

*Nicolae Testemitanu* State University of Medicine  
and Pharmacy of the Republic of Moldova  
Institut National d'Études Démographiques, France

**Olga Penina, France Meslé, Jacques Vallin**

**MORTALITY TRENDS BY CAUSES OF  
DEATH IN THE REPUBLIC OF MOLDOVA,  
1965-2020**

CHISINAU  
2022

*Nicolae Testemitanu* State University of Medicine and  
Pharmacy of the Republic of Moldova

Institut National d'Etudes Démographiques, France

Olga Penina, France Meslé, Jacques Vallin

**MORTALITY TRENDS BY CAUSES OF  
DEATH IN THE REPUBLIC OF MOLDOVA,  
1965-2020**

Chisinau

Centrul Editorial-Poligrafic *Medicina*

2022

## TABLE OF CONTENTS

<b>Acknowledgments</b> .....	8
<b>Introduction</b> .....	9
References .....	13
<b>Chapter I. Half-century evolution of sex- and age-specific mortality</b> .....	15
1. The history of the death registration system.....	15
A. During the Soviet period.....	16
B. After independence .....	20
2. Correcting for population estimates .....	25
A. During the Soviet period.....	25
B. After independence .....	27
3. Correcting mortality estimates.....	29
A. Infant mortality .....	29
B. Old-age mortality .....	40
4. Readjustment of life expectancy at birth.....	44
5. Age-specific mortality trends .....	48
References .....	51
<b>Chapter II. Registration, collection and quality of cause-of-death data</b> ...	55
1. The history of cause-of-death classifications.....	55
A. During the Soviet period.....	55
B. After independence .....	57
2. Collected data .....	58
3. Data quality .....	58
References .....	61
<b>Chapter III. Reconstruction of the time series</b> .....	62
1. The method of reconstruction: the case of the transition from 1965-SC to 1970-SC.....	63
A. Correspondence tables.....	63
B. Fundamental associations of items.....	65
C. Transition coefficients .....	69

2. Other transitions .....	72
A. Transition from 1970-SC and 1981-SC .....	73
B. Abolishment of work accident definition in 1988-SC .....	74
C. Transition from 1988-SC to ICD-9 .....	74
D. Transition from ICD-9 to ICD-10 .....	82
3. Additional adjustment of the reconstructed time series .....	84
A. A posteriori corrections of some time series .....	85
B. The peculiar case of senility .....	93
References .....	99
<b>Chapter IV. Mortality by age, sex and main groups of causes of death ..101</b>	
1. Decomposition of life expectancy at birth changes into specific effects of mortality trends by age and main groups of causes.....	102
A. Global changes in life expectancy in Moldova and Ukraine since 1965 .....	102
B. Changes in life expectancy over six periods .....	105
2. Trends in standardised mortality rates by main groups of causes of death .....	118
A. Overview of trends in mortality from main groups of causes of death.....	118
B. Comparison with Ukraine .....	120
References .....	135
<b>Chapter V. Mortality by age, sex and detailed causes of death.....137</b>	
1. Causes of death at under one year old .....	138
A. Major causes of death.....	138
B. Infectious diseases and diseases of the respiratory system.....	141
C. Other diseases .....	143
D. Deaths from injury and poisoning.....	146
2. Causes of deaths in children aged 1-14 .....	148
A. Major causes of death.....	148
B. Diseases of the respiratory system .....	149
C. Deaths from injury and poisoning.....	150

D. Neoplasms.....	151
E. Other diseases.....	151
3. Causes of death in young adults aged 15-39 .....	154
A. Major causes of death.....	154
B. Deaths from injury and poisoning.....	157
C. Infectious diseases .....	161
D. Other diseases.....	162
5. Causes of death in mature adults aged 40-64 years.....	165
A. Major causes of death.....	165
B. Diseases of the circulatory system .....	168
C. Neoplasms.....	172
D. Deaths from injury and poisoning.....	177
E. Digestive diseases .....	181
F. Infectious diseases and diseases of the respiratory system.....	185
G. Other diseases.....	188
6. Causes of death at older adults aged 65 years and over .....	193
A. Major causes of death.....	193
B. Diseases of the circulatory system .....	196
C. Respiratory and infectious diseases.....	199
D. Neoplasms.....	202
E. Digestive diseases .....	204
F. Deaths from injury and poisoning .....	205
G. Other diseases.....	207
References .....	212
<b>Conclusions .....</b>	<b>215</b>
References .....	218
Annexe 1. Life expectancy at birth before and after two corrections of infant mortality rate ( $m_0$ ) and old-age mortality correction, 1959-2020, by sex.....	220
Annexe 2. Life expectancy at different ages, 1959-2020, by sex .....	223

Annexe 3. List of causes of death used in reconstructed series and their correspondence with ICD-10 codes .....	226
Annexe 4. Standardised mortality rates by sex and cause according to the list of ICD-10 items, 1965-2020 (per 1 million) .....	231
Annexe 5. The impact of mortality trends by age, sex and cause on the changes in life expectancy at birth since 1965 and over six different periods .....	271