## PP-094

## Epidemiology of childhood cancer in Russia

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**Introduction:** Our aim was to determine current rates of childhood cancer incidence and mortality at a national level for Russia and to evaluate recent trends.
**Methods:** Using the Annual reports of Ministry of health and Federal State Statistics Service we calculated childhood cancer incidence and mortality rates for the 5-year period 2008-2012 and trends between 1989 and 2012 by sex, age and site. Rates were directly age-standardised to the 2000 World Standard Population, and linear regression was used to determine the magnitude and significance of trends.
**Results:** The age-adjusted incidence rate in children aged 0-17 years was 125 per 1,000,000 individuals per year for 2008-2012. The highest age-specific incidence (159 per 1,000,000 children/year) was observed in early childhood (0-4 years). Between 1989 and 2012, a significant increase in the cancer incidence was observed in children aged 0-14 years: average annual percent change was 1,6% [95%CI 1,5%; 1,7%]. The greatest increase for this period was observed for soft tissue sarcomas (3,7% [2,6; 4,9]), hepatic tumors (3,6% [2,6; 4,6]), thyroid carcinomas (3,7% [3,2; 4,2]), CNS neoplasms (2,9% [2,6; 3,1]), renal tumors (2,1% [1,7; 2,5]) and leukaemias (1,9% [1,7; 2,1]). The decrease of incidence was observed for Hodgkin (- 1,6% [-2,1; -1,2]) and non-Hodgkin (- 1.4% [-1,8; -1,0]) lymphomas. Childhood cancer mortality for 2008-2012 was 40 cases per 1,000,000 children/year. The highest age-specific mortality rate (52,3 per 1,000,000) was observed in infants. The significant decrease of mortality was found from 1989 (70 per million) to 2012 (37 per million). The greatest average annual decrease for this period was observed for leukaemias (-3,8% [-4,0; -3,5]) and lymphomas (-6,8%[-7,3; -6,4]). The significant decrease of mortality in 1999-2012 was found for malignant bone tumors (-5,9% [-7,4; -4,3]), renal tumors (-2,9% [-4,7; -1,1]) and CNS neoplasms (-1,1% [-1,9; -0,3]) with the only exception for soft tissue sarcomas (average annual increase was 3,2% [1,8; 4,7]).
**Conclusions:** significant temporal trends of childhood cancer incidence and mortality in Russia were found during the study period. Although rates of cancer mortality are generally decreasing in Russia there are still very high levels for common childhood cancer types.