Aging in a society in transition

Aging in a society in transition:

Socioeconomic conditions, health status, social networks and social participation of older people in the Republic of Kosovo

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Table of Content

CHAPTER 1

General Introduction

The global aging trend

The demographic changes including the inevitable aging populations call for an urgent need to reshape and restructure the social and health care systems worldwide.

For the European Union (EU), e.g., the European Commission (EC) has already estimated that the number of people aged ≥65 years will almost double in the next 50 years – hence, it is expected to rise from 87 million in 2010 to 148 million in 2060.[1]

All over Europe, birth rates are steadily declining and life expectancy is gradually rising, which should be both carefully considered and properly addressed by policymakers and decision-makers in Europe at all levels in order to adapt and make the necessary arrangements for accommodating this new demographic "order". Thus, in many EU countries, the current share of people aged 60 years or above accounts for approximately 20% of the population,[2] and this proportion is expected to rise at about 25% by 2030.[3] At a global scale, 11% of the world's population was aged 60 years or above in 2007, rising to an estimated 22% by 2050.[4,5]

Given the current situation and the projecting trends, the year 2012 was chosen as the *"European Year for Active Aging and Solidarity between Generations"*, which was an action undertaken by the EU to raise the societal awareness about the valuable contribution that older people may offer and provide for the whole community.[1] In this framework, different initiatives at European, national and local level were planned and successfully implemented in order to raise the awareness and change the attitudes of policymakers and all stakeholders involved in provision of social and health care for older people in the European region.

The EC recognizes the fact that the rapid increase of the older population represents a rather challenge trend for public authorities, policymakers, businesses and all the other relevant sectors, especially when coupled with circumstances of increasing pressure on public budgets, a steady decline in the number of health personnel[6] and growing demands from older people for high-quality care and a wide range of services.[1]

Hence, the ageing population has resulted in a particular emphasis upon the health status trends of older people and the potential changes of these trends in the near future, due to the anticipated increased demand for both health care services and social services.[5,7]

As most of the countries in the European region face similar challenges concerning aging populations, it is important to arrange supra-national coordination and cooperation activities in order to ensure effective and prompt exchange and dissemination of good and best practices including knowledge transfer.

Key challenges for the European region include an increasing demand for health care services, a continuous reform of health care systems and the promotion of healthy and active aging for all European citizens. In parallel with the progres-

sive increasing share of older people, there is an accompanying rise in health care costs which poses a seriously heavy economic burden on the EU.

Therefore, the economic aspects of the aging effect including introduction of innovative cost-containment mechanisms should be effectively and promptly addressed in all countries of the European region. From this point of view, the EU should consider not only its current member states, but also the European populations of candidate and aspirant EU countries and their impact on the European health sector.

Notwithstanding the fact that Kosovo is not an EU member state, this new country is nevertheless at a very early stage on its way to EU integration and has to cope already with EU standards and policy reforms in the health care sector.

Available data indicate that Kosovo unavoidably resembles the global trend of aging reflected by a considerable slowdown of population increase rate from 27% in 1981 to 9% in 2007,[8] indicating growing proportions of the older age groups over the years. From 1981 to 2011, the proportion of individuals aged ≥65 years in Kosovo increased from 4.5 %[9] to about 7%.[10]

Socioeconomic situation of older people

Currently, about two-thirds of the world's older people live in developing and transitional countries[11] who are faced with a wide range of socioeconomic challenges and social well-being, besides their health status.[12]

This is also the case of countries of the Western Balkans including Albania and Kosovo.[8,13,14] Furthermore, older people in developing and transitional countries are only occasionally a priority in health programs, which essentially focus on infants and young children, as well as women of reproductive age.[15,16]

Furthermore, pensions do not cover the overall share of the older population because in many developing and transitional countries pension schemes are contributory and occupation-based and, therefore, available only to individuals employed in the public sector or in the formal private sector.[13,14,16,17]

In Kosovo, according to the Law on Pensions approved in 2001, every person aged ≥65 years is entitled to a basic pension, which is the same for all older people and aims to reduce poverty. Virtually, all individuals aged ≥65 years in Kosovo are enrolled in this system. However, the amount of money older people receive is very small and not sufficient to meet their needs. As an illustration, in 2010, the amount of the basic pension was 45 Euro/month.[18]

Thus, older people in transitional countries of Southeast Europe but also in other developing parts of the world may consist of a substantially large vulnerable population subgroup.[19] From this point of view, older people in these countries may be more likely to live in poorer neighborhoods and, for a given neighborhood, in a poorer quality housing. Also, in such countries, older people maybe more economically vulnerable and financially dependent on social schemes or transfers and

remittances from their relatives and other people.[20] Consequently, the available evidence indicates that older people aged ≥65 years are at greater risk of poverty compared to the general population.[21]

Especially in Africa, an almost life span characterized by a low economic status and poor access to healthcare imply that the majority of people enter the old age in poverty and poor health.[12,15] The situation is worsened given the lowering capacity of older people to pursue income generation activities, which further increase their risk for economic constrains, poverty and poor health outcomes.[12,15,16] Such a situation has been reported from Albania too – a neighboring country with Kosovo, which is facing similar political and socio-economic challenges.[14]

Conventionally, it has been reported that, in developing and transitional countries, older people in rural areas are generally poorer than those residing in urban areas,[12,17] and with poor access to health services.[23] Yet, mounting evidence highlights a disadvantaged urban population.[12] It has been argued that the impoverishment of older people residing in urban areas in these countries is also related to a significant decline in terms of material support from children and relatives due to individualistic or nuclear-type of the families – in contrast with the extended or multigenerational support which is still evident in rural areas.

This may also be the case of Albania and Kosovo, countries where the particularly rapid transition is associated, among other things, with significant changes in the family structures.[14] An additional reason for the impoverishment of older people residing in urban areas in transitional countries relates to resource constraints among the younger adults expected to provide the material support for older people.[12,24,25]

In summary, aging and poverty are expected to be key features of many cities in the developing and transitional countries which also exhibit considerable health disadvantages.[26] Older people in urban areas living in informal settlements or slum areas and those engaged in the informal sector are likely to be among the worst off,[12] a situation which has been already evidenced in slum areas of Tirana, the Albanian capital city.[14]

On the other hand, in almost all of the EU countries, material deprivation shows a reverse pattern compared with the developing/transitional prototype described above: in almost all EU countries, material deprivation, a form of social exclusion, decreases with age.[22]

However, in terms of adequate housing, an indicator of the access to social rights of older people, the situation in the EU member states is far more complicated and depends on a complexity of various factors.

Thus, in almost all Mediterranean and Eastern European countries, the older people experience inadequate housing more often than the younger segments of the population. Conversely, in the Nordic countries, UK and Germany there is an opposite trend: there is a positive relationship between the access to adequate housing and age of the population.[22]

In any case, a detailed comparative analysis of the EU member states released in 2008 reported that household income has a strong effect on material deprivation in most of the EU countries, whereas age and gender cannot be considered serious risk factors for any of the dimensions of social exclusion (including material deprivation and financial difficulties) in multivariable-adjusted models controlling for the confounding and mediating effect of other relevant characteristics.[22] Furthermore, multilevel analyses from this report indicated that only a small part of the country variation in social exclusion (as measured by a combined index) can be attributed to differences in the composition of the population in connection with health, education level, age and gender. Conversely, a larger part was related to country differences in household incomes.[22]

Health status of older people

Between the 1980s and 1990s, there was an increase recorded in the prevalence of chronic conditions among older people including heart disease, arthritis and diabetes in the USA,[27,28] in twelve OECD countries,[29] the Netherlands,[30] and Sweden.[31,32]

In the older population of Sweden between 1991 and 2002, there have been reported increases in the levels of pain and psychological distress,[33] general fatigue, dizziness, heart problems, hypertension, and musculoskeletal pain.[30,39] However, in the Netherlands, for example, improvements have been noted for some disease including the prevalence of cardiac disease, asthma, osteoarthritis, depression and lower-back complaints.[30]

In any case, the prevalence of diseases in the older population has generally increased over time, notwithstanding the fact that most survey data are based on self-reported morbidity.[34] Conventionally, self-reported data are assumed to underestimate the true prevalence of diseases,[34]; however, in a Dutch population, it has been reported a higher prevalence of diabetes, cardiac disease, lower-back complaints and asthma on the basis of self-reported morbidity than of medical records.[30] In any case, the available evidence has convincingly demonstrated an increasing trends for both self-reported morbidity and medical records.[30,31,35]

It has been recently argued that these trends might partly show improved medical knowledge and increased use of health care services by the older population, without significant changes in underlying conditions.[34] For example, at the outset asymptomatic diseases, such as type 2 diabetes, hypertension, and some types of cancers, are currently diagnosed earlier and receive a far more effective treatment than they did in the older times – leading to a longer period of morbidity, but with an improved functional capacity of older individuals.[34,36]

The overall cancer incidence has increased, mainly because of population ageing, but also due to a genuine increase of some types of cancers including colorectal cancer and melanoma in both sexes, prostate cancer in men, and lung cancer and breast cancer in women.[34]

Similarly, a high prevalence of cardiovascular diseases could be due to increased duration of time lived with the disease because of population ageing, but also due to early diagnosis and improved medical care in most of developed countries which experience a high share of older population.[30]

As for obesity, it has been reported to increase in almost all populations[34], with an estimated average increase of 3.8% in people aged 65 years or older during the 1990s in the Netherlands,[29] closely followed by the USA, UK, and Italy.[34]

On the other hand, the evidence about trends in hypertension among older people is controversial.[34] In the USA, awareness and treatment of hypertension in older people has been increasing over time,[37] however, older women have been reported to be less aware and, consequently, less often treated for hypertension than men.[38] A similar sex gradient has been reported from developing and transitional countries including Albanian settings.[14]

Conversely, little is known about trends in cognitive function and dementia among the older population,[34] which requires future robust investigations in all countries.

As for functional limitations and disability, improvements in mobility rates have been reported by many investigators in the USA,[39] with a yearly rate of improvement usually estimated at 1%.[34] In general, in high-income countries, prevalence of disabilities measured by the activities of daily living (a composite index consisting of selected core self-care activities including feeding, dressing, bathing or showering, transferring from bed and chair, and continence) has been decreasing in the past decades.[34]

Although mortality is higher for men than for women at all ages, women have been reported to experience more functional limitations and more difficulties with the activities of daily living and with the instrumental activities of daily living.[34] Thus, available evidence suggests that both the incidence and prevalence of limitations are higher at all ages in women compared with men.[34]

Data about transitional countries of the Western Balkans including Albania and Kosovo are scarce in this regard, notwithstanding a hint for a high rate of disability and functional limitation among both older men and women in Albania.[14]

In brief, the evidence from high-income countries indicates postponement of limitations and disabilities for people aged <85 years, despite an increase in chronic diseases.[34] This noticeable inconsistency has been suggested to be at least partly accounted for by early diagnosis, improved treatment, and amelioration of prevalent diseases so that they are less disabling.[34,40,41]

On the whole, the vast international literature reports that morbidity and multimorbidity are significantly higher among older people than the other segments of the population, in women (especially in developing and transitional countries) and particularly in individuals of a low socioeconomic status.[42-45]

Social support, social networks and social participation of older people

Social support is one of the most investigated psychosocial factors, which has been documented robustly to affect health outcomes in terms of both morbidity and mortality.[46-48] Epidemiological studies have consistently shown that individuals with low levels of social support have higher mortality rates, especially from cardiovascular diseases.[46,49,50] At the same time, there is also evidence – albeit less strong and consistent – linking social support to lower mortality rates from cancer[46,51] and infectious diseases.[46,52]

Recent research on social support considers it as a multitude of functions that are provided by social relationships.[46] These functions may be divided into perceived and received dimensions.[46,53] Perceived support has been referred to as potential access to social support, whereas received support as the reported receipt of support resources, usually during a specific time frame.[46]

Due to increasing health problems and the loss of current compeers, older people may be at a particularly high risk for social isolation and loneliness.[54,55] From this point of view, increasing age reduces the number of friends which, if coupled with the loss of the spouse/partner, may lead to solitude and extreme social isolation of older people. In line with the global ageing trend, this situation will increasingly exacerbate in the decades to come.[54,55]

For older people, social support and social networking is considered an important factor contributing to proper functioning and well-being within the concept of successful ageing.[56,57] Furthermore, a fairly recent systematic review reported that social support reduces the risk of elder abuse.[58]

Alternatively, several studies have reported beneficial effects of social networks and social participation on functional capacity of older people through improvement of physiological mechanisms including immunologic, neuroendocrine and cardiovascular functioning.[59-61]

Information on social cohesion, social networks and social participation of the population including the older people in Kosovo is scarce. In post-war and other developing/transitional countries, social disruption, anomie and lack of social cohesion and social support mechanisms have been linked to unfavorable health outcomes other than violence.[62,63] In this context, it is worthwhile to conduct a study for assessing the extent of social networks and social participation and their health effects among older people in transitional Kosovo.

Aims of this thesis

In this thesis, we present the first rigorous study conducted in an older population in an Albanian-speaking setting such as the newly emerging state of Kosovo.
The aim of this study was threefold:

- To assess the socioeconomic conditions, health status, social networks and social participation in a large nationwide representative sample of older men and women (individuals aged ≥65 years) in the Republic of Kosovo;
- To assess the level of knowledge and practices of health professionals regarding health status and health care services for older people in Kosovo, and;
- To validate (cross-culturally adapt) the EASY-Care tool, an international instrument measuring older people's health needs and priorities, which we suggest for use in future population-based studies involving older people in Albanian-speaking settings.

We hypothesized that older people of both sexes in Kosovo would be socioeconomically vulnerable, particularly in terms of financial means given the rapid transition towards a new socioeconomic system coupled with "modernization" of the society where children and other relatives take care far less of their older family members. At the same time, we hypothesized a high prevalence of chronic diseases and conditions, as well as functional limitations among older people in line with the lack of a national health insurance fund in Kosovo. On the other hand, we hypothesized a relatively low level of knowledge of Kosovo health professionals' about health status of older people and poor practices regarding their health care services provided for older people in Kosovo.

Study design

We conducted two separate surveys in addition to a validation exercise in line with the threefold aim of this research work:

- A nationwide survey (cross-sectional study) was conducted in Kosovo in January-March 2011 including an age- sex-and residence (urban vs. rural)-stratified sample of 1,890 individuals aged 65 years and over (949 men, mean age 73±6 years; 941 women, mean age 74±7 years; overall response rate: 83.5 %). Further details about the study design, study population and sampling (including sample size calculation) and data collection of this survey are provided in Chapter 3.
- Another survey (cross-sectional study) was conducted in February-March 2013 in Kosovo including a nationwide representative sample of 412 physicians working at primary, secondary and tertiary health care levels (220 males, mean age: 45.6±9.3 years; 192 females, mean age: 46.4±9.1 years; overall response rate: 91%). Details of this survey, study population and sampling and data collection are described in detail in Chapter 6.
- In addition, an EASY-Care validation study was conducted in August-September 2010 including a sample of 38 older people who were users of primary health care services in Prishtina (capital city of Kosovo) and in Tirana (the Al-

banian capital). Details of this cross-cultural adaptation exercise are provided in Chapter 7.

Outline of this thesis

Following this first chapter referred to as *"General Introduction"*, **Chapter 2** sets the stage unfolding the current health problems and challenges that Kosovo is facing after five difficult years of independence. **Chapter 3** describes the socioeconomic status of older people in Kosovo with a particular focus on the educational attainment and self-perceived poverty. **Chapter 4** describes the prevalence and demographic and socioeconomic correlates of morbidity and multimorbidity among older men and women in Kosovo. **Chapter 5** describes the extent and demographic and socioeconomic "predictors" of social networks and social participation in older people in Kosovo. **Chapter 6** describes the level of knowledge and practices of health professionals regarding health status and health care services for older people in Kosovo. In **Chapter 7**, we describe the process of cross-cultural adaptation of EASY-Care, an internationally validated instrument, measuring older people's health needs and priorities in Albania and Kosovo. Finally, in **Chapter 8** referred to as *"General Discussion"*, we discuss the general findings of this thesis with a particular emphasis on strengths and limitations which should foster and guide future research, and also provide recommendations for decision-makers and policymakers of the health sector in Kosovo.

Overall, this is the first study involving an older population in Albanian-speaking settings of the Western Balkans reporting on the prevalence and demographic and socioeconomic correlates of self-perceived poverty, self-perceived health status, social networks and social participation.

References

1. European Commission. Communication from the Commission to the European Parliament and the Council: Taking forward the strategic Implementation Plan of the European Innovation Partnership on active and healthy Ageing. Brussels: European Commission; 2012. Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0083:FIN:EN:PDF (accessed: 12 July 2013).
2. United Nations: Profiles of ageing by country or area. World Population Ageing 2007 New York: United Nations; 2007, 133-517.
3. Office for National Statistics. Age structure of United Kingdom, 1971-2083.Available at http://-www.statistics.gov.uk/populationestimates/flash_pyramid/UKpyramid/pyramid6_30.html (accessed: 12 July 2013).
4. United Nations: Magnitude and speed of population ageing. World Population Ageing 2007 New York: United Nations; 2007, 13-16.
5. Dickens AP, Richards SH, Greaves CJ, Campbell JL. Interventions targeting social isolation in older people: a systematic review. BMC Public Health 2011; 11:647.
6. Green Paper on the European Workforce for Health COM(2008) 725 final of 10.12.2008. Available at: http://ec.europa.eu/health/ph_systems/docs/workforce_gp_en.pdf (accessed: 12 July 2013).
7. Jacobzone S, Cambois E, Chaplain E, Robine JM: The health of older persons in OECD countries: is it improving fast enough to compensate for population ageing? Paris; 1999.
8. Profile of the social security system in Kosovo (within the meaning of UNSC Resolution 1244 [1999]). 2010. Available from: http:/ / www.ilo.org/ public/ english/ region/ eurpro/ budapest/ download/ socsec/ socsec_system_kosovo.pdf (accessed: 12 July, 2013)
9. Statistical Office of Kosovo. Registration of population, buildings and household economy in 1981. Pristina, Kosovo; 1982.
10. Kosovo Agency of Statistics: Kosovo population and housing census 2011. Final results. Main data. Pristina, Kosovo; 2012.
11. World Population Ageing, 2007. New York, NY: United Nations; 2007.
12. Falkingham JC, Chepngeno-Langat G, Kyobutungi C, Ezeh A, Evandrou M. Does Socioeconomic Inequality in Health Persist among Older People Living in Resource-Poor Urban Slums? J Urban Health. 2011 June; 88(Suppl 2): 381-400.
13. Poverty Reduction and Economic Management Unit. Statistical Office of Kosovo. Western Balkans Programmatic Poverty Assessment; 2011.
14. Ylli A: Health and Social Conditions of Older People in Albania: Baseline Data from a National Survey. Public Health Rev 2010, 2:549.
15. Heslop A, Gorman M. Chronic poverty and older people in the developing world. Manchester, UK: Chronic Poverty Research Centre; 2002. Working paper no. 10.
16. Lloyd-Sherlock P. Old age and poverty in developing countries: new policy challenges. World Devel 2000; 28(12):2157-68.
17. Kakwani N, Subbarao K. Ageing and Poverty in Africa and the Role of Social Pensions. Brasília, Brazil: United Nations Development Programme, International Poverty Centre; 2005.
18. Statistical Office of Kosovo. Social Welfare Statistics in Kosovo. 2010. Available at: http://esk.rks-gov.net/ENG/social-welfare-and-literacy/publications/doc_view/995-social-welfare-statistics-2010?tmpl=component&format=raw (accessed: 14 July, 2013)
19. Kosovo Poverty Assessment. Promoting Opportunity, Security, and Participation for All. Report Nr. 32378-XK. World Bank; 2005.
20. Grundy E: Ageing and vulnerable elderly people: European perspectives. Ageing Soc 2006, 26:105-134.

21. News release: Living conditions in 2008. 10/2010. Eurostat Press Office; 2010.
22. Jehoel-Gijsbers G, Vrooman C (2008). Social exclusion of the elderly: A comparative study of EU member states. ENEPRI Research Report No. 57, AIM WP8.1.
23. Darkwa OK, Mazibuko FNM. Population aging and its impact on elderly welfare in Africa. Int Jol Aging Human Dev. 2002; 54(2): 107–23.
24. Aboderin I. Decline in material family support for older people in Urban Ghana, Africa: understanding processes and causes of change. J Gerontol B Psychol Sci Soc Sci. 2004; 59 (3): S128–37.
25. Nana A, Gricco M. Urbanization, caring for elderly people and the changing African family: the challenge to social policy. Int Social Sec Rev. 1994; 47(3–4): 111–22.
26. Campbell T, Campbell A. Emerging disease burdens and the poor in cities of the developing world. J Urban Health. 2007; 84(1): 54–64.
27. Crimmins EM, Saito Y. Change in the prevalence of diseases among older Americans: 1984–1994. Demogr Res 2000; 3: 9.
28. Freedman VA, Martin LG. Contribution of chronic conditions to aggregate changes in old-age functioning. J Am Public Health Assoc 2000; 90: 1755–60.
29. Lafortune G, Balestat G. Trends in severe disability among elderly people: assessing the evidence in 12 OECD countries and the future implications (OECD health working paper, No 26), Paris: Organisation for Economic Co-operation and Development; 2007.
30. Puts MTE, Deeg DJH, Hoeymans N, Nusselder WJ, Schellevis FG. Changes in the prevalence of chronic disease and the association with disability in the older Dutch population between 1987 and 2001. Age Ageing 2008; 37: 187–93.
31. Parker MG, Ahacic K, Thorslund M. Health changes among Swedish oldest old: prevalence rates from 1992 and 2002 show increasing health problems. J Gerontol A Biol Sci Med Sci 2005; 60: 1351–55.
32. Rosen M, Haglund B. From healthy survivors to sick survivors – implications for the twenty-first century. Scand J Public Health; 33: 151–55.
33. Fors S, Lennartsson C, Lundberg O. Health inequalities among older adults in Sweden 1991–2002. Eur J Public Health 2008; 18: 138–43.
34. Christensen K, Doblhammer G, Rau R, Vaupel JW. Ageing populations: the challenges ahead. Lancet 2009; 374:1196–208.
35. Crimmins EM, Alley D, Reynolds SL, Johnston M, Karlamangla A, Seeman T. Changes in biological markers of health: older Americans in the 1990s. J Gerontol A Biol Sci Med Sci 2005; 60: 1409–13.
36. Jeune B, Brønnum-Hansen H. Trends in health expectancy at age 65 for various health indicators, 1987–2005, Denmark. Eur J Ageing 2008; 5: 279–85.
37. Ong KL, Cheung BMY, Man YB, Lau CP, Lam KSL. Prevalence, awareness, treatment, and control of hypertension among United States adults 1999–2004. Hypertension 2007; 49: 69–75.
38. Ostchega Y, Dillon CF, Hughes JP, Carroll M, Yoon S. Trends in hypertension prevalence, awareness, treatment, and control in older US adults: data from the National Health and Nutrition Examination Survey 1988 to 2004. J Am Geriatr Soc 2007;55: 1056.
39. Freedman VA, Martin LG, Schoeni RF. Recent trends in disability and functioning among older adults in the United States: a systematic review. JAMA 2002; 288: 3137–246.
40. Crimmins EM. Trends in the health of the elderly. Annu Rev Public Health 2004; 25: 79–98.
41. Schoeni RF, Freedman VA, Martin LG. Why is late-life disability declining? Milbank Q 2008; 86: 47.
42. Kirchberger I, Meisinger C, Heier M, Zimmermann AK, Thorand B, Autenrieth CS, Peters A, Ladwig KH, Döring A: Patterns of multimorbidity in the aged population. Results from the KORA-Age study. Plos One 2012, 7:e30556.
43. Marengoni A, Angleman S, Melis R, Mangialasche F, Karp A, Garmen A, Meinow B, Fratiglioni L: Aging with multimorbidity: a systematic review of the literature. Ageing Res Rev 2011, 10:430-439.

44. Schram MT, Frijters D, van de Lisdonk EH, Ploemacher J, de Craen AJM, de Waal MWM, van Rooij FJ, Heeringa J, Hofman A, Deeg DJH, Schellevis FG: Setting and registry characteristics affect the prevalence and nature of multimorbidity in the elderly. J Clin Epidemiol 2008, 61:1104-1112.
45. Agborsangaya CB, Lau D, Lahtinen M, Cooke T, Johnson JA: Multimorbidity prevalence and patterns across socioeconomic determinants: a cross-sectional survey. BMC Public Health 2012, 12:201.
46. Uchino BN. Understanding the links between social support and physical health: A life-span perspective with emphasis on the separability of perceived and received support. Perspect Psychol Sci 2009; 4: 236-55.
47. Berkman LF, Glass T, Brissette I, Seeman TE. From social integration to health: Durkheim in the new millennium. Social Science and Medicine 2000; 51:843–857.
48. Uchino BN. Social support and physical health: Understanding the health consequences of our relationships. New Haven, CT: Yale University Press; 2004.
49. Rutledge T, Reis SE, Olson M, Owen J, Kelsey SF, Pepine CJ, et al. Social networks are associated with lower mortality rates among women with suspected coronary disease: The National Heart, Lung, and Blood Institute-Sponsored Women's Ischemia Syndrome Evaluation study. Psychosomatic Medicine 2004; 66:882–886.
50. Brummett BH, Barefoot JC, Siegler IC, Clapp-Channing NE, Lytle BL, Bosworth HB, et al. Characteristics of socially isolated patients with coronary artery disease who are at elevated risk for mortality. Psychosomatic Medicine 2001; 63:267–272.
51. Hibbard JH, Pope CR. The quality of social roles as predictors of morbidity and mortality. Social Science and Medicine 1993; 36:217–225.
52. Lee M, Rotheram-Borus MJ. Challenges associated with increased survival among parents living with HIV. American Journal of Public Health 2001; 91:1303–1309.
53. Tardy CH. Social support measurement. American Journal of Community Psychology 1985; 13:187–202.
54. Rynning E. The ageing populations of Europe – Implications for health systems and patients' rights. Eur J Health Law 2008; 15: 297-306.
55. Grundy E. Ageing and vulnerable elderly people: European perspectives. Ageing Soc 2006; 26: 105-34.
56. Croezen S, Haveman-Nies A, Alvarado VJ, Van't Veer P, de Groot CPGM. Characterization of different groups of elderly according to social engagement activity patterns. J Nutr Health Aging 2009; 13: 776-81.
57. Rowe JW, Kahn RL. Human aging: usual and successful. Science 1987; 237: 143-9.
58. Johannesen M, Logiudice D. Elder abuse: a systematic review of risk factors in community-dwelling elders. Age Ageing 2013; 0:1-7. doi: 10.1093/ageing/afs195.
59. Berkman LF, Glass T. Social integration, social networks, social support, and health. In: Berkman LF, Kawachi I (eds), Social Epidemiology. Oxford: Oxford University Press, 2000. pp. 137-73.
60. Lopez Garcıa E, Banegas JR, Graciani Perez-Regadera A, Herruzo Cabrera R, Rodrıguez-Artalejo F. Social network and health-related quality of life in older adults: A population-based study in Spain. Qual Life Res 2005; 14: 511-20.
61. McLaughlin D, Leung J, Pachana N, Flicker L, Hankey G, Dobson A. Social support and subsequent disability: it is not the size of your network that counts. Age Ageing 2012; 41: 674-7.
62. Kark SL. Social Disorganization and Anomie. Chapter 10 in: Epidemiology and Community Medicine. Appleton-Century-Crofts, New York, 1974. pp. 189-94.
63. Burazeri G, Goda A, Sulo G, Stefa J, Kark JD. Financial loss in pyramid saving schemes, downward social mobility and acute coronary syndrome in transitional Albania. J Epidemiol Community Health 2008; 62: 620-6.

CHAPTER 2

Public health in Kosovo after five difficult years of independence

Jerliu N, Ramadani N, Mone I, Brand H. Public health in Kosovo after five difficult years of independence. *South Eastern European Journal of Public Health* (SEEJPH 2013)

Abstract

Kosovo is undergoing a rapid process of transformation to an independent state, which was formally proclaimed in 2008, after almost a decade under United Nations administration. Regarding the health status, five years after independence, compared with other European countries, post-war transitional Kosovo is still characterized by higher mortality rates including traditional public health problems pertinent to infant mortality and maternal deaths. In parallel, however, Kosovo is undergoing a rapid process of epidemiological transition characterized by an aging trend which is inevitably coupled with high cardiovascular and cancer mortality and morbidity along with an excess mortality in external causes of death and injuries among the adult population. Adoption of the new Health Law in December 2012 by the Parliament of Kosovo aims the transition from centralized health care system established under emergency conditions of the post-war period towards a contemporary modern health care system with a clear purchaser-provider split based on a high transparency and accountability of the health care providers and their contractors. The health care reform, leading eventually to significant changes within the health sector in Kosovo, consists of two main pillars: (i) structural and functional reorganization of the health care system through establishment of Kosovo Health Service (an autonomous and non-for-profit public enterprise at central level of the health care sector), and; (ii) establishment for the first time of the public health insurance system with a Health Insurance Fund as its main body. Nevertheless, five years after declaration of independence, Kosovo, the newest state in Europe consisting of the youngest population, is currently facing a particularly difficult socioeconomic and political transition and is additionally struggling and mainstreaming all energies and efforts in order to get full international recognition.

Key words: *independence, Kosovo, public health, transitional countries, Western Balkans*.

Introduction

After the war and the liberation from the Serbian regime in 1999 and almost a decade under United Nations administration, Kosovo is undergoing a rapid process of transformation to an independent state, which was formally proclaimed in 2008. Kosovo, currently recognized by 105 countries (but not yet a member of the World Health Organization), is the newest country in Europe.

Notwithstanding the fact that Kosovo is not an European Union (EU) member state, this new country is nevertheless at a very early stage on its way to EU integration and has to cope already with the EU standards and policy reforms in both social and health care sectors.

Demographic and socioeconomic indicators

Kosovo consists of the youngest European population, with an average age of about 27 years (50% of the population is under 25 years) (Table 1). Notwithstanding its young population, Kosovo is inevitably affected by the global aging trend characterized by a substantial reduction of population increase from 27% in 1981 to 9% in 2007. [1] This is reflected in a steady increase in the proportion of older people over the years. Thus, official data indicate that from 2003 to 2009 the proportion of people aged ≤15 years decreased by five percent (from 33% to 28%), along with an increase (albeit less evident) in the proportion of individuals aged ≥65 years from 4.5 % (in 1981) to 6.7% (in 2011) (Table 1). The ageing trend could be attributed to the lowering levels of fertility rates, a higher life-expectancy and emigration of working-age adults. [2]

According to a recent World Bank report, Kosovo is among the poorest countries in Europe, with 34% of the population living below the national poverty line and 12% living in extreme poverty.[3] Furthermore, poverty in Kosovo may be of particular concern for the older segments of the population as suggested from a recent report of the International Labour Organization.[1] As a matter of fact, a fairly recent population-based study involving a large sample of older people (individuals aged ≥65 years), reported a high level of self-perceived poverty, especially among older women (52% vs. 41% in men).[4] Another remarkable finding from this population-based study of older men and women in Kosovo was the low educational attainment, especially among women. [4] Thus, about 48% of the women had no formal education at all compared to 17% of men.[4] In addition, in multivariable-adjusted analyses controlling simultaneously for all the demographic and socioeconomic characteristics, self-perceived poverty rates were higher among older women, the low-educated individuals, urban residents, and older people living alone.[4]

Health profile

Life expectancy in Kosovo was 67 years for males and 71 years for females in 2008[2], whereas in 2011 the overall life expectancy was 70.0 years (Table 1). Currently, life expectancy in Kosovo is considerably lower than in the EU member states for both males and females (Figure 1).[5]

Table 1. Selected socioeconomic and health indicators in Kosovo

Indicator	Year	Estimate	Source
Life expectancy at birth	2011	70.0 years	Kosovo Human Development Report 2012.
Average age of the population	2012	27.1 years	CIA, World Fact-book.
Population aged ≥65 years	2011	6.7%	Kosovo Population and Housing Census 2011.
Percentage of urban population	2011	38.0%	Kosovo Population and Housing Census 2011.
GDP per capita	2012	2650 Euro	Agency of Statistics, Kosovo, 2012.
Human Development Index	2011	0.713	Kosovo Human Development Report 2012.
Percentage of poor	2009	34.0%	World Bank, 2011.
Percentage of extremely poor	2009	12.0%	World Bank, 2011.
Illiteracy rate (population aged ≥10 years)	2011	3.85%	Kosovo Population and Housing Census 2011.
Infant mortality rate (per 1000 live births)	2011	17.1	Ministry of Health, Kosovo, 2012.
Maternal mortality rate (per 100.000)	2011	7.2	Ministry of Health, Kosovo, 2012.
CVD mortality rate (per 100.000 population)	2011	157.0	Agency of Statistics, Kosovo, 2012.
Cancer mortality rate (per 100.000 population)	2011	34.2	Agency of Statistics, Kosovo, 2012.
Infectious diseases mortality rate (per 100.000 population)	2011	1.36	Agency of Statistics, Kosovo, 2012.
External causes of death (per 100.000 population)	2011	7.7	Agency of Statistics, Kosovo, 2012.
Proportional mortality from CVD	2011	59.3%	Agency of Statistics, Kosovo, 2012.
Proportional mortality from cancer	2011	15.0%	Agency of Statistics, Kosovo, 2012.
Proportional mortality from infectious diseases	2011	0.55%	Agency of Statistics, Kosovo, 2012.
No. physicians per 100.000 population	2011	146	Institute of Public Health, Kosovo, 2011.
No. nurses per 100.000 population	2011	412	Institute of Public Health, Kosovo, 2011.
No. health visits per person per year	2010	2.8	World Bank, 2010.
Public spending on health (in % of GDP)	2009	2.3	Ministry of Health, Kosovo, 2010.
Public spending on health (in % of total government expenditure)	2009	7.6	Ministry of Health, Kosovo, 2010.
Percentage of smokers in the population 15 – 64 years	2011	28.4 %	NIPH Survey, Kosovo, 2011.
Alcohol consumption	2011	25.0%	ESPAD, Kosovo, 2011.

Notwithstanding the higher infant mortality rate (17.1 per 100 live births in 2011 – Table 1), the higher child mortality rate, as well as the higher maternal mortality rate (7.2 per 100.000 in 2011 – Table 1), the excess mortality in Kosovo is also due to the higher death rates from injuries and other external causes of death and, to a lesser degree, from cardiovascular diseases and cancer (Table 1). On the other hand, stroke mortality constitutes an exception: notwithstanding the absence of official reports, death rate from stroke in Kosovo is considerably higher than in the

EU member states – a situation which is similar to many countries in the Western Balkans.

As of a recent study involving a population-representative sample of older individuals in Kosovo (N=1890), 83% of the elderly people reported at least one chronic condition (63% cardiovascular diseases), and 45% had at least two chronic diseases.[6] In multivariable-adjusted analyses, factors associated with the presence of chronic conditions and/or multimorbidity were female sex, older age, self-perceived poverty and the inability to access medical care.[6] Hence, limited access to medical care was a significant and consistent predictor of chronic morbidity and chronic multimorbidity among older people in Kosovo.[6] The overwhelming majority of Kosovo older individuals who couldn't access medical care (almost 90%) indicated the economic barriers as the main reason for this.

The unfavorable health outcomes in the adult population including older people is noticeably a reflection of the difficult socioeconomic situation in Kosovo vis-à-vis the ongoing reforms in the health sector.[7]

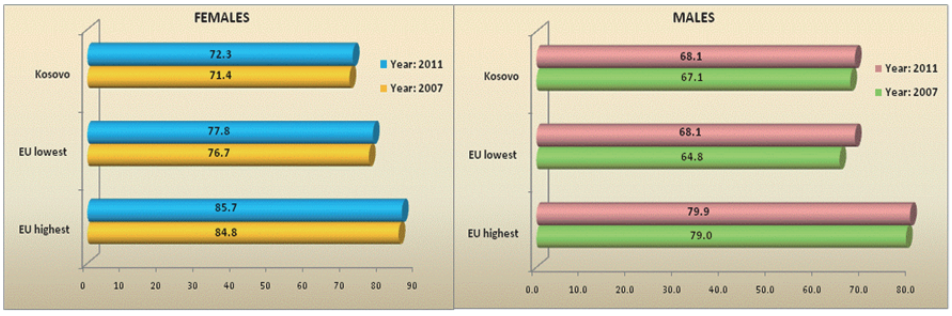

Figure 1. Life expectancy in Kosovo vis-à-vis the European Union in 2011 and in 2007 (just before the independence)

Lifestyle factors

In Kosovo, age and lifestyle related non-communicable diseases are increasing, especially cancer, cardiovascular diseases and diabetes[6] – diseases which are commonly related to a high consumption of tobacco, alcohol, and saturated fat.

The prevalence of smoking in Kosovo (overall: 28.4%, Table 1) is lower than in the other countries of the Western Balkans including the neighboring Albania.[8] Similarly, excessive alcohol consumption and binge drinking are considerably lower than in Albania, reflecting a higher degree of traditionalism and religious observance in Kosovo.

On the other hand, unhealthy dietary habits including low intake of fresh fruits and vegetables are considered to be more prevalent in the Kosovo population compared with the somehow Mediterranean diet of Albania.

Along with the unhealthy dietary patterns and the low levels of physical activity, unfavorable socioeconomic and psychosocial conditions are considered as the main drivers of the excess morbidity and mortality from chronic diseases in Kosovo including diabetes, cardiovascular diseases and other chronic conditions. Nevertheless, in Kosovo, which is characterized by a traditional society, changes in lifestyle/behavioral patterns may have differentially affected different segments of the population, particularly the vulnerable and the marginalized individuals who suffer enormously the consequences of the rapid transition and are unable to cope with the dramatic changes.[4,9]

Health care reforms

The analysis provided in the Health Sector Strategy (HSS) of the Ministry of Health indicates that the Republic of Kosovo has a network of health institutions staffed with committed health professionals, who provide regional comparable basic health care services including also a high immunization coverage. The HSS, but also more recent analyses, highlights that Kosovo, as one of the poorest countries in Europe, needs to tackle a number of fundamental challenges before the health sector becomes a comprehensive system of preventive, diagnostic and treatment services attuned to the needs of the population and supporting the citizens in obtaining a health status comparable to the EU populations.[10]

With the youngest population in Europe, Kosovo's health care system needs to respond to a high demand for reproductive health and family planning services. Although infant mortality has fallen since 2000, the current level is high and places Kosovo at the very bottom compared to the EU member states. Furthermore, the existing high rate of maternal deaths points to the need and the requirements for establishing a system of services able to support all women (and men) with family planning, quality antenatal care and to ensure that hospitals, both at secondary and tertiary level, are prepared to assist in the case of complications.[10] Therefore, the current action plan of the Ministry of Health gives special attention to improving mother and child health to a European Union comparable level, and hereby to achieve the Millennium Development Goals.[10]

In Kosovo, basic diagnostics and treatment services are currently provided by the public health care system and yet, comprehensive tertiary care services such as oncology and cardio-surgery are not fully available. Therefore, the action plan of the Ministry of Health focuses on improving these services. Further, the action plan addresses the development of preventive measures with a significant impact on the incidence and the survival rates of these diseases.[10]

Conversely, Kosovo is in urgent need of deep reforms as the armed conflict left the country with a very inefficient health system characterized by a lack of trained personnel, disparities in health force distribution leading to variations in access to primary care, corruption and informal payments, as well as deteriorated child and

adult health indicators. In this context, the continuous reforming of the health sector has brought up a complex configuration of the stakeholders operating in the health system. Under these conditions, little attention is paid to the growing community of vulnerable and marginalized individuals in Kosovo which, combined with the inadequacy of financial resources, the economic insecurity and the unclear and unstable development of the health sector, pose a serious barrier for these population subgroups to access medical care.[4,6] The inability of certain disadvantaged segments of the population to adapt to the new political and economic system inevitably leads to change in the position of individuals in the society, enhanced social mobility and increased inequalities, with some groups thriving and others falling behind, as it was previously demonstrated in the adult population of the neighboring Albania.[9]

Health care financing

Adoption of the new Health Law in December 2012 by the Parliament of Kosovo aims the transition from a centralized health care system established under emergency conditions of the post-war period towards a contemporary modern health care system with a clear purchaser-provider split based on a high transparency and accountability of the health care providers and their contractors. The main objective is a steady improvement of the quality of healthcare of the population in Kosovo.

This reform, leading eventually to significant changes within the health sector in Kosovo, consists of two main pillars: (i) structural and functional reorganization of the health care system through establishment of Kosovo Health Service (an autonomous and non-for-profit public enterprise at central level of the health care sector), and; (ii) establishment of the public health insurance system with the Health Insurance Fund as its main body.

In any case, the basic principles of the current health care reform in Kosovo include the following principles: universal coverage, equity, transparency, sustainability, equity, accountability, inclusiveness, solidarity, reciprocity and participation.

Structural and functional reorganization of the overall health care system represents a rather challenging and complex process that includes a simultaneous process of purchaser-provider split through internal reorganization of the system. As a first step, the Ministry of Health is planning to establish the Health Financing Agency (which, by law, represents the precursor of the Health Insurance Fund) and further establishment of a contemporary system of service delivery. This step, in turn, foresees the establishment and proper functioning of the University Clinical and Hospital Service of Kosovo as a unique and integrated healthcare institution at the secondary and tertiary level, closely coordinated with healthcare institutions in

the primary healthcare level through a system of performance-based payments from the Health Financing Agency.

In any case, the main step of the reform will consist of adoption of the already elaborated draft on Health Insurance Law in the Government of Kosovo and establishment for the first time of the public health insurance system with the Health Insurance Fund as its main body. The main objective of the Health Insurance Law is to ensure optimal and sustainable healthcare financing.

Conclusion

Kosovo is undergoing a rapid transition involving major political, social and economic changes which are associated with deleterious health effects in the adult population, particularly among older people. Nonetheless, current evidence about the exact magnitude of both acute and chronic morbidity and distribution of risk factors in the population of Kosovo is scarce due to limited vigorous research work aiming at exploring the health effects of transition and the variations in health outcomes of the adult population. From this point of view, similar to the other countries in the Western Balkans region, there is an obvious need to promote research funding and especially to develop and strengthen research capacities in Kosovo.

In conclusion, five years after the Declaration of Independence, Kosovo is currently facing a particularly difficult socioeconomic and political transition and is additionally struggling and mainstreaming all energies and efforts in order to get full international recognition.

References

1. International Labour Organization. Profile of the social security system in Kosovo (within the meaning of UNSC Resolution 1244 [1999]). 2010. Available from: http://www.ilo.org/wcmsp5/-groups/public/---europe/---ro-geneva/---sro-budapest/documents/publication/wcms_168770.pdf (accessed: October 05, 2013).
2. Statistical Office of Kosovo. Demographic, Social and Reproductive Health Survey in Kosovo, November 2009. Pristina, Kosovo; 2011.
3. The World Bank. Europe and Central Asia Region. Poverty Reduction and Economic Management Unit. Statistical Office of Kosovo. Consumption Poverty in the Republic of Kosovo, in 2009. Western Balkans Programmatic Poverty Assessment. 2011.
4. Jerliu N, Toçi E, Burazeri G, Ramadani N, Brand H. Socioeconomic conditions of elderly people in Kosovo: a cross-sectional study. BMC Public Health 2012; 12:512.
5. World Health Organization, Regional Office for Europe. European health for all database. Copenhagen, Denmark, 2013.
6. Jerliu N, Toçi E, Burazeri G, Ramadani N, Brand H. Prevalence and socioeconomic correlates of chronic morbidity among elderly people in Kosovo: a population-based survey. BMC Geriatr 2013;13:22.
7. Percival V, Sondorp E. A case study of health sector reform in Kosovo. Conflict and Health 2010;4:7.
8. Institute of Statistics, Institute of Public Health [Albania] and IFC Macro. Albania Demographic and Health Survey 2008-09. Tirana, Albania, 2010.
9. Burazeri G, Goda A, Sulo G, Stefa J, Roshi E, Kark JD. Conventional risk factors and acute coronary syndrome during a period of socioeconomic transition: population-based case-control study in Tirana, Albania. Croat Med J 2007;48:225-33.
10. Ministry of Health, Kosovo. Action plan 2011-2014. Pristina, Kosovo, 2011.

CHAPTER 3

Socioeconomic conditions of elderly people in Kosovo: a cross-sectional study

Jerliu N, Toçi E, Burazeri G, Ramadani N, Brand H. Socioeconomic conditions of elderly people in Kosovo: a cross-sectional study. BMC Public Health 2012, 12:512
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Abstract

Background
Kosovo is the newest state in Europe facing a particularly difficult socioeconomic and political transition. The available evidence on socioeconomic conditions and quality of life of elderly people in Kosovo is scarce notwithstanding the ageing trend due to lowering of fertility rates and a higher life-expectancy. In this context, the aim of our study was to assess the socioeconomic conditions of elderly people in post-war Kosovo.

Methods
A cross-sectional study was conducted in Kosovo in January-March 2011 including an age- sex-and residence (urban vs. rural)-stratified sample of 1,890 individuals (83.5% response) aged 65 years and over. A structured questionnaire included assessment of socio-demographic and socioeconomic characteristics including educational level and self-perceived poverty. Binary logistic regression was used to assess the association of self-perceived poverty with socio-demographic and socioeconomic factors.

Results
The educational level in this representative sample of elderly people in Kosovo was quite low, particularly among women. About 47% of respondents perceived themselves as poor, or extremely poor (41% of men and 52% of women). In multivariable-adjusted models, self-perceived poverty was higher among older women, low educated individuals, urban residents, and elderly individuals living alone.

Conclusions
Findings from this study indicate that the socioeconomic situation of the elderly population in Kosovo is rather challenging. Demographic trends coupled with the economic and political transition raise serious concerns about increasing needs for socioeconomic support of elderly people in Kosovo. Specific policies and actions should be considered by a number of stakeholders, including government and civil society in transitional Kosovo.

Keywords
Ageing; Education; Elderly people; Income; Kosovo; Poverty; Socioeconomic characteristics

Background

Steady increases in life expectancy coupled with reductions in fertility rates point to the great concern related to aging as a global societal concern worldwide.[1,2] Furthermore, such demographic trends imply important social changes and intensification of health care demands which will be increasingly difficult to accommodate in the context of limited resources.[3] Despite the growing body of evidence supporting the changes in demographic trends, little is known in terms of quality of life and social participation of elderly people.[4]

It is important to gear scientific research towards aging because older people comprise a considerably large vulnerable group of society[5]: they may be more likely to live in poor quality housing including worse-off neighbourhoods; maybe more prone to acute illness and discrimination regarding the access to health care, and; are more financially dependent on social schemes or transfers from other people.[6] As a matter of fact, evidence indicates that elderly people aged 65 and over are at greater risk of poverty compared to general population.[7] Kosovo is the newest country in Europe consisting of the youngest European population. Expected life expectancy in Kosovo in 2008 was 67years for males and 71years for females.[8] Nevertheless, Kosovo unavoidably resembles the global trend of aging reflected by a considerable slowdown of population increase rate from 27% in 1981 to 9% in 2007[9], indicating growing proportions of the older age groups over the years. Available data indicate that from 2003 to 2009 the proportion of persons aged ≤15years decreased by 5% (from 33.1% to 28.2%, respectively), whereas the proportion of individuals aged 65+ increased from 4.5 % (in 1981) to 6.7% (in 2011). The ageing effect could be attributed to lowering of fertility rates, a higher life-expectancy and emigration of working-age adults.[8]

In Kosovo, the support for persons aged 65+ years is regulated through legislative measures. Nevertheless, current national programs, strategies and macropolicies do not sufficiently and adequately address health needs and socioeconomic challenges related to elderly people. The highly polarized political life and extensive reforms have overlooked the elderly population in many regards. According to a recent World Bank report, Kosovo is among the poorest countries in Europe[10] with 34% of population living below the national poverty line, of which 12% live in extreme poverty. Old people may constitute a large share of this proportion as the elderly segment of the population is considered to be at high risk of poverty.[10,11] Indeed, poverty in Kosovo may be of particular concern for the elderly population as suggested from a recent International Labour Organization report.[9]

To date, however, there is lack of scientific evidence focused specifically on socioeconomic conditions of elderly people in Kosovo. In particular, poverty level among elderly people has not been properly assessed, which poses a serious obstacle for addressing correctly the unmet needs of this vulnerable subgroup of the population in Kosovo. In this context, given the rising trend of aging population

coupled with a particularly unprepared socio-political and economic environment, we carried out a population-based survey aiming to assess the socioeconomic conditions of elderly people aged 65+ years in Kosovo, with a particular focus on self-perceived poverty levels.

Methods

Design and study population

A cross-sectional study was conducted in Kosovo in January-March 2011.

In 2010, the population of Kosovo was estimated at 2,181,139 and the segment aged 65+ years comprising 6.4% (139,593) of the overall population (Figure 1). [12] According to the Law on Pensions, entered into force in 2002, all individuals aged 65+ years benefit the *"basic old-age pension"* in the framework of a universal coverage policy. The actual data retrieved in 2010 from the Ministry of Labour and Social Welfare contained 140,329 individuals aged 65 or older registered as pension beneficiaries. This list was used as the sampling frame since all persons 65+ years are supposed to appear in this list including also people with disabilities and limitations. Based on this list, we drew an age- sex-and place of residence (urban vs. rural)-stratified sample of 2,400 individuals aged 65+ years. Twelve strata were established. Age-stratification consisted of three groups: 65–74, 75–84 and $\geq$85years. Each of the twelve strata consisted of a simple random sample of 200 individuals (Figure 1). The inclusion criteria were as follows: age 65+ years according to the list (sampling frame) and Kosovo citizenship.

Of the targeted 2,400 individuals aged 65 and over, 135 were not eligible (69 individuals were dead, whereas 66 persons had emigrated). Of the 2,265 eligible individuals, 270 participants could not be located, whereas other 105 individuals refused to participate. The final response rate was 83.5% (1,890/2,265) (Figure 1).

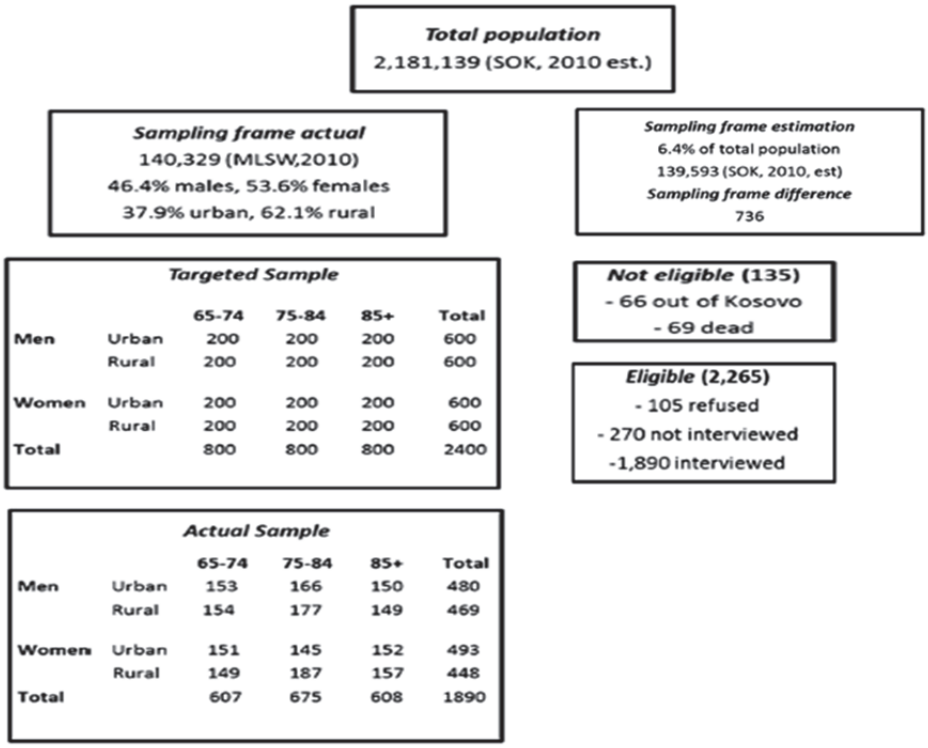

Figure 1. Sampling frame, sampling procedure and response rate of elderly people survey, Kosovo, 2011.

Sample size calculation

Calculation of the sample size was made by use of WINPEPI [13] for a number of socioeconomic hypotheses such as educational level and self-perceived poverty. The assumed prevalence of self-perceived poverty was set at 50%, the significance level (two-tailed) at 5%, and the power of the study at 80%. Based on these conservative calculations, the required minimal sample size was about 1,500 individuals. We decided to sample 2400 individuals (200 for each of the 12 strata explained above) in order to increase the power of the study.

Data collection

A structured interviewer-administered questionnaire was used tapping sociodemographic characteristics (age, sex, place of residence [urban vs. rural area], ethnicity [Albanian, Serbian, Roma and other] and religion [Muslim, Catholic and Orthodox]) and socioeconomic factors (education [years of formal schooling – in the analysis categorized into 0, 1–8 and ≥9years], living arrangements [not alone vs. alone], family finances at the end of the month (enough vs. not enough to make

ends meet) and self-perceived poverty level [upon question: *"How do you perceive your poverty level"* – measured on a scale ranging from 1 (extremely poor) to 5 (fair); in the analysis, self-perceived poverty was dichotomized into poor (1–3) vs. not poor (4–5)].

The survey was approved by the Professional Ethical Board of the Ministry of Health of Kosovo. All individuals who agreed to participate gave their informed consent after being explained the aim and procedures of the survey.

Statistical analysis

Socio-demographic and socioeconomic sample estimates were standardized for age, sex and place of residence in accordance with the respective strata from the sampling frame (Figure 1). Absolute numbers and their respective percentages from the study sample, and standardized (population-weighted) percentages with their respective 95% confidence intervals (95% CIs) were reported.

Age-adjusted binary logistic regression was used to assess the association of self-perceived poverty (not poor vs. poor) with socio-demographic characteristics. Multivariable-adjusted binary logistic regression, applying a backward stepwise procedure with a P-value to exit >0.10, was used to assess the independent association of self-perceived poverty with covariates (age, sex, education, residence, marital status and living arrangements – ethnicity and religion were excluded from further consideration since they showed almost no discriminatory power). Age-adjusted and multivariable-adjusted odds ratios (ORs) and their respective 95% CIs were calculated. Hosmer-Lemeshow test was used to assess the fit of the models; all models met the criteria. [14] Statistical Package for Social Sciences, version 15.0, Chicago, Illinois was used for all the analyses.

Results

Socio-demographic characteristics of elderly people aged 65years and over included in this survey are presented in Table 1. Mean age of study participants (overall: 73.4years) was similar between men and women (72.99 ± 5.9 vs. 73.7 ± 6.6years, respectively). About two thirds of male and female respondents resided in rural areas (overall: 62.1%).

Table 1. Socio-demographic characteristics of a population-based sample of elderly people in Kosovo, 2011

Numerical variables	Men (n=949)		Women (n=941)		Total (n=1890)	
	Sample mean±SD*	Standardized mean (95% CI)†	Sample mean±SD	Standardized mean (95% CI)	Sample mean ± SD	Standardized mean (95% CI)
Age *(years)*	72.99±5.94	72.99 (72.94-73.03)	73.67±6.59	73.67 (73.62-73.72)	73.35±6.31	73.35 (73.32-73.38)
Education *(years)*	5.58±4.86	6.58 (6.54-6.62)	1.91±2.92	2.70 (2.68-2.72)	3.76±4.41	4.51 (4.48-4.53)
Categorical variables	**Men (n=949)**		**Women (n=941)**		**Total (n=1890)**	
	Sample N (%)*	Standardized % (95% CI)†	Sample N (%)	Standardized % (95% CI)	Sample N (%)	Standardized % (95% CI)
Age group:						
65–74	307 (32.3)	67.0 (66.60-67.32)	300 (31.9)	63.1 (62.71-63.40)	607 (32.1)	64.9 (64.62-65.12)
75–84	343 (36.1)	29.4 (29.08-29.78)	332 (35.3)	31.2 (30.85-61.52)	675 (35.7)	30.4 (30.13-30.61)
85+	299 (31.5)	3.6 (3.47-3.76)	309 (32.8)	5.8 (5.54-5.98)	608 (32.2)	4.8 (4.65-4.88)
Residence:						
Urban	469 (49.4)	38.7 (38.36-39.11)	448 (47.6)	37.2 (36.85-37.54)	917 (48.5)	37.9 (37.66-38.16)
Rural	480 (50.6)	61.3 (60.89-61.64)	493 (52.4)	62.8 (62.46-63.15)	973 (51.5)	62.1 (61.84-62.34)
Ethnicity:						
Albanian	857 (90.3)	91.1 (90.87-91.28)	843 (89.6)	89.0 (88.76-89.18)	1700 (89.9)	89.9 (89.79-90.10)
Serbian	57 (6.0)	5.5 (5.31-5.66)	63 (6.7)	7.2 (7.05-7.42)	120 (6.3)	6.4 (6.29-6.55)
Roma	9 (1.0)	0.5 (0.43-0.54)	3 (0.3)	0.2 (0.21-0.29)	12 (0.6)	0.4 (0.33-0.39)
Other	26 (2.7)	2.9 (2.81-3.07)	32 (3.4)	3.6 (3.43-3.70)	58 (3.1)	3.3 (3.18-3.37)
Religion:						
Muslim	868 (91.5)	92.4 (92.21-92.62)	858 (91.2)	90.2 (90.00-90.43)	1726 (91.3)	91.2 (91.09-91.38)
Catholic	24 (2.5)	2.1 (1.99-2.22)	20 (2.1)	2.6 (2.44-2.67)	44 (2.3)	2.3 (2.26-2.42)
Orthodox	57 (6.0)	5.5 (5.31-5.66)	63 (6.7)	7.2 (7.05-7.42)	120 (6.4)	6.4 (6.29-6.55)
Education:						
0 years	251 (26.4)	16.7 (16.39-16.96)	585 (62.2)	47.9 (47.55-48.26)	836 (44.2)	33.4 (33.16-33.66)
1–8 years	507 (53.4)	59.6 (59.25-60.00)	325 (34.5)	48.3 (47.93-48.65)	832 (44.0)	53.6 (53.29-53.81)
9+ years	186 (19.6)	23.2 (22.79-23.65)	18 (1.9)	2.5 (2.36-2.58)	204 (10.8)	12.1 (11.93-12.27)
Marital status:						
Married	554 (58.3)	71.1 (70.73-71.43)	243 (25.8)	39.1 (38.77-39.41)	797 (42.2)	54.0 (53.69-54.21)
Single	10 (1.1)	0.5 (0.43-0.54)	11 (1.2)	1.7 (1.61-1.80)	21 (1.1)	1.1 (1.08-1.20)
Separated	5 (0.5)	0.4 (0.33-0.42)	9 (1.0)	1.0 (0.94-1.08)	14 (0.7)	0.7 (0.67-0.76)
Widowed	366 (38.6)	26.8 (26.44-27.12)	663 (70.4)	56.7 (56.38-57.09)	1029 (54.4)	42.8 (42.57-43.09)
Living arrangements:						
Living alone	57 (6.0)	5.0 (4.86-5.19)	58 (6.2)	5.1 (4.97-5.28)	115 (6.1)	5.1 (4.96-5.19)
Not living alone	892 (94.0)	95.0 (94.81-95.14)	882 (93.7)	94.7 (94.55-94.88)	1774 (93.9)	94.8 (94.72-94.95)

***** Mean values (and their respective standard deviations) and absolute numbers (and their respective column percentages) in the actual study sample. Discrepancies in the totals for educational level, marital status and living arrangements are due to missing covariate values.

† Age-sex and-residence standardized mean values and column percentages and their respective 95% confidence intervals (95%CIs).

On average, respondents had 4.5years of formal education with considerable differences between men and women (mean years of formal education: 6.6 ± 4.6 in men 2.7 ± 3.2 in women). Almost half of the women (47.9%) had no formal educa-

tion compared to 16.7% of men, whereas the inverse trend was observed for 9 or more years of formal education (2.5% of women vs. 23.2% of men had 9+ years of formal education, respectively). About three quarters of men (71.1%) reported to be married at the time of the survey compared to about 40% of women. The reverse trend was observed regarding the proportions of widowed (26.8% of men vs. 56.7% of women). The sample was quite homogenous in terms of ethnicity or religion with 90% being Albanians and 91% of Muslim affiliation, respectively (Table 1). As a matter of fact, ethnicity and religion did not reveal any discriminatory power as they were equally distributed among the socio-economic groups in the study sample; therefore, given also the small numbers in the non-Albanian and non-Muslim categories, these variables were excluded from further analysis.

About half of respondents (46.9%) perceived themselves as 'poor' or 'extremely poor' (40.8% of men vs. 52.0% of women) (Table 2).

Table 2. Socioeconomic characteristics of the study population

Socioeconomic characteristic	Men (n=949)		Women (n=941)		Total (n=1890)	
	Sample N (%)*	Standardized% (95% CI)†	Sample N (%)*	Standardized% (95% CI)	Sample N (%)*	Standardized% (95% CI)
Family finances at end of month:						
Not enough	667 (70.3)	67.6 (67.20-67.92)	718 (76.3)	76.5 (76.23-76.83)	1385 (72.4)	72.4 (72.13-72.60)
Enough	275 (29.0)	31.5 (31.11-31.83)	215 (22.8)	22.7 (22.42-23.02)	490 (26.8)	26.8 (26.55-27.01)
Missing	7 (0.7)	1.0 (0.90-1.05)	8 (0.9)	0.8 (0.69-0.82)	15 (0.9)	0.9 (0.81-0.91)
Self-perceived poverty:						
Extremely poor	121 (12.8)	13.2 (12.96-13.44)	172 (18.3)	18.5 (18.27-18.82)	293 (15.5)	16.1 (15.88-16.26)
Poor	308 (32.4)	27.6 (27.22-27.91)	329 (35.0)	33.5 (33.18-33.86)	637(33.7)	30.8 (30.51-31.00)
Moderate	346 (36.5)	39.5 (39.08-39.84)	296 (31.4)	33.0 (32.63-33.31)	642 (34.0)	36.0 (35.73-36.23)
Not poor	106 (11.2)	12.4 (12.14-12.65)	83 (8.8)	8.8 (8.63-9.04)	189 (10.0)	10.5 (10.33-10.65)
Fair	44 (4.6)	4.8 (4.68-5.01)	45 (4.8)	4.5 (4.39-4.69)	89 (4.7)	4.7 (4.57-4.79)
Missing	24 (2.5)	2.5 (2.41-2.65)	16 (1.7)	1.6 (1.52-1.70)	40 (2.1)	2.0 (1.96-2.11)

***** Mean values (and their respective standard deviations) and absolute numbers (and their respective column percentages) in the actual study sample.

† Age-sex and-residence standardized mean values and column percentages and their respective 95% confidence intervals (95%CIs).

In age-adjusted comparisons (Table 3), women were significantly more likely to perceive themselves as poor compared to men (OR=1.4, 95% CI=1.1-1.6). Same finding was evident for urban residents compared to their rural counterparts (OR=1.3, 95% CI=1.1-1.5). Individuals aged 85+ were significantly more likely to perceive themselves as poor compared to the youngest age-group (OR=1.3, 95% CI=1.0-1.6). Compared to the highly educated individuals (9 or more years of formal education), those without formal education were significantly more likely to perceive themselves as poor (OR=1.4, 95% CI=1.0-2.0). Widowed individuals were

significantly more likely to perceive themselves as poor compared to their married counterparts (OR=1.3, 95% CI=1.1-1.6), whereas participants who reported to be single were two times more likely to perceive themselves as poor compared to the married ones (OR=2.7, 95% CI=1.0-7.0). Individuals living alone were more likely to perceive themselves as poor compared to those not living alone (OR=2.5, 95% CI=1.6-3.7).

Table 3. Association of socio-demographic and socioeconomic characteristics with self-perceived poverty; age-adjusted analysis

Variable	OR*	95% CI*	P
Sex:			
Men	1.00	Reference	0.001
Women	1.36	1.13 -1.63	
Age group:			**0.072 (2)**†
65–74 years	1.00	Reference	-
75–84 years	1.13	0.90-1.41	0.285
85+ years	1.31	1.04-1.64	0.022
Residence:			
Rural	1.00	Reference	0.012
Urban	1.27	1.06 - 1.53	
Educational level:			**0.097 (2)**
9+ years	1.00	Reference	-
1–8 years	1.34	0.98-1.82	0.070
0 years	1.43	1.03-1.99	0.031
Marital status:			**0.029 (3)**
Married	1.00	Reference	
Single	2.66	1.01-7.01	0.047
Separated	1.14	0.39-3.27	0.814
Widowed	1.29	1.06-1.58	0.013
Living arrangements:			
Not living alone	1.00	Reference	
Living alone	2.47	1.63 - 3.74	<0.001

* Age-adjusted odds ratios (ORs: poor vs. not poor) and 95% confidence intervals (CIs) from binary logistic regression.

† Overall p-value and degrees of freedom (in parentheses).

After adjustment for all covariates (Table 4) using a backward stepwise procedure, lack of formal education and/or 1–8years of formal schooling were both associated with increased likelihood of self-perceived poverty (OR=1.6, 95% CI=1.1-2.3 and OR=1.4, 95% CI=1.0-2.0, respectively). Furthermore, female gender and urban residence remained significant predictors of self-perceived poverty (OR=1.3, 95% CI=1.0-1. 6 and OR=1.4, 95% CI=1.2-1.7, respectively).

Table 4. Association of socio-demographic and socioeconomic characteristics with self-perceived poverty; multivariable-adjusted analysis

Variable	OR*	95% CI*	P
Sex:			
Men	1.00	Reference	0.024
Women	1.27	1.03-1.56	
Age group:			
65–74 years			
75–84 years			
85+ years			
Residence:			
Rural	1.00	Reference	<0.001
Urban	1.42	1.17-1.73	
Educational level:			**0.037 (2)**†
9+ years	1.00	Reference	-
1–8 years	1.41	1.01-1.96	0.044
0 years	1.60	1.12-2.28	0.010
Marital status:			
Married			
Single			
Separated			
Widowed			
Living arrangements:			
Not living alone	1.00	Reference	<0.001
Living alone	2.66	1.73-4.07	

* Multivariable-adjusted odds ratios (ORs: poor vs. not poor) and 95% confidence intervals (CIs) from binary logistic regression. All variables presented in the table were included in a backward stepwise elimination procedure with a p-value to exit set at >0.10. Empty cells refer to the variables excluded from the model.
† Overall p-value and degrees of freedom (in parentheses).

Discussion

The main findings of this survey, which included a nationwide representative sample of elderly people aged 65years and over in Kosovo, consist of a high rate coupled with a significant difference in men vs. women regarding the educational attainment and self-perceived poverty levels. Our results indicate a significant inverse association of self-perceived poverty with education, but a positive relationship with female gender, urban residence and living alone.

World population (including the Balkan countries) is ageing and the proportion of individuals aged 65+ years will be quickly expanding in the upcoming years, notwithstanding the decline in population figures in several countries. [2,3,15] Kosovo remains the youngest country in Europe and reports the lowest share of individuals aged 65+ compared to other countries in the region: the share of 65+ population is about 10% in Albania, whereas in Bulgaria, Croatia, Latvia and Poland it is around 17%. [16]

Our findings regarding demographic characteristics are comparable to those reported previously in Kosovo and in other countries of the region. The 2009 Demographic, Social and Reproductive Health Survey in Kosovo reported similar findings with our study, although the sample was not restricted to elderly people. [8] On the other hand, it is consistently reported that the proportion of elderly people living in rural areas is higher than those living in urban areas and more women are found in the oldest age groups compared to men [1] and, similar to the world statistics, the majority of elderly men are not widowed, whereas the majority of elderly women are widowed. [1,17] This is important since not being widowed affects positively the well-being of elderly people and their living arrangements. [18] In age-adjusted analysis, we obtained evidence that individuals being single were almost three times more likely to perceive themselves as poor compared to their married counterparts.

Our survey revealed that only 5% of elderly people were living alone and a similar situation is present in developing countries in general. [1] Conversely, figures from the neighbouring Albania and Serbia suggest that the proportion of elderly individuals living alone is 20% [19,20], whereas in Turkey it is around 30%. [17] The 2007 World Economic and Social Survey reported that 25% of individuals aged 60+ in developed countries and 7% in developing countries live alone. [21] Similar to other studies [21-23], we found that living alone is a risk factor for feeling poor among the elderly: in multivariable-adjusted analysis, individuals aged 65+ who were living alone were 2.5 times more likely to perceive themselves as poor compared to those not living alone.

On the other hand, the distribution of ethnicity and religiosity in our elderly sample was similar to other sources of information in the Republic of Kosovo (8), with an overwhelming majority of Albanians (90%) [Muslims: 91.2%; Orthodox: 6.4%].

The gender educational gap, somewhat evidenced in previous surveys in Kosovo [8], was nevertheless quite striking in our study. Our findings differ slightly from those reported by the Demographic, Social and Reproductive Health Survey in Kosovo in 2009 which reported that 21.1% of males aged 65+ had no formal schooling compared to 64.4% of females of the same age [in our study, these figures were: 16.7% and 47.9%, respectively]. These differences could be due to the cohort effect: it is likely that younger cohorts exhibit higher educational levels due to a better access to formal schooling compared to the older generations. An earlier report in Kosovo suggested that, in 2005, about 49% of individuals aged 65+ had no formal education.[5] Another fact supporting the cohort effect is the decrease in illiteracy rates in Kosovo from 41.1% in 1961 to 18% in 1981.[24] The low proportion of formal education in Kosovo and male/female differences regarding formal schooling have been suggested to be rooted in political, social and economic context of the country since the middle of the 20th Century.[24] The low rates of formal

schooling are not unique for Kosovo: in Turkey, in 2007, 84% of elderly women and 70% of elderly men (aged 60+) did not receive any education at all or had dropped out from primary school.[17]

In order to understand the financial situation of elderly people in Kosovo, social policies surrounding elderly people in this country should be considered. According to the Law on Pensions (2001), the pension scheme in Kosovo is based in the so-called "three pillar system". The first pillar states that every person aged 65+ in Kosovo is entitled to a basic pension, which is the same for all the elderly and aims to reduce the poverty. Virtually, all persons aged 65+ are enrolled in this system. However, the amount of money the elderly receive is very small and not sufficient to meet their needs. In 2010, the amount of basic pension was 45 Euro/month.[25] The second pillar of financing of elderly is the savings pension. In the framework of high unemployment rates and black labour, the proportion of elderly who benefit from this social scheme is very limited. The third pillar is a voluntary supplemental system.[9,26] Finally, there are social and family services offered for elderly people who are unable to look after themselves, which are provided by governmental and non-governmental organizations. A person living on social assistance in Kosovo receives on average 0.46 Euro/day. [27] However, according to UNDP reports, about 25% of families in Kosovo receive remittances from relatives abroad. On average, each of these families receives 2,136 Euro/year.[28] Therefore, notwithstanding the financial difficulties of elderly people in Kosovo, they also benefit from remittances of their close relatives who work abroad.

More women than men are unemployed [29], meaning that fewer women can benefit from savings pension compared to men, which partly explains the higher rate of self-perceived poverty among women. Furthermore, the pattern of lower school enrolment and school completion among women is present. The boosting factors for lower school attainment among women are probably cultural: early marriages and the public opinion about the traditional roles of women within the family.[5] The gender discrimination is present in Kosovo similar to other countries in the region, such as Turkey.[17]

According to the Kosovo Health Law (2004), health care services are provided free of charge in public health institutions for the citizens over 65 years of age.[30]

The situation regarding the impact of social support for elderly in Kosovo is similar to other countries in the region. There is evidence from numerous studies that participation in pension schemes is associated with a reduction of poverty among elderly or reducing the intensity of poverty, including rural area residents.[21]

A considerable help for the elderly consist of financial sources other than governmental schemes. A survey among elderly aged 65+ in Albania reported that 66% of them receive some financial support from their family members or other sources such as renting properties.[31] In Turkey, elderly people had one or more financial sources for sustaining them, and more men were entitled to such incomes

compared to women.[17] In developing countries, these informal support mechanisms are often not stable and not reliable sources of income thus providing only limited security for the elderly people.[21] Efforts to alleviate poverty among elderly people have proven not successful, at least in some countries.[17] The situation is similar in Kosovo.

Regarding the prevalence of poverty, our report suggests that 16.1% of people aged 65+ are extremely poor (13.2% of men and 18.5% of women) whereas the UN ageing report indicated that 13.3% of worldwide individuals aged 65+ are poor.[1] Another study in Kosovo reported that 17.1% of elderly aged 65+ are extremely poor.[5] Another study among elderly aged 65+ in Albania found that 16.8% of them considered themselves as extremely poor [31], whereas 24% of elderly aged 60+ in Turkey were reported to be poor. [17] In Serbia, 14.7% of persons aged 65+ were reported to be poor [20]; the poverty level was higher in women, the low educated (20.2%) and in rural residents (18.6%). [20] Findings from our survey suggest that the proportion of individuals perceiving themselves as poor or very poor is higher in urban areas compared to rural areas. This finding is supported by other studies in Kosovo. [5] However, it is difficult to compare poverty levels since no standardized measurement methodology has been adopted.

In our study, there was evidence of a significant association between educational level and self-perceived poverty. Furthermore, individuals living alone reported higher rates of extreme poverty compared to those not living alone, a finding which has been consistently reported from other studies conducted elsewhere. [21,32] Commonly, women have fewer education opportunities and, therefore, fewer employment chances. Consequently, fewer women benefit from pension schemes and, ultimately, elderly women are at higher risk of poverty compared to men. Furthermore, women live longer and hence their chances of living alone are higher with all the consequences this bears in terms of poverty.

Study limitations

Potential limitations of our study include the generalizability of the findings, differential reporting of socioeconomic characteristics, particularly of self-perceived poverty level, and the study design.

We employed an age- sex-and residence-stratified sample; the stratum sampling may affect the distribution of socioeconomic characteristics among elderly people. However, all socio-demographic and socioeconomic estimates were standardized for age, sex, and place of residence to account for the stratification approach employed in the sampling procedure.

Although we cannot exclude the possibility of reporting bias, there seems no convincing reason for elderly people's categories differing in age, sex, place of residence and educational level to have reported differently about their self-perceived poverty levels.

Furthermore, the findings of our study should be interpreted with caution, as the observed relationships from cross-sectional studies are not assumed to be causal.

Conclusion

In summary, the socioeconomic situation of the elderly population in Kosovo seems rather challenging. The urbanization process and the internal and external migration increase the chances of elderly individuals for living alone. In addition, lack of formal education, especially among women, and the hectic context of a transitional society should be considered as major marginalizing factors which exacerbate poverty levels among elderly people in the emerging state of Kosovo.

In conclusion, demographic trends coupled with a society in economic and political transition raise serious concerns about increasing needs for socioeconomic support and social inclusion of elderly people in Kosovo. There is a low level of societal preparation in Kosovo capable to deal with socioeconomic needs of elderly people. Therefore, specific policies and actions should be considered by a number of stakeholders, including government and civil society in transitional Kosovo.

Competing interests
The authors declare that they have no competing interests.

Authors' contribution
NJ contributed to the study conceptualization and design, acquisition of the data, analysis and interpretation of the data and writing of the article. ET, GB and HB contributed to the study conceptualization and design, analysis and interpretation of the data and writing of the article. NR commented on the manuscript. All authors have read and approved the submitted manuscript.

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References

1. Current status of the social situation, wellbeing, participation in development and rights of older persons worldwide. New York: United Nations; 2010.
2. Muenz R: Aging and demographic change in European societies: main trends and alternative policy options. Discussion paper no. 0703. 39174. Hamburg Institute for International Economics; 2007.
3. Rynning E: The ageing populations of Europe – Implications for health systems and patients' rights. Eur J Health Law 2008, 15:297-306.
4. HelpAge International. Insights on Ageing: a survey report. 2011. Available from: http:/ / www.helpage.org/ resources/ ageing-data/ ?gclid=CPHP1LLw56sCFQdI3godO06OMQ (accessed: Nov 22, 2011)
5. Kosovo Poverty Assessment. Promoting Opportunity, Security, and Participation for All. Report Nr. 32378-XK. World Bank; 2005.
6. Grundy E: Ageing and vulnerable elderly people: European perspectives. Ageing Soc 2006, 26:105-134.
7. News release: Living conditions in 2008. 10/2010. Eurostat Press Office; 2010.
8. Statistical Office of Kosovo: Demographic, Social and Reproductive health Survey in Kosovo, November 2009. Pristina, Kosovo; 2011.
9. Profile of the social security system in Kosovo (within the meaning of UNSC Resolution 1244 [1999]). 2010. Available from: http:/ / www.ilo.org/ public/ english/ region/ eurpro/ budapest/ download/ socsec/ socsec_system_kosovo.pdf (accessed: Nov 24, 2011)
10. Poverty Reduction and Economic Management Unit. Statistical Office of Kosovo. Western Balkans Programmatic Poverty Assessment; 2011.
11. World Bank - Kosovo Partnership Program Snapshot. 2011. Available at: http://siteresources.-worldbank.org/KOSOVOEXTN/Resources/Kosovo_Snapshot.pdf (accessed: Nov 24, 2011).
12. Statistical Office of Kosovo: Statistics of Births in Kosovo 2009. Pristina, Kosovo. July 2010. Available at: http://esk.rks-gov.net/ENG/pop/publications/cat_view/8-population/80-births (accessed: Nov 18 2011)
13. Abramson JH, Gahlinger PM: Computer Programs for Epidemiologists: PEPI Version 11.15. Salt Lake City: Sagebrush Press; 2011.
14. Hosmer D, Lemeshow S: Applied logistic regression. New York: Wiley & Sons; 1989.
15. Van Nimwege N, van der Erf R: Europe at the crossroads: demographic challenges and international migration. J Ethn Migr Stud 2010, 36:1359-1379.
16. Long-Term Care and Ageing. Case Studies - Bulgaria, Croatia, Latvia and Poland. 2010.
17. The situation of elderly people in Turkey and national plan of action on ageing, 2007. Turkey; 2007. Available at http://www.ekutup.dpt.gov.tr/nufus/yaslilik/eylempla-i.pdf (accessed: Nov 18, 2011)
18. Kevin K, He W: An Aging World: 2008. US Census Bureau, International Population Reports. Washington, DC: U.S. Government Printing Office; 2009. Available at: http://www.census.gov/prod/-2009pubs/p95-09-1.pdf (accessed: Nov 23, 2011)
19. Survey on Ageing Problems in Support of Establishing of Strategic Document on Ageing. 2008. Tirana, Albania (In Albanian)
20. Sataric N, Rasevic M: The elderly non-residential care in Serbia-a gap between needs and opportunities. Serbia: Belgrade; 2007.
21. Department of Economic and Social Affairs. New York: Development in an Ageing World; 2007.
22. Hermalin AI: The Well-Being of the Elderly in Asia: A Four-Country Comparative Study. Ann Arbor, MI: University of Michigan Press; 2003.

23. de Jong Gierveld J: Living arrangements, family bonds and the regional context affecting social integration of older adults in Europe. In How Generations and Gender Shape Demographic Change. Geneva: UNECE; 2009:107-126. Available at: http://www.unece.org/index.php?id=10846 (accessed: Nov 22, 2011)
24. Pushka A: Quantifying the educational attainment of the Kosovo population. http://www.-seeeducoop.net/educationin/pdf/quantleved-kos-enl-t01.pdf (accessed: Nov 12, 2011)
25. Statistical Office of Kosovo. Social Welfare Statistics in Kosovo. 2010. Available at: http://esk.rks-gov.net/ENG/social-welfare-and-literacy/publications/doc_view/995-social-welfare-statistics-2010?tmpl=component&format=raw (accessed: Nov 12, 2011)
26. Moalla-fetini R, Hatanpää H, Shehadah H, Koliadina N, International monetary fund: Kosovo-gearing policies toward growth and development. 2005. http://www.imf.org/external/pubs/-ft/kosovo/2005/gpgd.pdf (accessed: Nov 23, 2011)
27. Human Development Report Kosovo. UNDP Kosovo Office; 2010. http://www.ks.undp.org/-repository/docs/HDR-2010-English.pdf (accessed: Nov 22, 2011)
28. Remittance Survey. UNDP Kosovo Office; 2011. http:/ / www.kosovo.undp.org/ repository/ docs/ 2011/ Remittance_Survey_Fact_Facts_2011_F inal-trans.pdf (accessed: Nov 15, 2011)
29. Statistical Office of Kosovo. Women and men in Kosovo. 2010. http:/ / esk.rks.gov.net/ dmdocu-ments/ Grate%20dhe%20Burrat%20ne%20Kosove% 202010.pdf (accessed: Nov 17, 2011)
30. Assembly of Kosovo. Kosovo Health Law. No. 2004/4. http://www.assembly-kosova.org/-common/docs/ligjet/2004_4_en.pdf (accessed: Nov 14, 2011)
31. Ylli A: Health and Social Conditions of Older People in Albania: Baseline Data from a National Survey. Public Health Rev 2010, 2:549.
32. Zaidi A, European Centre: Poverty of Elderly People in EU25. Policy brief. 2006. Available at: http://www.euro.centre.org/data/1156245035_36346.pdf (accessed: Nov 20, 2011)

CHAPTER 4

Prevalence and socioeconomic correlates of chronic morbidity among elderly people in Kosovo: a population-based survey

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Abstract

Background
Our aim was to assess the prevalence and demographic and socioeconomic correlates of chronic morbidity in the elderly population of transitional Kosovo.

Methods
A cross-sectional study was conducted in Kosovo in 2011 including a representative sample of 1890 individuals aged ≥65 years (949 men, mean age 73±6 years; 941 women, mean age 74±7 years; response rate: 83.5 %). A structured questionnaire inquired about the presence and the number of self-reported chronic diseases among elderly people, and their access to medical care. Demographic and socioeconomic data were also collected. Binary logistic regression was used to assess the association of demographic and socioeconomic characteristics with chronic conditions.

Results
In this nationwide population-based sample in Kosovo, 42% of elderly people were unable to access medical care, of whom 88% due to unaffordable costs. About 83% of the elderly people reported at least one chronic condition (63% cardiovascular diseases), and 45% had at least two chronic diseases. In multivariable-adjusted models, factors associated with the presence of chronic conditions and/or multimorbidity were female sex, older age, self-perceived poverty and the inability to access medical care.

Conclusion
This study provides important evidence on the magnitude and distribution of chronic conditions among the elderly population of Kosovo. Our findings suggest that, in this sample of elderly people from Kosovo, the oldest-old (especially women) and the poor endure the vast majority of chronic conditions. These findings point to the urgent need to establish a social health insurance scheme including the marginalized segments of elderly people in this transitional country.

Keywords
Aging; Chronic morbidity; Elderly; Kosovo; Multimorbidity

Background

World population is ageing. The 1990–2009 period was characterized by an increase of life expectancy at birth in 165 out of 193 countries, with 29 countries having more than one fifth of their population aged over 60 years. [1] Conversely, in 51 nations, individuals born in 2009 are expected to live on average more than 75 years. [1] However, increased longevity does not necessarily point to good health for the extra years of life due to a positive relationship between age and disease occurrence which, coupled with the introduction of new health technologies and medical progress, will unavoidably lead to increased needs for health care services. [2]

Kosovo, which emerged as the newest state of Europe in 2008 after almost ten years under United Nations' administration following a devastating war [3], is trying to rebuild its health system.[4] Among the reforming efforts, an important aspect is the reorientation of health services to ensure basic medical care for all individuals and, particularly, for the vulnerable groups. [3,5] Although Kosovo's population is the youngest in the region, it is facing the ageing phenomenon as the share of people aged ≥65 years increased from 4.5% in 1981 [6] to 6.7% in 2011[7] and fertility rates declined. Elderly people are commonly described as a vulnerable community [8] and, in a country struggling to survive, the scientific information about health situation of elderly people is sporadic [9] and they are often overlooked in spite of their growing numbers.

Transitional countries of Southeast Europe are currently considered to be similar to developed societies in terms of morbidity and mortality patterns. [5] This may suggest changes in the epidemiological profile with an increase in the morbidity and mortality from non-communicable conditions. Indeed, the leading causes of death in Southeast European countries are now the circulatory diseases accounting for more than half of all deaths, followed by cancer. [10]

Socioeconomic characteristics influence the health status of individuals. Thus, there is considerable evidence on a positive relationship between education and income with a better health status. [11-13] While numerous studies have highlighted the links between socioeconomic inequalities and health among elderly populations in developed [13-15] and developing countries [16-18], the health status of elderly people and its association with socioeconomic factors remains largely under researched in countries of the Western Balkans.[19-22] This is especially the case for chronic conditions and multimorbidity.

The magnitude and demographic and socioeconomic determinants of chronic morbidity among the elderly population in Kosovo have not been reported to date.

In this context, this study aimed to assess the prevalence and the demographic and socioeconomic correlates of chronic morbidity in the elderly population of Kosovo in 2011.

Methods

A nationwide cross-sectional study among elderly people aged ≥65 years was conducted in Kosovo, a country with an area of 10908 kilometre squares, which is divided into 37 administrative units, referred to as "municipalities".

Study population

According to the 2011 Census [7], the total population of Kosovo is 1739825 inhabitants. Our study was conducted between January and March 2011, prior to the 2011 Census' results.

In 2010, we retrieved (from the Kosovo Ministry of Labour and Social Welfare) a list (sampling frame) containing 140329 individuals aged ≥65 years.[22] Based on this list, we drew an age- sex-and residence-stratified sample of 2400 individuals aged ≥65 years. Twelve strata were established (based on sex-stratification [men vs. women], place of residence (urban vs. rural areas) and age-stratification [65–74 years, 75–84 years and ≥85 years]). A simple random sample of 200 individuals in each of the twelve strata was drawn.[22]

Of the 2400 subjects included in the sample, 135 individuals were ineligible (69 people were dead, whereas further 66 individuals had left Kosovo at the time of the survey). Of the 2265 eligible individuals, 1890 agreed to participate in the study, with an overall response rate of 83.4% (1890/2265).

Data collection

A structured questionnaire was administered by trained interviewers at homes of elderly people who agreed to participate in the survey.[22]

Participants were asked about the presence of chronic diseases (*"Do you have any long-standing or chronic illness, disease or disorder?*). Upon a positive response, participants were further asked to specify the type(s) of the following chronic conditions they were suffering from: cardio-vascular diseases (CVD), diabetes, stomach diseases, diseases of the liver, lung diseases, neurologic disorders, cancer, as well as an open-ended category about the possible presence of other chronic diseases. Based on this self-reported information, we calculated the number of chronic diseases for each participant (range: 1–6).

The questionnaire included also questions about access to medical care (*"Are you able to access medical treatment?"* – dichotomized into *"able"* vs. *"unable"* to access medical care) and barriers to access medical care (trichotomized into: "*can't afford medical costs*", "*services too far away"* and "*too sick for seeking medical care"*).

In addition, the questionnaire contained items about socio-demographic and socioeconomic characteristics of study participants including sex, age (65–

74 years, 75–84 years and ≥85 years), educational level (0 years, 1–8 years and ≥9 years), place of residence (urban vs. rural area), marital status (dichotomized into: married vs. not married), and self-perceived poverty level (dichotomized into: not poor vs. poor).[22]

The study was approved by the Ethical Board of the Ministry of Health of Kosovo. All elderly people who agreed to participate in the survey signed an informed consent form prior to the interview.

Statistical analysis

Demographic and socioeconomic sample estimates were weighted for age, sex and place of residence in accordance with the respective strata from the sampling frame.[22] Absolute numbers and their respective percentages from the study sample, and sampling frame weighted percentages with their respective 95% confidence intervals (95% CIs) were reported.

Binary logistic regression was used to assess the associations of sociodemographic and socioeconomic variables with the presence of chronic conditions (dichotomized into: "none" vs. "at least one chronic condition") and the number of chronic conditions (dichotomized into: "one chronic condition" vs. "≥2 chronic conditions"). Individuals with ≥2 chronic conditions were considered as living with multimorbidity.

Age-adjusted and multivariable-adjusted odds ratios (ORs) and their respective 95% CIs were calculated. In all cases, a p-value of ≤0.05 was regarded as statistically significant. All the logistic models were checked to comply with the requirements of Hosmer-Lemeshow goodness-of-fit test (all the reported models satisfied the goodness-of-fit criterion).

SPSS (Statistical Package for Social Sciences, version 15.0), was used for all the statistical analyses.

Results

Mean age in this sample of elderly people in Kosovo was 73.4±6.3 years. The majority lived in rural areas (62%) and 55% were married at the time of the interview (Table 1).

Table 1. Socio-demographic and socioeconomic characteristics of a population-based sample (N=1890) of elderly people in Kosovo, 2011

Variable	Sample number (percentage)	Weighted percentage (95% CI)*
Sex:		
Men	949 (50.2)	46.4 (46.2–46.7)
Women	941 (49.8)	53.6 (53.3–53.8)
Age:		
65–74 years	607 (32.1)	64.9 (64.6–65.1)
75–84 years	675 (35.7)	30.4 (30.1–30.6)
≥85 years	608 (32.2)	4.8 (4.7–4.9)
Place of residence:		
Rural area	973 (51.5)	62.1 (61.8–62.3)
Urban area	917 (48.5)	37.9 (37.6–38.2)
Educational level:		
0 years	836 (44.7)	33.7 (33.5–34.0)
1–8 years	832 (44.4)	54.1 (53.8–54.3)
≥9 years	204 (10.9)	12.2 (12.0–12.4)
Marital status:		
Currently married	797 (42.8)	54.7 (54.4–55.0)
Other†	1064 (57.2)	45.3 (45.0–45.6)
Self-perceived poverty:		
Not poor	920 (49.7)	52.2 (51.9–52.5)
Poor	930 (50.3)	47.8 (47.5–48.1)
Access to medical care:		
Able	1087 (57.5)	58.3 (58.1–58.5)
Unable	803 (42.5)	41.7 (41.4–41.9)
Reasons for not accessing medical care:‡		
Can't afford the costs	682 (84.9)	87.7 (87.4–87.9)
Services too far away	64 (8.0)	8.0 (7.8–8.2)
Too sick for seeking care	57 (7.1)	4.3 (4.1–4.5)

***** Percentages and 95% confidence intervals (95% CI; in parentheses) were weighted for age-, sex- and-residence in accordance with the respective strata weights in the sampling frame.
† Widowed, separated or divorced.
‡ Analysis restricted to individuals who were unable to access medical care (n=803).

Almost half of participants perceived themselves as economically poor. About 42% of respondents reported inability to access medical care, most of whom (87.7%) couldn't afford the costs of medical care.

The most prevalent chronic conditions were the cardiovascular diseases followed by diseases of the stomach and liver, diabetes and lung diseases with 63%, 21%, 18% and 16%, respectively (Table 2). The maximum number of chronic conditions was six, whereas the median number of diseases was two. The prevalence of each chronic condition, considered separately, was higher among women than men, except for the cancer.

Table 2. Self-reported chronic conditions in a population-based sample (N=1890) of elderly people in Kosovo, 2011

Chronic condition	Men (N=949)		Women (N=941)		Total (N=1890)	
	n*	Percentage (95% CI)†	n*	Percentage (95% CI)†	n*	Percentage (95% CI)†
CVD	573	54.7 (54.3–55.1)	667	70.5 (70.2–70.8)	1240	63.2 (62.9–63.4)
Diabetes	121	15.0 (14.7–15.3)	170	19.8 (19.5–20.1)	291	17.6 (17.4–17.8)
Stomach and liver	197	18.8 (18.5–19.1)	244	23.6 (23.3–23.9)	441	21.4 (21.2–21.6)
Lung	170	13.7 (13.5–14.0)	181	18.4 (18.1–18.7)	351	16.2 (16.0–16.4)
Neurologic disorders	163	12.3 (12.1–12.6)	221	18.2 (17.9–18.5)	384	15.5 (15.3–15.7)
Cancer	21	1.6 (1.5–1.7)	13	1.5 (1.4–1.6)	34	1.6 (1.5–1.7)
Other conditions	183	14.4 (14.2–14.8)	154	15.4 (15.2–15.7)	337	15.0 (14.7–15.2)

***** Absolute numbers in the sample.
† Percentages and 95% confidence intervals (95% CI; in parentheses) were weighted for age-, sex- and-residence in accordance with the respective strata weights in the sampling frame.

Women aged 65–74 years and ≥85 years were significantly more likely to report two or more chronic conditions than men (P<0.001 and P=0.05, respectively) [Table 3]. More than four fifths of the elderly people (83%) had at least one chronic disease, whereas the prevalence of multimorbidity (≥2 chronic conditions) was 45%.

Table 3. Number of chronic conditions by age and sex

No. of chronic diseases	Total (N=1890)	65–74 years† (n=607)		75–84 years† (n=675)		≥ 85 years† (n=608)	
		Men (n=307)	Women (n=300)	Men (n=343)	Women (n=332)	Men (n=299)	Women (n=309)
0	244 (16.7)*	84 (27.3)*	45 (14.0)*	42 (12.9)*	26 (8.2)*	28 (9.1)*	19 (7.2)*
1	681 (38.1)	132 (42.8)	110 (36.4)	124 (35.9)	121 (36.3)	105 (35.8)	89 (29.6)
2	605 (27.9)	60 (19.4)	86 (29.8)	113 (32.5)	111 (33.2)	108 (35.4)	127 (40.2)
≥ 3	360 (17.3)	31 (10.4)	59 (19.8)	64 (18.8)	74 (22.3)	58 (19.7)	74 (23.0)

***** Sample numbers and weighted percentages (in parentheses). Percentages were weighted for age-, sex- and-residence in accordance with the respective strata weights in the sampling frame.
† Chi square test: P value <0.001 for 65–74 years, P=0.150 for 75–84 years, and P=0.045 for ≥85 years.

In age-adjusted logistic regression models (Table 4), sex, age-group, education, self-perceived poverty and the ability to access medical care were all significantly associated with chronic morbidity: the presence of at least one chronic condition was significantly higher in women (OR=1.8; 95% CI=1.4-2.4), among the oldest-old (OR=3.2; 95% CI=2.3-4.6), those with 1–8 years of formal schooling (OR=2.1; 95% CI=1.3-3.2), individuals perceiving themselves as poor (OR=2.2; 95% CI=1.7-3.0), and participants unable to access medical care (OR=4.0; 95% CI=2.8-5.7). A similar pattern was evident for multimorbidity, where OR was 1.4 times higher among women (95% CI=1.1-1.7), 1.9 times higher among the oldest-old (95% CI=1.5-2.5), 1.7 times higher among individuals with 1–8 years of formal schooling (95%

CI=1.2-2.4), 1.6 times higher among individuals perceiving themselves as poor (95% CI=1.3-1.9), and 1.9 times higher among participants unable to access medical care (95% CI=1.6-2.4) [Table 4].

Table 4. Association of demographic and socioeconomic factors with the presence and the number of chronic conditions; age-adjusted odds ratios (ORs) from binary logistic regression

Variable	Presence of chronic conditions*		Multimorbidity†	
	OR (95% CI)	P	OR (95% CI)	P
Sex:		<0.001		
Men	1.00 (reference)		1.00 (reference)	0.001
Women	1.85 (1.39–2.45)		1.40 (1.15–1.71)	
Age-group:		**<0.001 (2)‡**		**<0.001 (2)**
65–74	1.00 (reference)	-	1.00 (reference)	-
75–84	2.41 (1.75–3.31)	<0.001	1.52 (1.19–1.93)	0.001
≥85	3.22 (2.26–4.60)	<0.001	1.94 (1.51–2.49)	<0.001
Residence:				
Rural	1.00 (reference)	0.462	1.00 (reference)	0.866
Urban	1.11 (0.84–1.46)		1.02 (0.83–1.24)	
Educational level:		**0.002 (2)**		**0.005 (2)**
≥9 years	1.00 (reference)	-	1.00 (reference)	-
1–8 years	1.77 (1.21–2.59)	0.004	1.37 (0.96–1.94)	0.081
0 years	2.06 (1.35–3.16)	0.001	1.67 (1.16–2.38)	0.005
Self-perceived poverty:				
Not poor	1.00 (reference)	<0.001	1.00 (reference)	<0.001
Poor	2.24 (1.68–3.00)		1.56 (1.28–1.91)	
Access to medical care:				
Able	1.00 (reference)	<0.001	1.00 (reference)	<0.001
Unable	4.02 (2.84–5.69)		1.94 (1.58–2.37)	

***** OR: presence vs. absence of chronic conditions.
† OR: multimorbidity (≥2 chronic conditions) vs. single morbidity (1 chronic condition). Individuals with no chronic conditions (n=244) were excluded from this analysis.
‡ Overall p-values and degrees of freedom (in parentheses).

In multivariable-adjusted models (Table 5), the positive and statistically significant associations of the presence of at least one chronic condition with female sex, older age, self-perceived poverty and the inability to access medical care persisted, albeit less strongly. Furthermore, upon multivariable adjustment, the correlates of multimorbidity were generally similar to those of chronic morbidity.

Table 5. Association of demographic and socioeconomic factors with the presence and the number of chronic conditions; multivariable-adjusted odds ratios (ORs) from binary logistic regression

Variable	Presence of chronic conditions*		Multimorbidity†	
	OR (95% CI)	P	OR (95% CI)	P
Sex:				
Men	1.00 (reference)	0.014	1.00 (reference)	0.081
Women	1.50 (1.09–2.08)		1.23 (0.98–1.54)	
Age-group:		**<0.001 (2)‡**		**<0.001 (2)**
65–74	1.00 (reference)	-	1.00 (reference)	-
75–84	2.45 (1.73–3.46)	<0.001	1.46 (1.12–1.89)	0.005
≥85	2.93 (1.97–4.37)	<0.001	1.81 (1.36–2.39)	<0.001
Residence:				
Rural	1.00 (reference)	0.206	1.00 (reference)	0.598
Urban	1.22 (0.90–1.65)		1.06 (0.85–1.32)	
Educational level:		**0.150 (2)**		**0.400 (2)**
≥9 years	1.00 (reference)	-	1.00 (reference)	-
1–8 years	1.52 (0.99–2.32)	0.052	1.22 (0.84–1.77)	0.304
0 years	1.46 (0.87–2.45)	0.148	1.33 (0.88–2.03)	0.178
Self-perceived poverty:				
Not poor	1.00 (reference)	0.010	1.00 (reference)	0.049
Poor	1.50 (1.10–2.05)		1.25 (1.00–1.55)	
Access to medical care				
Able	1.00 (reference)	<0.001	1.00 (reference)	<0.001
Unable	3.27 (2.27–4.71)		1.77 (1.41–2.20)	

***** OR: presence vs. absence of chronic conditions.
† OR: multimorbidity (≥2 chronic conditions) vs. single morbidity (1 chronic condition). Individuals with no chronic conditions (n=244) were excluded from this analysis.
‡ Overall p-values and degrees of freedom (in parentheses).

Discussion

This study provides novel evidence about the presence and demographic and socioeconomic correlates of chronic morbidity in the elderly population of transitional Kosovo. Older age and inability to access medical care were the most consistent correlates of chronic morbidity and/or multimorbidity in this study population.

In line with other studies using similar methods for assessing chronic diseases (i.e. self-reported data) [23-26], CVD (including hypertension) was the most prevalent disease among elderly individuals in this sample. Thus, a similar prevalence of CVD has been reported among older people in the region, with a prevalence of 58% reported in Albania [21] and Serbia [20], and slightly over 50% in Macedonia.[19] Conversely, a lower prevalence varying from 28% in the Netherlands to 41% in Finland was reported by the FINE study which, however, used diagnosed rather than self-assessed measurement of chronic conditions.[27]

One out of five individuals in this Kosovo sample reported diabetes, which resembles results from Albania (19%) [21], Germany (17%) [24] and USA (22.7%). [26]

Studies measuring diagnosed diabetes report a prevalence from 15% (in USA) [28] to 9% (Italy) and 6% (the Netherlands). [27] The prevalence of cancer in our study was quite low compared to other countries in the region: 2-3% in Macedonia [19], 3% in Italy [27], about 4% in Southern Germany [24], 8% in Finland [27], and 19% among the American older people.[26] These differences could be partly explained by different methods for assessing the presence of chronic conditions (self-reported vs. diagnosed data) used in different studies, even though it has been argued that self-reports and health care records provide quite comparable estimates for diabetes, but are less concordant for chronic heart disease or other conditions.[25,29] For example, the beyond chance agreement index (Kappa statistic) has been reported at 0.90 [25] and 0.80 [29] for diabetes, 0.67 [25] and 0.40 [29] for hypertension, but lower for other chronic conditions. Methodological issues aside, a plausible reason for the discrepancies in diabetes prevalence among the elderly people between Kosovo and developed countries such as e.g. the Netherlands could be found in the epidemiology of diabetes which suggests an increasing risk with age, lower education and socioeconomic status [30,31] – factors which were all more prevalent in the Kosovo sample [22] compared with the study populations researched elsewhere. [27] Furthermore, another possible explanation for the particularly low prevalence of self-reported cancer in our study might come from a recent survey among cancer patients in Albanian settings, which found that most cancer patients seek medical help only in advanced stages of the illness and the cultural context is largely against diagnosis disclosure.[32]

According to a recent systematic review [33], the prevalence of multimorbidity among the elderly, defined as the concomitant presence of ≥2 chronic conditions, ranges from 55%-98%, whereas in our study we noted a prevalence of 45%. The discrepancies might be due to different age-groups included in different studies, differences in the number of chronic conditions investigated, and differences in the study settings and, as mentioned earlier, different means of assessing the presence of diseases. Furthermore, evidence shows that the prevalence of multimorbidity depends on the study population (e.g. population-based samples vs. primary care users, implying a higher prevalence in the later study population), the nature and the number of chronic conditions included.[34,35] Indeed, it has been convincingly shown that the prevalence of multimorbidity increases as the number of disease items included in the questionnaire increases.[34,35] However, we tried to overcome this limitation by introducing the following option: "*Please mention any other type of chronic diseases not mentioned above*".

Another potential source of variability between studies in estimating morbidity and multimorbidity pertains to education. As the education attainment progresses, the knowledge and understanding of health and disease changes too, leading thus to potentially different reporting. On the other hand, the awareness of people re-

garding health issues has been rising in general leading to more frequent doctor visits and diagnoses, especially in developed countries. Also, people now can talk more openly about their health problems and this implies greater willingness to report such problems when under study. [34]

In general, the literature reports that morbidity and multimorbidity is significantly higher among older people, women and individuals of a low socioeconomic status. [24,33,34,36] Our findings are in concordance with the international literature as regards the association with sex and age, with women and the oldest-old reporting higher rates of multimorbidity.

Conversely, the inverse association with education was significant in crude analysis only. However, this resembles prior reports from studies conducted elsewhere, which have pointed out not significant relationships between education and the number of chronic conditions and multimorbidity in multivariable-adjusted models. [37-40] Thus, a study including individuals aged ≥18 years reported a non-significant association between education and multimorbidity [36], whereas a large cohort study among elderly people aged 50–75 years old reported that, upon multivariable-adjustment, the association of multimorbidity with education weakened in men, whereas in women it was not statistically significant.[41]

Morbidity and multimorbidity among the elderly deserves special attention based on previous research which shows that, for certain diseases affecting the heart, lungs and circulatory apparatus, the presence of one or more chronic health conditions is significantly associated with a higher risk of death.[27] Two longitudinal studies reported that persons with poor self-reported health had an early mortality risk and late mortality risk of about three times higher compared to individuals with good health status.[42,43]

About half of the elderly subjects in this study perceived themselves as poor. This might be an indicator of the difficult situation of the elderly population in Kosovo. A prior report including this very study population in Kosovo indicated that the self-perceived poverty was significantly higher among women, those without any formal schooling, urban residents and among the elderly people living alone. [22]

We found significant associations of self-reported poverty with the number of chronic conditions: the higher the poverty level, the higher the proportion of multiple diseases (Spearman's correlation coefficient=0.212, P=0.01; not shown in the tables). Indeed, evidence shows that even after controlling for a number of factors, poverty remains a strong predictor of adults' health. [44] Education and poverty seem to be part of a vicious circle: low education, which is greatly influenced by unfavourable family circumstances during childhood, might be closely linked to a

lower income during adulthood favouring persistent poverty which in turn contributes to poor health outcomes later in life.[44] Since the objective and subjective measures of poverty have been reported to correlate with each-other [45], self-perceived poverty might explain a part of unfavourable health outcomes among Kosovo elderly people, too. Yet, self-perceived poverty and well-being depend on many factors other than income.[46]

Some of the socioeconomic and demographic determinants of chronic morbidity and multimorbidity among the elderly have been studied extensively, but little is known about other risk factors of multimorbidity including genetic, biological, lifestyle and environmental factors. [33] Another under researched factor which could affect the health status of old people is elderly abuse, which includes "abandonment, emotional abuse, financial or material exploitation, neglect, physical abuse, and sexual abuse of the elderly". [47] Although a considerable number of studies have highlighted the situation of elderly abuse across different populations, very little evidence is available regarding the prevention of elderly abuse [47] and how this may affect the health status of older people. Elderly abuse sets an additional heavy barrier on the shoulders of older people: besides co-living with the ageing process and physical limitations that it entails, older people have to cope with the community abuse, which might further deteriorate their health status. Elderly people in Kosovo are a marginalized part of the population [22] which might imply the existence of elderly abandonment and neglect. Future investigations should take into account this aspect when assessing the complexity of factors associated with morbidity of this community. [36,48]

In our study, access to medical care was a significant and consistent predictor of both the presence and number of chronic conditions. The access and use of health services depends not only on the need for care, but also on predisposing characteristics (demographic factors, health beliefs) and enabling resources such as the availability of health personnel and health facilities, means of transport, or health insurance. [49] The overwhelming majority of Kosovo elderly people who couldn't access medical care in this study (almost 90%) pointed to the economic barriers as the main reason for this inability. This is a reflection of the unclear situation of the elderly in Kosovo and the ongoing reforms in the health sector. Although protection of the rights of vulnerable groups and ensuring quality of care is one of the priorities of health reforms in Kosovo, the health system lags behind its optimal state. The health insurance system seems unable to function with half of the population unemployed and a high informality rate. [3,50] People aged ≥65 years in Kosovo rely on the social security pension (which is quite low and not sufficient to meet their everyday needs) and remittances from their close family working abroad.[22] Furthermore, Kosovo is in urgent need of deep reforms as the armed conflict left the country with a very inefficient health system characterized by a lack of trained

personnel and disparities in health force distribution. These factors lead to variations in access to primary care, corruption and informal payments, which are all reflected in unfavourable child and adult health indicators. In this context, the continuous reforming of the health sector has brought up a complex configuration of the stakeholders operating in the health system which contributes to unequal access to health care. The primary health care is still overlooked by health policies which often favour "high-tech" clinical medicine.[3] Furthermore, the private health sector has been expanded rapidly, but private facilities are unaffordable for the elderly.[3] The main barrier to access care is the cost of services, despite the fact that basic health services are supposed to be covered for all citizens. Under-the-table payments put a heavy burden on the shoulders of the poor. Ultimately, the reforms have resulted in lower access to health care for the poorer groups of the society.[50] Under these conditions, little attention is paid to the growing community of the elderly people in Kosovo [22] which, combined with the inadequacy of financial resources, the economic insecurity and the unclear and unstable development of the health sector, pose a serious barrier for elderly people to access medical care.

As stated by the Centre on Social Disparities in Health [51], in order to increase the chances of good health one needs to adopt a healthy lifestyle and have access to proper medical care. In a broader context, there is a need to promote a healthier living and working conditions. This should be supported by economic development, reducing poverty and enhancing education.[51]

Our study has several limitations including its cross-sectional design and the differential reporting of chronic diseases among elderly people. We cannot exclude the possibility of reporting bias; however, we do not have sound reasons to assume differential reporting of chronic diseases for the elderly people's categories differing in demographic and socioeconomic characteristics. More importantly, findings of our study should be interpreted with caution, since the observed associations from cross-sectional studies are not assumed to be causal.

Conclusions

Elderly people represent a valuable part of the society as they convey their wisdom and experience to future generations. Improving their economic situation and health status in Kosovo will require a lot of efforts. Although access to medical care is not the only element in the wide array of health determinants, based on our findings, medical care plays an important role for the control of chronic morbidity and multimorbidity. Therefore, facilitating the access to medical care of the elderly people in Kosovo through economic development, poverty reduction and the establishment of an effective social health insurance system might improve the

health status of older people and protect them from catastrophic health expenditures.

In conclusion, our study provides evidence on the magnitude and demographic and socioeconomic correlates of chronic conditions among the elderly population of Kosovo. Our findings suggest that the oldest-old (especially women) and the poor segments of the elderly population endure the vast majority of chronic conditions. These salient findings point to the need for establishing an effective social health insurance scheme including the marginalized subgroups of elderly people in Kosovo.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

NJ contributed to the study conceptualization and design, acquisition of the data, analysis and interpretation of the data and writing of the article. ET, GB and HB contributed to the study conceptualization and design, analysis and interpretation of the data and writing of the article. NR commented on the manuscript. All authors have read and approved the submitted manuscript.

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References

1. World Health Organization: *World health statistics*. Geneva, Switzerland: WHO Press; 2011.
2. Rynning E: The ageing populations of Europe - Implications for health systems and patients' rights. *Eur J Health Law* 2008, **15:**297-306.
3. Buwa D, Vuori H: Rebuilding a health care system: war, reconstruction and health care reforms in Kosovo**.** *Eur J Public Health* 2007, 17**:**226-230.
4. Burkle FM: Post-conflict health system recovery: the case of Kosovo. *Prehosp Disaster Med* 2010, **25:**34-36.
5. Bjegovic V, Vukovic D, Terzic Z, Milicevic MS, Laaser UT: Strategic orientation of public health in transition: an overview of South Eastern Europe. *J Public Health Policy* 2007, **28:**94-101.
6. Statistical Office of Kosovo: *Registration of population, buildings and household economy in 1981*. Pristina, Kosovo;1982.
7. Kosovo Agency of Statistics: *Kosovo population and housing census 2011. Final results. Main data*. Pristina, Kosovo; 2012.
8. Grundy E: Ageing and vulnerable elderly people: European perspectives. *Ageing Soc* 2006, 26**:**105-134.
9. Qosaj FA, Berisha MK: *Transition in health and health care in Kosovo*. Kosova School of Public Health; 2010.
10. 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 (The Open Society Institute); 2003.
11. Mackenbach JP, Stirbu I, Roskam AJ, Schaap MM, Menvielle G, Leinslau M, Kunst AE. Socioeconomic inequalities in health in 22 European countries. *N Engl J Med* 2008, 358**:**2468-2481.
12. World Health Organization: *Closing the gap in a generation: health equity through action on the social determinants of health. Final report of the Commission on Social Determinants of Health*. Geneva: Commission on Social Determinants of Health; 2008.
13. Kiuila O, Mieszkowski P. The effects of income, education and age on health**.** *Health Economics* 2007, 16**:**781-798.
14. Tsimbos C. An assessment of socio-economic inequalities in health among elderly in Greece, Italy and Spain**.** *Int J Public Health* 2010, 55**:**5-15.
15. König HH, Heider D, Lehnert T, Riedel-Heller SG, Angermeyer MC, Matschinger H, Vilagut G, Bruffaerts R, Haro JM, de Girolamo G, de Graaf R, Kovess V, Alonso J, ESEMeD/MHEDEA 2000 investigators: Health status of the advanced elderly in six european countries: results from a representative survey using EQ-5D and SF-12**.** *Health Qual Life Outcomes* 2010, 8**:**143.
16. Pulatova G, Harun-Or-Rashid, Yoshida Y, Sakamoto J: Elderly health and its correlations among Uzbek population. *Nagoya J Med Sci* 2012, 74**:**71-82.
17. Strauss J, Lei X, Park A, Shen Y, Smith JP, Yang Z, Zhao Y: *Health outcomes and socioeconomic status among the elderly in China*. Rand Labor & Population: Evidence from the CHARLS Pilot; 2010.
18. Bos AM, Bos ÂJ: The socio-economic determinants of older people's health in Brazil: the importance of marital status and income. *Ageing and Society* 2007, **27:**385.
19. World Health Organization: *Health and nutritional status of the elderly in the Former Yugoslav Republic of Macedonia - Results of a national household survey, November 1999*. Copenhagen: WHO Regional Office for Europe; 2001.
20. Matejić B, Bjegović V, Milić N, Milićević MŠ, Terzić Z: *Functional ability of elderly in Serbia: an example of assessment*. Gerontology: The Internet Journal of Geriatrics and; 2008:4.
21. Ylli A. Health and social conditions of older people in Albania: baseline data from a national survey. *Public Health Reviews* 2010, **2:**549.

22. Jerliu N, Toci E, Burazeri G, Ramadani N, Brand H. Socioeconomic conditions of elderly people in Kosovo: a cross-sectional study. *BMC Public Health* 2012, 12:512.
23. Marengoni A, Winblad B, Karp A, Fratiglioni L. Prevalence of chronic diseases and multimorbidity among the elderly population in Sweden. *Am J Public Health* 2008, 98:1198-1200.
24. Kirchberger I, Meisinger C, Heier M, Zimmermann AK, Thorand B, Autenrieth CS, Peters A, Ladwig KH, Döring A. Patterns of multimorbidity in the aged population. Results from the KORA-Age study. *Plos One* 2012, **7**:e30556.
25. Barber J, Muller S, Whitehurst T, Hay E. Measuring morbidity: self-report or health care records? *Fam Pract* 2010, 27:25-30.
26. Hung WW, Ross JS, Boockvar KS, Liu AL. Recent trends in chronic disease, impairment and disability among older adults in the United States. *BMC Geriatrics* 2011, 11:47.
27. Menotti A, Mulder I, Nissinen A, Giampaoli S, Feskens EJ, Kromhout D. Prevalence of morbidity and multimorbidity in elderly male populations and their impact on 10-year all-cause mortality: The FINE study (Finland, Italy, Netherlands, Elderly). *J Clin Epidemiol* 2001, 54:680-686.
28. Selvin E, Coresh J, Brancati FL. The burden and treatment of diabetes in elderly individuals in the U.S. *Diabetes Care* 2006, 29:2415-2419.
29. Tisnado DM, Adams JL, Liu H, Damberg CL, Chen WP, Hu FA, Carlisle DM, Mangione CM, Kahn KL: What is the concordance between the medical record and patient self-report as data sources for ambulatory care? *Med Care* 2006, 44:132-140.
30. Espelt A, Borrell C, Roskam AJ, Rodriguez-Sanz M, Stirbu I, Dalmau-Bueno A, Redigdor E, Bopp M, Martikainen P, Leinslau M, Artnik B, Rychtarikova J, Kalediene R, Dzurova D, Mackenbach J, Kunst AE: Socioeconomic inequalities in diabetes mellitus across Europe at the beginning of the 21st century. *Diabetologia* 2008, 51:1971-1979.
31. Robbins JM, Vaccarino V, Zhang H, Kasl SV: Socioeconomic status and diagnosed diabetes incidence. *Diabetes Res Clin Pract* 2005, 68:230-236.
32. Beqiri A, Toci E, Sallaku A, Qirjako G, Burazeri G: Breaking bad news in a Southeast European population: a survey among cancer patients in Albania. *J Palliat Med* 2012, 15:1100-1105.
33. Marengoni A, Angleman S, Melis R, Mangialasche F, Karp A, Garmen A, Meinow B, Fratiglioni L: Aging with multimorbidity: a systematic review of the literature. *Ageing Res Rev* 2011, 10:430-439.
34. Schram MT, Frijters D, van de Lisdonk EH, Ploemacher J, de Craen AJM, de Waal MWM, van Rooij FJ, Heeringa J, Hofman A, Deeg DJH, Schellevis FG: Setting and registry characteristics affect the prevalence and nature of multimorbidity in the elderly. *J Clin Epidemiol* 2008, 61:1104-1112.
35. Fortin M, Hudon C, Haggerty J, Akker M, Almirall J: Prevalence estimates of multimorbidity: a comparative study of two sources. *BMC Health Serv Res* 2010, 10:111.
36. Agborsangaya CB, Lau D, Lahtinen M, Cooke T, Johnson JA: Multimorbidity prevalence and patterns across socioeconomic determinants: a cross-sectional survey. *BMC Public Health* 2012, 12:201.
37. Verropoulou G: Determinants of change in self-rated health among older adults in Europe: a longitudinal perspective based on SHARE data. *Eur J Ageing* 2012, 9:305-318.
38. Andersen FK, Christensen K, Frederiksen H: Self-rated health and age: a cross-sectional and longitudinal study of 11,000 Danes aged 45–102. *Scand J Public Health* 2007, 35:164-171.
39. Franks P, Gold MR, Fiscella K: Sociodemographics, self-rated health, and mortality in the US. *Soc Sci Med* 2003, 56:2505-2514.
40. Bobak M, Pikhart H, Rose R, Hertzman C, Marmot M: Socioeconomic factors, material inequalities, and perceived control in self-rated health: cross-sectional data from seven post-communist countries. *Soc Sci Med* 2000, 51:1343-1350.

41. Nagel G, Peter R, Braig S, Herman S, Rohrmann S, Linseisen J: The impact of education on risk factors and the occurrence of multimorbidity in the EPIC-Heidelberg cohort. *BMC Public Health* 2008, **8:**384.
42. Mossey JM, Shapiro E: Self-rated health: a predictor of mortality among the elderly. *Am J Public Health* 1982, **72:**800-808.
43. Sargent-Cox KA, Anstey KJ, Luszcz MA: The choice of self-rated health measures matter when predicting mortality: evidence from 10 years follow-up of the Australian longitudinal study of ageing. *BMC Geriatrics* 2010, 10**:**18.
44. Benzeval M, Taylor J, Judge K: Evidence on the relationship between low income and poor health: is the government doing enough? *Fiscal Studies* 2000, 21**:**375-399.
45. Nandori ES: Subjective poverty and its relation to objective poverty concepts in Hungary**.** *Soc Indic Res* 2011, 102**:**537-556.
46. Kindgon GG, Knight J: *Subjective well-being poverty versus income poverty and capabilities poverty?*. University of Oxford, UK: Economic and Social Research Council – Global Poverty Research Group; 2004.
47. Daly JM, Merchant ML, Jogerst GJ: Elder abuse research: a systematic review**.** *J Elder Abuse Negl* 2011, 23**:**348-365.
48. Schäfer I, von Leitner EC, Schön G, Koller D, Hansen H, Kolonko T, Kaduszkiewicz H, Wegsheider K, Glaeske G, van den Bussche H: Multimorbidity patterns in the elderly: a New approach of disease clustering identifies complex interrelations between chronic conditions. *Plos One* 2010, 5**:**e15941.
49. Andersen RM: Revisiting the behavioral model and access to medical care: does it matter? *J Health Soc Behav* 1995, 36**:**1-10.
50. Percival V, Sondorp E: A case study of health sector reform in Kosovo. *Confl Health* 2010, 4**:**7.
51. Braveman PA, Egerter SA, Mockenhaupt RE**:** Broadening the focus: the need to address the social determinants of health. *Am J Prev Med* 2011, 40(S1)**:**S4-S18.

CHAPTER 5

Social networks, social participation and self-perceived health among older people in transitional Kosovo

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Abstract

Background
A number of studies proved that social networks and social participation have beneficial health effects in Western countries. However, the evidence from Southeast European region is scant. We aimed to assess the extent of social networks and social participation and their relationship with self-perceived health status among older people in post-war Kosovo.

Methods
A nationwide cross-sectional study was conducted in Kosovo in 2011 including a representative sample of 1890 individuals aged ≥65 years (949 men, mean age 73 ± 6 years; 941 women, mean age 74 ± 7 years; response rate: 83%). Social networks were assessed by means of number of friends and family members that participants had contacts with, whereas social participation by involvement in social groupings/organizations. Information on self-perceived health status and demographic and socioeconomic characteristics was also collected.

Results
Overall, 93% of study participants reported that they had at least weekly contacts with more than one family member, and 97% reported daily contacts with their respective friends. Conversely, only 14% of participants reported engagement with social groupings. Generally, individuals who had contacts with friends and/or engaged with social organizations reported a better health status.

Conclusion
Our findings point to strong family ties in this patriarchal society. Conversely, levels of social participation were considerably lower in Kosovo compared with the Western European countries. The low participation levels in social groupings and their putative deleterious health effects should raise the awareness of policymakers to improve the conditions and increase the degree of social participation among older people in transitional Kosovo.

Keywords
Aging, Kosovo, older people, self-perceived health, social contacts, social groupings, social participation.

Introduction

Developing and maintaining social relations and societal participation are vital human needs at any age, including older people. However, owing to increasing health problems and the loss of contemporary compeers, older people may be at risk for loneliness and often suffer in isolation.[1,2] Thus, increasing age reduces the number of friends, which, if coupled with the loss of the partner, may lead to social isolation of older people. Such a situation will increasingly aggravate, given the global demographic changes.[1,2]

Lack of social network and contacts has been convincingly related to an increase in mortality, particularly cardiovascular mortality[3,4] and, to a lesser degree, death from cancer [5,6], infectious diseases[7,8], accidents and suicides.[9,10] Conversely, the link with morbidity is less clear.[11] Thus, there is no consistent evidence that social integration affects disease incidence[11], notwithstanding several reports on the beneficial effects of social networks and social participation on functional capacity through improvement of physiological mechanisms, including immunologic, neuroendocrine and cardio-vascular functioning.[10–13] For older people, social support and networking is considered an important factor contributing to functioning and well-being within the concept of successful ageing.[14,15]

Furthermore, a fairly recent systematic review reported that social support reduces the risk of elder abuse.[16] However, the relationship between health and social network and social participation is also related to underlying personality factors that determine whether relationships and participation are established and maintained.[17]

In Europe, there are large differences in the ageing process and there exist different stages in the ageing evolution, with clear evidence of ageing societies in the Western countries, whereas several societies are in demographic transition, including post- communist countries of the Western Balkans.

Kosovo is the newest state in Europe struggling to establish a functional democracy after the breakdown of former Yugoslavia and the subsequent war in the region. In post-war and other transitional countries, social disruption, anomie and lack of social cohesion and social support mechanisms have been associated with health consequences other than violence.[18,19] This may be particularly relevant for Kosovo, which endured an intensive armed conflict. At the aftermath of the ethnic war, however, information on social cohesion, social networks and social participation of the population, including the older people in Kosovo, is scarce.

In this context, the aim of our study was to assess the extent of social networks and social participation and their health effects among older people in Kosovo, a transitional country in the Western Balkans that emerged from an extensive gory war with Serbia. More specifically, the following two research questions were outlined: (i) to determine the prevalence of social networks and social participation among older people in Kosovo and compare these estimates with reports from Western Europe and other countries, and (ii) to assess the association between social support and social participation with self-perceived health among the older population of Kosovo.

Methods

A nationwide cross-sectional study among older people aged ≥ 65 years was conducted in Kosovo between January and March 2011.

Study population

A population-based sample of 2400 individuals aged ≥ 65 years was drawn based on the 2010 lists (sampling frame) available from the Kosovo Ministry of Labour and Social Welfare.[20] Twelve strata were established [based on sex-stratification (men vs. women), place of residence (urban vs. rural areas) and age-stratification (65–74 years, 75–84 years and ≥85 years)]. A simple random sample of 200 individuals in each of the 12 strata was drawn.[20] Of the 2400 individuals included in the sample, 135 individuals were ineligible (69 people were dead, whereas further 66 individuals had left Kosovo at the time of the survey). Of the 2265 eligible individuals, 1890 agreed to participate in the study, with an overall response rate of 83.4% (1890/2265).

Data collection

A structured questionnaire was administered by trained interviewers at the homes of the older people who agreed to participate in the survey. Participants were asked about the presence and number of daily contacts with their friends (*'Do you have friends with whom you meet or speak nearly every day?'* on a positive response, participants were further asked: *'With how many friends do you meet or speak nearly every day?'*); at least weekly contacts with their closed family members (*'Do you see or speak, at least once a week, to any family member including siblings, children, grandchildren, or other closed relatives?'*) and participation in social groups ('*Do you take part in any social groups outside your home including community or civil society organizations, political parties, religious groupings, or other community/social movements*?').

Participants were also asked whether they felt lonely (*'Do you feel lonely? Never, sometimes, often')*. Furthermore, participants were asked to rate their health status (*'Overall, in a scale from 1 (poor health) to 5 (good health), how do you rate your health status in the past 12 months*?').

Information on demographic factors (age and sex) and socioeconomic characteristics, including educational level (years of completed formal schooling) and self-reported poverty level [on question: *'In a scale from 1 (extremely poor) to 5 (not poor at all), how do you perceive your poverty level?'],* was also collected.[20]

The study was approved by the Ethical Board of the Ministry of Health of Kosovo. All elderly people who agreed to participate in the survey signed an informed consent form prior to the interview.

Statistical analysis

Social network and social participation sample estimates were standardized (population-weighted) for age, sex and place of residence in accordance with the respective strata from the sampling frame.[20]

Spearman correlation coefficients were used to assess the linear association between age, number of years of completed formal schooling, number of friends, self-perceived poverty and self- perceived health status.

General linear model was used to assess the associations of social network and social participation variables with self-perceived health status. The general linear model procedure provides regression analysis and analysis of variance for one dependent variable by one or more factors/variables. Using the general linear model procedures, one can test the null hypothesis about the effects of other variables on the means of various groupings of a single dependent variable. We used this feature of the general linear model to compare the mean values of self-perceived health status by different categories of social networks (number of friends: 0, 1 or ≥2), social participation (no vs. yes) and sense of loneliness (never, sometimes or often). Initially, age-adjusted mean values and their respective 95% confidence intervals were calculated. Subsequently, multivariate-adjusted (sex: men vs. women; age, trichotomized into: 65–74 years, 75–84 years and ≥85 years; educational level, trichotomized into: 0 years, 1–8 years and ≥9 years; self-perceived poverty level, dichotomized into: not poor vs. poor; number friends: 0, 1 or ≥2; social participation: no vs. yes; sense of loneliness: never, sometimes or often) mean values and their respective 95% confidence intervals were calculated.

SPSS (Statistical Package for Social Sciences, version 15.0) was used for all the statistical analyses.

Results

Mean age of study participants (54% women) was 73.4 ± 6.3 years (in men: 73.0 ± 5.9 years; in women: 73.7 ± 6.6 years), one-third of individuals reported no formal schooling and almost half of participants perceived themselves as economically poor. [20]

Weighted to the Kosovo population, 93% of the participants reported having at least weekly contacts with more than one family member (Table 1). Furthermore,

97% of individuals reported daily contacts with their respective friends (98% of men vs. 96% of women, P < 0.01). Yet, only 14% of study participants reported engagement in social groupings (20% of men vs. 9% of women, P < 0.01). Overall, 13% of individuals reported a frequent sense of loneliness.

The number of friends reported by study participants was weakly positively correlated to educational level and (self-perceived) good health, but inversely related to age (Table 2). Self-perceived good health, in turn, was positively (weakly) correlated with education and financial status, but inversely related to age.

Table 1. Distribution of social participation characteristics in a population-based sample of older people in Kosovo, 2011

Variable	Men (n=949) n[a] (%)[b] [weighted %][c]	Women (n=941) n (%)[weighted %]	Total (n=1890) n (%)[weighted %]
With how many friends do you meet or speak nearly every day?			
0	38 (4.1) [2.3]	59 (6.3) [4.0]	97 (5.2) [3.2]
1	184 (19.7) [16.7]	232 (24.9) [23.9]	416 (22.3) [20.5]
2	321 (34.4) [35.8]	331 (35.5) [37.5]	652 (35.0) [36.7]
≥3	390 (41.8) [45.2]	310 (33.3) [34.7]	700 (37.5) [39.5]
Do you have friends with whom you meet or speak nearly every day?			
No	38 (4.1) [2.3]	59 (6.3) [4.0]	97 (5.2) [3.2]
Yes	895 (95.9) [97.7]	873 (93.7) [96.0]	1768 (94.8) [96.8]
Do you see or speak to any family member at least once a week?			
Siblings	10 (1.1) [0.8]	13 (1.4) [1.6]	23 (1.2) [1.2]
Children	38 (4.1) [4.6]	26 (2.8) [2.2]	64 (3.4) [3.3]
Grandchildren	12 (1.3) [1.0]	12 (1.3) [0.8]	24 (1.3) [0.9]
Other closed relatives	12 (1.3) [1.4]	11 (1.2) [0.7]	23 (1.2) [1.0]
More than one	857 (91.5) [92.0]	867 (92.8) [94.1]	1724 (92.1) [93.1]
No family contacts	8 (0.8) [0.3]	5 (0.5) [0.6]	13 (0.7) [0.4]
Do you take part in any social groups outside your home?			
No	779 (82.1) [79.8]	867 (92.3) [90.8]	1646 (87.2) [85.7]
Yes	170 (17.9) [20.2]	72 (7.7) [9.2]	242 (12.8) [14.3]
Do you feel lonely?			
Never	293 (31.6) [35.9]	219 (23.5) [25.0]	512 (27.5) [30.0]
Sometimes	501 (54.0) [53.4]	534 (57.3) [59.6]	1035 (55.7) [56.7]
Often	133 (14.3) [10.8]	179 (19.2) [15.4]	312 (16.8) [13.3]

a: Absolute numbers. Discrepancies in totals are owing to missing covariate values.

b: Sample percentages.

c: Age- sex and-residence standardized percentages in accordance with the respective strata weights in the sampling frame.

Table 2. Correlational matrix of self-perceived health status with number of friends and demographic and socioeconomic characteristics

Variable	Number of friends [a]	Self-perceived health	Self-perceived poverty	Age
Self-perceived health [b]	0.121 (<0.001)[c]			
Self-perceived poverty [d]	0.067 (<0.001)	0.129 (<0.001)		
Age	-0.159 (<0.001)	-0.213 (<0.001)	-0.029 (0.217)	
Years of formal schooling	0.143 (<0.001)	0.239 (<0.001)	0.078 (0.001)	-0.422 (<0.001)

a: Number of friends met or spoken with nearly every day
b: Range from 1 (poor health) to 5 (good health).
c: Spearman's correlation coefficients and their respective p-values (in parentheses).
d: Range from 1 (poor) to 5 (not poor).

In age-adjusted analyses, there was a graded positive relationship between number of friends and self-perceived good health (overall P < 0.001) (Table 3). Participation in social groupings was also positively related to good health (P = 0.03). Conversely, there was evidence of a graded inverse association with the sense of loneliness (overall P < 0.001).

Table 3. Association of self-perceived health status with social networks and social participation in a representative sample of older people in Kosovo; age-adjusted and multivariable-adjusted mean values from the general linear model

Variable	Age-adjusted			Multivariate-adjusted [a]		
	Mean [b]	95% CI	P	Mean [b]	95% CI	P
Number of friends:			**<0.001 (2) [c]**			**0.007 (2)**
0	2.08	1.91-2.26	0.001	2.17	2.00-2.34	0.005
1	2.26	2.17-2.34	0.003	2.33	2.23-2.43	0.067
≥2	2.40	2.36-2.45	-	2.41	2.34-2.48	-
Part of social groups:						
No	2.34	2.29-2.38	0.030	2.26	2.18-2.33	0.098
Yes	2.47	2.36-2.58		2.35	2.23-2.48	
Do you feel lonely:			<0.001 (2)			<0.001 (2)
Never	2.75	2.68-2.82	<0.001	2.73	2.63-2.83	<0.001
Sometimes	2.33	2.28-2.38	<0.001	2.35	2.26-2.44	<0.001
Often	1.76	1.67-1.85	-	1.84	1.72-1.96	-

a: This model, including 1779 individuals, was simultaneously adjusted for sex (men vs. women), age-group (65-74, 75-84, ≥85 years), educational level (0, 1-8, ≥9 years), self-perceived poverty (poor vs. not poor), number of friends (0, 1, ≥2), social groups (no vs. yes) and sense of loneliness (never, sometimes, often).
b: Range from 1 (poor health) to 5 (good health).
c: Overall *P*-values and degrees of freedom (in parentheses).

In multivariate-adjusted models, the positive association of self- perceived good health with number of friends was slightly attenuated (overall P = 0.007) and even more so with participation in social groupings (P = 0.098). On the other hand, the inverse association with the sense of loneliness persisted strongly and significantly. The associations with the number of friends and social participation were similar in both sexes (in multivariate-adjusted sex-pooled models with introduction of

interaction terms of sex with the number of friends and social participation, the P-values of the interaction terms were P = 0.31 and P = 0.18, respectively).
We had also collected data on the number of chronic diseases among older people included in this survey. Essentially, there was evidence of an inverse association of the number of chronic conditions with social networks and social participation, which is reassuring.

Discussion

Main findings
A salient finding of our study consists of strong family ties but a low degree of social participation among older people in Kosovo. Thus, 93% of participants reported having at least weekly contacts with more than one family member, and 97% reported daily contacts with their respective friends. On the other hand, only 14% of participants reported engagement with social groupings. In multivariate-adjusted general linear models, in both sexes, individuals who had contacts with friends and/or engaged with social organizations reported a better health status.

Social networks and social participation among older people in Kosovo vis-à-vis other countries
The degree of social networks in this representative sample of older people in Kosovo, as measured by the frequency and number of contacts with closed family members, is high compared with several previous reports not only from USA and European countries [3,4,13,21] but also other countries in the Western Balkans, including the neighbouring Albania.[22] Similarly, the level of networking with friends was high also in this study conducted in Kosovo compared with USA and Western European populations.[3,4,13,21]

On the other hand, levels of social participation among older people in Kosovo (overall participation in social groupings: 14%) seem to be lower than previous reports from North America [23]; Southeast Asia, including Taiwan (where, in a large population- based sample, ≥80% of older people reported participation in at least one social activity [24]) and Western European countries, including The Netherlands [13,21] (where, the participation in social clubs in a large population-based sample of older people ranged from 19% among the less socially engaged group to 31% among the most socially engaged group[13]), but similar to the reported degree of social participation among the older population in the nearby Albania.[22] Similarly, a low participation level was recently reported in a population-based sample of older people in Iran.[25]

In our study, we obtained evidence of a low social participation level, but a high degree of connection with close family members and friends. This may be typical for transitional countries of the Western Balkans, which have experienced major social, political and economic upheaval in the past 2 decades, which was also

associated with intensive internal and external migration.[26] From this point of view, in such countries, including Kosovo, which has undergone a major social disruption, family ties and connections with close friends may tend to compensate for the lack of social integration, cohesion and social participation.

The positive association of social networks and social participation with a better self-reported health status in our study is compatible with previous reports[27], which have also linked social isolation with poor self-rated health[28], or more recently with poor health status and health-related quality of life of older people.[29]

Social networks, social participation and health status

In the recent decades, there has been a considerable body of literature pointing to beneficial health effects of social support, networking and social participation.[3–10,17]

Mechanisms for the health effect of social support and networking have been suggested to include a direct effect [through either health- induced behaviours (reduced fat in diet, quitting smoking or physical exercise) or increase of perception of control over the environment giving an assurance of self-worth, which in turn may improve well-being and immunity to disease] or indirect effect (buffering effect), which is believed to help moderate the impact of acute and chronic stressors on health. [10,17]

As for the hormonal pathways, it is also possible that social support and networking have a direct effect on the neurohormonal responses of the body to environmental stress.[10,17] A few studies have reported that high levels of social network and support are associated with lower heart rate, lower blood pressure and lower levels of cortisol, adrenaline and noradrenaline.[10]

On the other hand, it has been convincingly argued that it is a crucial point to distinguish between the health-promoting effects of social support and networking and the inherent ability to develop and maintain human relations.[10,17] From this point of view, it has been suggested that part of the explanation for the relationship between health and social network and social participation is related to underlying personality factors that determine whether relationships and participation are established.[17] Especially, perceived support is suggested to be related to personality factors, particularly higher trait optimism and extraversion and lower loneliness, neuroticism and hostility.[17,30,31] Indeed, it is almost a prerequisite for social networking and participation to occur that the personality characteristics are available to develop and sustain it. [17] For instance, hostility, which has been shown to predict coronary heart disease, tends to have an inverse relationship with measures of social support and networking.[32,33] In our study population, however, we did not collect information on such psychosocial characteristics and, therefore, could not explore the putative link between personality characteristics and networking and social participation.

Study limitations

Our study may suffer from some limitations pertinent to surveys of this nature, including instruments of measurement of social networks and social participation, information bias and the study design. Our measuring instruments included a few items that may have not fully captured the wide and complex array of social networks and social participation characteristics in this post-war society. Differential reporting of social networks and/or social participation, however, seems unlikely for elderly people's categories differing in their demographic and socioeconomic characteristics. Yet, this is one of the few studies providing useful evidence on the extent of social networks and social participation among older people in transitional Kosovo. Our survey included a large representative population-based sample with a high participation rate in both sexes (overall: 83.4%). Nevertheless, our findings should be interpreted with caution, as the relationships from cross-sectional studies are not assumed to be causal and may be susceptible to the issue of reverse causality. We cannot exclude that different levels of health status may affect the degree of social networks and particularly social participation. From this point of view, the lower social participation rate among older people in our study may have been affected by their pre-existing diseases—as evidenced by older people's poor self-rated health. Therefore, evidence from more robust study designs, including prospective studies, is needed to confirm and extend our findings on the health effects of social networks and social participation among older people.

Conclusions

Our findings point to strong family ties in this patriarchal society, but a relatively low degree of social participation. In conclusion, notwithstanding the fact that the subgroup without any social liaisons was small in our study sample (≈3%), the low participation levels in social groupings and their putative deleterious health effects should raise the awareness of policymakers to increase the degree of social participation among older people in transitional Kosovo. Segments of older people who are less socially engaged are possible target groups for public health interventions. From this point of view, focused and targeted policies, specific programmes and interventions should be designed in Kosovo to engage older people in the social realm.

Key points

- This study aimed to assess the extent of social networks and social participation and their relationship with self-perceived health status among older people in transitional Kosovo.
- Overall, 93% of study participants reported that they had at least weekly contacts with more than one family member, and 97% reported daily contacts with their respective friends. Only 14% of participants reported engagement with social groupings.
- Individuals who had contacts with friends and/or engaged with social organizations reported a better health status.
- Our findings point to strong family ties in this patriarchal society. Conversely, levels of social participation were considerably lower in this Kosovo sample compared with the Western European countries.
- The low participation levels in social groupings and their putative deleterious health effects should raise the awareness of policymakers to improve the conditions and increase the degree of social participation among older people in transitional Kosovo.

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Conflicts of interest
None declared.

References

1. Rynning E. The ageing populations of Europe—implications for health systems and patients' rights. Eur J Health Law 2008;15:297–306.
2. Grundy E. Ageing and vulnerable elderly people: European perspectives. Ageing Soc 2006;26:105–34.
3. Rutledge T, Reis SE, Olson M, et al. Social networks are associated with lower mortality rates among women with suspected coronary disease: the National Heart, Lung, and Blood Institute-Sponsored Women's Ischemia Syndrome Evaluation study. Psychosom Med 2004;66:882–8.
4. Frasure-Smith N, Lesperance F, Gravel G, et al. Social support, depression, and mortality during the first year after myocardial infarction. Circulation 2000; 101:1919–24.
5. Hibbard JH, Pope CR. The quality of social roles as predictors of morbidity and mortality. Soc Sci Med 1993; 36:217–25.
6. Ell K, Nishimoto R, Medianski L, et al. Social relations, social support and survival among patients with cancer. J Psychosom Res 1992; 36:531–41.
7. Lee M, Rotheram-Borus MJ. Challenges associated with increased survival among parents living with HIV. Am J Public Health 2001; 91:1303–9.
8. Patterson TL, Shaw WS, Semple SJ, et al. Relationship of psychosocial factors to HIV progression. Ann Behav Med 1996; 18:30–9.
9. Seeman TE. Social ties and health: the benefits of social integration. Ann Epidemiol 1996;6:442–51.
10. Berkman LF, Glass T. Social integration, social networks, social support, and health. In: Berkman LF, Kawachi I, editors. Social Epidemiology. Oxford: Oxford University Press, 2000: 137–73.
11. Lopez Garc|a E, Banegas JR, Graciani Perez-Regadera A, et al. Social network and health-related quality of life in older adults: a population-based study in Spain. Qual Life Res 2005;14:511–20.
12. Uchino BN, Cacioppo JT, Kiecolt-Glaser JK. The relationship between social support and physiological processes: a review with emphasis on underlying mechanisms and implications for health. Psychol Bull 1996;119:488–531.
13. McLaughlin D, Leung J, Pachana N, et al. Social support and subsequent disability: it is not the size of your network that counts. Age Ageing 2012;41:674–7.
14. Croezen S, Haveman-Nies A, Alvarado VJ, et al. Characterization of different groups of elderly according to social engagement activity patterns. J Nutr Health Aging, 2009;13:776–81.
15. Rowe JW, Kahn RL. Human aging: usual and successful. Science 1987;237:143–9.
16. Johannesen M, Logiudice D. Elder abuse: a systematic review of risk factors in community-dwelling elders. Age Ageing 2013;42:292–8. doi:10.1093/ageing/afs195.
17. Uchino BN. Understanding the links between social support and physical health: a life-span perspective with emphasis on the separability of perceived and received support. Perspect Psychol Sci 2009;4:236–55.
18. Kark SL. Social Disorganization and Anomie: Chapter 10. In: Epidemiology and Community Medicine. New York: Appleton-Century-Crofts, 1974: 189–94.
19. Burazeri G, Goda A, Sulo G, et al. Financial loss in pyramid saving schemes, downward social mobility and acute coronary syndrome in transitional Albania. J Epidemiol Community Health 2008;62:620–6.
20. Jerliu N, Toci E, Burazeri G, et al. Socioeconomic conditions of elderly people in Kosovo: a cross-sectional study. BMC Public Health 2012;12:512.
21. Toepoel V. Ageing, leisure, and social connectedness: how could leisure help reduce social isolation of older people? Soc Indic Res 2013. doi:10.1007/s11205- 012-0097-6.

22. Ylli A. Health and social conditions of older people in Albania: baseline data from a national survey. Public Health Rev 2010;2:549.
23. Demers L, Robichaud L, Ge´ linas I, et al. Coping strategies and social participation in older adults. Gerontology 2009;55:233–9.
24. Glei DA, Landau DA, Goldman N, et al. Participating in social activities helps preserve cognitive function: an analysis of a longitudinal, population-based study of the elderly. Int J Epidemiol 2005;34:864–71.
25. Asadollahi A, Saberi LF, Tabrizi AM, Faraji N. Do public health and social participation matter for the elderly? An analysis of an aging community in Khuzistan Province, Iran. Can Soc Sci 2011;7:240–4.
26. Burazeri G, Goda A, Tavanxhi N, et al. The health effects of emigration on those who remain at home. Int J Epidemiol 2007;36:1265–72.
27. Dickens AP, Richards SH, Greaves CJ, Campbell JL. Interventions targeting social isolation in older people: a systematic review. BMC Public Health 2011;11:647.
28. Cornwell EY, Waite LJ. Social disconnectedness, perceived isolation, and health among older adults. J Health Soc Behav 2009;50:31–48.
29. Hawton A, Green C, Dickens AP, et al. The impact of social isolation on the health status and health-related quality of life of older people. Qual Life Res 2011;20:57–67.
30. Uchino BN, Vaughn AA, Matwin S. Social psychological processes linking personality to physical health: a multilevel analysis with emphasis on trait hostility and optimism. In: Rhodewalt F, editor. Personality and Social Behavior. New York: Psychology Press, 2008: 251–84.
31. Suls J, Bunde J. Anger, anxiety, and depression as risk factors for cardiovascular disease: the problems and implications of overlapping affective dispositions. Psychol Bull 2005;131:260–300.
32. Klabbers G, Bosma H, van den Akker M, et al. Cognitive hostility predicts all-cause mortality irrespective of behavioural risk at late middle and older age. Eur J Public Health 2012 Jun 8 [Epub ahead of print]. doi:10.1093/eurpub/cks060.
33. Klabbers G, Bosma H, Van Lenthe FJ, et al. The relative contributions of hostility and depressive symptoms to the income gradient in hospital-based incidence of ischaemic heart disease: 12-year follow-up findings from the GLOBE study. Soc Sci Med 2009;69:1272–80.

CHAPTER 6

Knowledge and practices of physicians regarding health status and health care services for older people in transitional Kosovo

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Abstract

Aim
The aim of our study was to assess the level of knowledge and practices of health professionals regarding health status and health care services for older people in post-war Kosovo.

Methods
A cross-sectional study was conducted in February-March 2013 in Kosovo including a nationwide representative sample of 412 physicians working at primary, secondary and tertiary health care levels (220 males, mean age: 45.6±9.3 years; 192 females, mean age: 46.4±9.1 years; overall response rate: 91%). A structured questionnaire was administered to all participants inquiring about physicians' level of knowledge and practices regarding different domains of older people's health status and health care services.

Results
Overall, 38% of physicians did not know the estimated proportion of older people in Kosovo. About 31% and 22% of female and male physicians, respectively, estimated quite correctly the prevalence of chronic morbidity among older people in Kosovo. The percentage of male physicians who reported screening about issues related to autonomy of older people was higher than in female physicians (64% vs. 54%, respectively, P=0.035). Similarly, male participants reported a higher frequency of screening for social isolation and confusion than their female counterparts. Conversely, there were no sex-differences with regard to screening for issues related to domestic violence, mental health, eating or feeding problems, skin breakdown, incontinence, or evidence of falls among the elderly.

Conclusions
Our findings point to rather unsatisfactory levels of physicians' knowledge about health status of the elderly and inadequate practices regarding the health care services for older people in Kosovo. There is an urgent need to introduce continuous medical training programs regarding health care services for older people in transitional Kosovo.

Keywords
Knowledge, Kosovo, older people, practices.

Introduction

Nowadays, policymakers and decision-makers in the health field are increasingly recognizing the importance of including a patient and family perspective in their continuous efforts to improve health care quality and safety.[1,2] From this point of view, the experience and evaluation of health care services, as perceived by the patients and their families, is currently a key factor in health care quality and safety in most of the industrialized countries.[2,4] Hence, patient-and family-centered care brings the perspectives of patients and families directly into the planning, delivery, and evaluation of health care services, and thus improving its quality and safety.[2] Currently, studies increasingly indicate that when health care managers and administrators, health care provides, and patients and families work in partnership, the quality and safety of health care rise, costs decrease, and provider and patient satisfaction increase gradually.[2,4] The level of knowledge and practices of health care providers operating at all levels of care is particularly important to increase the quality of health care services for older people, which comprise a rather vulnerable subgroup of the population.[5,6]

However, for Kosovo, the information about health care providers' levels of knowledge, attitudes and practices related to health care services pertinent to older people is scarce. After the war and the liberation from the Serbian regime in 1999 and almost a decade under United Nations administration, Kosovo is undergoing a rapid process of transformation to an independent state, which was formally proclaimed in 2008. Kosovo is the newest country in Europe consisting of the youngest European population with an average age of 27 years.[7] According to a recent estimate available from the World Bank, Kosovo is among the poorest countries in Europe, with 34% of the population living below the national poverty line and 12% living in extreme poverty.[8] Notwithstanding its young population, Kosovo is inevitably affected by the global aging trend characterized by a gradual increase in the proportion of individuals aged ≥65 years [7], which is linked to the lowering level of fertility rates, a higher life-expectancy and emigration of working-age adults.[9]

In this context, our aim was to assess the level of knowledge and practices of health professionals regarding health status and health care services for older people in post-war Kosovo.

Methods

A cross-sectional study was conducted in February-March 2013 in Kosovo. Overall, there were invited 450 physicians from all regions of Kosovo to participate in this survey, based on sample size calculations related to different conservative assumptions about physicians' level of knowledge and practices regarding health status and health care services for older people in Kosovo. Of the 450 targeted physicians

working at primary, secondary and tertiary levels of health care services in Kosovo, 412 agreed to participate in the study (220 males, mean age: 45.6±9.3 years; 192 females, mean age: 46.4±9.1 years), with an overall response rate of: 412/450=91%.

A structured questionnaire was administered to all participants inquiring about physicians' level of knowledge and practices regarding different domains of older people's health status and health care services.

Specifically, participants were asked about the proportion of individuals aged ≥65 years and ≥85 years in Kosovo (both dichotomized in the analysis into: correct answer vs. wrong answer, based on the official figures available from the Kosovo Population and Housing Census).[7]

Furthermore, physicians were asked about the prevalence of chronic morbidity and co-morbidity among older people (overall and sex-specific), and the prevalence of poor self-perceived health status and poverty level among older people in Kosovo (in the analysis, all these variables were dichotomized into: correct answer vs. wrong answer, based on a fairly recent survey conducted in Kosovo which included a large nationwide representative sample of older people in Kosovo).[10,11]

In addition, physicians were asked whether in their medical practices they routinely screened their older patients for issues related to domestic violence, mental health, sense of independence/autonomy, sleep disorders, eating or feeding problems, incontinence, confusion, evidence of falls, and skin breakdown (all dichotomized in the analysis into: no vs. yes).

Data about years of working experience, type of specialization (Family Medicine vs. other medical specializations), training on older people (no vs. yes), and use of protocols (no vs. yes) were also collected.

Fisher's exact test was used to compare sex-differences (male vs. female participants) related to the levels of knowledge and practices regarding different domains of health status and health care services for older people in Kosovo.

Results

Overall, about 69% of physicians were working at the primary health care level all around Kosovo (and, therefore, were specialized in Family Medicine); about 43% had received some training on older people care; and about 35% reported use of protocols for older people care in their routine practice (Table 1).

Table 1. Distribution of baseline characteristics in a representative sample of physicians in Kosovo in 2013

Variable	Men (N=220)	Women (N=192)	Overall (N=412)
Age (years)	45.6±9.3*	46.4±9.1	46.0±9.2
Work experience (years)	14.9±10.0	15.5±9.3	15.2±9.7
Level of service:			
Primary health care	133 (60.5)†	152 (79.2)	285 (69.2)
Secondary level	52 (23.6)	20 (10.4)	72 (17.5)
Tertiary level	35 (15.9)	20 (10.4)	55 (13.3)
Specialization:			
Family Medicine	133 (60.5)	152 (79.2)	285 (69.2)
Other medical specialization	87 (39.5)	40 (20.8)	127 (30.8)
Training on older people care:			
No	134 (60.9)	102 (53.1)	236 (57.3)
Yes	86 (39.1)	90 (46.9)	176 (42.7)
Use of protocols for older people care:			
No	149 (67.7)	121 (63.0)	270 (65.5)
Yes	71 (32.3)	71 (37.0)	142 (34.5)

* Mean values ± standard deviations.

† Numbers and column percentages (in parentheses).

Remarkably, overall, about 38% of physicians in our study sample did not know the rough proportion of older people (individuals aged ≥65 years) in Kosovo. However, there were no statistically significant sex-differences with regard to physicians' level of knowledge about the proportion of older men and women in Kosovo (Table 2).

Conversely, more female than male physicians knew correctly the rough prevalence of chronic morbidity in the overall subgroup of older people in Kosovo (31% vs. 22%, respectively, P=0.043). However, this was not the case for the prevalence of the overall co-morbidity, which was similarly estimated among male and female participants (35% vs. 38%, respectively, P=0.539). About 41% of male physicians and 43% of female physicians estimated correctly the prevalence of self-perceived poor health among older people. On the other hand, 59% of males and 66% of females estimated correctly the prevalence of self-perceived poverty among older people in Kosovo.

Table 2. Physicians' level of knowledge about the proportion, chronic morbidity, health status and poverty level of older people in Kosovo

Variable	Men (N=220)	Women (N=192)	P-value†
Share of people aged ≥ 65 years in Kosovo:			
Wrong answer	80 (36.4)*	76 (39.6)	0.542
Correct answer (about 6-7%)	140 (63.6)	116 (60.4)	
Share of older women vs. older men:			
Wrong answer	82 (37.3)	58 (30.2)	0.145
Correct answer (higher in women)	138 (62.7)	134 (69.8)	
Share of people aged ≥ 85 years in Kosovo:			
Wrong answer	144 (65.5)	112 (58.3)	0.154
Correct answer (about 0.5%)	76 (34.5)	80 (41.7)	
Prevalence of chronic morbidity in older people:			
Wrong answer	172 (78.2)	133 (69.3)	0.043
Correct answer (about 80%)	48 (21.8)	59 (30.7)	
Prevalence of chronic morbidity in older women:			
Wrong answer	176 (80.0)	142 (74.0)	0.159
Correct answer (about 85%)	44 (20.0)	50 (26.0)	
Prevalence of chronic morbidity in older men:			
Wrong answer	184 (83.6)	158 (82.3)	0.793
Correct answer (about 75%)	36 (16.4)	34 (17.7)	
Prevalence of co-morbidity in older people:			
Wrong answer	143 (65.0)	119 (62.0)	0.539
Correct answer (about 45%)	77 (35.0)	73 (38.0)	
Prevalence of co-morbidity in older women:			
Wrong answer	135 (61.4)	115 (59.9)	0.763
Correct answer (about 50%)	85 (38.6)	77 (40.1)	
Prevalence of co-morbidity in older men:			
Wrong answer	153 (69.5)	134 (69.8)	0.999
Correct answer (about 40%)	67 (30.5)	58 (30.2)	
Poor self-perceived health among older people:			
Wrong answer	130 (59.1)	110 (57.3)	0.764
Correct answer (about 50%)	90 (40.9)	82 (42.7)	
Poverty level among older people:			
Wrong answer	90 (40.9)	65 (33.9)	0.154
Correct answer (about 50%)	130 (59.1)	127 (66.1)	

* Numbers and column percentages (in parentheses).

† P-values from Fisher's exact test.

Table 3 presents physicians' practices regarding selected health care services for older people in Kosovo. There were no significant sex-differences with regard to the screening procedures for issues related to domestic violence, or mental health. Conversely, the percentage of male physicians who reported screening about issues related to autonomy of older people was higher than in female physicians (64% vs. 54%, respectively, P=0.035). Similarly, male participants reported a higher frequency of screening for social isolation and confusion than their female counterparts, notwithstanding the lack of statistical significance. On the other hand, there were no sex-differences with regard to screening for issues related to eating or feeding problems, skin breakdown, incontinence, or the evidence of falls among the elderly (Table 3).

Table 3. Physicians' practices regarding health care services for older people in Kosovo

Variable	Men (N=220)	Women (N=192)	P-value†
Routine screening for domestic violence:			
No	117 (53.2)*	107 (55.7)	0.621
Yes	103 (46.8)	85 (44.3)	
Routine screening for mental health:			
No	69 (31.4)	74 (38.5)	0.146
Yes	151 (68.6)	118 (61.5)	
Routine screening for autonomy:			
No	78 (35.5)	88 (45.8)	0.035
Yes	142 (64.5)	104 (54.2)	
Routine screening for social isolation:			
No	101 (45.9)	104 (54.2)	0.114
Yes	119 (54.1)	88 (45.8)	
Routine screening for sleep disorders:			
No	30 (13.7)	39 (20.6)	0.065
Yes	189 (86.3)	150 (79.4)	
Routine screening for eating or feeding problems:			
No	41 (18.8)	38 (20.2)	0.802
Yes	177 (81.2)	150 (79.8)	
Routine screening for incontinence:			
No	43 (20.2)	45 (24.1)	0.397
Yes	170 (79.8)	142 (75.9)	
Routine screening for confusion:			
No	42 (19.4)	52 (27.5)	0.060
Yes	174 (80.6)	137 (72.5)	
Routine screening for evidence of falls:			
No	51 (23.7)	47 (25.1)	0.816
Yes	164 (76.3)	140 (74.9)	
Routine screening for skin breakdown:			
No	85 (39.9)	74 (39.6)	0.999
Yes	128 (60.1)	113 (60.4)	

* Numbers and column percentages (in parentheses).
† P-values from Fisher's exact test.

There was evidence of a strong association between the use of clinical protocols for elderly care and the training received: physicians who reported routine use of protocols and guidelines for elderly care were six times more likely (OR=6.1, 95%CI=3.9-9.5) to have received training compared with their counterparts who did not report any use of clinical protocols (data not shown in the tables).

Discussion

The main findings of this survey consist of rather unsatisfactory levels of physicians' knowledge about health status of the elderly and inadequate practices regarding the health care services for older people in Kosovo. Thus, overall, 38% of physicians in our study sample did not know the rough proportion of older people (individuals aged ≥65 years) in Kosovo. Similarly, 34% of the overall male and female physicians in our study sample did not know that the proportion of older women is higher than the proportion of older men in Kosovo. Furthermore, more

than 60% of the study participants did not know the rough proportion of the oldest old population (individuals aged ≥85 years) in Kosovo. Also, only 26% of the overall study sample estimated more or less correctly[11] the prevalence of chronic morbidity among older people in Kosovo. Conversely, about 42% and 62% of the study participants estimated correctly the proportion of poor self-assessed health status[11] and self-perceived poverty level[10,11], respectively, among older people in Kosovo.

These findings point to a rather insufficient level of physicians' knowledge about the proportion and health status of the elderly population in post-war Kosovo. This is particularly worrying for the primary health physicians given the fact that they are the main health care providers for the older population in Kosovo and their support and care for older people is considered as an important factor contributing to functioning and well-being within the concept of successful ageing. [12,13]

As for the health care practices, only 43% of the overall sample of physicians included in our survey reported the use of protocols in their routine health care practice with older people. There was evidence of a strong positive relationship between the use of clinical protocols and the training received for elderly care. This finding points to the urgent need to introduce systematic continuous medical training programs especially for primary health care physicians in Kosovo in order to increase the quality of health care services pertinent to the older population in this country which is facing a particularly difficult period of political and socioeconomic transition and is currently struggling enormously to establish a functional democracy after the breakdown of former Yugoslavia and the consequent long war in the region. In post-war and other transitional settings including countries of the Western Balkans, social disorder and anomie have been reported to be negatively associated with health outcomes.[14,15] This may be relevant for Albania and particularly for Kosovo, which suffered a severe armed conflict. Older people in Kosovo are supposed to suffer most the consequences of social disruption following the devastating war with Serbia.

In conclusion, our study provides useful evidence about physicians' level of knowledge and practices regarding different domains of health status and health care services for older people in Kosovo. Our findings point to the urgent need for implementation of specific programs and interventions in Kosovo in order to improve the quality of health care services and social services for the older population. A suitable start, as indicated from the findings of the current survey, would be the implementation of continuous medical training programs for elderly care tailored in accordance with the job description of primary health care physicians in Kosovo.

References

1. Dickens AP, Richards SH, Greaves CJ, Campbell JL. Interventions targeting social isolation in older people: a systematic review. BMC Public Health 2011; 11: 647.
2. Advancing the practice of patient-and family-centered care: How to get started. Institute for Family-Centered Care. Bethesda, MD, USA, 2013. Available from: http://www.ipfcc.org/pdf/-getting_started.pdf (accessed: April 28, 2013).
3. Cornwell EY, Waite LJ. Social disconnectedness, perceived isolation, and health among older adults. J Health Soc Behav 2009; 50: 31-48.
4. Hawton A, Green C, Dickens AP, Richards SH, Taylor RS, Edwards R, Greaves CJ, Campbell JL. The impact of social isolation on the health status and health-related quality of life of older people. Qual Life Res 2011; 20: 57-67.
5. Rynning E. The ageing populations of Europe – Implications for health systems and patients' rights. Eur J Health Law 2008; 15: 297-306.
6. Grundy E. Ageing and vulnerable elderly people: European perspectives. Ageing Soc 2006; 26: 105-34.
7. Kosovo Agency of Statistics. Kosovo Population and Housing Census. Pristine, Kosovo. 2011.
8. The World Bank. Europe and Central Asia Region. Poverty Reduction and Economic Management Unit. Statistical Office of Kosovo. Consumption Poverty in the Republic of Kosovo, in 2009. Western Balkans Programmatic Poverty Assessment. 2011.
9. Statistical Office of Kosovo. Demographic, Social and Reproductive Health Survey in Kosovo, November 2009. Prishtina, Kosovo; 2011.
10. Jerliu N, Toçi E, Burazeri G, Ramadani N, Brand H. Socioeconomic conditions of elderly people in Kosovo: a cross-sectional study. BMC Public Health 2012;12:512.
11. Jerliu N, Toçi E, Burazeri G, Ramadani N, Brand H. Prevalence and socioeconomic correlates of chronic morbidity among elderly people in Kosovo: a population-based survey. BMC Geriatr 2013;13:22.
12. Croezen S, Haveman-Nies A, Alvarado VJ, Van't Veer P, de Groot CPGM. Characterization of different groups of elderly according to social engagement activity patterns. J Nutr Health Aging 2009; 13: 776-81.
13. Rowe JW, Kahn RL. Human aging: usual and successful. Science 1987; 237: 143-9.
14. Kark SL. Social Disorganization and Anomie. Chapter 10 in: Epidemiology and Community Medicine. Appleton-Century-Crofts, New York, 1974. pp. 189-94.
15. Burazeri G, Goda A, Sulo G, Stefa J, Kark JD. Financial loss in pyramid saving schemes, downward social mobility and acute coronary syndrome in transitional Albania. J Epidemiol Community Health 2008; 62: 620-6.

CHAPTER 7

Cross-cultural adaptation of an instrument measuring older people's health needs and priorities in Albania and Kosovo

Jerliu N, Toçi E, Burazeri G, Ramadani N, Philp I, Brand H. Cross-cultural adaptation of an instrument measuring older people's health needs and priorities in Albania and Kosovo. Albanian Medical Journal. 2013; 2: 109-114.

Abstract

Aim
The objective of this study was to validate the EASY-Care tool, an international instrument addressing older people's health needs and current priorities in Albanian-speaking settings.

Methods
This validation study, conducted in August-September 2010, included a sample of 38 older people who were users of primary health care services in Prishtina (N=20) and in Tirana (N=18). All participants were administered the finalised version of EASY-Care Standard 2010 which was agreed by the EASY-Care International Research Network and already validated in many countries worldwide. The EASY-Care assessment instrument consists of two sections: i) basic information (personal data, biography, medical history), and; ii) assessment of needs and current priorities (visibility, hearing and communication, self-care, movements, security, accommodation and financial circumstances, physical health, mental health and well-being).

Results
Overall, there were 18 men (47.4%) and 20 women (52.6%) included in this validation sample. Median age was 68.5 years (interquartile range: 65.0-76.0 years). Overall, 71% of participants could use telephone without help; 89% could look after their personal appearance; 87% could dress on their own; 92% were able to use toilet and shower; 66% could do household tasks; 79% could cook their own meals; 97% could feed themselves, and; 87% could use medicines on their own. Overall, 79% of older people had not had falls in the last 12 months; 42% of individuals perceived their health status as good; 60% had suffered any body pain in the last month; 58% had been worried by the feeling of desperation, depression or hopelessness in the last month; 74% had been worried due to lack of interest or pleasure to do something in the last month, and; 63% of study participants were worried in relation to loss of their memory.

Conclusions
In Albanian-speaking settings, we provide evidence on the process of cross-cultural adaptation of a useful instrument employed internationally assessing older people's health and social needs and their current priorities.

Keywords
Albania, EASY-Care, Kosovo, older people.

Introduction

The EASY-Care program has a legacy of continuous research and development, since the need and conceptual basis for an assessment instrument for holistic, preventive care for use in primary care was identified during a Public Health Research Fellowship undertaken by Professor Ian Philp with Professor Robert Kane at the University of Minnesota in 1989.[1]

Prior to developing and validating the EASY-Care instrument, there has been little experience with use of standardized assessment instruments for older people in primary health care settings and community care settings[2]. A proper assessment practice involves both health and social needs of older people in a balanced way supporting decision making with evidence based screening tools. From this point of view, EASY-Care provides a simple, valid and reliable assessment for early identification of a range of health care needs. [1]

The EASY-Care assessment is derived from a collection of well-established instruments where these are available for the EASY-Care domains. Source instruments have been modified where necessary to ensure consistency in format and flow. [1]

The items and domains of the assessment were agreed and refined in validation studies under taken in several European studies in the 1990s. [1-7]

From 2000-2008 Professor Ian Philp, the EASY-Care Program Director, was appointed National Tsar for Older People at the Department of Health in the UK, where he lead the development and implementation of the National Service Framework for Older People. During this period the EASY-Care Programme of research continued, but it was following a successful re-launch in 2008 that the scope of use of EASY-Care instruments has been broadened from mainly European to global use, with work on cross-cultural translation and validation undertaken in more than 30 countries from the developed and developing world in all six WHO regions.[1]

Research and user feedback has indicated that the EASY-Care instrument is particularly useful for obtaining a rounded assessment of need and personal response in at-risk older people and living in the community. A number of studies have been undertaken by researchers around the world and have demonstrated: i) good reliability and validity in psychometric studies[3-7]; ii) high levels of cost-effectiveness in improving functional outcomes and reducing hospital admissions with an increase in community service provision [8,9]; iii) population studies in several countries using EASY-Care data have shown the value of the instrument in identifying the prevalence of population health and care needs of older people. [1,10]

In this context, our aim was to validate the EASY-Care tool, an internationally validated instrument employed for assessment of older people's health needs and current priorities in Albania and Kosovo, two transitional countries in the Western Balkans.

Methods

A sample of 38 older people who attended primary health care services in Prishtina (capital city of Kosovo) and Tirana (capital city of Albania) were included in the EASY-Care validation procedures in August-September 2010.

All participants were administered the finalised version of EASY-Care Standard 2010 which was agreed by the EASY-Care International Research Network and already validated in many countries worldwide. The EASY-Care Standard 2010 instrument ensures a record of needs and priorities about the health and care for older people who can fill the assessment form themselves or under the guidance of health professional or social care professional. In addition, older people may prefer that a member of their family or friend be involved in filling the assessment form. The EASY-Care assessment instrument consists of the following two sections:

- *Basic information*: personal data, biography, medical history;
- *Assessment of needs and current priorities:* visibility, hearing and communication, self-care, movements, security, accommodation and financial circumstances, physical health, mental health and well-being.

The EASY-Care Standard 2010 instrument was translated from English into Albanian and subsequently back-translated from Albanian into English following the standard methods of translation and cross-cultural adaptation of the questionnaires.[11] The aim of the cross-cultural adaptation was to provide a version of the instrument that was conceptually as close as possible to the original questionnaire, considering nevertheless Albania and Kosovo older people's perspective and understanding.[11]

Results

In this validation sample of older people in Albania (N=18, or 47.4% of the overall sample) and Kosovo (N=20, 52.6%), median age was 68.5 years (interquartile range: 65.0-76.0 years) (Table 1). Overall, median educational attainment was 8.0 years (interquartile range: 4.0-12.0 years). Overall, there were 18 men (47.4%) and 20 women (52.6%). About 79% of participants resided in urban areas compared with 21% of rural residents. About 66% of individuals were currently married, whereas 34% were either single or widowed. About 32% of participants reported that their finances were not sufficient to meet the end of the month, whereas a similar proportion of older people reported that they could save some money at the end of the month.

Table 1. Distribution of demographic and socioeconomic characteristics in the EASY-Care validation sample of older people in Albania and Kosovo (N=38), in 2010

Variable	Median (IQR) / N (%)
Age (years)	68.5 (65.0-76.0)*
Educational level (years)	8.0 (4.0-12.0)*
Country:	
Albania	18 (47.4)†
Kosovo	20 (52.6)
Sex:	
Men	18 (47.4)†
Women	20 (52.6)
Place of residence:	
Urban area	30 (78.9)†
Rural area	8 (21.1)
Marital status:	
Married	25 (65.8)†
Widowed/single	13 (34.2)
Finances at the end of month:	
Not enough	12 (31.6)†
Enough	14 (36.8)
Could save some money	12 (31.6)
Type of family:	
Nuclear	15 (39.5)†
Extended	23 (60.5)
Profession:	
Employed	6 (15.8)†
Pension	32 (84.2)

*Median values and interquartile ranges (in parentheses).
† Numbers and column percentages (in parentheses).

About 40% of older people reported living in a nuclear type of family, compared with 60% of those who reported an extended family type. Finally, about 16% of the sample participants were currently employed vs. 84% who were retired.

Table 2 presents the distribution of the items related to the sense of autonomy in the EASY-Care validation sample in Albania and Kosovo. Overall, 71% of participants could use telephone without help; 89% could look after their personal appearance; 87% could dress on their own; 92% were able to use toilet and shower; 66% could do household tasks; 79% could cook their own meals; 97% could feed themselves, and; 87% could use medicines on their own.

Table 2. Distribution of the *autonomy* items in the EASY-Care validation sample of older people in Albania and Kosovo (N=38), in 2010

Variable	Numbers (column percentages)
Can you use telephone?	
Without help	27 (71.1)
With help	11 (28.9)
Can you look after your personal appearance?	
Without help	34 (89.5)
With help	4 (10.5)
Can you dress on your own?	
Without help	33 (86.8)
With help/unable	5 (13.2)
Are you able to use toilet and shower?	
Without help	35 (92.1)
With help/unable	3 (7.9)
Can you do household tasks?	
Without help	25 (65.8)
With help/unable	13 (34.2)
Can you cook your own meals?	
Without help	30 (78.9)
With help/unable	8 (21.1)
Can you feed yourself?	
Without help	37 (97.4)
With help	1 (2.6)
Can you use medicines on your own?	
Without help	33 (86.8)
With help/unable	5 (13.2)

Table 3 presents the distribution of the items related to health and well-being among study participants. Overall, 79% of older people had not had falls in the last 12 months; 42% of individuals perceived their health status as good; 60% had suffered any body pain in the last month; 58% had been worried by the feeling of desperation, depression or hopelessness in the last month; 74% had been worried due to lack of interest or pleasure to do something in the last month, and; 63% of study participants were worried in relation to loss of their memory.

Table 3. Distribution of the items related to health and well-being in the EASY-Care validation sample of older people in Albania and Kosovo (N=38), in 2010

Variable	Numbers (column percentages)
Have you had falls in the last 12 months?	
No	30 (78.9)
Yes	8 (21.1)
General health status	
Good	16 (42.1)
Poor	22 (57.9)
Have you suffered any body pain in the last month?	
No	23 (60.5)
Yes	15 (39.5)
During the last month, have you often been worried by the feeling of desperation, depression or hopelessness?	
No	22 (57.9)
Yes	16 (42.1)
During the last month, have you often been worried due to lack of interest or pleasure to do something?	
No	28 (73.7)
Yes	10 (26.3)
Are you worried in relation to loss of memory?	
No	24 (63.2)
Yes	14 (36.8)

On the whole, about 84% of participants reported that the duration of the evaluation process had the right amount; 60% reported that the evaluation was entirely clear; 50% believed that the evaluation was useful, and; about 58% reported that they would be willing to recommend the current evaluation procedure to their peers (Table 4).

Table 4. Evaluation opinions of older people included the EASY-Care validation sample in Albania and Kosovo (N=38), in 2010

Variable	Numbers (column percentages)
Evaluation duration	
About the right amount	32 (84.2)
A little less or a little more than needed	8 (15.8)
Was the evaluation clear?	
Everything clear	23 (60.5)
Partly clear	15 (39.5)
Was the evaluation useful?	
Very useful	19 (50.0)
Somehow/little useful	19 (50.0)
Would you recommend this evaluation to your peers?	
Definitely	26 (68.4)
Maybe yes, maybe not	16 (31.6)

Discussion

Our study provides evidence on the process of cross-cultural adaptation in Albanian settings of the EASY-Care tool, an internationally validated instrument assessing health needs and priorities of older people.[1-10] Findings from this pilot study revealed a satisfactory duration of the evaluation process as reported by the majority of older people both in Albania and Kosovo. Furthermore, half of respondents in this validation study considered the evaluation useful and the majority of study participants found the assessment form rather clear, which reflects a great potential for a wider use of the EASY-Care tool in population-based studies in Albanian speaking countries.

Our study adds to the current body of international literature indicating the worldwide usefulness of EASY-Care assessment as a reliable and valid instrument [3-7], a tool with high levels of cost-effectiveness in improving functional outcomes and reducing hospital admissions with an increase in community service provision[8,9], and a valuable instrument in identifying the prevalence of population health and care needs of older people.[1,10]

Potential limitations of our study include the small sample size and differential reporting of older people based on their demographic and socioeconomic characteristics. Nevertheless, on the face of it, there is no plausible reason for older people's categories differing in their socio-demographic and socioeconomic characteristics to have reported differently on the EASY-Care domains included in the evaluation form.

In conclusion, in Albanian-speaking settings, we provide evidence on the process of cross-cultural adaptation of a useful instrument employed internationally assessing older people's health and social needs and their current priorities. Future studies in Albania and Kosovo should involve large population-based samples of older people in order to assess their health and social needs and current priorities as evidenced by the already validated EASY-Care instrument.

References

1. EASY-Care Organization. Available at: http://easycare.org.uk/about/content/39/development-and-evaluation (accessed: June 2013).
2. Lowles RV, Philp I. Simple Measures for Assessing the Physical, Mental and Social Functioning of Older People. Generations Review 2001; 11:12-14.
3. Melis R, Van Eijken M, Achterberg T, Teerenstra S, Vernooij-Dassen, Lisdonk E, Rikkert M. The effect on caregiver burden of a problem-based home visiting programme for frail older people. Age and Ageing 2009; 38;542-547.
4. Parker C, Philp I. Screening for cognitive impairment among older people in black and minority ethnic groups. Age and Ageing 2004; 33:447-452.
5. Parker C, Philp I,Sarai M, Rauf A. Cognitive screening for people from minority ethnic backgrounds. Nursing Older People 2007; 18:31-36.
6. Philp I, Hoyle E, O'Brien E, Parker C. Screening tools for older people at risk of adverse outcomes. Geriatric Medicine 2007; 37:10-13.
7. Philp I. EASY-Care: A systematic approach to the assessment of older people. Geriatric Medicine 2000; 30:15-20.
8. Melis RJF, Adang E, Teerenstra S , van Eijken MIJ, Wimo A, van Achterberg T,van de Lisdonk EH, Olde Rikkert MGM. Cost effectiveness analysis of multidisciplinary program to intervene on geriatric syndromes in frail older people who live at home (Dutch EASYcare Study) The Journal of Gerontology: Medical Sciences 2008; 63 A(3):275-282.
9. Perry M, Draskovic I, van Achterberg T, Borm GF, van Eijken MI, Lucassen PL, Vernooij -Dassen MJ, Olde Rikkert MG. Can an EASYcare based dementia training programme to improve diagnostic assessment and management of dementia by general practitioners and primary care nurses? The design of a randomized controlled trial. BMC Health Serv Res 2008; 8:71.
10. Bath PA, Philp I, Boydell L, McCormick W, Bray J, Roberts H. Standardised health check data from community-dwelling elderly people: the potential for comparing populations and estimating need. Journal of Health and Social Care in the Community 2000; 8:17-21.
11. Sperber AD, Devellis FR, Boehlecke B. Cross-cultural translation: methodology and validation. Journal of Cross-Cultural Psychology 1994; 25:501-524.

CHAPTER 8

General Discussion

In this Chapter we summarize the main findings of this thesis and discuss them vis-à-vis other studies and reports from the international literature. In addition, this chapter discusses the strengths and limitations of our research work which should promote and guide future research on older care. In the last section of this chapter, we provide recommendations for health professionals, decision-makers and policymakers of the health sector in Kosovo.

Main findings of the thesis

A remarkable finding in our population-based large sample of older men and women in Kosovo was the low educational attainment especially among women. Thus, about 48% of the women had no formal education at all compared to 17% of men.[1] Furthermore, there was evidence of a high level of self-perceived poverty among older people, especially among women (52% vs. 41% in men).[1] In multivariable-adjusted models controlling simultaneously for all the demographic and socioeconomic characteristics, self-perceived poverty rates were higher among older women, the low educated individuals, urban residents, and those living alone.[1]

As for the health status and health care services, 42% of older people included in our study were unable to access medical care, of whom 88% due to unaffordable costs.[2] About 83% of older people reported at least one chronic condition (63% cardiovascular diseases), and 45% had at least two chronic diseases.[2] The prevalence of chronic morbidity and multimorbidity was higher in older women, the oldest old, poor individuals and those unable to access medical care. In multivariable-adjusted models, factors which were positively associated with the presence of chronic conditions and/or multimorbidity included female sex, older age, self-perceived poverty and the inability to access medical care.[2]

Regarding the social networks, overall, 93% of older people reported that they had at least weekly contacts with more than one family member, and 97% reported daily contacts with their respective friends.[3] Conversely, the level of social participation was much lower as only 14% of older men and women reporting engagement with social groupings. Overall, older people who had contacts with friends and/or engaged with social organizations reported a better health status, even after controlling for socio-demographic and socioeconomic characteristics.[3]

As for the survey involving health care professionals, overall, more than one-third of physicians did not know the share of older people in Kosovo, and only one out four physicians estimated quite correctly the prevalence of chronic morbidity among older people in Kosovo.[4] Regarding the health care practices, only 43% of the overall sample of physicians included in our survey reported the use of protocols in their routine health care practice with older people. In general, there was evidence of insufficient levels of physicians' knowledge about health status of older people and inadequate practices regarding the health care services for older people in Kosovo.[4]

Finally, in two Albanian-speaking settings namely Kosovo and Albania, we obtained evidence on the process of cross-cultural adaptation of EASY-Care tool, a useful instrument employed internationally assessing older people's health needs and social needs, as well as their current priorities.

Demographic characteristics and socioeconomic status of older people in Kosovo vis-à-vis other countries

The distribution of demographic characteristics in our population-based sample of older people was similar to those reported previously in Kosovo and in other countries of the region. Thus, the 2009 Demographic, Social and Reproductive Health Survey in Kosovo reported a similar distribution of socio-demographic factors including ethnicity, religious denomination, place of residence and marital status.[5]

On the other hand, the prevalence of no formal schooling in our study population was somehow lower compared with the findings reported by the Demographic, Social and Reproductive Health Survey in Kosovo in 2009.[5] However, the gender gap in educational attainment disfavoring older women was similar in both studies, albeit slightly narrower in our study sample. In any case, the remarkably high proportion of no formal education and/or very basic schooling among Kosovo elderly people is alarming and calls for action. Otherwise, the low rates of formal schooling in Kosovo are not unique and resemble the educational level of Turkey, as reported in 2007.[6] Conversely, in the neighboring Albania, the educational attainment of older people in both sexes has been reported considerable higher than in Kosovo, with only 5% of both elderly men and women having no formal education at all,[7] compared with 33% among the Kosovo sample of older people included in our study.

Regarding the prevalence of self-perceived poverty, our study suggests that about 16% of older people aged ≥65 years are extremely poor, a finding which is comparable with the estimate from the UN ageing report of 2010 (about 13%) involving worldwide individuals of the same age (that is ≥65 years).[8] Otherwise, the prevalence of self-perceived poverty among Kosovar older people resembles extremely closely the same measure reported from a previous survey conducted in the neighboring Albania, where the prevalence of poverty among men and women aged ≥65 years was estimated at 16.8%.[7] Conversely, the prevalence of the overall poverty in older people aged ≥65 years in Serbia has been estimated at about 15%,[9] which is also similar to the estimate from the current survey in Kosovo. Contrary to the findings in Serbia,[9] however, we obtained evidence of a higher degree of self-perceived poverty in urban areas compared with the rural areas of Kosovo. This is in line with the current evidence from other countries which suggests higher poverty rates in urban populations compared with their rural counterparts.[10] For patriarchal societies such as Kosovo, the impoverishment of older people residing in urban areas is also related to a considerable decrease in terms

of material support from children and relatives due to individualistic or nuclear-type of the families – contrary to the extended family-type or multigenerational support which is definitely more evident in rural areas of Kosovo.

Health status of older people in Kosovo in comparison with other countries

In our study including a nationwide representative sample of older men and women in Kosovo, health status was measured through self-reports. Thus, based on self-reported data, the prevalence of multimorbidity (that is the simultaneous presence of ≥2 chronic conditions) among older people in Kosovo was 45%. This finding is somehow lower than reports from a systematic review which estimated the prevalence of multimorbidity among older people from 55% to 98%.[11] However, our study involved a population-based sample of older individuals which is assumed to have a lower prevalence of morbidity and multimorbidity compared with samples drawn at hospital settings or at primary health care services, such as the case of many studies conducted in the analysis of the abovementioned systematic review.[11]

Alternatively, in our study, the prevalence of cardiovascular diseases including hypertension was similar to previous reports from Albania (about 60% in both older men and women, whereas in our Kosovo sample it was about 63%)[7], Serbia[12] and Macedonia[13], which have all employed self-reported data too.

The prevalence of self-reported diabetes in this Kosovo sample was also very similar to a previous report from Albanian older people (19% in both sexes compared to 18% in our Kosovo sample).[7]

Conversely, cancer prevalence was quite low in our study sample compared to other countries in the region such as Macedonia.[13] A putative reason for the low prevalence of self-reported cancer in Albanian settings is suggested from a recent study including cancer patients in Albania which reported that most of the patients with cancer seek medical care only in advanced stages of the disease and the sociocultural context in Albanian speaking countries is largely against diagnosis disclosure.[14]

Overall, in this study conducted in Kosovo, the prevalence of chronic morbidity and multimorbidity, after controlling for potential confounders, was higher among the oldest old and individuals who reported inability to access medical care, which might partly serve as a marker of a low socioeconomic status. Our findings in this regard are generally compatible with the vast international literature which reports significantly higher rates of morbidity and multimorbidity among the very olds and individuals of a low socioeconomic status.[11,15-17]

In particular, access to medical care in our study was a significant and consistent predictor of both the presence and number of chronic conditions, irrespective of demographic characteristics. Health beliefs aside, the access and use of health care depends also on resources such as the availability of health personnel

and health facilities, means of transport, or presence of an effective health insurance scheme.[18]

In the Kosovo sample, the vast majority of older people who could not access medical care (about 90%) reported economic barriers as the main reason, which points to the rather challenging situation of the older population in this transitional society and the fast pace coupled with unclear outcomes of the current reforms in the health sector in Kosovo.

Actually, there are obvious clashes and discrepancies between different reforms and programs currently in place in Kosovo. Thus, notwithstanding the fact that social protection of vulnerable subgroups and marginalized segments of the population is spelled out as one of the priorities of health reforms in Kosovo, the health system lags far behind in this regard and does not provide sufficient and adequate coverage for these high-risk population groups. Currently, there is no health insurance system in place and there is no clue how this can be realistically achieved in light of half of the Kosovo population being unemployed, a factor which is also coupled with a high informality rate.[19]

In Kosovo, all citizens aged ≥65 years rely on the social security pension which is very low and, therefore, insufficient to meet daily living needs. In addition, a not trivial share consists of remittances from children and other close family working and living abroad (about 25% according to 2011 estimates from UNDP Kosovo Office; see at: http://www.kosovo.undp.org/repository/ docs/ 2011/ Remittance_Survey_Fact_Facts_2011_Final-trans.pdf). Nevertheless, as described above, the socioeconomic conditions of older people in Kosovo are rather difficult jeopardizing also access and affordability of health care services, especially services related to early diagnosis of diseases and preventive services.

Another important factor concerns the urgent need for comprehensive reforms in the health sector which has undergone severe damages due to the long decades of suppression from Serbian regime. Thus, in the past two decades, there has been a steady decrease in the availability of health personnel, especially in the remote areas of the country.

As a matter of fact, Kosovo is currently characterized by a rather unreformed and inefficient health system with a significant share of not properly trained health personnel. Also, human resources in the health care sector are unevenly distributed which leads to clear disparities in availability and quality of health care service provision.

Hence, we consider that one of the core elements of the future health reforms in Kosovo should consist of a rationale distribution of human resources in the health field along with their continuous medical training in order to meet the current health challenges and health problems that the older people are facing.

Additional factors that lead to health disparities and compromise the access and affordability to primary and secondary health care services for older people in Kosovo include the relatively high levels of corruption and informal payments in

the health sector, notwithstanding the fact that these phenomena are not well-documented and under-reported.

In this framework, the continuous but unclear reformation of the health sector in Kosovo has yielded a multifaceted pattern of interested stakeholders which are involved in the health system. The different interests of various stakeholders have inevitably led to unequal access to health care for the older people. Thus, the main barrier to access care for many older individuals is the relatively high cost of health services, notwithstanding the fact that some basic health services are supposed to be covered free-of-charge for all citizens residing in Kosovo. However, in order to get prompt and effective medical services, individuals have to pay under-the-table.

From this perspective, under-the-table payments constitute a heavy burden especially for the poor elderly who do not have any financial means, a situation which is similar to the bordering Albania (see at: http://arnop.unimaas.nl/-show.cgi?fid=24261). The ultimate outcome is reflected in the unfavorable morbidity and mortality indicators especially for the diseases which are conventionally considered to be amenable to health care services.[20]

At the same time, it should be pointed out that the private health sector has been expanded rapidly in Kosovo, but the services offered by the private sector are rather unaffordable for most of the older people.[20]

In summary, the vague health care reforms in Kosovo have decreased the access to health care services especially for the vulnerable socioeconomic subgroups of older people who also live in social isolation.[19]

Given these circumstances, in light of the unstable health sector developments coupled with scarce financial resources and economic instability, the growing community of older people in Kosovo will continuously experience serious barriers to access high quality medical services.

Social networks and social participation of older people in Kosovo vis-à-vis other countries

In our study including a large nationwide representative sample of older men and women in Kosovo, in addition to socioeconomic characteristics and health status, we measured social networks and social participation through a structured questionnaire. More specifically, social networks were assessed by means of number of friends and family members that older people had contacts with, whereas social participation by involvement of older people in social groupings or social organizations.

Overall, 93% of older men and women in this Kosovo sample reported that they had at least weekly contacts with more than one family member, and 97% reported daily contacts with their respective friends. On the other hand, only 14% of participants reported engagement with social groupings/organizations. Thus, an

outstanding finding of our study consists of strong family ties but a low degree of social participation among older people in Kosovo.

In general, participants who had contacts with friends and/or engaged with social organizations reported a better health status and this finding was evident in both older men and women irrespective of their demographic and socioeconomic characteristics.

The extent of social networks among older people in Kosovo was higher compared with previous reports from other countries in the Western Balkans, including the neighboring Albania,[7] and even more so compared with other European countries and the USA.[21-24]

On the other hand, levels of social participation among older people in Kosovo were lower than reports from Western European countries[23,24] and North America[25], but similar to Albania.[7]

In summary, a remarkable finding of our study in Kosovo involves a low social participation level, but a high degree of connection with close family members and friends. We argue that this finding fits well within the context of transitional countries of the Western Balkans, which have undergone major social, political and economic upheaval in the past two decades coupled also with a process of intensive internal and external migration.[26] From this line of argument, in post-war settings and transitional countries of the Western Balkans including Kosovo, which has undergone a huge social disruption, family ties and connections with close friends may tend to compensate for the lack of social integration, social cohesion and social participation.

Otherwise, the positive association of social networks and social participation with a better self-reported health status in our study, regardless of sociodemographic and socioeconomic characteristics of study participants, is compatible with previous reports from other countries[27], which have also linked social isolation with poor self-rated health[28], or more recently with poor health status and health-related quality of life of older people.[29] As a matter of fact, in the past decades, there has been a considerable body of literature pointing to beneficial health effects of social support, social networking and social participation.[21,22,30]

Knowledge and practices of physicians regarding health status and health services in Kosovo

The survey including a representative sample of physicians in Kosovo, found quite unacceptable levels of physicians' knowledge about health status of the older people and scarce practices regarding the health care services for older people in Kosovo.

Thus, overall, 38% of physicians in our study sample did not know the rough proportion of older people (individuals aged ≥65 years) in Kosovo. Even worse, 34% of the overall male and female physicians in the study sample did not know

that the proportion of older women is higher than the proportion of older men in Kosovo.

Furthermore, more than 60% of the study participants did not know the rough proportion of the oldest old population (individuals aged ≥85 years) in Kosovo. Also, only 26% of the overall study sample estimated more or less correctly[2] the prevalence of chronic morbidity among older people in Kosovo. Conversely, about 42% and 62% of the study participants estimated correctly the proportion of poor self-assessed health status[2] and self-perceived poverty level,[1,2] respectively, among older people in Kosovo.

As for the health care practices, only 43% of the overall sample of physicians included in our survey reported the use of protocols in their routine health care practice with older people.

Strengths and limitations of this study

Our survey involving older people in Kosovo has several strengths, which are briefly summarized below:

- ***Study sample:*** our survey included a large nationwide representative sample of older men and women in both urban and rural areas of Kosovo.
- ***Response rate:*** the response rate in the population-based survey involving older people in Kosovo was remarkably high in both men and women. Based on the sampling technique, the large sample size and the high response rate, findings from our study sample can be generalized to the overall population of Kosovo aged ≥65 years.
- ***Data collection:*** our measuring instrument for assessment of socioeconomic conditions, health status, social networks and social participation among older people in Kosovo consisted of simple and straightforward items which, apparently, increase the validity of the information.

Conversely, the survey involving older people in Kosovo has the potential limitations of cross-sectional studies of this nature which may nevertheless be prone to biases of selection and information:

- Although our sampling frame consisted of the most valid and reliable source in Kosovo namely the Ministry of Social Welfare lists, and notwithstanding the high response rate, we cannot exclude entirely the possibility of selection bias.
- On the face of it, the questionnaire that we used for assessment of socioeconomic conditions, health status, social networks and social participation used mainly objective measures. Nonetheless, the self-reported data on each of the survey dimensions was obtained by interview and, therefore, could have been affected by socio-demographic and socioeconomic characteristics of older people included in the survey. The oldest old, female participants or lower SES individuals may have had a greater inclination to report poor health or lack of

social networks and social participation than their younger, male, or higher SES counterparts. However, there is no conceivable reason to assume differential reporting between older people groups differing in their demographic and socioeconomic characteristics. Yet, the possibility of information bias cannot be excluded, as it is an inherent drawback of this kind of (cross-sectional) studies.
- More importantly, relationships reported in cross-sectional studies of this nature are not assumed to be causal. Therefore, confirmation and replication of our findings ideally from prospective studies is needed in order to firmly inform policy.

Recommendations for policy formulation in Kosovo

Based on the survey involving a population-based sample of older men and women in Kosovo, the following recommendations are outlined for policy formulation:
- Specific policies and actions should be considered by a number of stakeholders, including government and civil society in transitional Kosovo in line with the rapid urbanization process and the internal and external migration which increase the chances of older people to experience social isolation.
- Implementation programs should also consider the lack of formal education, especially among women, and should be also tailored in accordance with the hectic context of a transitional society which exacerbates poverty levels among older people in the new state of Kosovo.
- Although access to medical care is not the only element in the wide array of health determinants, based on the findings of our survey including older people in Kosovo, medical care plays an important role for the control of chronic morbidity and multimorbidity. Therefore, there is a growing need to facilitate the access to medical care of older people in Kosovo through economic development and poverty reduction strategies which tend to improve both the health status of older people and protect them from catastrophic health expenditures.
- In particular, there is an urgent need for establishing an effective social health insurance scheme including the marginalized subgroups of elderly people in Kosovo.
- The low participation levels in social groupings and their putative deleterious health effects should raise the awareness of policymakers to increase the degree of social participation among older people in transitional Kosovo.
- Segments of older people who are less socially engaged are possible target groups for public health interventions. From this point of view, focused and targeted policies, specific programs and interventions should be designed in Kosovo to engage older people in the social realm.

The survey involving a representative sample of health professionals in Kosovo suggests the following recommendations which may help to inform evidence-based policy:

- There is an urgent need to introduce systematic continuous medical training programs especially for primary health care physicians in Kosovo in order to increase the quality of health care services for the older population in this country which is facing a particularly difficult period of political and socioeconomic transition and older people in Kosovo are considered to suffer most the consequences of social disruption following the devastating war with Serbia.
- An appropriate start would be the implementation of programs for elderly care tailored in accordance with the job description of health professionals operating at different levels of health care services in Kosovo.

The cross-cultural adaptation study including a small but representative sample of primary health care older people in Kosovo and Albania implies the following recommendation for policymakers:

- There is a call for implementation of large population-based studies employing the EASY-Care tool, an internationally validated instrument, in order to *prioritize* the health needs and the social needs of older people in Kosovo and Albania.

Concluding Remarks

This study provides important evidence on the socioeconomic status, health conditions, social networks and social participation in the older population of Kosovo, a newly emerging country in the Western Balkans which is undergoing a particularly difficult transition after a long period under oppression and war with Serbia. Furthermore, this study provides useful information about health professionals' knowledge about health status of older people and their current practices with regard to health care service provision for older people in Kosovo. These findings offer valuable baseline information for decision-makers and policy-makers involved in the health care sector and social welfare system in Kosovo.

Furthermore, at a broader research community level, this study provides novel evidence on older people from a particularly under-researched post-war setting and transitional country of the Western Balkans such as Kosovo. We have reported on important associations between socio-demographic and socioeconomic characteristics with health status, social networks and social participation, which have been under-researched in the older populations of Southeastern Europe to date. Indeed, the magnitude and socioeconomic correlates of morbidity and multimorbidity, social networks and social participation in the older populations of the Western Balkans have received very little attention in the literature. From this point of view, this study makes a useful international contribution.

Nevertheless, findings of our study require confirmation and replication in future studies in Kosovo and in other emerging/transitional populations in order to provide a solid foundation for policy formulation. This study, hopefully, will serve to stimulate such further research on older people.

References

1. Jerliu N, Toçi E, Burazeri G, Ramadani N, Brand H. Socioeconomic conditions of elderly people in Kosovo: a cross-sectional study. BMC Public Health 2012, 12:512.
2. Jerliu N, Toçi E, Burazeri G, Ramadani N, Brand H. Prevalence and socioeconomic correlates of chronic morbidity among elderly people in Kosovo: a population-based survey. BMC Geriatrics 2013; 13:22.
3. Jerliu N, Burazeri G, Toci E, Kempen GIJM, Jongen W, Ramadani N, Brand H. Social networks, social participation and self-perceived health among older people in transitional Kosovo. European Journal of Public Health 2013; in press.
4. Jerliu N, Burazeri G, Ramadani N, Hyska J, Brand H. Knowledge and practices of physicians regarding health status and health care services for older people in transitional Kosovo. Medical Archives 2013; 67:164-167.
5. Statistical Office of Kosovo. Demographic, Social and Reproductive Health Survey in Kosovo, November 2009. Pristina, Kosovo; 2011.
6. The situation of elderly people in Turkey and national plan of action on ageing, 2007. Turkey; 2007. Available at http://www.ekutup.dpt.gov.tr/nufus/yaslilik/eylempla-i.pdf (accessed: 14 July, 2013).
7. Ylli A. Health and Social Conditions of Older People in Albania: Baseline Data from a National Survey. Public Health Rev 2010, 2:549.
8. Current status of the social situation, wellbeing, participation in development and rights of older persons worldwide. New York: United Nations; 2010.
9. Sataric N, Rasevic M. The elderly non-residential care in Serbia-a gap between needs and opportunities. Serbia: Belgrade; 2007.
10. Falkingham JC, Chepngeno-Langat G, Kyobutungi C, Ezeh A, Evandrou M. Does Socioeconomic Inequality in Health Persist among Older People Living in Resource-Poor Urban Slums? J Urban Health. 2011 June; 88(Suppl 2): 381-400.
11. Marengoni A, Angleman S, Melis R, Mangialasche F, Karp A, Garmen A, Meinow B, Fratiglioni L. Aging with multimorbidity: a systematic review of the literature. Ageing Res Rev 2011; 10:430-439.
12. Matejić B, Bjegović V, Milić N, Milićević MŠ, Terzić Z. Functional ability of elderly in Serbia: an example of assessment. Gerontology: The Internet Journal of Geriatrics and; 2008:4.
13. World Health Organization. Health and nutritional status of the elderly in the Former Yugoslav Republic of Macedonia - Results of a national household survey, November 1999. Copenhagen: WHO Regional Office for Europe; 2001.
14. Beqiri A, Toci E, Sallaku A, Qirjako G, Burazeri G. Breaking bad news in a Southeast European population: a survey among cancer patients in Albania. J Palliat Med 2012; 15:1100-1105.
15. Kirchberger I, Meisinger C, Heier M, Zimmermann AK, Thorand B, Autenrieth CS, Peters A, Ladwig KH, Döring A. Patterns of multimorbidity in the aged population. Results from the KORA-Age study. Plos One 2012; 7:e30556.
16. Schram MT, Frijters D, van de Lisdonk EH, Ploemacher J, de Craen AJM, de Waal MWM, van Rooij FJ, Heeringa J, Hofman A, Deeg DJH, Schellevis FG. Setting and registry characteristics affect the prevalence and nature of multimorbidity in the elderly. J Clin Epidemiol 2008; 61:1104-1112.
17. Agborsangaya CB, Lau D, Lahtinen M, Cooke T, Johnson JA. Multimorbidity prevalence and patterns across socioeconomic determinants: a cross-sectional survey. BMC Public Health 2012; 12:201.
18. Andersen RM. Revisiting the behavioral model and access to medical care: does it matter? J Health Soc Behav 1995; 36:1-10.
19. Percival V, Sondorp E. A case study of health sector reform in Kosovo. Confl Health 2010; 4:**7**.

20. Buwa D, Vuori H. Rebuilding a health care system: war, reconstruction and health care reforms in Kosovo. Eur J Public Health 2007; 17:226-230.
21. Rutledge T, Reis SE, Olson M, et al. Social networks are associated with lower mortality rates among women with suspected coronary disease: the National Heart, Lung, and Blood Institute-Sponsored Women's Ischemia Syndrome Evaluation study. Psychosom Med 2004; 66:882-8.
22. Frasure-Smith N, Lesperance F, Gravel G, et al. Social support, depression, and mortality during the first year after myocardial infarction. Circulation 2000; 101:1919-24.
23. McLaughlin D, Leung J, Pachana N, et al. Social support and subsequent disability: it is not the size of your network that counts. Age Ageing 2012; 41:674-7.
24. Toepoel V. Ageing, leisure, and social connectedness: how could leisure help reduce social isolation of older people? Soc Indic Res 2013. doi:10.1007/s11205-012-0097-6.
25. Demers L, Robichaud L, Ge'linas I, et al. Coping strategies and social participation in older adults. Gerontology 2009; 55:233-9.
26. Burazeri G, Goda A, Tavanxhi N, et al. The health effects of emigration on those who remain at home. Int J Epidemiol 2007; 36:1265-72.
27. Dickens AP, Richards SH, Greaves CJ, Campbell JL. Interventions targeting social isolation in older people: a systematic review. BMC Public Health 2011; 11:647.
28. Cornwell EY, Waite LJ. Social disconnectedness, perceived isolation, and health among older adults. J Health Soc Behav 2009; 50:31-48.
29. Hawton A, Green C, Dickens AP, et al. The impact of social isolation on the health status and health-related quality of life of older people. Qual Life Res 2011; 20:57-67.
30. Uchino BN. Understanding the links between social support and physical health: a life-span perspective with emphasis on the separability of perceived and received support. Perspect Psychol Sci 2009; 4:236-55.

CHAPTER 9

Summary
Samenvatting
Përmbledhje

Acknowledgements
About the author
List of publications

Summary

Background, aim, and research questions
This is the first rigorous study conducted in an older population in an Albanian-speaking setting such as the newly emerging state of Kosovo.
The aim of this study was threefold:

- To assess the socioeconomic conditions, health status, social networks and social participation in a large nationwide representative sample of older men and women (individuals aged ≥65 years) in the Republic of Kosovo;
- To assess the level of knowledge and practices of health professionals regarding health status and health care services for older people in Kosovo, and;
- To validate (cross-culturally adapt) the EASY-Care tool, an international instrument measuring older people's health needs and priorities, which we suggest for use in future population-based studies involving older people in Albanian-speaking settings.

We hypothesized that older people of both sexes in Kosovo would be socioeconomically vulnerable, particularly in terms of financial means given the rapid transition towards a new socioeconomic system coupled with "modernization" of the society where children and other relatives take care far less of their older family members. At the same time, we hypothesized a high prevalence of chronic diseases and conditions, as well as functional limitations among older people in line with the lack of a national health insurance fund in Kosovo. On the other hand, we hypothesized a relatively low level of knowledge of Kosovo health professionals' about health status of older people and poor practices regarding their health care services provided for older people in Kosovo.

Methods
We conducted three separate surveys in line with the threefold aim of this research work:

- A nationwide survey (cross-sectional study) was conducted in Kosovo in January-March 2011 including an age- sex-and residence (urban vs. rural)-stratified sample of 1,890 individuals aged 65 years and over (949 men, mean age 73±6 years; 941 women, mean age 74±7 years; overall response rate: 83.5 %).
- Another survey (cross-sectional study) was conducted in February-March 2013 in Kosovo including a nationwide representative sample of 412 physicians working at primary, secondary and tertiary health care levels (220 males, mean age: 45.6±9.3 years; 192 females, mean age: 46.4±9.1 years; overall response rate: 91%).
- In addition, an EASY-Care validation study was conducted in August-September 2010 including a sample of 38 older people who were users of pri-

mary health care services in Prishtina (capital city of Kosovo) and in Tirana (the Albanian capital).

Results and Discussion

A remarkable finding in our population-based large sample of older men and women in Kosovo was the low educational attainment especially among women. Thus, about 48% of the women had no formal education at all compared to 17% of men. Furthermore, there was evidence of a high level of self-perceived poverty among older people, especially among women (52% vs. 41% in men). In multivariable-adjusted models controlling simultaneously for all the demographic and socioeconomic characteristics, self-perceived poverty rates were higher among older women, the low educated individuals, urban residents, and those living alone.

As for the health status and health care services, 42% of older people included in our study were unable to access medical care, of whom 88% due to unaffordable costs. About 83% of older people reported at least one chronic condition (63% cardiovascular diseases), and 45% had at least two chronic diseases. The prevalence of chronic morbidity and multimorbidity was higher in older women, the oldest old, poor individuals and those unable to access medical care. In multivariable-adjusted models, factors which were positively associated with the presence of chronic conditions and/or multimorbidity included female sex, older age, self-perceived poverty and the inability to access medical care.

Regarding the social networks, overall, 93% of older people reported that they had at least weekly contacts with more than one family member, and 97% reported daily contacts with their respective friends. Conversely, the level of social participation was much lower as only 14% of older men and women reporting engagement with social groupings. Overall, older people who had contacts with friends and/or engaged with social organizations reported a better health status, even after controlling for socio-demographic and socioeconomic characteristics.

As for the survey involving health care professionals, overall, more than one-third of physicians did not know the share of older people in Kosovo, and only one out four physicians estimated quite correctly the prevalence of chronic morbidity among older people in Kosovo. Regarding the health care practices, only 43% of the overall sample of physicians included in our survey reported the use of protocols in their routine health care practice with older people. In general, there was evidence of insufficient levels of physicians' knowledge about health status of older people and inadequate practices regarding the health care services for older people in Kosovo.

Samenvatting

Achtergrond, doel en onderzoeksvragen
Dit is de eerste nauwgezette studie die uitgevoerd is onder een oudere populatie in een Albaneessprekende omgeving; de zich nieuw ontwikkelende staat Kosovo.
Het doel van deze studie was drieledig:

- het beoordelen van de sociaal-economische condities, gezondheidstoestand, sociale netwerken en sociale deelname in een groot nationaal breed representatief voorbeeld van oudere mannen en vrouwen (allen ≥ 65 jaar) in de republiek Kosovo;
- het beoordelen van het niveau van kennis en het praktiseren van gezondheidsdeskundigen met betrekking tot gezondheidsstatus en gezondheidszorg voor ouderen in Kosovo;
- het valideren (cross-cultureel geadapteerd) van de Easy-Care tool, een internationaal meetinstrument naar gezondheidsbehoeften en–prioriteiten van ouderen, die wij aanraden te gebruiken in toekomstige studies van bevolkingsgroepen betrekking hebbend op ouderen in een Albanees-sprekende setting.

We hadden als veronderstelling aangenomen dat oudere mensen van beide geslachten in Kosovo sociaal-economisch kwetsbaar zouden zijn, met name in termen van financiële middelen, gegeven de snelle overgang naar een nieuw sociaal-economisch systeem gepaard gaande met `modernisering' van de samenleving waar kinderen en andere familieleden veel minder zorgdragen voor hun oudere familieleden. Tegelijkertijd hadden we een grote invloed van chronische ziekten en kwalen verondersteld, alsook functionele beperktheden onder ouderen in lijn met het gebrek aan een nationaal ziektekostenverzekeringsfonds in Kosovo. Anderzijds hadden we als hypothese aangenomen dat gezondheidsdeskundigen in Kosovo een relatief laag niveau van kennis hebben inzake de gezondheidsstatus van ouderen en dat ze slecht praktiseren met betrekking tot dienstverlening in de gezondheidszorg zoals die voor ouderen in Kosovo is voorzien.

Methoden
We hebben drie aparte onderzoeken uitgevoerd in overeenstemming met het drieledige doel van dit onderzoek:

- een nationaal onderzoek (dwarsdoorsnede studie) is uitgevoerd in Kosovo gedurende januari-maart 2011 inclusief een leeftijd-, gender- en (stedelijk versus landelijk) woonplaats-gestratificeerde steekproef onder 1.890 personen van 65 jaar en ouder (949 mannen, gemiddelde leeftijd 73±6; 941 vrouwen, gemiddelde leeftijd 74±7: totale respons: 83,5%);
- verder is een ander (dwarsdoorsnede) onderzoek uitgevoerd gedurende februari-maart 2013 in Kosovo, inclusief een nationaalbrede representieve steekproef onder 412 artsen die in eerstelijns-, tweedelijns- en derdelijnsge-

zondheidszorg werken (220 mannen, gemiddelde leeftijd 45,6±9,3; 192 vrouwen, gemiddelde leeftijd 46,4. ±9,1; totale respons: 91%).
– Daarenboven is een EASY-Care validatie-studie uitgevoerd in augustus-september 2010, inclusief een groep van 38 ouderen die gerbruik maakten van eerstelijns gezondheidszorg in Prishtina (hoofdstad van Kosovo) en in Tirana (de hoofdstad van Albanië).

Resultaten en Discussie

Een opmerkelijke conclusie in onze omvangrijke steekproef, gebaseerd op de ouderenpopulatie in Kosovo, was het lage onderwijsniveau onder vrouwen in het bijzonder. Zo had circa 48% van de vrouwen helemaal geen officiële opleiding ten opzichte van 17% van de mannen. Verder is er bewijs van een hoog niveau van zelfkennis over armoede door ouderen, voornamelijk onder vrouwen (52% versus 41% onder mannen). In multivariabel-aangepaste modellen, bepalend voor zowel demografische als sociaal-economische kenmerken, waren de cijfers met betrekking tot het zichzelf als armoedig ervaren hoger onder oudere vrouwen, laagopgeleiden, stedelingen en alleenstaanden.

Voor wat betreft gezondheidsstatus en gezondheidszorg was 42% van de ouderen in onze studie niet in staat om toegang te verkrijgen tot medische zorg; voor 88% daarvan is deze onbetaalbaar. Ongeveer 83% van de ouderen gaf aan te lijden aan ten minste één chronische kwaal (63% cardiovasculaire ziektes) en 45% had minstens twee chronische ziektes. Chronische ziekten en het hebben van meer dan één ziekte was hoger bij oudere vrouwen, hoogbejaarden, arme personen en zij die geen toegang hadden tot medische zorg. In multivariabele aangepaste modellen werden factoren toegevoegd die positief geassocieerd werden met de aanwezigheid van chronische kwalen en/of het hebben van meer dan één ziekte; vrouwen, bejaarden, het zelf-ervaren van armoede en het onvermogen om medische zorg te krijgen, meegerekend.

Met betrekking tot de sociale netwerken gaf in totaal 93% van de ouderen aan dat zij minstens wekelijks contact hadden met meer dan één familielid en 97% meldde dagelijks contact te hebben met hun vrienden. Daarentegen was het niveau van sociale participatie veel lager aangezien slechts 14% van de oudere mannen en vrouwen meldden betrokken te zijn bij sociale groeperingen. In het algemeen meldden ouderen die contact hadden met vrienden en/of betrokken waren bij sociale organisaties, zelfs na controle op sociaal-demografische en sociaal-economische factoren, een betere gesteldheid van de gezondheid.

Voor het onderzoek waren deskundigen op het gebied van gezondheidszorg betrokken. In totaal, wist meer dan eenderde van de artsen niet hoeveel ouderen Kosovo telt en slechts één op de vier artsen schatte redelijk goed in hoe vaak chronische ziekten onder ouderen in Kosovo voorkomen. Slechts 43% van het totaal aantal artsen dat aan ons onderzoek deelnam gaf aan bij ouderen protocollen te gebruiken in hun dagelijkse gang van zaken in hun praktijk. In het algemeen was er bewijs van onvoldoende niveau van kennis bij artsen over de gezondheid van ou-

deren en inadequate bekwaamheid in de verlening van gezondheidszorg aan ouderen in Kosovo.

Përmbledhje

Sfondi, Qëllimi dhe Pyetjet e Hulumtimit
Ky është studimi i parë rigoroz i kryer në një popullatë të moshuar në një mjedis Shqipfolës të tillë si shteti i ri i Kosovës.
Qëllimi i këtij studimi ishte i trefishtë:

- Vlerësimi i kushteve socio-ekonomike, statusit shëndetësor, rrjeteve sociale dhe pjesëmarrjes sociale në një mostër të madhe përfaqësuese nga mbarë vendi të burrave dhe grave të moshuara (individët e moshës ≥ 65 vjeç) në Republikën e Kosovës;
- Vlerësimi i nivelit të njohurive dhe praktikave të profesionistëve shëndetësorë lidhur me statusin shëndetësor dhe shërbimet e kujdesit shëndetësor për të moshuarit në Kosovë;
- Validimi (adaptimi ndërkulturor) i EASY-Care, një instrument ndërkombëtar që matë nevojat dhe prioritetet shëndetësore të të moshuarve, të cilin instrument ne e sygjerojmë për përdorim në të ardhmen në studimet e popullatës që përfshijnë njerëzit e moshuar në vendbanimet Shqipfolëse.

Ne supozuam se njerëzit e moshuar të të dyja gjinive në Kosovë do të ishin socio-ekonomikisht vulnerabël, veçanërisht në aspektin e mjeteve financiare, duke pasur parasysh tranzicionin e shpejtë drejt një sistemi të ri socio-ekonomik të shoqëruar me "modernizimin" e shoqërisë ku fëmijët dhe të afërmit e tjerë kujdesen shumë më pak për anëtarët e moshuar të familjeve së tyre. Në të njëjtën kohë, ne supozuam një prevalencë të lartë të sëmundjeve kronike, si dhe kufizimeve/pa-aftësive funksionale tek individët e moshuar duke pasur parasysh mungesën e një fondi të sigurimeve shëndetësore në Kosovë. Nga ana tjetër, ne supozuam një nivel relativisht të ulët të njohurive të profesionistëve shëndetësorë të Kosovës rreth statusit shëndetësor të të moshuarve, si dhe praktika të dobëta të kujdesit shëndetësor në lidhje me shërbimet e ofruara për individët e moshuar në Kosovë.

Materiali dhe Metoda
Ne kemi bërë tre studime të veçanta në përputhje me qëllimin e trefishtë të kësaj pune kërkimore:

- Një studim në mbarë vendin (studim transversal) u krye në Kosovë në periudhën Janar-Mars 2011, duke përfshirë një mostër të stratifikuar sipas moshës, gjinisë dhe vendbanimit (urban vs rural) prej 1.890 individëve të moshës 65 vjeç e më shumë (949 burra, mosha mesatare 73 ± 6 vjet; 941 gra, mosha mesatare 74 ± 7 vjet; shkalla e përgjithshme e pjesëmarrjes në studim: 83.5%).
- Një tjetër studim (studim transversal) u krye në Shkurt-Mars 2013, në Kosovë, duke përfshirë një mostër përfaqësuese nga mbarë vendi të 412 mjekëve që punojnë në nivelet e kujdesit shëndetësor parësor, dytësor dhe tretësor (220

meshkuj, mosha mesatare: 45,6 ± 9,3 vite; 192 femra, mosha mesatare: 46,4 ± 9,1 vjet; shkalla e përgjithshme e pjesëmarrjes: 91%).

– Përveç kësaj, një studim i validimit të EASY-Care u krye në Gusht-Shtator 2010 duke përfshirë një mostër të 38 personave të moshuar që ishin shfrytëzues të shërbimeve të kujdesit primar shëndetësor në Prishtinë (kryeqytet i Kosovës) dhe në Tiranë (kryeqytet i Shqipërisë).

Rezultatet dhe Diskutimi

Një gjetje e shënuar në mostrën tonë të madhe të popullatës së burrave dhe grave të moshuara në Kosovë ishte niveli i ulët arsimor, veçanërisht në mesin e grave. Kështu, rreth 48% e grave nuk kishte aspak edukim formal në krahasim me 17% të burrave. Për më tepër, kishte prova të një niveli të lartë të varfërisë së vetë-perceptuar në mesin e njerëzve të moshuar, veçanërisht në mesin e grave (52% vs 41% në meshkuj). Në modelet shumë-ndryshorëshe duke kontrolluar në të njëjtën kohë për të gjitha karakteristikat demografike dhe socio-ekonomike, normat e varfërisë së vetë-perceptuar ishin më të larta në mesin e grave të moshuara, individëve me arsimim më të ulët, banorëve urban dhe atyre që jetojnë të vetmuar.

Sa i përket statusit shëndetësor dhe shërbimeve shëndetësore, 42% e njerëzve të moshuar të përfshirë në studimin tonë nuk kishin akses në kujdesin mjekësor, prej të cilëve 88% për shkak të kostove financiare të papërballueshme. Rreth 83% e njerëzve të moshuar raportuan të paktën një sëmundje kronike (63% sëmundjet kardiovaskulare) dhe 45% kishin të paktën dy sëmundje kronike. Prevalenca e sëmundshmërisë kronike dhe multimorbiditetit ishte më e lartë në gratë më të moshuara, të moshuarit shumë të vjetër, individët e varfër dhe ata që nuk kishin akses në kujdesin mjekësor. Në modelet multivariable-adjusted, faktorët që ishin të lidhur pozitivisht me praninë e sëmundjeve kronike dhe / ose multimorbiditetit përfshinin gjininë femërore, moshën më të vjetër, varfërinë e vetë-perceptuar dhe mungesën e aksesit në kujdesin mjekësor.

Lidhur me rrjetet sociale, në përgjithësi, 93% e njerëzve të moshuar kanë raportuar se ata kishin të paktën kontakte javore me më shumë se një anëtar të familjes dhe 97% raportuan kontakte të përditshme me miqtë e tyre përkatës. Në anën tjetër, niveli i pjesëmarrjes shoqërore ishte shumë më i ulët, pasi vetëm 14% e burrave dhe grave të moshuar raportuan angazhimin me grupimet sociale. Në përgjithësi, njerëzit e moshuar të cilët kanë pasur kontakte me miqtë dhe / ose ishin të angazhuar me organizata shoqërore raportuan një status më të mirë shëndetësor, edhe pas kontrollit të karakteristikave socio-demografike dhe socio-ekonomike.

Sa i përket studimit që përfshinë profesionistët e kujdesit shëndetësor, në përgjithësi, më shumë se një e treta e mjekëve nuk e dinin përqindjen e individëve të moshuar në Kosovë, dhe vetëm një në katër mjekë vlerësuan mjaft saktë prevalencën e sëmundshmërisë kronike në mesin e njerëzve të moshuar në Kosovë. Lidhur me praktikat e kujdesit shëndetësor, vetëm 43% e mostrës së përgjithshme të mjekëve të përfshirë në studimin tonë raportuan përdorimin e protokolleve në

praktikën e tyre rutinë të kujdesit shëndetësor me njerëz të moshuar. Në përgjithësi, kishte dëshmi të niveleve të pamjaftueshme të njohurive të mjekëve rreth statusit shëndetësor të të moshuarve dhe dëshmi të praktikave jo të përshtatshme lidhur me shërbimet e kujdesit shëndetësor për të moshuarit në Kosovë.

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About the author

Naim Jerliu was born on November 2nd, 1969 in Prishtina, Republic of Kosovo. He studied at the Medical Faculty, University of Prishtina, where he graduated as "Doctor of Medicine" (MD). Naim holds a Master of Science (MSc) degree in medical sciences and is a public health specialist.

In early 1990s Naim Jerliu became involved in politics as part of the Democratic League of Kosovo (LDK) - the political movement led by President Ibrahim Rugova, struggling for freedom, democracy, and independence of Kosovo. He was president of the Youth Forum of LDK (1997-2001) and Vice-President of the LDK, for three consecutive terms (1998- 2006).

Naim Jerliu was elected member of the Kosovo Parliament in three terms (1998-2007). In his tenure as a member of Kosovo Parliament he was engaged with the Commission for Health, Labour and Social Welfare (Principal Vice-Chairman), Commission for International Relations and European Integrations (member), and Commission for Rules of Procedure and Immunity (member).

Naim Jerliu served as member of Strategic and Political Group of the Kosovo Unity Team and member of Kosovo delegations at the Vienna talks on the political status of Kosovo (2006-2007) that led to the proclamation of the independence of Kosovo on 17 February 2008.

From January 2007 to September 2010 Naim Jerliu served as a Political Advisor to the President of Kosovo.

Currently, he works as a public health specialist at the National Institute of Public Health of Kosovo and teaches at the Faculty of Medicine, University of Prishtina. Since June 2010, Naim has been a PhD fellow at the Department of International Health at the University of Maastricht. He has published a number of articles in scientific peer-reviewed international journals.

List of publications

1. **Jerliu N,** Toçi E, Burazeri G, Ramadani N, Brand H. Prevalence and socioeconomic correlates of chronic morbidity among elderly people in Kosovo: a population-based survey. BMC Geriatrics 2013; 13:22.

2. **Jerliu N,** Burazeri G, Toci E, Kempen GIJM, Jongen W, Ramadani N, Brand H. Social networks, social participation and self-perceived health among older people in transitional Kosovo. The European Journal of Public Health 2013; doi: 10.1093/eurpub/ckt064

3. **Jerliu N,** Burazeri G, Ramadani N, Hyska J, Brand H. Knowledge and practices of physicians regarding health status and health care services for older people in transitional Kosovo. Medical Archives 2013; 67(3): 164-167

4. **Jerliu N,** Ramadani N, Mone I, Brand H. Public health in Kosovo after five difficult years of independence. South Eastern European Journal of Public Health (SEEJPH 2013)

5. **Jerliu N,** Burazeri G, Toci E, Ramadani N, Philp I, Brand H. Cross-cultural adaptation of an instrument measuring older people's health needs and priorities in Albania and Kosovo. Albanian Medical Journal. 2013; 2: 109-114.

6. **Jerliu N,** Toçi E, Burazeri G, Ramadani N, Brand H. Socioeconomic conditions of elderly people in Kosovo: a cross-sectional study. BMC Public Health 2012, 12:512.

7. Toçi E, Burazeri G, Sorensen K, **Jerliu N,** Ramadani N, Roshi E, Brand H. Health Literacy and Socioeconomic Characteristics among Older People in Transitional Kosovo. British Journal of Medicine & Medical Research 2013; 3(4): 1646-1658.

8. Kamberi H, Toçi E, **Jerliu N,** Petrela K, Muja H, Qirjako G, Burazeri G. Functional Health Literacy Among Primary Health Care Users in Transitional Kosovo. Medical Archives 2013; 67:169-171.

9. Kamberi H, Toçi E, **Jerliu N,** Petrela K, Muja H, Qirjako G. Functional health literacy in a nationwide representative sample of primary health care users in Kosovo. Albanian Medical Journal 2013; 2:95-98.

10. Kamberi H, Hysa B, Toçi E, **Jerliu N,** Burazeri G. Functional health literacy in primary health care users in Kosovo: A validation study. Albanian Medical Journal 2012; 4:23-27.

11. Ramadani N, Berisha M, Thaçi A, Gashi-Luci L, Koçinaj D, **Jerliu N.** Tobacco use among Kosovar schoolchildren: a cross-sectional study. Med Arh. 2009; 63(1):44-7.