

Knowledge Brief

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Combating Ukraine's Health Crisis: Lessons from Europe

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Key Messages

- **Ukraine has experienced an unprecedented demographic decline since independence in 1991, resulting in an overall reduction in population by about 5.8 million people.**
- **Ukrainian males are dying prematurely and suffer some of the highest rates of disability in ECA due to non-communicable (chronic) disease rates during the most productive years of life.**
- **Ukraine's health system is weak and unable to perform the most basic functions. Additional capacity is necessary to adequately deal with highly preventable and treatable diseases.**
- **Reducing many non-communicable disease risk factors involves improvements (for example, safer roads) that are the jurisdiction of other sectors (for example, transportation). However, collaboration across sectors would be difficult and less effective in the absence of substantial reform of the health system.**

Introduction

This Knowledge Brief synthesizes the important findings of a recent study.¹ It spotlights key issues and challenges facing Ukraine's health sector and suggests strategies for improvement. To combat the current health crisis, Ukraine could look at the lessons learned by other European countries that have faced similar health crises.

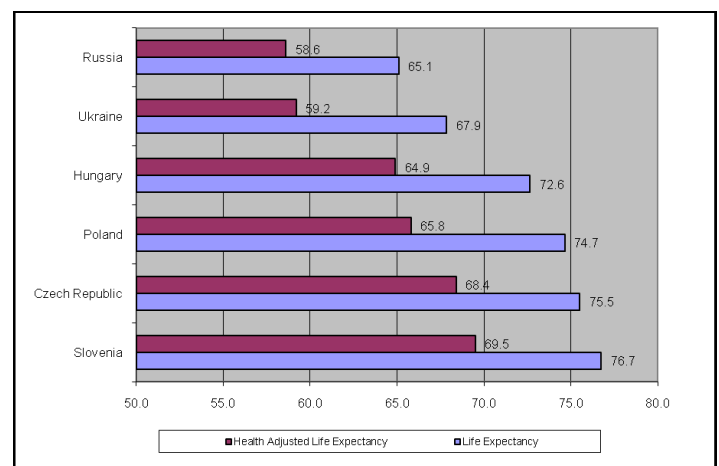
¹ R. Menon, E. Ozaltin, S. Poniakina, B. Frogner and I. Oliynyk, "An Avoidable Tragedy: Combating Ukraine's Health Crisis, Lessons from Europe." World Bank, 2009.

Ukraine has the Fastest Rate of Depopulation in Europe

Since independence, Ukraine has been in the midst of an unprecedented demographic decline combined with a health crisis. Ukraine's population has been reduced by 12 percent, or about 5.8 million people, from 52 million since independence in 1991 to 46.2 million in 2007. If current trends continue, the population of the country could decline by around 40 percent to 36.2 million by the year 2050. Below replacement fertility² rates of 1.2 per woman, combined with high mortality rates especially among the working age population, are rapidly changing the age structure of the population, with higher proportions concentrated in the mid- and older-age groups.

As seen in Figure 1, life expectancy in Ukraine is much below that of the rest of Europe, with greatest relative life expectancy loss at the working age, especially among males.

Figure 1: Life Expectancy and Healthy Life Expectancy in Ukraine and Selected European Countries, 2002 (in years)

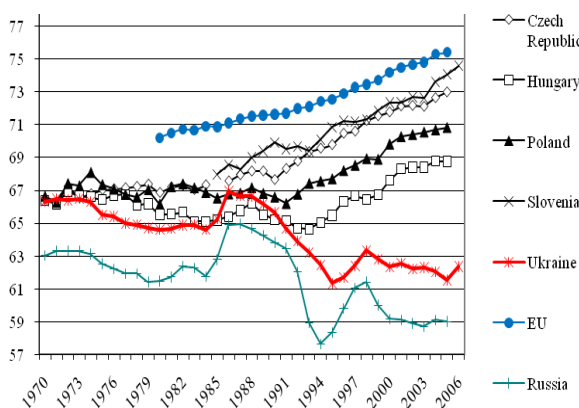


Source: WHO Statistical Information System (WHOSIS)

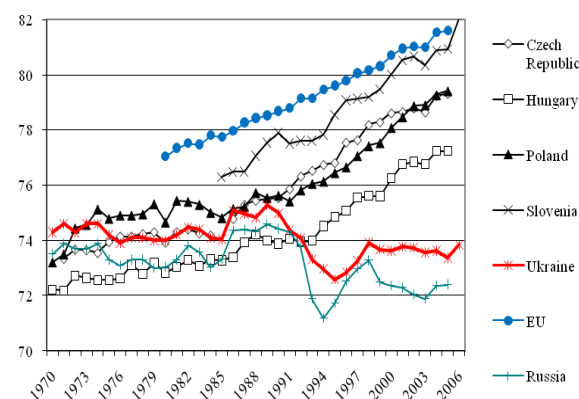
² Replacement fertility is the total fertility rate at which newborn girls would have an average of exactly 1 daughter over their lifetimes. In more familiar terms, women have just enough babies to replace themselves.

Ukraine had a similar pattern of life expectancy as Eastern Europe until the late 1980s, after which a divergence was observed: life expectancy declined in Ukraine and Russia while other formerly socialist countries such as the Czech Republic, Hungary, Slovenia, and Poland made big strides. Currently, life expectancy in Ukraine appears to have stagnated. Also, of the number of years lived, Ukrainians spend an average of 13 percent of their lives in a state of less than perfect health. In comparison, Poles are unhealthy for only about 8 percent of their lives, and Slovenians and Czechs 9 percent of their lives. Only Hungarians, at 11 percent, are close to Ukraine's level (Figure 1).

Figure 2: Life Expectancy at Birth in Ukraine and Selected European Countries, 1970 to 2006



Similarly, the female-male differential in life expectancy in Ukraine flags some worrisome trends. The female-male differential in EU countries decreased by one year from 1989 to 2005, and was equal to 6.2 years by 2005. In comparison, the differential in Ukraine increased considerably from 9 years in 1989 to almost 12 years in 2005 (Figure 2). Further, Ukrainian females' life expectancy is 8.2 years lower than the EU average, and 14 years lower than that of Ukrainian males.



Source: HFA Database 2008

One third of Ukrainians die prematurely before the age of 65 years

The probability of surviving to old age in Ukraine is low compared with Central European countries, especially among Ukrainian males. Ukrainian adult male deaths are at levels similar to those in countries with less than one-fifth the GNP per capita of Ukraine (Table 1).

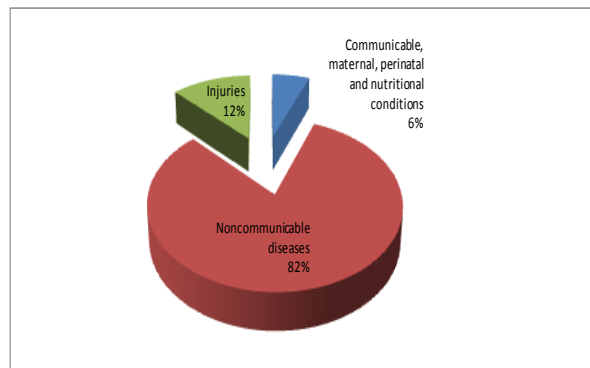
Non-communicable diseases (NCDs) account for the bulk of deaths (82 percent) in Ukraine (Figure 3), with a heavy concentration among working age males. In addition, the country also has the highest mortality rate from infectious diseases in the entire WHO European region, followed by Russia and Eastern European countries. HIV/AIDS and tuberculosis account for 90 percent of all deaths from communicable diseases in Ukraine. While infant mortality rates are still high in the country compared with Central European nations, these are no longer the driving factor behind the high mortality rates in Ukraine due to the priority placed on this topic since 1993.

Table 1: Male Adult Mortality Rate and GNP per Capita, Ukraine and Selected Countries

Countries	GNP per capita	Male Adult Mortality Rates
Benin	1250	349
Togo	770	371
Guinea	1130	380
Haiti	1070	329
Ghana	1240	350
Ukraine	6110	384

Source: World Health Survey

Figure 3: Deaths in Ukraine, by Cause (2002)



Source: WHO Global Burden of Disease (GBD) estimates, 2002

Ten leading conditions are responsible for almost 72 percent of deaths in Ukraine.³ The same ten conditions account for 65 percent of deaths in Russia, 54 percent in Hungary, 53 percent in Czech Republic, 48 percent in Poland, and 46 percent in Slovenia. These ten conditions also account for almost half of total disability adjusted life years (DALYs) in Ukraine. Ischemic heart disease alone is responsible for almost 40 percent of all deaths in Ukraine and was the leading cause of DALYs at 13 percent in 2005. Deaths from ischemic heart disease in Ukraine are approximately 40 to 50 percent of all deaths in the country - double the level observed in the Czech Republic and in Hungary (20 percent and 25 percent, respectively) and four times higher than those observed in Slovenia. The risk of dying from circulatory system diseases (CSD) and cancer is also much higher in Ukraine than the EU average (Figures 4 and 5).

Figure 4: Main Causes of Mortality by Age Group in Ukraine in Comparison with EU (EU=100), males, 2005

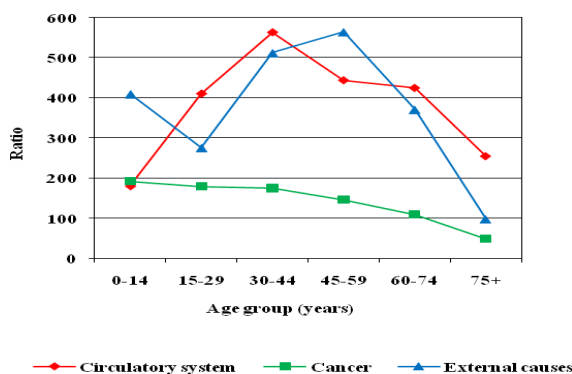
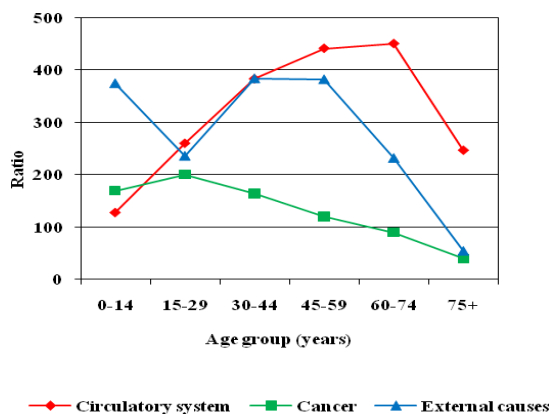


Figure 5: Main Causes of Mortality by Age Group in Ukraine in Comparison with EU (EU=100), females, 2005



Source: MDB Database, 2008

³ In order of highest to lowest share, the ten conditions are: ischemic heart disease, cerebro-vascular disease (stroke), COPD, self-inflicted injuries, poisonings, other unintentional injuries, trachea, bronchus and lung cancers, HIV/AIDS, cirrhosis of the liver, and stomach cancer.

About half of all deaths before the age of 75 in Ukraine could be avoided through adequate prevention and treatment

Five major risk factors account for about half of the DALYs in Ukraine and all other Eastern European countries in the study. High blood pressure is the biggest risk factor, with one-third of Ukrainians suffering from elevated blood pressure; unfortunately, most Ukrainians are unaware of their hypertensive status. In addition, tobacco and alcohol consumption in the country is high. Almost two-thirds of Ukrainian males above age 15 are regular and daily smokers, the highest number for countries in WHO's European region.

Many of the causes of premature death and disease in Ukraine are linked to risk-factors which are largely modifiable and preventable. Major risk factors require changes in lifestyle behavior (such as, smoking, alcohol and diet). Environmental conditions also play a key role in many diseases - including poisonings, injuries and the biggest killer in Ukraine, circulatory system diseases such as ischemic heart disease and stroke. Through adequate prevention programs targeted to modify behaviors and improve environmental conditions, along with effective treatment, about half of all deaths before the age of 75 in Ukraine could be avoided.

Eighty percent of deaths among working-age males and about 30 percent of working-age females could have been treated adequately at the primary care level. Since NCD mortality and morbidity place a large share of Ukraine's disease burden, especially among the working age male population, it results in significant economic and social consequences. The declining health and significant inequalities in health status across the population have been the result of imbalanced economic growth, political turbulence and a weakened health care system.

Ukraine's health system is not geared to tackle the mortality crisis

Despite the fact that most premature deaths in Ukraine are of a preventable or treatable nature and there is evidence that cost-effective targeted interventions can work, the Ukrainian health system is still designed for acute care episodic disease management and is not equipped to deal with this mortality crisis. A primary care oriented system would be ideal to deliver effective preventive interventions. Programs ongoing in other European countries show success in reducing premature mortality and morbidity through cost-effective interventions that are targeted to reducing risk-factor prevalence. Many potential life years and health life years can be gained by implementing any or some of these interventions in Ukraine (examples in Table 2).

Table 2: Key Cost Effective Interventions for NCD Prevention and Control in Ukraine

	INTERVENTIONS
TOBACCO CONTROL	Comprehensive bans on advertising. Increased tobacco taxes. Prominent health warning labels with pictures. Enforcement of comprehensive smoking bans and sales to minors. School-based health education.
ALCOHOL CONTROL	Counter-advertising. Increased alcohol taxes. Legislative interventions (mandatory warning labels, banning sales to minors, advertising bans, etc.). School-based health education. Strict enforcement of drunk-driving laws, with clearly legislated maximum Blood Alcohol Concentration (BAC) levels.
ROAD SAFETY	Mandatory seatbelt enforcement. Strict enforcement of drunk-driving laws, with clearly legislated maximum BAC levels. Enforcement of speed limits. Safe driving lessons for youth.
DIETARY CHANGE	School-based health education. Information, Education and Communication (IEC) on the dangers of obesity and the benefits and elements of a healthy diet. Involvement of NGOs, community groups, etc., in activities promoting dietary change. Health worker training—knowledge/skills to encourage dietary improvement. Taxation of harmful dietary inputs—sugar, fatty foods, alcohol, etc.
PROMOTION OF PHYSICAL ACTIVITY	School-based health education. IEC on physical activity/exercise. Promotion of sporting activities and clubs, especially those targeted at age/gender groups with low levels of physical activity. Health worker training—knowledge/skills to promote increased physical activity.
SCREENING CERVICAL CANCER	Consider more extensive screening, including IEC efforts, community/NGO participation. Ensure availability of trained/skilled clinical staff for diagnosis (including laboratory) and treatment of cases—and their ongoing training. Ensure presence of adequate laboratory facilities.
SCREENING BREAST CANCER	Screening, either via clinical examination or mammography. IEC efforts, community/NGO participation. Ensure availability of trained/skilled clinical staff for diagnosis and treatment of cases—and their ongoing training. Formation of support groups.
SCREENING DIABETES AND HYPERTENSION	Targeted screening of high-risk groups—those with conjoint risk factors (obesity, heart disease, hypertension, etc.), or those identified using risk factor questionnaires. IEC activities, public awareness campaigns. Periodic national screening campaigns.

Ukraine’s health system is complex, inefficient, highly inequitable, and of low quality. Ukraine lacks a comprehensive health reform implementation plan - though several reforms have been proposed and some have even been legislated, most have not been implemented. Political instability, frequent changes of Government and of the leadership of the Ministry of Health - with eight Ministers of Health since independence - have led to delays in institutional change in health care and the reorganization of primary health care. To address the health needs of the population which is becoming more NCD focused, Ukraine’s health system needs to be re-oriented from an acute care input-based model to a comprehensive disease management model that is more appropriate for NCD prevention and control.

Unlike Ukraine, all Central European countries studied in this report underwent comprehensive reforms in their health systems, starting early in the transition process. Reforms in Central European countries were guided by a series of legislations, policies and strategic plans which were constantly adapted to changing needs. In all cases, effective government stewardship was critical to ensuring success in implementation of reforms. An important element of the reforms was defining the roles and responsibilities of the various players in the health systems. Experience from Central European health reforms suggests that removing rigidities in resource allocation, emphasizing primary care, introducing referral care systems,

rationalizing excess capacity at secondary and tertiary levels, and providing performance-based payments to providers should be the focus of health system reform in Ukraine.

Effective prevention mechanisms would require collaboration across sectors

Changes in the composition of the burden of disease require a multi-sectoral approach to disease prevention and management. An integrated NCD control and prevention strategy can help foster multi-sectoral collaboration. In the short-term, there is a need to identify and implement priority cost-effective interventions (both within and outside the health system) that target the major risk factors. These include interventions and policy options that target the major risk factors – such as alcohol and tobacco, road safety, and diet/physical activity, within an integrated strategy for NCD prevention. This requires the development of integrated management structures that bring together representatives from all areas of the health system and beyond to ensure coordinated action for NCD prevention and control. The process should involve not only the Government but also donors and NGOs—all of whom have a substantial role in NCD prevention and control efforts.

About the Author

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