Towards Behavioural Risk Factor Surveillance System: Georgian Experience

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Chronic diseases in the 21st century: from individual choices to community policies.

The specific role of surveillance

Overview

- **Non-communicable diseases play a major role in the high mortality and morbidity rates and have a major economic impact on the countries of the Eastern Europe and Eurasia (E&E) region, Georgia among them;**
- **The high NCD burden as measured by Disability Adjusted Life Years (DALYs), is associated by behavioural risk factors, such as smoking, low fruit and vegetable intake, alcohol consumption, physical inactivity.**
- **The Risk Factor Survey-2007 was conducted in accordance of priorities for implementation of new European Strategy on NCD prevention and based on the experience of the CINDI Health Monitor Surveys in 2001 and 2004, assessing the process of implementation of the surveys and to study feasibility, rapid survey for evaluation of the prevalence of arterial hypertension.**
- **It is recommended to put Risk Factor Surveillance System in the state-based health information systems.**

STOP THE GLOBAL EPIDEMIC OF CHRONIC DISEASE

- Countrywide, noncommunicable diseases (NCD) currently represent 43% of the burden of disease and are expected to be responsible for 60% of the disease burden and 73% of all deaths by 2020. Most of this increase will be accounted for by emerging noncommunicable disease epidemics in developing countries.
- Effective prevention strategies for NCDs do exist. However, they require specific data on risk factors so that priorities can appropriately be set and targeted interventions developed and monitored. The WHO Global NCD Risk Factor Surveillance initiative directly responds to this need.

The Burden of NCDIs (NCD+injuiries) in E&E

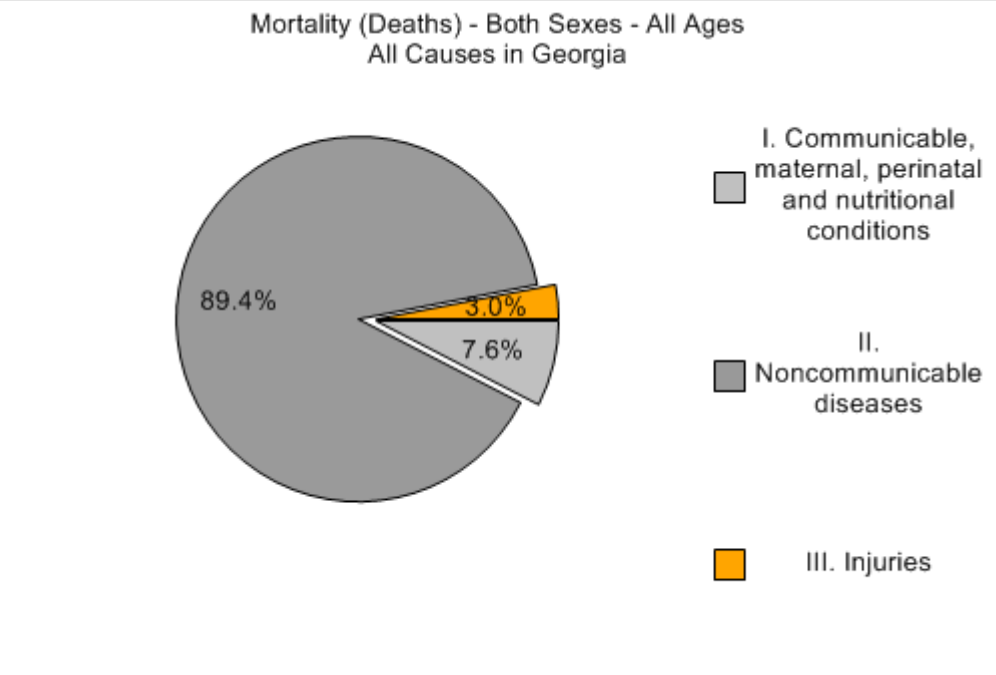
- **Of the over 85 percent of deaths attributable to NCDIs in the E&E region, 57 percent are due to just one non-communicable disease — coronary vascular disease, a type of cardiovascular disease.**
- **Every year, over 16 times more people in the E&E region die from NCDIs than from the combination of all infectious diseases, maternal and peri-natal conditions, and nutritional deficiencies.**
- **Life expectancy in the 16 countries of the E&E region is 5.1 to 17.3 years shorter than the life expectancy in the European Union.**
- **In all countries of the E&E region, death and disability from NCDIs affect people at every age, of both genders, and of all socio-economic classes**.
- *Non-Communicable Diseases and Injuries in Eastern Europe and Eurasia*
  Prepared by: Johns Hopkins University Bloomberg School of Public Health
  Baltimore, Maryland, USA. 2006

NCD Burden in Georgia

- Chronic non-communicable diseases (NCD) linked by common risk factors are a main cause of premature mortality and the overall disease burden in Georgia.
- According to existing statistical data about 90% of total mortality in recent years was caused by NCD.
- NCD are main contributors in the existing health inequalities between Georgia and Western Europe.

Global Burden of Disease in 2002: data sources, methods and results. #http://www.who.int/healthinfo/bod/en/index.html#

Mortality structure in Georgia



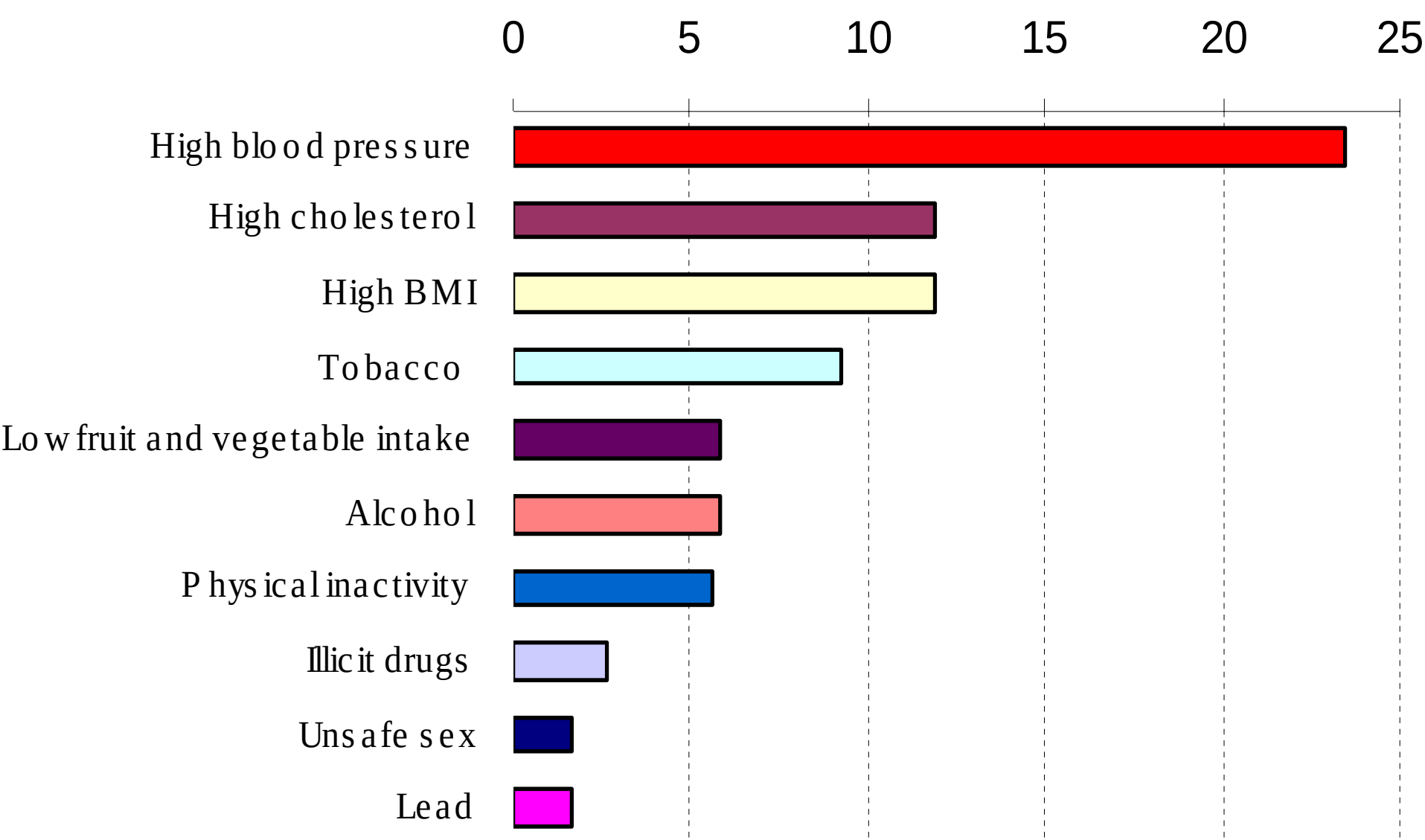
Lack of financial resources and attitude to prevent NCD

- In the period of economic crises and structural reforms lack of financial resources was main obstacle for NCD prevention activities in Georgia.
- In addition, one of the main problems was created by the tendency of considering Georgia as “classical” (“typical”) developing ones which have certain characteristics that distinguish them even from the poor (similarly pure) European countries.
- Despite the special importance of NCD in the structure of premature mortality and morbidity of Georgian population NCD prevention and control was not widely supported financially either by the state or by external donors (most of them mainly interested in other domains than NCD: infectious diseases, AIDS, community and mental health)

Link by common risk factors

- The broad group of NCD is linked by common risk factors.
- In Georgia 73.7% of the disease burden (more then European average), as measured by DALYs, is accounted by seven leading risk factors: high blood pressure (23.5%); high blood cholesterol (11.9%); overweight (11.9%); tobacco (9.2%); low fruit and vegetable intake (5.8%); alcohol (5.8%) and physical inactivity (5.6%).

% DALYs
(Disability-Adjusted Life Years)



Country-specific estimates of the burden of attributable risk. Shares of total deaths and DALYs attributable to leading risk factors for Georgia. The European health report 2005.

The improvement of individual risk profile

- The improvement of individual risk profile by affecting biological risk factors (hypertension, abnormalities in lipid and overweight) ranking first three leading for total deaths and DALYs in the country as well behavioural risk factors ranking next four is essential for reducing of NCD burden.

Gaining Health

- **Developing of Risk Factor Surveillance System was defined as one of main priorities for implementation of new European Strategy on NCD prevention**

World Health Organization
Regional Office for Europe

Noncommunicable Disease Surveillance

- Surveillance is often defined as the systematic collection, analysis and interpretation of health data and the timely dissemination of this data to policymakers and others.
- Better surveillance at country level, provides better health information and thus better opportunities for countries to improve the health of their citizens.
- Risk factors for noncommunicable diseases are the focus of surveillance. Data on noncommunicable disease (NCD) risk factors are important for predicting the future burden of chronic disease in populations and also for identifying potential interventions to reduce the future burden.

Risk Factor Survey

- In accordance of this the Risk Factor Survey was conducted and finished in 2007 with support of WHO/EURO.
- The methodology has been used is based on the experience of the CINDI Health Monitor Surveys in 2001 and 2004, assessing the process of implementation of the surveies and to study feasibillity, rapid survey for evaluation of the prevalence of arterial hypertension.

CINDI **Health Monitor Survey**

- **Georgia was among countries of the CINDI network where a CINDI Health Monitor survey was introduced and survey was carried out in 2001 to better monitor health-related behaviour at community level in countries which are implementing an integrated approach towards noncommunicable disease prevention.**
- **In order to document the process of the first CINDI Health Monitor Survey across CINDI countries, analyze the methodology used and assess feasibility of such a survey, a survey was carried out in CINDI participating countries by the WHO Regional Office for Europe, August 2002-February 2003.**
- **CINDI Georgia responded on the questionnaire distributed to 30 countries.**
- **CINDI Health Monitor: A Study of feasibility of a health behaviour monitoring survey across CINDI countries. Data Book was published in 2003 by WHO/EUROPE.**

Prevalence

- **There are high prevalence of risk factors.**
- **For example, in 2004 almost half of the population aged from 25 to 64 were overweight, 13% were obese.**

Positive trends of nutritional behavior changes have been seen, too

- In 2004 Health Monitoring Survey in the CINDI demonstration area (one of the disricts of Tbilisi).

Behavior Changes Among Georgian Population (CINDI Health Monitor Surveys 2001 and 2004)

- **Eat Less Fat - 14% - 26%**
- **Eat More Vegetables – 12% - 32%**
- **Eat Less Sugar – 11% - 21%**
- **Eat Less Salt – 9% - 21%**
- **Diet for Weight Loss – 9% - 13%**
- **More Exercises – 7% - 10%**
- **Drink Less Alcohol – 7% - 26%**

General Information for Survey 2007

- A total of 342 clusters were studied in Tbilisi demonstration area – Didube-Chugureti district.
- A total of 2472 participated in the study.
- The results showed a response rate 72%.
- The survey implementation continued 70 days: from April 20 to June 29, 2007.
- In average one respondent's study took 23 min.
- Studies of each cluster lasted for 3-4 hours on average.

SURVEY INSTRUMENTS

- Questionnaire for assessment of smoking habits, food habits and nutrition, physical activity and alcohol consumption;
- Anthropometry;
- Blood pressure measurement;
- Cholesterol and glucose screening (measurement and questionnaire).

Socio-demographic characteristics

- **Age and gender** (2472 persons of the age 25-64 years, including 1260 women and 1212 men).
- **Marital status** (much more high percent of widow - 8.3% among female than among male – 0,4%).
- **Education** (Most of the participants had high literacy)
- **Employment** (Unemployment is high in each age group)

Behavioral risk factors: Example: SMOKING

- Definitions: smokers or non-smokers; and these two main categories can be divided into number of sub-categories. I.e. smokers can be either daily or occasional smokers. Non-smokers can be ex-smokers, never-smokers or ex-occasional smokers; Intensity of cigarette smoking per day;. Proportion of daily smokers advised by health professionals to quit smoking etc.

- **Definition of variables in data**: example

  Have you ever smoked daily (=almost every day for at least one year)?

  1 = yes
  2 = no
  3 = uncertain
  9 = insufficient data

Indicators

- Prevalence of smokers (%): 62.3 (M) – 22.8 (F)
- Prevalence of ex-daily smokers (%):17.3 (M) - 5.8 (F)
- Mean duration of smoking among ever daily smokers (in years): 21 (M) – 15 (F)
- Intensity of cigarette smoking per day: 21 (M) – 13 (F)
- Proportion of daily smokers advised by health professionals to quit smoking 29.3 (M) - 26.1 (F)

Assessment of the results

- Very high prevalence among men remains;
- Increase prevalence among women continued;
- Number of women with long duration of smoking is increased;
- Intensity of cigarette smoking is very high among men and is increasing among women;
- Only one fourth of smokers were advised by health professionals to quit smoking

Conclusion and future steps

- **It seems reasonable to put Risk Factor Surveillance System in the state-based health information systems;**
- **To organize nation-wide risk factors survey;**
- **To implement health monitor regular surveys in the regions.**