes available and to monitor changes.

This is a joint project of the Hungarian Central Statistical office (part of the UNFPA supported project on mortality differentials in Hungary) and the WHO Regional Office for Europe.

### Objectives

1. To collect data on "avoidable" mortality from CCEE at subnational level and to transform it into an atlas which could be used as a tool for assessment of the performance of the health services in the CCEE;
2. To develop a computerized version of the atlas for continuous monitoring and visualization of changes in "avoidable" mortality at country and sub-country levels.

### Main phases of the project

1. Identification of counterparts (normally Central Statistical Offices or Ministries of Health) in CCEE and contact persons dealing at "first-hand" with mortality data.
2. Preparation of data by counterparts in participating countries for the atlas according to the requirements (see Annex 1) and transfer to the Hungarian Central Statistical Office or the WHO Regional Office for Europe.
3. Meeting of representatives from participating countries in Budapest to discuss the preparation of the atlas (September 1992).
4. Pooling, analysis of data and preparation of the atlas.
5. Development of the computerized version of the atlas.
6. Meeting of representatives from participating countries to finalize the atlas (1993).

## Progress to date

The proposal was presented and discussed during the Workshop on Mortality Trends in Central and Eastern European Countries, Budapest, 21-22 March 1991. The meeting was attended by 12 experts from Bulgaria, Czechoslovakia, Hungary, Poland, Romania, the former USSR, Yugoslavia and the United Kingdom. According to preliminary assessment, the production of the atlas for the CCEE, similar to that of the European Community, is feasible. Total and cause-specific mortality data as well as corresponding population figures are available at the appropriate administrative levels in each country. All the participants agreed that such an atlas would be useful and expressed their willingness to collaborate in producing it.

## Contact persons

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Requirements for and format of country data for the CCEE atlas of "avoidable" mortality

## 1. Causes

In order to make the atlases of the European Community and the CCEE as comparable as possible, most causes of "avoidable" death and age-groups used in the second edition of the "European Community Atlas of "Avoidable" Death" are suggested to be included in the CCEE atlas. The coverage of the ICD codes for two causes, namely cholelithiasis and cholecystitis and motor vehicle accidents were slightly modified in order to make them consistent with the ICD-9 Basic Tabulation List. The list is supplemented with the leading groups of death causes, i.e. cardiovascular diseases, cancer and external causes of death (see Table 1). It would be cost-effective to use the same exercise to produce also maps for leading causes of death.

## 2. Administrative area

The availability of mortality and population data is the main criteria for the selection of administrative areas as smallest elements of the map. Normally it is the first level of the countries' administrative subdivision (e.g. counties, regions). Ideally the population should be approximately 500 000 per area.

A good quality country map with boundaries of the above administrative areas should be supplied together with the mortality data. It may also be useful to number the administrative areas on the map and to make a separate list of the area names. The boundaries will be digitized for computer mapping software.

## 3. Data

The following data should be provided by each participating country.

- 3.1 Total number of deaths by cause and administrative area for the period 1985-89 (see attached model table 1). If data for a different time period is only available, it should be as close as possible to 1985-89. Summing up for a 5 year period is necessary because of small numbers of deaths involved for most of the "avoidable" causes.
- 3.2 Population by age, sex and area (see model table 2). A 5-year average should be provided for 1985-89 or another period if this was used for mortality data under 3.1.
- 3.3 Total number of deaths for a 5-year period (1984-89) by cause and age for the whole country (see model table 3).

The above three tables contain the minimum data needed to complete the calculations for the atlas:

- (a) to estimate cause- and age-specific death rates for each country and all countries combined;
- (b) to make indirect age-standardization, i.e. to calculate standardized mortality ratios for each area using the above death rates as country and CCEE standards (for within and between country comparisons respectively).

Two other optional types of data are also suggested, in addition to the above minimum:

- 3.4 Total number of leading causes of death for a 5-year period (1984-89) by age and area (see model table 4). This data is needed to produce maps of leading causes of death in specific age-groups.
- 3.5 Selected indicators of socio-economic conditions and health services inputs (see model table 5). The purpose of this data is to make an analysis of the expected association between "avoidable" and leading causes of death on the one side and the availability of health services and general socio-economic conditions on the other side. It is realized that only very limited data are available in a comparable form for these indicators.

The following list of indicators is proposed, based on those used for the EC atlas:

1. Number of physicians per 100 000 population (abbreviation: PHY).
2. Number of nurses per 100 000 population (NUR).
3. Number of acute hospital beds per 1 000 population (BEDS).
4. Percentage of households with fixed bath or shower (BATH).
5. Average number of persons per room (excluding kitchen and bathroom) (ROOM).
6. Number of private cars per 1 000 inhabitants (CAR).
7. Percentage of population aged 25+ with completed university level education (EDUC).

TABLE 1

Causes of "avoidable" death and leading causes of mortality  
for CCEE atlas.

Cause	Age-group	ICD-9 codes	Codes of ICD-9 Basic Tabulation List	Abbreviation
1. Tuberculosis including late effects of tuberculosis	5-64	010-018, 137	02, 077	TUB
2. Malignant neoplasms of cervix uteri	15-64 (females)	180	120	CERV
3. Malignant neoplasm of cervix uteri and body of uterus	15-54 (Females)	179, 180, 182	120, 122	UTER
4. Hodgkin's disease	5-64	201	140	HODG
5. Chronic rheumatic heart disease	5-44	393-398	251	CHR
6. All respiratory diseases	1-14	460-519	31, 32	RESP
7. Asthma	5-44	493	Part of 323	ASTH
8. Appendicitis	5-64	540-543	342	APP
9. Abdominal hernia	5-64	550-553	343	HERN
10. Cholelithiasis and cholecystitis*	5-64	574-575.1	348	CHOL
11. Hypertensive and cerebrovascular diseases	35-64	401-405, 430-438	26, 29	HYPC
12. Maternal deaths	All years	630-676	38, 39, 40, 41	MAT
13. Perinatal mortality	Aged under 1 week + stillbirths	All causes		PER

- cont. -

Cause	Age-group	ICD-9 codes	Codes of ICD-9 Basic Tabulation List	Abbreviation
14. Malignant neoplasm of trachea, bronchus and lung	5-64	162	101	MLUN
15. Cirrhosis of liver	15-64	571	347	CIRL
16. Motor vehicle* accidents	5-64	E810-E819	E471	MOTV
17. All causes of death	5-64	001-E999	01-E56	ALL
18. Cardiovascular diseases	All	390-459	25-30	CVD
19. Malignant neoplasms	All	140-208	08-14	CAN
20. External causes of death	All	E800-E999	E47-E56	EXT

\* Definition is slightly different of the one used for the EC atlas.

Model table 1

Total number of deaths for 5 year period (1985-89) by cause and administrative area (see table 1 for ICD codes, age-groups and abbreviations; please state clearly if another period than 1985-89 is covered).

Administrative area (name)	TUB	CERV	UTER	HQDG	CRHD	RESP	ASTH	APP	HERN	CHOL	HYPG	MAT	NEO	STIL	MLUN	CIRL	MOTV	ALL
5-64	5-64	5-54	5-64	5-44	1-14	5-44	5-64	5-64	5-64	5-64	35-64	All			5-64	15-64	5-64	5-64

1.

2.

3.

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..  
..

Total:  
(i.e. country)

NOTE: NEO - Early neonatal deaths (death of a liveborn infant during the first week of live)  
STIL - Stillbirths (death of a fetus weighing at least 1 000 grammes)

Model table 2

5-year average population by age, sex and area

Administrative area	Sex	1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75	All ages	No of live births
											<		
1.	M												
	F												
2.	M												
	F												
3.													
4.													
..													
..													
Total:												M	
(i.e. country)												F	

Model table 3

Total number of deaths for 5-year period by cause and age for the whole country

Cause of death	ages										
	<1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	ALL
1. TUB											
2. CERV											
3. UTER											
4. HODG											
5. CBR											
6. RESP											
7. ASTH											
8. APP											
9. HERN											
10. CHOL											
11. HYPG											
12. MAT											
13. MLUM											
14. GIRL											
15. MOTV											
16. ALL											

Model table 4

Total number of deaths for 5-year period (1985-89)  
by leading cause of death, age and area.

Area	Cause	< 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75 <	All ages
1.	GVD											
	CAN											
	EXT											
	ALL											

2. GVD  
CAN  
EXT  
ALL

Model table 5

Selected indicators on health services  
and socioeconomic conditions.

Area	PHY	NUR	BEDS	BATH	ROOM	CAR	EDUC
------	-----	-----	------	------	------	-----	------

1.

2.

3.

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Average for  
country