ISSN 2029-8625

POPULATION RESEARCH

GYVENTOJŲ STUDIJOS

2012, Nr. 3

Vilnius

POPULATION RESEARCH – is a series of population related studies published in Lithuania.

Editorial Board

Editor-in-chief

Vlada Stankūnienė, Institute for Demographic Research, Lithuanian Social Research Centre, Lithuania

Managing editor

Aušra Maslauskaitė, Institute for Demographic Research, Lithuanian Social Research Centre

Members

Alain Blum, Centre for Russian, Caucasian and Central-European studies / Ecole des Hautes Etudes en Sciences sociales; Institut National d'Etudes Démographiques, France

Aiva Jasilionienė, Max Planck Institute for Demographic Research, Germany

Domantas Jasilionis, Max Planck Institute for Demographic Research, Germany

Juris Kruminš, Latvian University, Latvia

Romas Lazutka, Vilnius University, Lithuania

Vylius Leonavičius, Vytautas Magnus University, Lithuania

Sarmitė Mikulionienė, Mykolas Romeris University, Lithuania

Allan Puur, Estonian Institute for Population Studies, Tallinn University, Estonia

Anatoly G. Vishnevsky, Institute of Demography, State University – Higher School of Economics, Russia

Address of editorial board

Institute for Demographic Research, Lithuanian Social Research Centre
Gostauto 11, 01108 Vilnius, Lithuania
El. paštas / e-mail: ldem@ktl.mii.lt

LITHUANIAN SOCIAL RESEARCH CENTRE

Domantas JASILIONIS
Vlada STANKŪNIENĖ

SOCIOECONOMIC DIFFERENCES IN ADULT MORTALITY IN LITHUANIA:
A CENSUS-LINKED STUDY

Vilnius, 2012

UDK 314(474.5)
Ja596

SOCIOECONOMIC DIFFERENCES IN ADULT MORTALITY IN LITHUANIA: A CENSUS-LINKED STUDY

Domantas JASILIONIS
Max Planck Institute for Demographic Research, Rostock, Germany

Vlada STANKŪNIENĖ
Institute for Demographic Research, Lithuanian Social Research Centre, Lithuania

The book is recommended for publication by the Scientific Council of the Lithuanian Social Research Centre, 21 December, 2011.

Preparation and publication of the book is sponsored by the Research Council of Lithuania (project - SIN-14/2010).

Cover illustration by Rimas Zigmas Bičiūnas, *Peacefulness*

Alan Hendrixson – *English editor*

ISBN 978-9955-531-35-7
ISSN 2029-8625

© Lithuanian Social Research Centre, 2012

PREFACE

Despite notable improvements in health since 2007, mortality levels in Lithuania persist at relatively high levels. In the international context (European Union), the mortality level remains very high. Moreover, in some areas of public health, the situation is alarmingly deteriorating further. Male mortality is a matter of particular concern because male life expectancy in 2010 was still below the level of the mid 1960s. The unfavourable mortality situation is related to the distorted age- and cause-specific pattern of mortality inherited from the Soviet period. The key features of this pattern include elevated premature mortality due to cardiovascular diseases and external and alcohol-related causes of death. Previous research suggests that one of the most important determinants of this unfavourable situation in life expectancy concerns striking mortality differences by age, sex, education, marital status, and place of residence.

In order to perform a systematic assessment of the impact of socioeconomic determinants on adult mortality in Lithuania, a study on contradictory trends, determinants, and social differentials of cause-specific mortality in Lithuania was carried out in 2010–2011[1]. The methodological approach of the study is based on the linkages between population census and death register records census-linked data. This methodology was adapted to the Lithuanian data by an international scientific team from the Institute for Demographic Research of the Lithuanian Social Research Centre (Vilnius, Lithuania), Statistics Lithuania (Vilnius, Lithuania), and the Max Planck Institute for Demographic Research (Rostock, Germany).

The census-linked data were obtained thanks to the rigorous work of highly qualified specialists from Statistics Lithuania. The successfully implemented linkage methodology produced high quality aggregated census-linked data that was further used for the calculations of indicators of mortality inequality for this study. The authors would like to thank Dr Vladimir M. Shkolnikov (Head of the Laboratory of Demographic Data at

[1] This project is sponsored by the Research Council of Lithuania (project - SIN-14/2010) and implemented in the network of the national programme *Social Challenges for National Security*.

the Max Planck Institute for Demographic Research) for his continuous support and valuable input into the implementation of the census-linked database and methodology of this study. The authors also acknowledge the tremendous contributions of Dalia Ambrozaitienė and other specialists from Statistics Lithuania. This study would not have been possible without their positive attitude and creativity in solving various methodological challenges. The authors would like to thank Dr Dmitri Jdanov (Max Planck Institute for Demographic Research, Rostock, Germany), Dr France Meslé (INED, Paris, France), and Prof Jacques Vallin (INED, Paris, France) for their methodological contributions in the earlier stages of the project. The authors also extend their thanks to Prof Arvydas Virgilijus Matulionis and Prof Meilutė Taljūnaitė from the Lithuanian Social Research Centre for their useful comments and suggestions related to this publication.

This study presents the first comprehensive analysis of socioeconomic differences in adult mortality in Lithuania using high quality census-linked data for 2001–2005. For the first time ever in Lithuania, the study simultaneously uses three socioeconomic dimensions: education, economic activity status, and occupational group. Socioeconomic mortality inequalities are measured using widely used range-type and advanced Gini-type measures. Relative and absolute mortality differentials are analysed using 19 detailed groups of causes of death. Finally, the public health burden attributable to socioeconomic mortality differentials is discussed using the method of cause-specific population attributable fractions.

The authors hope that this comprehensive data on mortality differentials will be interesting to policy makers dealing with the implementation of health and social policies in Lithuania, specialists in population statistics, researchers, and students in different fields (demographers, epidemiologists, sociologists, economists and others).

CONTENTS

1. Introduction 9

2. Data and methods 12

2.1. The census-linked mortality database 12

2.2. Socioeconomic and sociodemographic variables and their categories 14

2.3. Methods 15

3. Relative socionomic mortality differences by cause of death 17

3.1. Mortality due to all causes of death combined 17

3.2. Mortality due to diseases of the cardiovascular system 20

3.2.1. Mortality due to all diseases of the cardiovascular system 20

3.2.2. Mortality due to ischaemic heart diseases 22

3.2.3. Mortality due to cerebrovascular diseases 24

3.2.4. Mortality due to all other diseases of the cardiovascular system 26

3.3. Mortality due to neoplasms 28

3.3.1. Mortality due to all neoplasms 28

3.3.2. Mortality due to smoking-related cancers 30

3.3.3. Mortality due to breast cancer 32

3.3.4. Mortality due to prostate cancer 34

3.3.5. Mortality due to all other neoplasms 36

3.4. Mortality due to diseases of the digestive system 38

3.5. Mortality due to external causes of death 40

3.5.1. Mortality due to all external causes of death 40

3.5.2. Mortality due to transport accidents 42

3.5.3. Mortality due to suicide 44

3.5.4. Mortality due to homicide 46

3.5.5. Mortality due to all other external causes of death 48

3.6. Mortality due to alcohol-related deaths 50

3.7. Mortality due to infectious diseases and diseases of the respiratory system 52

3.7.1. Mortality due to infectious diseases 52

3.7.2. Mortality due to diseases of the respiratory system 54

3.8. Mortality due to all other (remaining) causes of death combined 56

4. Relative and absolute mortality differentials as reflected by Gini-type indicators 58

5. Assessment of public health burden of socioeconomic mortality differences: cause-specific population attributable fractions 61

6. Conclusions 63

Santrauka 65

References 67

Annexes 69