

## GLOSSARY

**Crude incidence (mortality) rate (CR)** - number of new cancer cases (or cases of death from cancer correspondingly) observed in a population during a year divided by the average number of this population in the same year, expressed per 100 000. It describes the frequency of new cases in a region (a population) and used for the analysis of epidemiological situation in a region.

**Age-standardized incidence (mortality) rate (ASR)** – incidence (mortality) rate in a population calculated applied to the age distribution of a "standard population". The World Standard Population is widespread used for comparison of cancer levels between countries. *The Ukrainian Standard Population* was calculated in Ukrainian National Cancer Registry based on the age distribution of Ukrainian population in 2000. ASR with Ukrainian Standard Population 2000 is advisable for comparing cancer levels between the regions of Ukraine or in time analysis of the incidence in a region.

**Standard error (SE)** presents some measure of precision of the estimated age-standardized rate; it is used for estimation of its confidence interval.

**Prevalence rate** is number of population that is ill with cancer at the end of a year divided by the number of the population, expressed per 100 000. It describes the level of cancer prevalence in a population, usually used for determination of logistical support and peopleware of the oncological medical services.

### DESCRIPTION OF RATES IN TABLES

All information in this Bulletin is calculated based on the personified data bases of regional cancer registries which are the components of National Cancer Registry of Ukraine.

The information is given by rubrics; each represents the nosological form of cancer with the correspondent ICD-10 codes. Children cancer incidence and mortality rates are included into the corresponding rubrics.

**Table 1** of each rubric includes rates for 2009 calculated based on the adjusted data, which were received until the end of 2010. All rates are given for total, male and female population. Age-standardized rates are given for World Standard Population and Ukrainian Standard Population 2000. Children cancer rates are calculated for the number and age structure of children population.

Rate "**Lived less than 1 year since the diagnosis in 2009**" is calculated with respect to the total number of cancer patients with diagnosis of 2004, regardless of whether they were diagnosed and registered alive or dead.

Rate "**From among the newly diagnosed – diagnosed post mortem**" is calculated as a ratio of number of cancer patients with post mortem diagnosis to the total number of those diagnosed in 2009.

Rate "**Microscopically verified diagnoses**" is a proportion of cancer cases of 2009 verified with histological or cytological examination. Rate "**Diagnoses verified with histology**" is calculated as a proportion of histologically verified cases of the total number of cancer cases of 2009.

Rate "**Patients diagnosed during the preventive medical examinations**" is defined as a ratio of patients with cancer determined during the preventive medical examination or in a doctor's consulting room for women of the total number of cancer patients of 2009.

Rate "**Newly diagnosed patients underwent the special treatment**" is a ratio of cancer patients who received special treatment (both curative and palliative therapy), along with surgery or without it, during 12 months from the moment of diagnosis, to the total number of cancer

patients. **"From among them - combined or complex scheme of treatment"** is referred to patients who received chemotherapy, hormonal treatment, immunotherapy and radio-therapy along with surgery, as distinct from those who received surgery alone.

Rates **"Incidence and mortality of children population"** are calculated as a ratio of number of cancer cases and deaths from cancer in population of children under 15 years old at the beginning of 2009 to the total number of children population.

**Table 2 - Incidence and mortality, 2009** includes rates by administrative territories (oblasts and Autonomous Republic of Crimea). All rates are given for total, male and female population in according to such pattern: crude rate, age-standardized rate (World Standard Population) and age-standardized rate (Ukrainian Standard Population). These data are calculated taking into consideration corrections and additive information received by regional registries during 2010.

**Table 3 - Incidence and mortality, 2010** includes incidence rates by administrative territories according to the on-line data of regional cancer registries. The rates are given for total, male and female population in according to a pattern: number of cases and crude rate. In contrast to Table 2, this Table includes on-line (not adjusted) data that were registered until the beginning of 2007, and therefore these rates could change after receiving the additional information during 2007. Comparing of rates in Table 2 and Table 3 would be improper if receiving of this additional data and probable corrections are not taken into consideration. That is why the age-standardized rate is not given for 2010. From experience, it is known that these additions and corrections can cause increasing of crude incidence rate by 1-10% and these changes vary for various administrative territories and nosological forms of cancer.

**Table 4** includes some important rates of 2010 calculated based on the on-line data of regional registries. Rate **"Stage distribution of new cases, 2010 (according to TNM)"** consists of proportion of cases of respective stage that was automatically defined based on (p)TNM indices (according to TNM classification of the 4th edition). Column **"Not specified"** includes those which are registered without TNM indices (though they are to be classified) or the indices are incorrect or any other relevant information is missed (e.g. differentiation grade of tumour of bones).

Rubrics **"Hodgkin lymphoma"** and **"Non-Hodgkin lymphoma"** includes distribution by Ann-Arbour stages. Rubric **"Leukaemia"** includes proportions of acute, sub-acute, chronic and other forms of the disease.

The distribution by stages as well as rates **"Received special treatment"** and **"During the preventive examination"** are calculated as a ratio of the corresponding on-line *number of cancer patients of 2010 to the total number of new cancer patients registered in 2010*, and rate **"Microscopically verified"** is calculated based on the relevant *cancer cases*. Rate **"Lived less than 1 year since diagnosis in 2009"** is calculated in a similar way to that described in Table 1. Number of cancer patients who were diagnosed post-mortem is shown too.

Tables of **Annex A - Cancer prevalence rates (total, males, females)** include *number of cancer patients under follow-up of registries at the end of 2010* by 5-year age groups, per 100 000 of population of the corresponding age group for whole Ukraine and its administrative territories.

Tables of **Annex B - Rates for selected cancer sites by age group and gender, incidence** and **Annex C - Rates for selected cancer sites by age group and gender, mortality** includes *number of cancer cases and deaths from cancer, age-specific rates, crude rates, age-standardized rates (World Standard Population)* per 100 000 of population of the corresponding gender and *standard errors of ASR* for **53** nosological forms of cancer as well as for all sites and for all sites with the exception of non-melanoma cancer of skin. All rates are calculated for total population of Ukraine and based on the corrected data of 2009.