

## **Executive summary:**

'Health in Times of Transition: Trends in Population Health and Health Policies in CIS Countries' (in short - HITT-CIS) is a large-scale international research effort, primarily supported by the Seventh Framework Program of the European Union (FP7-Health). The project is dedicated to the detailed analysis of the state of health, health care and lifestyles in 9 countries of the former Soviet Union and embraces three main sub-regions of 'post-Soviet space': Eastern Europe (Belarus, Moldova, Russia, Ukraine), Caucasus (Armenia, Azerbaijan, Georgia) and Central Asia (Kazakhstan, Kyrgyzstan).

Many communities across the large post-soviet region suffer from social challenges such as alcoholism, high tobacco consumption and suboptimal nutrition, thus burdening health systems and compromising living standards. In this context, the EU-funded project is researching these issues to help support public health policymaking.

The project is studying long-term trends in population health, including key issues such as diet, nutrition, smoking and alcohol consumption as well as the related societal implications. It is looking at related public policies, examining access to healthcare, identifying strategies to overcome these challenges and supporting the development of more effective policies.

Using a wide range of tools to collect and analyse new data, HITT-CIS has already identified key research areas, measured risk factors and developed community profiles vis-à-vis a healthy lifestyle. The team has also studied accessibility of health services and quality of care provided, in addition to estimating the costs of ill health on productivity. Much of the information gathered and the knowledge generated have been presented in a series of key reports and numerous publications in peer-reviewed journals as well as presented at scientific and policy-oriented international conferences.

Moreover, the project has conducted an extensive representative quantitative survey in nine countries under study (18 thousand respondents), documenting healthy and unhealthy social and economic environments in urban and rural locations. A number of community profiles have been completed and are expected to help upgrade public healthcare policies through solid recommendations and policy briefs aimed at local and global stakeholders.

Through its activities, HITT-CIS has identified social, economic and cultural patterns of risk and disease, outlining trends in population health and living conditions across the NIS. By documenting the pathways that lead to health or disease, the project contributes

significantly to improvement of the well-being of citizens and healthcare systems across the CIS. The initiative represents an excellent example of the EU's positive impact on its neighbours and will help foster collaboration, well-being and security across the region.

### **MAJOR THEMATIC AREAS OF THE STUDY:**

The following major themes have been addressed by the study in the course of in-depth empirical, statistical and socio-economic research efforts in the countries of NIS region:

- Long-term trends in population health
- Access to health care (in particular, exemplified for diabetes patients)
- Investigation of the social and economic burden of disease
- Dynamics of living conditions, healthy and unhealthy lifestyles
- Diet and nutrition patterns of the population
- Consumption of alcohol and tobacco in NIS countries and relevant official policies

### **AVAILABILITY OF RESEARCH RESULTS:**

Since the commencement of the LLH-HITT research program in 2000, consortium's experts have published hundreds of scientific articles in peer-reviewed journals and mass-media in English, Russian and other languages, prepared several monographs and written numerous chapters in academic and popular books. Most of these publications can be accessed from the project's web-site either as full-text, or links to the publication sources (see <http://www.hitt-cis.net/reports/> online).

### **Project Context and Objectives:**

This project HITT-CIS has been designed and implemented under an FP7 topic HEALTH-2007-3.5-1: Epidemiological investigations into long-term trends of population health as a consequence of socio-economic transitions, including life-style induced health problems.

The call specified a focus on chronic diseases and lists, but does not restrict, to three main diseases, diabetes, cardiovascular disease, and liver disease. It calls for investigations into the burden of disease and the identification of strategies to implement effective solutions to improve population health. The target countries of the project were 9 former Soviet republics: Russia, Belarus, Ukraine, Moldova, Kazakhstan, Kyrgyzstan, Armenia, Azerbaijan and Georgia. These countries represent a large part of the former Soviet Union and encompass considerable ethnic, cultural, religious and political diversity that offers scope for investigation of many natural experiments.

### **OVERALL AIM AND SPECIFIC OBJECTIVES OF THE PROJECT:**

The overall aim of this project was to contribute to the improvement of the health of the populations in the countries concerned, by producing policy-relevant evidence on population health and its socio-economic determinants and communicating these findings to key decision-makers.

The aim has been achieved through a series of objectives built on the conceptual model of the determinants of health and disease and on an extensive body of original empirical research that fills remaining gaps in our understanding of the pathways leading to health or disease in this region.

### **DESCRIPTIVE OBJECTIVES:**

Describing the health trends, burden of disease, risk factors and social costs of poor health in 9 CIS countries.

#### **A) MEASURE THE BURDEN OF DISEASE AND ITS PROXIMAL AND DISTAL RISK FACTORS**

By means of large household surveys (approximately 32,000 respondents in ten CIS countries), we quantify the burden of disease, assessed by self-reported health and validated measures of disease, as well as the prevalence of key risk factors and socio-economic factors. This allows us assessing the social, economic, and cultural patterning of exposure to risk and disease.

## **B) MEASURE THE COST OF POOR HEALTH**

Recognising the low priority that health occupies on the political agenda, we use standard econometric techniques (and building on our earlier work in this region) to assess the economic implications of poor health, through lower labour force participation, lost productivity etc. as well as projections of future growth under various health trajectories.

## **EXPLANATORY AND ANALYTICAL OBJECTIVES:**

Explaining the social, economic and cultural determinants of health-related behaviour of the population alongside with a detailed account of national and regional health care policies in 9 CIS countries

## **C) IDENTIFY (a) THE SOCIAL; ECONOMIC AND CULTURAL DETERMINANTS OF EXPOSURE TO RISK FACTORS AND (b) HEALTH SEEKING BEHAVIOUR AND ACCESS TO HEALTH CARE**

This was done by using standard regression techniques with data from the surveys. This includes a detailed regional analysis in Ukraine, taking advantage of its marked internal diversity. It will also involve comparisons with our earlier surveys to track changes over time.

## **D) IDENTIFY THE CONSTRAINTS THAT INDIVIDUALS FACE IN MAKING HEALTHY CHOICES**

Individuals are not entirely free agents in making decisions about their health. This objective was pursued through (a) the development and application of instruments for community diagnosis that will assess the extent to which communities facilitate or obstruct smoking and hazardous drinking and (b) focus groups (as well as survey data) to assess the knowledge, attitudes and practices in relation to diet.

## **E) UNDERSTAND THE POLICY ENVIRONMENT IN WHICH PEOPLE MAKE CHOICES**

Assessment of official policies on alcohol, tobacco, and nutrition

## **F) UNDERSTAND THE ECONOMIC FORCES SHAPING HEALTH DECISIONS**

In the target countries, a detailed analysis of the tobacco and alcohol sectors has been undertaken, to quantify trends in sales and production, to understand the nature of the market and the positions of key actors, and to identify levers for and barriers to change.

#### G) IDENTIFY THE BARRIERS FACED IN ACCESSING EFFECTIVE CARE

We have collected and analysed data on people's subjective experiences with health care systems, such as accessibility and quality of the services in order to understand the efficiency of the health system,; using rapid appraisal (including policy analysis, interviews and focus groups with patients and providers), we have identified major barriers to obtaining access to high quality, integrated care.

#### **POLICY-RELATED; DISSEMINATION AND INFORMATION OBJECTIVES:**

Facilitation a dialogue with the key stakeholders in the region to improve the situation. Wider regional and international dissemination of project results under a motto "Leaving a lasting legacy

#### H) FOR SELECTED POLICY OPTIONS, IDENTIFY KEY STAKEHOLDERS, THEIR INTER-RELATIONSHIPS, THEIR POSITIONS AND INFLUENCE

#### I) ENSURE EFFECTIVE DISSEMINATION TO KEY STAKEHOLDERS WITHIN COUNTRIES AND IN THE INTERNATIONAL COMMUNITY

Special procedures for the stakeholder analyses (mainly sociological methods in soft qualitative research) have been used to identify opportunities for change. The outcomes are publicized and discussed in a series of specialized workshops and thematic Policy Briefs.

Building on the team's existing links and strong record of effective dissemination, ensure that the evidence obtained is heard by those who can make a difference

#### **CAPACITY BUILDING OBJECTIVES:**

Train the researchers and make project data into a research tool for further studies

#### J) BUILD CAPACITY FOR QUALITATIVE AND POLICY RESEARCH IN THE COUNTRIES BEING STUDIED

Although the project partners in the CIS have extensive experience undertaking quantitative surveys, skills in qualitative and policy analysis are limited. This project has had a strong training element (a summer school, several instructive training workshops).

#### K) TO CREATE MULTI - LEVEL DATA SETS FOR OTHER RESEARCHERS

When combined with data from the earlier surveys (32,000 respondents from the 2009 survey in 8 countries and 18,400 respondents from the 2001 survey in 10 countries) our large-scale household survey provide an invaluable resource for those seeking to understand this region.

## **Project Results:**

### **EMPIRICAL BASE OF THE STUDY:**

The project's empirical program included a wide palette of quantitative, qualitative and combined research methods that allowed collecting unique but accurate and verifiable data for the in-depth research on the above themes. The study has applied in particular the following methods:

- secondary critical analysis of available statistical data sets on health, health care, demography and social development and infrastructures in target countries (national and international statistics, governmental reports, experts' data bases);
- two large-scale household surveys in every participating country in 2001 and 2010 (multistage proportional representative samples, random routes, 18 thousand respondents per wave, the sample included 1,800 to 4,000 respondents per country);
- structural observations on communal environment (more than 300 routes and the related community profiles in 9 countries);
- rapid appraisal of the access to health care exemplified for diabetes patients (a complex multi-method empirical effort in five countries);
- series of focus-groups on healthy/unhealthy lifestyles and health-care experiences (more than 40 sessions in urban and rural locations among young and adult men and women in seven countries);
- teenagers' essays on their perception of health, health-care and healthy lifestyles (300 pieces written by high-school students in five countries);
- content-analysis of mass-media revealing the structure of coverage of health-related themes (printed periodicals in four countries, largest national newspapers, coverage of 2010);
- special studies on alcohol and tobacco policies and consumption (stakeholder analysis, analysis of cigarette packaging etc.)

The main scientific results and findings of the study have been already published in numerous articles in peer-reviewed journals, presented on scientific and practice-oriented conferences, professional periodicals and publicized in mass-media.

The following chapters summarize these major findings of HITT-CIS project grouped into several thematic clusters and based mainly on scientific articles published by project experts.



## **ACCESS TO HEALTH SERVICES AND MEDICINES IN NIS COUNTRIES, PRACTICES OF HEALTH CARE**

### **HEALTH CARE REFORMS IN THE FORMER SOVIET UNION**

**OBJECTIVE:** To assess accessibility and affordability of health care in 8 countries of the former Soviet Union.

**METHODS:** Using data from the HITT study countries, descriptive and multivariate regression analyses were used on health services.

**RESULTS:** Almost half of respondents who had a health problem in the previous month which they viewed as needing care had not sought care. Respondents significantly less likely to seek care included those living in Armenia, Georgia, or Ukraine, in rural areas, aged 35-49, with a poor household economic situation, and high alcohol consumption. Cost was most often cited as the reason for not seeking health care. Most respondents who did obtain care made out-of-pockets payments, with median amounts varying from 13 USD in Belarus to \$100 in Azerbaijan.

**CONCLUSIONS:** Access to health care and within-country inequalities appear to have improved over the past decade. However, considerable problems remain, including out-of-pocket payments and unaffordability despite efforts to improve financial protection.

Web link: <http://www.ncbi.nlm.nih.gov/pubmed/22092004>

#### **HITT-CIS POLICY BRIEFS ON THE ACCESS TO HEALTHCARE:**

-Access to Healthcare Armenia

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Access\\_Armenia.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Access_Armenia.pdf) online)

-Access to Healthcare Azerbaijan

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Access\\_Azerbaijan.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Access_Azerbaijan.pdf) online)

-Access to Healthcare Belarus

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Access\\_Belarus.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Access_Belarus.pdf) online)

-Access to Healthcare Georgia

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Access\\_Georgia.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Access_Georgia.pdf) online)

-Access to Healthcare Kazakhstan

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Access\\_Kazakhstan.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Access_Kazakhstan.pdf) online)

-Access to Healthcare Kyrgyzstan

(see [http://www.hitt-cis.net/wp-content/uploads/2013/05/PB\\_Access\\_Kyrgyzstan.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/05/PB_Access_Kyrgyzstan.pdf) online )

-Access to Healthcare Moldova

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Access\\_Moldova.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Access_Moldova.pdf) online )

-Access to Healthcare Russia

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Access\\_Russia.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Access_Russia.pdf) online)

-Access to Healthcare Ukraine

(see [http://www.hitt-cis.net/wp-content/uploads/2013/05/PB\\_Access\\_Ukraine.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/05/PB_Access_Ukraine.pdf) online)

-NIS regional overview: Access to Healthcare

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Regional\\_Access.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Regional_Access.pdf) online)

## **PUBLIC SATISFACTION AS A MEASURE OF HEALTH SYSTEM PERFORMANCE: A STUDY OF NINE COUNTRIES IN THE FORMER SOVIET UNION**

**BACKGROUND:** Measurement of health system performance increasingly includes the views of healthcare users, yet little research has focused on general population satisfaction with health systems.

**AIM:** To examine public satisfaction with health systems in the former Soviet Union (fSU).

**METHODS:** Data from the LLH (2001) and HITT (2010) study countries were analysed. The prevalence of health system satisfaction in each country was compared for 2001 and 2010.

Patterns of satisfaction were further examined by comparing satisfaction with the health system and other parts of the public sector, and the views of health care users and non-users. Potential determinants of population satisfaction were explored using logistic regression.

**RESULTS:** For all countries combined, the level of satisfaction with health systems increased from 19.4% in 2001 to 40.6% in 2010, but varied considerably by country. Changes in satisfaction with the health system were similar to changes with the public sector, and non-users of healthcare were slightly more likely to report satisfaction than users. Characteristics associated with higher satisfaction include younger age, lower education, higher economic status, rural residency, better health status, and higher levels of political trust. Our results suggest that satisfaction can provide useful insight into public opinion on health system performance, particularly when used in conjunction with other subjective measures of satisfaction with government performance.

Web link: <http://www.ncbi.nlm.nih.gov/pubmed/23545269>

## **THE PERSISTENCE OF IRREGULAR TREATMENT OF HYPERTENSION IN THE FORMER SOVIET UNION**

**BACKGROUND:** Hypertension is one of the leading causes of avoidable mortality in the former Soviet Union. In previous work we described patterns of irregular hypertension treatment in eight countries of the former Soviet Union in 2001.

**AIM:** To describe changes in the use of hypertension treatment in the HITT countries between 2001 and 2010.

**METHODS:** Using household survey data from the LLH (2001) and HITT (2010) study countries, we use descriptive analysis to record changes in rates of irregular treatment use (less than daily) between 2001 and 2010; and multivariate logistic regression to analyse the characteristics associated with irregular treatment.

**RESULTS:** Irregular treatment was extremely high at 74% in 2001 and only fell to 68% in 2010 (all countries combined). Irregular treatment remained particularly high in 2010 in Armenia (79%), Kazakhstan (73%), Moldova (73%). Recurring characteristics associated with irregular

treatment included gender (men), younger age, higher fitness levels, and consuming alcohol and tobacco.

CONCLUSIONS: Irregular hypertension treatment continues to be a major problem in the countries of former Soviet Union and requires an urgent response.

Web link: <http://jech.bmj.com/content/early/2012/03/23/jech-2011-200645.abstract>

### **HITT-CIS POLICY BRIEFS ON IRREGULAR TREATMENT OF HYPERTENSION**

-Irregular treatment of hypertension in Armenia

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Hypertension\\_Armenia.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Hypertension_Armenia.pdf) online)

-Irregular treatment of hypertension in Azerbaijan

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Hypertension\\_Armenia.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Hypertension_Armenia.pdf) online)

-Irregular treatment of hypertension in Belarus

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Hypertension\\_Belarus.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Hypertension_Belarus.pdf) online)

-Irregular treatment of hypertension in Georgia

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Hypertension\\_Georgia.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Hypertension_Georgia.pdf) online)

-Irregular treatment of hypertension in Kazakhstan

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Hypertension\\_Kazakhstan.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Hypertension_Kazakhstan.pdf) online)

-Irregular treatment of hypertension in Kyrgyzstan

(see [http://www.hitt-cis.net/wp-content/uploads/2013/05/PB\\_Hypertension\\_Kyrgyzstan.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/05/PB_Hypertension_Kyrgyzstan.pdf))

-Irregular treatment of hypertension in Moldova

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Hypertension\\_Moldova.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Hypertension_Moldova.pdf) online)

-Irregular treatment of hypertension in Russia

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Hypertension\\_Russia.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Hypertension_Russia.pdf) online)

-Irregular treatment of hypertension in Ukraine

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Hypertension\\_Ukraine.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Hypertension_Ukraine.pdf) online)

-Irregular treatment of hypertension in Hypertension

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Regional\\_Hypertension.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Regional_Hypertension.pdf) online)

### **PREVALENCE AND FACTORS WITH THE USE OF ALTERNATIVE (FOLK) MEDICINE PRACTITIONERS IN 8 COUNTRIES OF THE FORMER SOVIET UNION**

**BACKGROUND:** Research suggests that since the collapse of the Soviet Union there has been a sharp growth in the use of complementary and alternative medicine (CAM) in some former Soviet countries. However, as yet, comparatively little is known about the use of CAM in the countries throughout this region. Against this background, the aim of the current study was to determine the prevalence of using alternative (folk) medicine practitioners in eight countries of the former Soviet Union (fSU) and to examine factors associated with their use.

**METHODS:** Data from the LLH (2001) and HITT (2010) were analysed. Respondents were asked about how they treated 10 symptoms, with options including the use of alternative (folk) medicine practitioners. Multivariate logistic regression analysis was used to determine the factors associated with the treatment of differing symptoms by such practitioners in these countries.

**RESULTS:** The prevalence of using an alternative (folk) medicine practitioner for symptom treatment varied widely between countries, ranging from 3.5% in Armenia to 25.0% in Kyrgyzstan. For nearly every symptom, respondents living in rural locations were more likely to use an alternative (folk) medicine practitioner than urban residents. Greater wealth was also associated with using these practitioners, while distrust of doctors played a role in the treatment of some symptoms.

**CONCLUSIONS:** The widespread use of alternative (folk) medicine practitioners in some fSU countries and the growth of this form of health care provision in the post-Soviet period in conditions of variable licensing and regulation, highlights the urgent need for more research

on this phenomenon and its potential effects on population health in the countries in this region.

Web link: <http://www.ncbi.nlm.nih.gov/pubmed/23578173?dopt=Abstract>

## **MULTI - METHOD SYSTEM APPRAISAL OF DIABETES CARE IN THE FORMER SOVIET UNION**

**OBJECTIVE:** To use diabetes as a tracer for health system diagnoses, health outcomes, integration of care, and responsiveness. To explore the perspectives of patients, providers and policy makers on complex systems and interventions in diabetes management, encompassing multiple levels of care, within and outside the health system. To map patient pathways in order to assess the appropriateness, affordability and responsiveness of care and to compare them with policy.

**METHODS:** The study was conducted in Armenia, Belarus, the Republic of Moldova, the Russian Federation and in Ukraine. It involved a documentary review of legislation, secondary analysis or synthesis of routine data on diabetes and its complications, accompanied by in-depth interviews and focus group discussions, triangulating the perspectives of patients, providers and policy makers.

**RESULTS:** Specialists dominate diabetes care despite on-going efforts to increase primary diabetes care. The study found poor coordination between different levels of care. Patients emphasise barriers to self-management: they were often not provided with adequate information to effectively manage their disease. Access to drugs and consumables was dependent on patients' time and ability to pay. Despite specialist training, diabetes nurses had a very limited role in diabetes treatment and control. There were gaps in data collection and the registration of diabetes patients, which hampered planning and resource allocation.

**CONCLUSIONS:** Diabetes management seems to have improved since the break-up of the Soviet Union. Nevertheless, if health systems are to become more responsive and produce better health outcomes, significant improvements will have to be made to accessibility, affordability, acceptability of health systems in the five countries under analysis.

### **HITT-CIS POLICY BRIEFS ON DIABETES CARE:**

-Diabetes care in Armenia

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Diabetes\\_Armenia.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Diabetes_Armenia.pdf) online)

-Diabetes care in Belarus

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Diabetes\\_Belarus.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Diabetes_Belarus.pdf) online)

-Diabetes care in Moldova

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Diabetes\\_Moldova.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Diabetes_Moldova.pdf) online)

-Diabetes care in Russia

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Diabetes\\_Russian-Federation.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Diabetes_Russian-Federation.pdf) online)

-Diabetes care in Ukraine

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Diabetes\\_Ukraine.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Diabetes_Ukraine.pdf) online)

-Diabetes care in five former Soviet countries

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Regional\\_Diabetes.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Regional_Diabetes.pdf) online)

## **ECONOMICS, DEMOGRAPHY AND HEALTH**

### **THE EFFECT ON HEALTH ON LABOUR SUPPLY IN NINE FORMER SOVIET UNION COUNTRIES**

**BACKGROUND:** There has been very little examination of the impact of poor health on economic productivity in countries in the former Soviet Union.

**AIM:** To examine the consequences of ill health on labour supply for the nine HITT countries.

**METHODS:** We control for a wide range of individual, household, and community factors, using both standard regression techniques and instrumental variable estimation to address potential endogeneity.

**RESULTS:** We find in our baseline ordinary least squares specification that poor health is associated with a decrease in the probability of working of about 13 %. Controlling for community-level unobserved variables slightly increases the magnitude of this effect, to about 14 %. Controlling for endogeneity with the instrumental variable approach further supports this finding, with the magnitude of the effect ranging from 12 to 35 %.

**CONCLUSIONS:** Our findings confirm the cost that the still considerable adult health burden in the FSU is imposing on its population, not only in terms of the disease burden itself, but also in terms of individuals' labour market participation, as well as potentially in terms of increased poverty risk. Other things being equal, this would increase the expected 'return on investment' to be had from interventions aimed at improving health in this region.

Web link: <http://www.ncbi.nlm.nih.gov/pubmed/23292272>

## **REGIONAL VARIATION IN MORTALITY IN UKRAINE**

**OBJECTIVES:** We set out to identify the contribution of various causes of death to regional differences in life expectancy in Ukraine.

**METHODS:** Mortality data by oblast (province) were obtained from the State Statistical Committee of Ukraine. The contribution of various causes of death to differences in life expectancy between East, West and South Ukraine was estimated using decomposition.

**RESULTS:** In 2008, life expectancy for men in South (61.8 years) and East Ukraine (61.2 years) was lower than for men in West Ukraine (64.0 years). A similar pattern was observed among women. This was mostly due to deaths from infectious disease and external causes among young adults, and cardio- and cerebro-vascular deaths among older adults. Deaths from TB among young adults contribute most to differences in life expectancy.

**CONCLUSIONS:** Deaths due to infectious disease, especially TB, play an important role in the gap in life expectancy between regions in Ukraine. These deaths are entirely preventable- further research is needed to identify what has 'protected' individuals in Western Ukraine from the burden of deaths experienced by their Southern and Eastern counterparts.



Web link: <http://www.ncbi.nlm.nih.gov/pubmed/23525667>

## **ALCOHOL USE AND POLICIES IN NIS COUNTRIES**

### **PATTERNS OF PUBLIC SUPPORT FOR PRICE INCREASES ON ALCOHOL IN THE FORMER SOVIET UNION**

**AIM:** To measure levels of public support for price increases on beer and spirits in nine FSU countries and to examine the characteristics influencing such support.

**METHODS:** Cross-sectional surveys were conducted in 2010 with 18000 respondents aged 18+ in Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, and Ukraine. Descriptive and multivariate logistic regression analyses were used.

**RESULTS:** The lowest level of support for price increases on beer were in Georgia (men 5%, women 9%) and Armenia (men 5%, women 11%); and the highest were in Kyrgyzstan (men 30%, women 38%), Azerbaijan (men 27%, women 37%), and Russia (men 23%, women 34%). The lowest levels of support for price increases on spirits were Armenia (men 8%, women 14%) and Georgia (men 14%, women 21%); and the highest were in Kyrgyzstan (men 38%, 47% women) and Moldova (men 36%, women 43%). Characteristics associated with supporting price increases included gender (women), higher education, good economic situation, lower alcohol consumption, and greater knowledge of harmful alcohol behaviour.

**CONCLUSIONS:** Alcohol price increases are an effective means to reduce hazardous alcohol use. Despite opposition in some groups, there is evidence of public support for alcohol price increases in the study countries.

Web link: <http://www.ncbi.nlm.nih.gov/pubmed/22553046>

## **DEMOGRAPHY, TRADE, HEALTH SYSTEMS AND HEALTH**

**BACKGROUND:** This report reviews data for objectives related to: (i) life expectancies; (ii) alcohol and tobacco consumption and trade; diet and nutrition. A fourth objective describing

health systems is addressed in separately in the Health Systems in Transition (HiT) profiles produced by the London School of Hygiene and Tropical Medicine.

**METHODS:** All 15 countries of the former Soviet Union are included in this report. The time period covered in this report is from 1990 to 2008 (or the nearest latest available data). Government and United Nations (UN) databases were the primary data sources used as they provide annual data. Life expectancy data were collected from the World Health Organisation's (WHO) European Health for All Database. Alcohol consumption data were collected from the Food and Agricultural Organisation (FAO) statistics database and the WHO database. Tobacco data were collected from the United States Department for Agriculture, Foreign Agricultural Services database, the ERC Group, and the WHO database. All the data used for the study were downloaded onto an Excel spreadsheet (available upon request).

**FINDINGS:** Life expectancy at birth for men, women and all has increased since the dramatic decline in the early/mid 1990's. However, 5 countries still had lower life-expectancy in 2008 than in 1990. Importantly these countries included the most populous countries of Russia and Ukraine. As a result, life expectancy at birth overall still remains 1.85 years less than in 1990 for the region as a whole.

## **ALCOHOL AND TOBACCO MARKET IN RUSSIA**

**BACKGROUND:** This report reviews data on the alcohol and tobacco market in Russia which will be used to support additional deliverables from the HITT project, particularly the stakeholder analysis of alcohol and tobacco markets and policies in Russia and the paper on the price elasticity of demand for alcohol in Russia.

**METHODS:** The time period covered in this report is from 1990 to 2007/2008. Alcohol consumption data were collected from the Food and Agricultural Organisation (FAO) statistics database and the World Health Organisation European Health for All Database. Tobacco data were collected from the United States Department for Agriculture, Foreign Agricultural Services database, the ERC Group, and the WHO database. All the data used for the study were downloaded onto an Excel spreadsheet (available upon request).

**FINDINGS:** There has been a dramatic increase in alcohol supply in Russia since the early 1990's. The vast majority of this increase is from domestic production. Alcohol production has increased 171% from 4,952,000 tonnes in 1992 to 13,425,000 tonnes in 2007; while

imports have increased 125% from 480,000 tonnes to 1,081,000 tonnes; and exports have increased 248% from 119,000 tonnes to 414,000 tonnes. There has also been an increase in alcohol consumption in Russia, with a 34% increase in per capita consumption (age 15+) from 4.6 litres of pure alcohol to 6.2 litres of pure alcohol, with the majority of consumption from spirits, but beer consumption is increasing significantly.

Tobacco production in Russia has increased by 175% during the period. This reflects increasing cigarette consumption in Russia (which has risen by 93% between 1990 and 2008) but also growing exports which have risen by over 1200% between 1992 and 2008.

### **ESTIMATING THE CAUSAL EFFECT OF ALCOHOL CONSUMPTION ON WELL-BEING FOR A CROSS-SECTION OF NINE FORMER SOVIET UNION COUNTRIES**

**BACKGROUND:** While the adverse health and economic consequences attributable to alcohol consumption are widely acknowledged, its impact on psychological wellbeing is less well understood. This is to a large extent due to the challenge of establishing causal effects of alcohol consumption when using standard single-equation econometric analyses.

**AIM:** To examine the influence of alcohol use on psychological wellbeing while addressing the endogenous relationship between alcohol consumption and individual mental well-being using an instrumental variable (IV) approach.

**METHODS:** Using HITT data from the nine countries, we employed an instrumental variable approach to identify any causal effects of alcohol consumption on mental well-being. The availability of 24-hour alcohol sales outlets in the neighbourhood of the individuals is used as an instrument, based on theoretical reasoning and statistical testing of its validity.

**RESULTS:** We find that increased alcohol consumption decreases well-being and that ignoring endogeneity leads to underestimation of this effect. This finding adds a further and previously under-appreciated dimension to the expected benefits that could be achieved with more effective alcohol policy in this region.

Web link: <http://www.sciencedirect.com/science/article/pii/S0277953613002372>

## **TOBACCO USE AND POLICIES**

### **CHANGES IN SMOKING PREVALENCE IN EIGHT COUNTRIES OF THE FORMER SOVIET UNION BETWEEN 2001 AND 2010.**

**OBJECTIVES:** To present new data on smoking prevalence in eight countries; analyse prevalence changes between 2001 and 2010; examine trend variance by age, location, education level, and household economic status.

**METHODS:** Data were analysed from the LLH (2001) and HITT (2010) studies, with smoking prevalence was compared with a related 2001 study for the different countries and population sub-groups, and the adjusted prevalence rate ratios of smoking also calculated.

**RESULTS:** All-age 2010 male smoking prevalence ranged from 39% (Moldova) to 59% (Armenia), and female prevalence from 2% (Armenia) to 16% (Russia). There was a significantly lower smoking prevalence among men in 2010 compared with 2001 in Belarus, Kazakhstan, Kyrgyzstan and Russia, but not for women in any country. For all countries combined, there was a significantly lower smoking prevalence in 2010 than in 2001 for men aged 18-39 and men with a good/average economic situation.

**CONCLUSIONS:** Smoking prevalence appears to have stabilised and may be declining in younger groups, but remains extremely high among men, especially those in lower socio-economic groups.

Web link: <http://www.ncbi.nlm.nih.gov/pubmed/22594739>

### **ANALYZING COMPLIANCE OF CIGARETTE PACKAGING WITH THE FCTC AND NATIONAL LEGISLATION IN EIGHT FORMER SOVIET COUNTRIES**

**AIM:** To analyze compliance of cigarette packets with the Framework Convention on Tobacco Control (FCTC) and national legislation and the policy actions that are required in 8 former Soviet Union countries.

**METHODS:** We obtained cigarette packets of each of the ten most smoked cigarette brands in each of Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Moldova, Russia, and Ukraine. The packets were then analysed using a standardized data collection instrument. The analysis included the placing, size and content of health warnings labels and deceptive labels (e.g. 'Lights'). Findings were assessed for compliance with the FCTC and national legislation.

**RESULTS:** Health warnings were on all packets from all countries and met the FCTC minimum recommendations on size and position except Azerbaijan and Georgia. All countries used a variety of warnings except Azerbaijan. No country had pictorial health warnings, despite them being mandatory in Georgia and Moldova. All of the countries had deceptive labels despite being banned in all countries except Russia and Azerbaijan where still no such legislation exists.

**CONCLUSIONS:** Despite progress in the use of health warning messages, gaps still remain - particularly with the use of deceptive labels. Stronger surveillance and enforcement mechanisms are required to improve compliance with the FCTC and national legislation.

Web link: <http://www.ncbi.nlm.nih.gov/pubmed/23047889>

## **PREVALENCE AND PSYCHOSOCIAL DETERMINANTS OF NICOTINE DEPENDENCE IN NINE COUNTRIES OF THE FORMER SOVIET UNION**

**INTRODUCTION:** Despite the high prevalence of smoking in the former Soviet Union, particularly among men, there is very little information on nicotine dependence in the region. The study aim was to describe the prevalence of nicotine dependence in nine countries of the former Soviet Union and to examine the psychosocial factors associated with nicotine dependence.

**METHODS:** HITT data were analysed. The main outcome of interest was nicotine dependence using the Fagerstrom Test for Nicotine Dependence. Multivariate regression analysis was then used to explore the influence of a range of psychosocial factors on higher nicotine dependence.

**RESULTS:** Mean nicotine dependence among men in the region as a whole was 3.96, with high dependence ranging from 17% in Belarus to 40% in Georgia. Among women, mean dependence was 2.96, with a prevalence of high dependence of 11% for the region. Gender

(men), younger age of first smoking, lower education level, not being a member of an organisation, bad household economic situation, high alcohol dependence, and high psychological distress showed significant associations with higher nicotine dependence.

**CONCLUSIONS:** High nicotine dependence among men was recorded in a number of study countries. Findings highlight the need for tobacco programmes to target early age smokers and less educated and poorer groups, and suggest common ground for programmes seeking to reduce nicotine dependence, harmful alcohol use and psychological distress.

Web link: <http://www.ncbi.nlm.nih.gov/pubmed/22529221>

### **SMOKING CESSATION AND DESIRE TO STOP SMOKING IN NINE COUNTRIES OF THE FORMER SOVIET UNION**

**INTRODUCTION:** Smoking rates and corresponding levels of premature mortality from smoking-related diseases in the former Soviet Union (fSU) are among the highest in the world. To reduce this health burden greater focus on smoking cessation is needed, but little is currently known about rates and characteristics of cessation in the fSU.

**METHODS:** HITT data were analysed to describe patterns of desire and action taken to stop smoking, quit ratios (former ever-smokers as a % of ever-smokers, with no specified recall period), and help used to stop smoking. Multivariate logistic regression was used to analyse characteristics associated with smoking cessation and desire to stop smoking.

**RESULTS:** Quit ratios varied from 10.5% in Azerbaijan to 37.6% in Belarus. Desire to stop smoking was generally high (67.2%) while the proportion that had taken action to try to stop was slightly lower (64.9%). The use of help to quit was extremely low (12.6%). Characteristics associated with cessation included being female, over 60, with higher education, poorer health, lower alcohol dependency, higher knowledge of tobacco's health effects and support for tobacco control. Characteristics associated with desire to stop smoking among daily smokers included younger age, poorer health, greater knowledge of tobacco's health effects and support for tobacco control.

**CONCLUSIONS:** Quit ratios are low in the fSU but there is widespread desire to stop smoking. Stronger tobacco control and cessation support are urgently required to reduce smoking prevalence and associated premature mortality.

Web link: <http://ntr.oxfordjournals.org/content/early/2013/04/02/ntr.ntt034.abstract>

## **KNOWLEDGE OF THE HEALTH IMPACTS OF SMOKING AND PUBLIC ATTITUDES TOWARDS TOBACCO CONTROL IN THE FORMER SOVIET UNION**

**AIM:** To describe levels of knowledge on the harmful effects of tobacco and public support for tobacco control measures in nine countries of the former Soviet Union, and to examine the characteristics associated with this knowledge and support.

**METHODS:** HITT data were analysed on respondents' knowledge of the health effects of tobacco and their support for a variety of tobacco control measures. Descriptive analysis was conducted on levels of knowledge and support, along with multivariate logistic regression analysis of characteristics associated with overall knowledge and support scores.

**RESULTS:** Large gaps exist in public understanding of the negative health effects of tobacco use, particularly in Azerbaijan, Kazakhstan, Kyrgyzstan, and Moldova. There are also extremely high levels of misunderstanding about the potential effects of 'light' cigarettes. However, there is popular support for tobacco control measures. Over three quarters of the respondents felt that their governments could be more effective in pursuing tobacco control. Higher levels of education, social capital (membership of an organisation) and being a former or never smoker were associated with higher knowledge on the health effects of tobacco and/or being more supportive of tobacco control measures.

**CONCLUSIONS:** Increasing public awareness of tobacco's health effects is essential for informed decision-making by individuals and for further increasing public support for tobacco control measures.

Web link: <http://www.ncbi.nlm.nih.gov/pubmed/22705600>

## **HITT-CIS POLICY BRIEFS ON TOBACCO CONSUMPTION AND RELATED POLICIES**

-Tobacco consumption and related policies in Armenia

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Tobacco\\_Armenia.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Tobacco_Armenia.pdf) online)

-Tobacco consumption and related policies in Azerbaijan

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Tobacco\\_Azerbaijan.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Tobacco_Azerbaijan.pdf) online)

-Tobacco consumption and related policies in Belarus

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Tobacco\\_Belarus.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Tobacco_Belarus.pdf) online)

-Tobacco consumption and related policies in Georgia

(see [http://www.hitt-cis.net/wp-content/uploads/2013/05/PB\\_Tobacco\\_Georgia.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/05/PB_Tobacco_Georgia.pdf) online)

-Tobacco consumption and related policies in Kazakhstan

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Tobacco\\_Kazakhstan.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Tobacco_Kazakhstan.pdf) online)

-Tobacco consumption and related policies in Kyrgyzstan

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Tobacco\\_Kyrgyzstan.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Tobacco_Kyrgyzstan.pdf) online)

-Tobacco consumption and related policies in Moldova

(see [http://www.hitt-cis.net/wp-content/uploads/2013/05/PB\\_Tobacco\\_Moldova.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/05/PB_Tobacco_Moldova.pdf) online)

-Tobacco consumption and related policies in Ukraine

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Tobacco\\_Ukraine.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Tobacco_Ukraine.pdf) online)

-Tobacco consumption and related policies in NIS region

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Regional\\_Tobaccp.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Regional_Tobaccp.pdf) online)

## **DIET AND OBESITY**

### **CHANGING PATTERNS OF FRUIT AND VEGETABLE INTAKE IN COUNTRIES OF THE FORMER SOVIET UNION**



**OBJECTIVE:** To assess how the frequency of low fruit and vegetable consumption has changed in the countries of the former Soviet Union (fSU) between 2001 and 2010 and to identify factors associated with their consumption.

**DESIGN:** Cross-sectional surveys. A standard questionnaire was administered at both time points to examine fruit and vegetable consumption frequency. Logistical regression analysis was used to examine the relationship between demographic, socioeconomic and health behavioral variables and low fruit and vegetable consumption in 2010.

**SETTING:** Nationally representative population samples from Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia and Ukraine.

**Subjects:** Adults aged 18 years and older.

**RESULTS:** Between 2001 and 2010 notable changes occurred in fruit and vegetable consumption in many countries resulting in a slight overall deterioration in diet. By 2010 in 6 countries around 40% of the population was eating fruit once a week or less often, while for vegetables the corresponding figure was in excess of 20% in every country except Azerbaijan. A worse socioeconomic situation, negative health behaviours (smoking and alcohol consumption) and rural residence were all associated with low levels of fruit and vegetable consumption.

**CONCLUSIONS:** International dietary guidelines emphasise the importance of fruit and vegetable consumption. The scale of inadequate consumption of these food groups among much of the population in many fSU countries and its link to socioeconomic disadvantage are deeply worrying. This highlights the urgent need for a greater focus to be placed on population nutrition policies to avoid nutrition-related diseases in the fSU countries.

Web link:

<http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8926006>

### **MICRO- AND MESO-LEVEL INFLUENCES ON OBESITY IN THE FORMER SOVIET UNION: A MULTI-LEVEL ANALYSIS**

**BACKGROUND:** Limited evidence exists on obesity in the former Soviet Union (fSU), particularly its micro and meso level determinants.

**OBJECTIVE:** To determine age and gender adjusted prevalence of self-reported overweight and obesity in nine fSU countries; explore the relationship between individual and household (micro-level) factors and obesity; explore the relationship between features of nutritional and physical environments (meso-level) and obesity.

**METHODS:** Data were collected from 18,000 adults using household surveys and from 333 communities using community profiles in Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia and Ukraine in 2010. Individual and community-level determinants of self-reported obesity (BMI greater than or equal 30 kg/m<sup>2</sup>) were analyzed using multi-level random intercept logistic regression models.

**RESULTS:** 13% of males and 18% females were categorized as obese. Factors associated with obesity in males were older age, increasing educational achievement, declining self-reported health, alcohol consumption, and automobile ownership. Males who were current smokers, not married, and perceived physical activity to be important were less likely to be obese.. For females, obesity was associated with older age, completion of secondary level education, declining self-reported health and average household financial situation. Unmarried women were less likely to be obese. Multi-level analysis indicated that individuals living in communities with higher presence of garbage were more likely to be obese.

**CONCLUSIONS:** This is the first study to examine both micro and meso-level influences on obesity in fSU using multi-level analysis. Findings indicate a similar obesity risk profile to countries in Western Europe and North America.

Web link: <http://www.ncbi.nlm.nih.gov/pubmed/22645239>

## **CHANGES IN HOUSEHOLD ACCESS TO WATER IN COUNTRIES OF THE FORMER SOVIET UNION**

**BACKGROUND:** Evidence from the early 2000s quantified limited coverage of household water supplies in countries of the former Soviet Union. The study objectives were to measure changes in access to piped household water in seven of these countries between 2001 and 2010 and examine how these varied by household economic status.

**METHODS:** Data on household piped water from the LLH and HITT studies were compared and descriptive, regression and relative risk analyses applied.

**RESULTS:** Increases in access to piped water in the home between 2001 and 2010 were recorded in urban and rural areas of all countries, except Kazakhstan. Access remains lower in rural areas. The relative risk of urban households not having piped water in 2010 compared with 2001 diminished by one-third for households with a bad/very bad economic situation [rate ratio (RR): 0.66] and by half for wealthier households (RR: 0.48). In rural areas, the declines were 15% for households with a bad/very bad economic situation (RR: 0.85) and 30% for wealthier households (RR: 0.69).

**CONCLUSIONS:** Despite encouraging increases in access to piped water, there remain significant gaps for rural and poorer households.

Web link: <http://www.ncbi.nlm.nih.gov/pubmed/22267289>

#### **HITT-CIS POLICY BRIEFS ON A GROWING EPIDEMIC OBESITY**

-Epidemic obesity in Armenia

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Obesity\\_Armenia.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Obesity_Armenia.pdf) online)

-Epidemic obesity in Azerbaijan

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Obesity\\_Azerbaijan.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Obesity_Azerbaijan.pdf) online)

-Epidemic obesity in Belarus

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Obesity\\_Belarus.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Obesity_Belarus.pdf) online)

-Epidemic obesity in Georgia

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Obesity\\_Georgia.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Obesity_Georgia.pdf) online)

-Epidemic obesity in Kazakhstan

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Obesity\\_Kazakhstan.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Obesity_Kazakhstan.pdf) online)

-Epidemic obesity in Kyrgyzstan

(see [http://www.hitt-cis.net/wp-content/uploads/2013/04/PB\\_Obesity\\_Kyrgyzstan.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/04/PB_Obesity_Kyrgyzstan.pdf) online)

-Epidemic obesity in Moldova

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Obesity\\_Moldova.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Obesity_Moldova.pdf) online)

-Epidemic obesity in Russia

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Obesity\\_Russia.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Obesity_Russia.pdf) online)

-Epidemic obesity in Ukraine

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Obesity\\_Ukraine.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Obesity_Ukraine.pdf) online)

-Epidemic obesity in NIS region

(see [http://www.hitt-cis.net/wp-content/uploads/2013/03/PB\\_Regional\\_Obesity.pdf](http://www.hitt-cis.net/wp-content/uploads/2013/03/PB_Regional_Obesity.pdf) online)

### **ISSUES OF PUBLIC MENTAL HEALTH IN NIS REGION (psychological distress, social capital and other aspects)**

### **CHANGES IN THE LEVELS OF PSYCHOLOGICAL DISTRESS IN EIGHT COUNTRIES OF THE FORMER SOVIET UNION.**

**BACKGROUND:** The collapse of the Soviet Union created considerable stress for many of its inhabitants and, even now, post Soviet societies continue to be characterized by many established risk-factors for poor mental health. The objectives of this study were to compare levels of psychological distress in 2001 and 2010 in eight countries of the former Soviet Union and to explore how these changes vary for different population groups.

**METHODS:** Data from the LLH (2010) and HITT (2010) were analyzed. Psychological distress was measured using a 12 item instrument, with scores of 10-12 used to indicate high psychological distress. Changes in the levels of psychological distress between 2001 and 2010 were described by country, gender and age group; and then for sub-populations of gender, age group, educational level, disability status, personal support and household economic status using adjusted prevalence rate ratios.

**RESULTS:** Levels of high psychological distress decreased from 8.7% in 2001 to 4.9% in 2010 (P less than 0.01) for the whole study region (4.5% to 2.8% men; 12.0% to 6.5% for women). All the study countries recorded decreases in high psychological distress. The adjusted relative rate ratios indicate that the observed decreases have not been experienced by men,

older age groups, less educated respondents, those with a disabling health condition, low levels of support and bad household economic status.

**CONCLUSIONS:** The study shows decreases in levels of high psychological distress in the former Soviet Union, but that decreases were less for socially and economically marginalised populations. Despite decreases of psychological distress among women, they continue to bear a significantly higher burden than men. The findings highlight the continued need to break the cycle of poverty, social exclusion and poor mental health in the region.

Web link: <http://www.emeraldinsight.com/journals.htm?articleid=17053906>

### **THE COMORBIDITY OF HYPERTENSION AND PSYCHOLOGICAL DISTRESS: A STUDY OF NINE COUNTRIES IN THE FORMER SOVIET UNION**

**BACKGROUND:** Mental health problems in those with physical ailments are often overlooked, especially in the former Soviet Union (fSU) where this comorbidity has received little attention. Our study examines the comorbidity of psychological distress and hypertension in the fSU.

**METHODS:** Data from the LLH (2001) and HITT (2010) studies nationally representative household survey data from Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia and Ukraine in 2001 and 2010 were analysed to compare the levels of psychological distress in people with and without self-reported hypertension. Multivariate regression analysed determinants of psychological distress in hypertensive respondents, and prevalence rate ratios were calculated to compare the change in distress between the two groups.

**RESULTS:** There were significantly higher levels of psychological distress among hypertensive respondents (9.9%) than in the general population (4.9%), and a significant association between the two conditions [odds ratio (OR) = 2.27 (1.91; 2.70)]. Characteristics associated with distress among hypertensive respondents included residing in Armenia or Kyrgyzstan, being female, over age 50, with a poor economic situation, lower education, poor emotional support and limited access to medical drugs. Levels of distress declined between 2001 and 2010, but at a lesser rate in hypertensive respondents [rate ratio (RR) = 0.85 (0.75; 0.95)] than non-hypertensive respondents [RR = 0.65 (0.56; 0.75)].

CONCLUSIONS: There is a significant association between psychological distress and hypertension in the region.

Web link: <http://www.ncbi.nlm.nih.gov/pubmed/23480878>

### **SOCIAL CAPITAL AND SELF-REPORTED GENERAL AND MENTAL HEALTH IN NINE FORMER SOVIET UNION COUNTRIES**

BACKGROUND: Social capital has been proposed as a potentially important contributor to health, yet most of the existing research tends to ignore the challenge of assessing causality in this relationship.

METHODS: We analysed the HITT study data and use various instrumental variable estimation techniques.

FINDINGS: Our results confirm that there appears to be a causal association running from several dimensions of individual social capital to general and mental health. Individual trust appears to be more strongly related to general health, while social isolation- to mental health. In addition, social support and trust seem to be more important determinants of health than the social capital dimensions that facilitate solidarity and collective action. Our findings are remarkably robust to a range of different specifications, including the use of instrumental variables. Certain interaction effects are also found: for instance, untrusting people who live in communities with higher aggregate level of trust are even less likely to experience good health than untrusting people living in the reference communities.

Web link: <http://www.ncbi.nlm.nih.gov/pubmed/23506911>

### **SOCIAL IMPACTS ON HEALTH: THE INTERPLAY OF LIFESTYLES AND SOCIO-ECONOMIC FACTORS**

Several components of the empirical program of the HITT-CIS study were dedicated to in-depth qualitative research of the perceptions and practice of healthy and unhealthy lifestyles.

## **SOCIO-ECONOMIC INFLUENCES ON HEALTH IN THE COMMONWEALTH OF INDEPENDENT STATES**

Despite the evidence that poor health lifestyles are a major contributor to life expectancy in the studied post-soviet countries (as in other developed economies) the major factors explain inequalities in health are social and economic ones. Indeed after controlling for demographic, social and economic variables health lifestyle variables (alcoholic consumption and eating a healthy diet) make little contribution to explaining the variance in self-reported health. Furthermore when we take into account control over life and psychological distress healthy lifestyle variables no longer make a significant contribution to the variance explained. Gender and age are major determinants of health. People tend to become less health as they grow older and women tend to have poorer health than men. However, men have a lower life expectancy than women from conception. In less developed countries there is a low expectancy of life at birth with high infant and under-five mortality rates with the major killers being mainly preventable diseases associated with poverty. In more developed countries life expectancy is generally high at birth and the major killers are the so called diseases of affluence with lifestyle (smoking, drinking and poor diet) being a major contributor to premature mortality.

### **FURTHER READING:**

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-Abbott, P., Tumanov, S. and Wallace, C. (2006) *Health World Views of Post-Soviet Citizens.* *Social Science and Medicine* 62:228 - 238.

-Abbott, P. and Wallace, C. (2007) *Talking about Health and Well-being in Post-Soviet Ukraine and Russia.* *Journal of Communist Studies and Transitional Politics* 2007, 23:181-202.

-Abbott, P., Wallace, C., Mascauteanu, M. and Sapsford, R. (2010) *Concepts of citizenship, social and system integration among young people in post-Soviet Moldova.* *Journal of Youth Studies*: iFirst article first published 2nd August.

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-Roberts, B., Abbott, P. and Mckee, M. (2010). Levels and Determinants of Psychological Distress in Eight Countries of the Former Soviet Union. *Journal of Public Health Medicine* 9: 17 -26..

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-Wallace, C. and Abbott, P. (2009). The consequences for health of system disintegration in the commonwealth of independent states. Paper given at the European Sociological Association Conference, Lisbon, September.

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<http://data.euro.who.int/hfad/>

### **FROM PROJECT'S POLICY BRIEF ON SOCIAL AND ECONOMIC IMPACTS OF POOR HEALTH IN THE FORMER SOVIET UNION**

Health outcomes in adults living in the former Soviet Union, particularly males, are often well below those expected given their level of economic development. In Russia, life expectancy is much lower than that of countries with a similar GDP, and the likelihood of dying prematurely, between the ages of 15 and 60, is considerably higher. Health is a vital national investment: inequalities in health are estimated to result in a 1.4% loss of GDP every year.

This new research looked specifically at the effect of poor health on the labour supply of former Soviet countries. Research also examined the relationship between hypertension and psychological distress, to better understand the psychosocial impacts of ill health in the region. The considerable health burden in these countries is having a negative effect on individuals' psychological health and labour market participation, so they are at increased poverty risk. There will therefore be a high return on investment in health care interventions in the region.

This policy brief provides results from nationally-representative household surveys of 18,000 randomly selected people in nine countries in 2010; Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia and Ukraine. Advanced statistical analysis was used to estimate the causal effect of self-reported ill health on labour supply. The research was part of the Health in Times of Transition (HITT) study (see <http://www.hitt-cis.net> online). Further details on the research can be found in the sources listed below.



## **KEY FINDINGS**

### **POORER HEALTH MEANS A LOWER CHANCE OF WORKING**

Self-reporting poor health is associated with about a 13-15 % lower probability of working in the countries studied. This is a particularly worrying finding as a high proportion of the population reported having poor health. Almost half of women in Georgia, and over 1 in 4 in Moldova and Ukraine reported their health to be poor or very poor. In almost every country, more than 1 in 10 men reported poor or very poor health.

### **RELATIONSHIP BETWEEN POVERTY AND ILL HEALTH**

People who had to limit their consumption of basic food in the last 12 months were 8% more likely to report poor health. Those who had to limit their access to medical care were 11% more likely to report poor health; high out of pocket payments for health care in the region are likely to push families into poverty when faced with a chronic illness.

The relationship between poverty and ill health may relate to the significant reduction in labour supply, and its welfare implications for employees and their families. The impact of ill health on labour supply is also likely to affect employers, and will therefore have knock-on economic effects.

### **RELATIONSHIP BETWEEN POOR HEALTH AND PSYCHOLOGICAL DISTRESS**

People with hypertension were twice as likely to suffer with psychological distress. Being unable to access medical drugs was strongly associated with psychological distress in people with hypertension. The results suggest that people who are prescribed unobtainable or unaffordable treatment to control hypertension may experience anxiety and distress. This can have severe psychosocial impacts on the countries in this region.

### **POLICY RECOMMENDATIONS**

Poor health in the former Soviet Union has negative impacts on the labour supply as ill people have a lower likelihood of working. This research also finds a relationship between ill health and poverty, and psychosocial measures of distress. These social and economic impacts of poor health need to be addressed.

### **INVESTING IN HEALTH**

Health is a vital national investment, and governments must raise health expenditure to address the national economic impacts of poor health. Revenue can be raised by raising taxes for high-income groups, introducing new taxes on health-harming products such as tobacco and alcohol, improving collection of existing taxes, or shifting public funding from other sectors to place higher priority on health.

#### IMPROVE AFFORDABILITY OF PHARMACEUTICALS

The high price of pharmaceuticals in these countries can push people with ill health into poverty, and can result in psychosocial problems such as heightened levels of psychological distress. Access to drugs can be improved by regulating medicine prices, regulating mark-ups in the supply chain, training providers in rational prescribing, and promoting generic drugs to providers and the public.

#### REDUCE INFORMAL PAYMENTS

To protect those with poor health from slipping into poverty, the financial barriers to accessing care must be removed. Informal payments are a leading financial barrier, which can be addressed by clearer communication with the public about the price of services, and raising official salaries of health care workers. To increase efficiency, payment should be shifted from salaries to performance-related pay, which is linked to quality of work.

#### FOCUS GROUP DISCUSSIONS ON HEALTHY AND UNHEALTHY LIFESTYLES (QUALITATIVE SUB-STUDY)

**RESEARCH OBJECTIVE:** This sub-study was designed and implemented to complement the findings from the large-scale survey and structured observations by providing a more nuanced understanding of how people take responsibility for their health in their daily lives. It was also designed to enable us comparing health lifestyles across countries and to compare the findings with those from research carried out in Belarus, Russia and Ukraine in 2002 as part of the Living Conditions, lifestyles and Health Research (LLH) (see <http://www.llh.at> online). The healthy lifestyles qualitative research was designed to provide information on how people understand health and illness in their daily lives, their construction of what it is to be healthy and what it means to be ill. It enables us to understand, how much control people think they have over health and illness and what they do to remain healthy. Also what are the barriers for them in keeping healthy and what would enable them to overcome these barriers. It provides detailed information on peoples understanding of the role of diet, alcohol consumption, smoking and exercise as well as health service utilisation in keeping healthy.

Design of the research: The research was qualitative and involved focus group discussions with a purposive sample of informants in each of the countries. An agenda, agreed by the team carrying out the qualitative fieldwork, was used to stimulate discussion around the key topics. It was designed to get informants to talk about their understanding of what it is to be healthy, what they think they can do to look after their health, who is responsible for their health and their experiences of using the health services. The aide memoire was informed by the findings from the qualitative research we had done in 2002. It was drafted in English and translated by the teams in each country into the local language.

**SAMPLING OF INFORMANTS:** The sample was purposive. Two communities were selected in each country from amongst those included in the HITT survey where structured observations had also been carried out. One was in a poor rural area and one in a more affluent urban area in the capital city. This was designed to provide a contrast between those likely to have the poorest opportunity for looking after their health and those likely to have the greatest opportunity to do so.

In each community three FGDs were held, one with young people aged 18-25 years, one with men and one with women in midlife (aged 35-55 years). We included young people in order to see if knowledge and understanding of health lifestyles is changing and how this might influence patterns of health and illness in mid-life in the future. We included people in mid-life because high rates of premature death in the CIS have been mainly due to the high mortality rate amongst men in mid-life. The sample is comparable to the one we used for LLH in 2002. Each focus groups was made up of between six and 10 respondents.

## ETHICS

Ethical approval for the research was given by the London School of Hygiene and Tropical Medicine that required that ethical approval was obtained by the approved means in each of the participating countries. All participants in FGDs were asked to give verbal consent to participation and advised that they could leave at any time if they so wished. Participants were assured of anonymity and asked to respect the confidentiality of what was discussed.

**TRAINING:** The facilitators of the FGDs were experienced researchers that had been specifically trained specifically trained for this project. The aim of the training was to ensure that there was a shared understanding of the aims of the research and how it was to be carried out. This was important to ensure that comparable data was collected across the countries and same topics covered.

**FOCUS GROUP DISCUSSIONS:** The FGDs were held in the preferred language of the participants. They were facilitated by a trained researcher and notes were taken by a research assistant. The FGDs were also recorded. The agenda was used as an aide memoire with the facilitators encouraging discussion and ensuring that key points were followed up. Following the FGDs the notes and recording were used to draw up a full transcript in the local language and an edited version in English.

**QUALITY ASSURANCE:** There were three elements of quality assurance. In each country two FGDs were observed by an independent senior researcher that had participated in the development of the qualitative research. The transcripts in Russian/the local language were independently reviewed and in most countries two FGDs were videoed.

**FURTHER READING:**

-Abbott, P. and Wallace, C. Talking about health and well-being in post-Soviet Ukraine and Russia, *Journal of Communist Studies and Transition Politics*, , 2007, 23, 2, 181 - 202

-Abbott, P. and Wallace, C Explaining Economic and Social Transitions in Post-Soviet Russia, Ukraine and Belarus: The Social Quality Approach, *European Societies* 2010, 12, 653-74

-Abbott, P., Tumanov, S. and Wallace, C. Health World Views of post-Soviet Citizens, *Social Science and Medicine*, 2006, 62, 228-238

**CONTENT-ANALYSIS OF PRINTED MASS-MEDIA (NEWSPAPERS)**

**RESEARCH OBJECTIVE:** finding out the quantity of publications on the issues related with formation of healthy attitudes and healthy lifestyle among the population in the newspaper with the largest circulation.

**SUBJECT OF RESEARCH:** a leading daily newspaper having the largest circulation in every country under study -project-participant country (six newspapers in total), the region where the newspaper is distributed is the whole country.

**GEOGRAPHY OF THE STUDY:** Belarus, Georgia, Kazakhstan, Moldova, Russia, Ukraine.

**UNIT OF ANALYSIS:** in this study - an article, considering the text of the publication in whole.

#### RESEARCH TASKS:

1. To study the activities of the leading printed periodicals in Belarus, Georgia, Kazakhstan, Moldova, Russia, Ukraine aimed at covering the issues of health and healthy lifestyle, and the problems related with them;
2. To study the activities of the leading printed periodicals in Belarus, Georgia, Kazakhstan, Moldova, Russia, Ukraine, covering the problems of morbidity.

SAMPLE: continuous sampling: all the issues of the newspapers under study, published during the period from January 01, 2010 to December, 31, 2010 were analyzed.

NEWSPAPER TITLES: 'SB. Belarus Segodnya' (Belarus), 'Rezonansi' (Georgia), 'Kazakhstanskaya Pravda' (Kazakhstan), 'TIMPUL de dimineața' (Moldova), 'Izvestia' (Russia), 'Segodnya' (Ukraine).

Totally 1645 newspaper issues were studied. And 1609 publications were analyzed.

#### CONCLUSIONS:

The outcomes of content-analysis of publications covering the issues of healthy lifestyle and health and the problems related with them by the most popular periodicals of Belarus, Georgia, Kazakhstan, Moldova, Russia, Ukraine enable us to make the following main conclusions:

The largest number of publications on the topic of healthy lifestyle and health are recorded in the periodicals 'Segodnya' (Ukraine) and 'SB. Belarus Segodnya' (Belarus) - more than a half of issues of these newspapers had two or more materials on the indicated topic during the period under study. The least number of publications is counted in the Georgian periodical 'Rezonansi', i.e. less than a half copies of this newspaper had materials about healthy lifestyle and health.

The materials about healthcare services prevail among all the publications in the studied periodicals. Little attention is paid to the topics of sexual behaviour and regular visits to the doctors.

Materials of informational character prevail in the analyzed newspapers, and their authors are mainly journalists.

As a rule, the publications on the topics of healthy lifestyle and health are significant, i.e. the article is fully devoted to this topic.

Small materials, occupying 1/8 and less of the newspaper sheet prevail in the newspapers 'Izvestia' (Russia), 'Kazakhstanskaya Pravda' (Kazakhstan), 'TIMPUL de dimineață' (Moldova). The materials are placed in the most balanced way by their size in the newspapers 'Segodnya' (Ukraine) and 'SB. Belarus Segodnya' (Belarus).

Publications of informational character predominate in the majority of the studied newspapers. Analysis of the problems, connected with healthy lifestyle takes a modest place on the pages of the studied newspapers.

Materials of neutral and positive tones prevail in the total volume of the studied newspaper publications, the Ukrainian newspaper is an exception, where publications of negative tone prevail.

Analysis of the most popular periodicals in Belarus, Georgia, Kazakhstan, Moldova, Russia, Ukraine in regards with their coverage of the problems of healthy lifestyle and health shows, that the studied newspapers pay attention to the most common diseases in a varying degree. The highest correlation rate between the real morbidity and newspaper publications on this topic is found in the Ukrainian, Belarusian and Russian periodicals.

ESSAYS OF HIGH-SCHOOL STUDENT ON HEALTHY AND UNHEALTHY LIFESTYLES (ROTMAN to check)

This empirical sub-study was implemented in Belarus, Georgia, Moldova, Russia and Ukraine during the spring months 2012. Altogether, 376 essays have been written by school-age teenagers (14-18 years) at their classrooms during one lesson (45 minutes). The suggested title of free-shaped essays was defined 'Health and healthy lifestyle'. A sample of 159 of most informative essays was selected for in-depth analysis under the guidance of prof/ David Rotman (BSU-SIMST).

The structural content-analysis of these essays has revealed the following facts and attitudes of respondents:

#### VALUE OF HEALTH

Virtually all the young people, who participated in the study, believe that health is a necessary condition for a happy, successful life both at present, and in future.

-the majority of the young people are adherent to healthy lifestyle, understand that success in life depends, amongst other factors, on person's health and perceive health as the one of the main value of life.

-the students are well informed about the matters that promote health, and what ruins them. Only very few essays present opinions that keeping healthy is not so important, is unpopular among teenagers and adults.

#### DEFINITIONS OF HEALTH, HEALTHY LIFESTYLE

-Defining what, actually, health is, students give some-times naïve, sometimes incomplete definitions, often quoting proverbs and popular sayings.

-None of these children's definitions given in their essays contradict the definition of health given by the World Health Organisation.

#### ATTITUDE TO ONE'S HEALTH, MODELS OF BEHAVIOUR

-The respondents are clearly aware, that people should care about their health by themselves. Many essays note that quite a lot of people do not care about their health nowadays, or using their slang: 'a lot of people do not give a damn to their health'.

-Based on the factual canvas of the essays, one can reconstruct sad and grey-coloured picture of every-day lives of teenagers (their 'uninteresting', passive and unhealthy lifestyle). E.g. 'Most often we are pushed to bad actions by our friends ' or 'It is hard to overcome herd instinct, I know it from my own experience'. However, in their meta-narrative, the respondents try presenting information about themselves more positively. In spite of the popular references to disadvantageous social environments, the respondents tend blaming themselves for their own irresponsibility and laziness.

-Judging by the essay texts, virtually all the students are very well informed about the ways how to keep healthy, about what is right, what is good or what is bad. The overwhelming majority remark, that they adhere to or try to adhere to healthy lifestyle, they do not drink, do not smoke, try to have a healthy diet and do sports. Along with that, the same senior pupils write in their essays, that 'everyone around drinks, smokes and does not care about his health at all'. In fact, this narration is constructed by the principle 'everyone around, but

not me', along with that it is possible to see a crowd of smoking teenagers during a break behind school). Thus, one can conclude that teenagers' presentations about their adherence to healthy life-style principles are a little overestimated.

-Quite often schoolchildren express stereotypes and clichés widespread in the society and in mass consciousness by their essays, and also some stereotyped judgments typical for adults, as a rule. These sentences reflect a high level of students' information awareness, but does not guarantee that they understand thorough and thorough what they have written about, and believe in it furthermore.

Further lifestyle-related themes that have been revealed in the course of the analysis of free-shaped teenagers' essays include:

- Ecology, environmental pollution
- Harmful habits (smoking, consumption of alcohol and drugs)
- Safe sexual behaviour
- Diet, nutrition habits
- Sport, movement, active lifestyle
- Rest, recreation and leisure time
- Regular medical check-ups, accessibility of healthcare services
- Psychological comfort and stress
- Sources of information about healthy lifestyle

Finalizing the abovementioned, it is possible to remark the following moments:

- School-age teenagers believe that health is one of the main the main values in life;
- healthy lifestyle attitudes are formed among the young people;
- students understand the components of healthy lifestyle in the right way and have learnt well the rules that should be followed for keeping fit and strengthening health;
- quite a large part of the youths do not follow the principles and rules of healthy lifestyle in real life.



## HITT-CIS HOUSEHOLDS SURVEY

The geographical coverage of the survey includes 9 former Soviet republics in the European region (Russia, Belarus, Ukraine, Moldova), the Southern Caucasus (Armenia, Azerbaijan, Georgia) and Central Asia (Kazakhstan, Kyrgyzstan). Thus, they represent a large part of the former Soviet Union and encompass considerable ethnic, cultural, religious and political diversity that offers scope for investigating key health trends in the region. With the exception of Georgia, these countries are members of the Commonwealth of Independent States (CIS).

The HITT survey constitutes a second wave of the large-scale multinational LLH-2001 survey dedicated to such issues as lifestyles of populations in different countries and regions of the former Soviet Union, nutrition and cultural habits, study of patterns of smoking and alcohol consumption, access to health care, etc. The HITT survey has been conducted by the same research consortium in 2001 in the same countries. The only new country in 2010 has been Azerbaijan, which was not part of the study in 2001.

The cross-national HITT survey aims to understand long-term trends of population health as a consequence of social, economic and political transformations in 9 post-Soviet countries and their overall and specific impact upon lifestyles, health behavior and satisfaction with subjective health at the level of the post-Soviet citizen. A unique team with extensive expertise in health effects of transition has generated new knowledge on health determinants in concerned countries. It employs a model of health determinants acting at individual and societal level, with distal and proximal influences on health. This model focuses on alcohol, tobacco, diet, and health care.

In addition, the HITT large-scale survey allows to quantify the burden of disease assessed by self-reported health and validated measures of disease, as well as the prevalence of key risk factors and socio-economic factors. This permits to evaluate the social, economic, and cultural patterning of exposure to risk and disease. As well, HITT survey seeks to assess health system performance, focusing on accessibility and quality of health services.

The HITT-CIS household survey is representative by age, sex, nationality and territorial distribution of the population 18 and over resident in private households (both urban and rural) in the surveyed countries. The HITT-CIS survey representativeness was ensured by using standardised random techniques (multi-stage clustered sampling) and face-to-face interviews. As well as by joint cooperation between social science experts and survey

implementation teams that have extensive experience in conducting national representative surveys.

## **SAMPLE DESIGN**

Sampling design was developed according to the good practices established in the HITT-CIS Survey Manual. Following the approach outlined in this document, the sample in each country was designed using the multistage proportional representation method with random route as the method of selecting households and the 'nearest birthday' approach as the method of selecting respondents within households.

National survey agencies developed sampling design according to the country peculiarities (geographical and administrative division, size of urban and rural settlements, etc.). Each Sociological agency decided individually about the necessity of division of the territory into the groups of administrative entities. The following compulsory principles in sampling design were set out for survey agencies and were stipulated in Survey Manual:

- Stratification of the country population into strata according to size and types of settlements.
- Sample is allocated to strata proportionately to the number of persons living there.
- Random selection of sampling points after stratification by the distribution of the national, resident population in terms of size and type of settlements, i.e. proportional to the population size (for a total coverage of the country) and to the population density.
- Households are chosen systematically using standard random route procedures, beginning with an initial address selected at random.
- Not more than 10 interviews can be conducted on each route.
- In order to achieve a representative sample and reliable data, the survey is desirable to carry out in working days from 16:00 to 21:00, and on weekends - from 10:00 to 21:00.
- Target respondent is the person with the 'nearest birthday' among the adult household members, who are resident within private households, regardless of nationality and citizenship, language or legal status. There is only one interview per household.
- The only mode of contact and interviewing with selected person is face-to-face.
- In order to increase response rate, at least two recalls are made after the initial visit before 'dropping' the address. One of those contact attempts needed to fall in a weekend, one on an evening and they needed to be spread over a period of time.

-Replacement of enumerated households is possible, provided that at least two recalls after the initial contact has been carried out, or the unit explicitly refused participation in the survey.

-Homeless and institutional populations were not included in HITT-CIS survey.

-The sampling design adopted in each country was evaluated by Survey Executive Committee before the start of the survey. There were assessed the accuracy of the stratification, adequate representation of the population, and size and distribution of the selected clusters.

### **METHODOLOGICAL FOREGROUND (project's data bases):**

Extensive collection of primary empirical data constitutes an intellectual property of the whole HITT-CIS consortium and their usage is regulated through the Consortium Agreement. Individual data collections can be accessed in cooperation with any project partner.

-Data set and technical (methodological) documentation from the large-scale quantitative representative households survey in 9 NIS countries

-Data set and technical (methodological) documentation from the series of structured observations ('Community profiles') in 9 NIS countries

-Data base (collection of anonymized transcripts and methodological documentation) from the series of focus groups on healthy and unhealthy lifestyles in 5 NIS countries

-Data base of teenager essays (anonymized) and methodological documentation on healthy and unhealthy lifestyles in selected regions 5 NIS countries

## **Potential Impact:**

Potential as well as actual impact of the complex HITT-CIS study has several dimensions.

The project addresses international dimension of the public health policy of the European Community by contributing to health protection, promotion as well as the prevention of diseases and at the same time generating new knowledge relevant to social, environmental and economic issues. The principal targeted users include the Commission (in particular DG Health and Consumer Protection and DG Development), Member States (Health Ministries and Public Health Institutes), stakeholders in the various ICPC Regions including Ministries of Health, the WHO (both Headquarters and the Regional Office for Europe), and various NGO stakeholders in the global health research community.

The countries that are the focus of this project are of major strategic importance to the European Union. Six of the countries participate in the European Neighbourhood Policy and thus receive direct EU support to strengthen their economies and democratic systems. Russia has a separate special relationship with the EU covering four 'common spaces'. The EU also has important links with the Central Asian countries, in areas ranging from trade to security. Clearly, the presence of healthy, politically stable, and prosperous countries in this region is becoming even more important given Europe's growing dependence on them as sources of oil and gas.

A key aspect of the EU's interest is the development of mature trading partners, in sectors beyond petrochemicals, not least because of the need to expand the market for European goods. Although, at present, the economic outlook seems good in much of this region (but not all), to a large extent this is driven by profits from extractive industries, such as oil and gas. At the same time, a failure to tackle the high levels of ill-health in this region will impair the potential to achieve sustained economic growth. For example, a simple model projecting Russian GNP per capita to 2025 indicates that it will reach 13,000 USD per capita (all else being equal) if its current level of mortality is unchanged while this would increase to 16,000 USD if it could reduce mortality by 2025 to the 2000 EU-15 level.

This can only be achieved by sustained reductions in non-communicable and, especially, cardiovascular disease. The HITT-CIS study addressed directly the leading causes of NCD in this region, placing them into broader socio-economic, cultural and political contexts in some of the EU's closest neighbours. The research consortium has established in 2000-2013 a solid and sound knowledge base about the prevalence and distribution of risk factors and on a detailed understanding of the feasibility of policies in the region that can tackle them.

The study has filled many gaps in empirical data and has provided invaluable new knowledge on the changing pattern of risk factors, in nine NIS countries: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia and Ukraine.

One of our key goals was to achieve the creation and effective implementation of policies on alcohol, tobacco, diabetes, obesity, hypertension and access to healthcare. Furthermore it is very clear that one major reason for the failure even to adopt policies based on existing knowledge is the strength of the vested interests opposing action. The partners have been working in this region for 15 years or more and see the project as a contribution to a process of awareness raising and support for those who are seeking to make a difference in governments and international agencies.

### **ADDRESSING THE PRINCIPAL TARGET USERS**

At the beginning of the project team members defined the target groups and stakeholders for which the dissemination activities would be most appropriate according to the interest level of the topic and geographical scope. The target users include governments, international agencies, NGOs and the wider public. Dissemination of the results of this project is facilitated by the strong links that the researchers have with both governments in the region and international agencies. They disseminate the results of the project to a variety of dissemination target groups already from the beginning of the project throughout the whole lifetime, informing about progress and results, and will be carried on also after the end of the project.

The main target groups addressed in project's dissemination were:

- Members of the HITT-CIS consortium (extended project teams from the participating universities and research organizations);
- Scientific and academic communities;
- Governmental and intergovernmental stakeholders and policy actors;
- General and interested public, including NGO's and civil society;
- European and global public.

## **DISSEMINATION OF PROJECT RESULTS**

Throughout the whole life of the project, special emphasis was laid upon the crucial dimension of the practical consequences of the research process. At all levels of dissemination the issue of practical activities to improve public health in all nine target countries was in the foreground of debate and all interactions with potential or active actors in the field of public health.

Below follow details on the dissemination activities and adapted tools for each of these target audiences in turn.

### **MEMBERS OF THE HITT-CIS CONSORTIUM TEAM (extended project teams)**

This target group consists of more than 200 academics, professional and support staff in the United Kingdom, Austria, Canada, Russia, Belarus, Ukraine, Moldova, Armenia, Georgia, Azerbaijan, Kyrgyzstan, Kazakhstan and Uzbekistan.

The first and the most up-to-date instrument of internal and external dissemination of the main project results was the construction of project's web site (see <http://www.hitt-cis.net> online), which provides news about the project, working papers and preliminary results as soon as they are ready. Most information are the on Internet in order to provide publicity for the project, while a few working parts of this are on the intra-net (i.e. available only for consortium members and the Advisory Board until final results were available and then they could be made public). This internal dissemination, using members area within HITT website has the function of a fast exchange of incoming research results, which makes it one of very effective project's internal communication tools.

Furthermore, the consortium has established an International Advisory Board of experts that included representatives from interested international organizations including: the World Bank, the World Health Organization and other experts who advised on the progress of the project and dissemination of results. These internationally well-known health experts on the International Advisory Board have effectively acted as multipliers and information-hubs of the project results by using their own communication channels and avenues of public information.

### **SCIENTIFIC AND ACADEMIC COMMUNITIES**

The academic dissemination takes place through conferences, seminars, workshops, journal articles and book chapters. In addition to specific topics being covered in these

presentations and publications, there will be final volumes bringing together the main themes and topics as a few books. The academic dissemination takes place through individual outputs, but the project coordinator encourages joint publications, especially joint articles or books of EU and CIS partners in order to provide a synthesis of vision and in order to help CIS partners become more visible on the international stage.

Hence, the second target audience of the proposed project included scholars in the academic disciplines of Public Health, Health Policy, Public Policy as part of Political Science, Sociology of Health, Transition Studies, Addiction research, Sociology, Political Science, Public Administration etc. The first level within that target group are National scientific communities in the United Kingdom, Austria, Russia, Belarus, Ukraine, Moldova, Armenia, Georgia, Azerbaijan, Kyrgyzstan, Kazakhstan, and Uzbekistan. These national academic communities have had access to the projects results without delays by accessing the HITT-website. They had the opportunity to participate in academic health research and health policy seminars in all 9 CIS countries. They also benefited from the publication of an electronic newsletter, which was another public resource for the scientific communities as well as other target groups at the end of each stage of the project.

#### **EXAMPLES OF ACADEMIC PUBLICATIONS INCLUDE:**

Research monographs and edited volumes

Regarding the earlier study of the consortium on 'Living Conditions, Lifestyles and Health', several collection of papers in edited volumes have been published or are being published by Routledge London (in English language), Minsk University Press (in Russian and English language) and Bishkek University Press (In Russian language).

#### **PEER - REVIEWED ARTICLES**

A series of papers has been published in high-impact peer reviewed journals:

- Social Science and Medicine
- Health Policy
- Journal of Epidemiology and Community Health
- Alcohol
- American Journal of Public Health
- European Journal of Public Health

- International Journal of Public Health
- Journal of Public Health
- European Journal of Health Economics
- Journal of Public Mental Health
- Public Health and Nutrition
- Health Economics, Policy and Law
- BMC Complementary and Alternative Medicine
- Nicotine and Tobacco Research

### **GOVERNMENTAL STAKEHOLDERS AND POLICY ACTORS**

The next target group of the HITT-CIS project embraces national, regional and local dissemination with stakeholders in 9 CIS countries. It is important in this project that the results are disseminated not only at an international level through conferences, books and journal articles but also at a local and national level to the relevant actors in the health system. An entire work package was dedicated to their needs (work package 9), which foresees the publication, in English and in Russian, designed to address topical issues of concern to policy makers in an accessible format. We prepared one policy brief in each topic for each country in English and translated it into the local language as well in order to achieve the highest possible impact. Each policy brief is two pages long and includes main results for the topic and policy recommendations. Next to that, we added four page papers comparing each issue in all the target countries. Every paper has been put in a recognizable layout and put on the project homepage. Each project partner is required to distribute the policy briefs to the national policy makers in their country. What we are trying to achieve is to raise awareness about the issues and contribute to the change.

### **GENERAL AND INTERESTED PUBLIC, INCLUDING NGO'S, CIVIL SOCIETY AND GLOBAL PUBLIC**

This general public dissemination takes place mainly through the project web site, which serves as the easiest and fastest tool to present the project to the interested public. All projects informational material is available in form of a PDF and open to download on the homepage, where can also be found a list of publications in various journals and books with links, to access them via internet. The webpage was also used as an announcement board for the upcoming and past events where we uploaded invitations as well as summaries, to assure the most efficient and fastest possible communication to the public. Additionally we compiled an extensive mailing list which was used to invite interested society to all public events.



## **MAIN DISSEMINATION TOOLS**

The first and the most frequently updated tool was naturally the HITT-CIS project homepage. The open part of the website has the task of publication and information of research results and events during the life-time of the project and, in a sustainable format, after the formal termination of the project. This fast access within the project consortium ensures that all results were available immediately to all members of the consortium. To ensure speed and easy access for the consortium, the main content of the HITT Website was published in English as well as in Russian language.

The homepage was updated regularly and contains all the information public accessible; leaflet, poster, bulletins, newsletter up to the project logo and event announcements. On the homepage one can also find the introduction of the whole consortium and the organizations teams are part of. The English-language version of the site is regularly updated, while its Russian-language part is static and contains the general description of the project and the related research program.

Secondly, the outputs of the project were disseminated in print in a variety of ways; each targeted at different audiences, and will be in both English and Russian where appropriate. A large palette of printed matters was produced to introduce the project and communicate the main objectives and strategies which lead to results and successful development of the project. The main motive for producing these informative printings, such as presentational leaflets (in English, Russian and Kazakh) and poster was to shortly describe what the project is about and envisage the consortium to all interested parties and stakeholders (see attached). Targeted stakeholders were given the chance to actively follow-up on the project and subscribe to all project related news.

Following were printed newsletters on a yearly basis to inform about the on-going progress of the project and the main project findings. These are used for dissemination at meetings, conferences and sent out to a mailing list of interested subscribers. All these can be found on the project homepage open for downloading in PDF format.

Project's information and awareness hand-outs, such as bags, pens and USB-Sticks with project's logo and web-site URL have been further parts of the promotional material which is used in practical matter as well. At the conferences and meetings, bags with the project logo are absolutely handy for partners and other attendees to put in the printed papers. We use the USB-sticks to share all open information in the digital form which is suitable for different reasons; firstly, the minimization of printing is environmental friendly, secondly, there is absolutely and advantage logistically if there is no need to carry the heavy print-outs and

thirdly, for journalists it is absolutely essential to have the press-releases in digital form which makes it fast to communicate to the public.

By the end of the project the HITT-Consortium has prepared a documentary film about the project and its main outcomes. The filming was done in London and all the main researchers were interviewed sharing their expertise and suggestions how to improve the health conditions in the target countries. The movie can be found on YouTube with Russian subtitles as well as on the HITT-CIS homepage. The premiere show was organized in Brussels as a public event where we invited journalists, stakeholders and other interested parties.

Links to the documentary film:

<http://www.hitt-cis.net/press-and-downloads/>

[http://www.youtube.com/watch?v=NxAz8Lli0-E&feature=player\\_embedded](http://www.youtube.com/watch?v=NxAz8Lli0-E&feature=player_embedded)

[http://www.youtube.com/watch?v=7PI8XcCBxkg&feature=player\\_embedded](http://www.youtube.com/watch?v=7PI8XcCBxkg&feature=player_embedded)

[http://www.youtube.com/watch?v=ehhOrRCzzB8&feature=player\\_embedded](http://www.youtube.com/watch?v=ehhOrRCzzB8&feature=player_embedded)

[http://www.youtube.com/watch?v=gmksrRfmy-c&feature=player\\_embedded](http://www.youtube.com/watch?v=gmksrRfmy-c&feature=player_embedded)

Organizing events and project-related presentations at various conferences and workshops conferences was a big part of the dissemination activities. HITT was presented in a large scale on national and international basis. We worked strongly on waking the interest not only by stakeholders but also by ambassadors to achieve the highest possible impact.

The major conferences, where the project results have been presented to wider international audiences, were:

- thematic workshop at the World Bank headquarters in Washington, in April 2011,
- the ASN Convention 'Twenty years after' in Moscow in September 2011,
- 'The Caucasus and Central Asia, twenty years after independences: questioning the notion of 'South Countries' in Almaty, August 2011,
- 'XXII World Congress of Political Science' in Madrid, July 2012,
- 'European public health conference' in Malta in November 2012,
- the Second Global Symposium on Health System research in Beijing, in November 2012.

Press-conferences and stakeholder workshops:

- Policy workshop at CIS Headquarters (2011, Minsk)
- Policy workshop and press-conference in Tbilisi (May 2012)
- Press-conference and policy workshop (12 March 2013, Brussels)
- Press-conference and policy workshop (25 April 2013, Vienna)

Besides, project teams have hosted many events themselves such as the kick-off meeting, press conference in Brussels and in Vienna, workshops, etc.

Publication in scientific journals is a necessary, but not the only component of project's portfolio of dissemination tools. We anticipate that the findings from this study are of interest to academics in a variety of fields, most obviously public health but also development economics, social geography, political science, and post-Soviet studies. Consequently, recognizing that even in the age of Google, many people do not read outside their own disciplinary boundaries, papers were targeted at journals in all these fields. It is especially important to publish in mainstream public health journals as these are easily searchable through PubMed, often the first port of call for health researchers.

It is also important to reach out to policy-makers, in particular advisors to ministers. In our experience, the most effective approach involves policy briefs, short papers of 2 pages per topic per reviewed country and an additional one comparing all the countries included in the research. These papers summarize the evidence of the study and include key policy recommendations. They also complement the scientific publications in reaching out to staff of international agencies.

In each cluster the LSHTM has produced, in cooperation with project partners, an illustrated and concise regional overview (4 pages) and several country overviews (2-pagers) for Armenia, Georgia, Kazakhstan, Moldova, Russia and Ukraine. Policy Briefs are available in English as well as in national languages of these countries are available at project's home page <http://www.hitt-cis.net/press-and-downloads/>

## **Policy Briefs**

- 1) Issues of tobacco consumption and related policies in NIS countries
- 2) Obesity: a growing epidemic in NIS countries
- 3) Irregular treatment of hypertension in NIS countries
- 4) Access to healthcare in NIS countries
- 5) Diabetes care in times of transition
- 6) Social and economic impacts of poor health in the former Soviet Union
- 7) Alcohol consumption in the former Soviet Union

We raise awareness about the project also with the coverage of our findings through our links to the media. For example, Open Health Institute in Moscow contributes regularly on health matters to television programs and in newspaper columns. We ensure that key papers published from the project are press-released. Arising from our other work, we maintain a comprehensive list of representatives of the media from Europe up to the former Soviet Union. Many of our experts gave interviews and statement for well-known media. To name a few: ORF Online und Teletext GmbH, Austria, Radio Svoboda, Russia, Zvyazda, Belarus, Narodnaya Gazeta, Belarus, FFAB film and television and many more.

Face to face dissemination: we took full advantage of the opportunities open to us, including policy dialogues (meetings bringing together key policy makers, academics and civil society representatives) in the region. Members of the consortium were actively engaged with other researchers in all of these fields although the project and after the formal closing as well.

Project web-site (see <http://www.hitt-cis.net> online)

## **List of Websites:**

<http://www.hitt-cis.net>

<http://www.ihs.ac.at>