Cancer incidence in Poland – an approach toward ensuring data consistency

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Background
In Poland National Cancer Registry (NCR) is a principal data source for cancer incidence. Although healthcare providers are required by law to provide information to NCR for each case, this obligation is often not fulfilled. To analyse the incidence rate there is a need to complement the incident data from National Health Fund (NHF) database which contains the reported information on the services provided (billing data). Therefore it is necessary to apply the decision rules which structure the way information is used from both these sources.

Methods
The analysis conducted related to cancer diseases defined as solid tumours. Data from NCR were linked with NHF data based via personal identification number (PESEL). This permitted a reliable analysis of patient’s pathways and to estimate incidence of particular cancer groups. Tracking treatment pathways was also a solution to in information bias caused by up-coding phenomenon.

Results
Empirical data obtained based on the NCR base show that the incidence of malignant neoplasms in Poland was relatively constant at the level of about 120 thousand new cases a year. Supplementation of NCR data with NHF reporting, and taking into account the appropriateness of occurrence of the given treatment path in the given type of cancer has allowed for the determination of the total incidence of solid tumours in Poland which accounts for 164.7 thousand in 2012. The cancer incidence provided by GLOBOCAN is fairly similar to the values obtained after data supplementation.

Conclusions
Even if data from disease specific registries are available, a critical analysis and data linkage is vital to prepare an appropriate set of data to be used. Modelling the disease pathways is an essential element of the health care system analysis. It allows generation of an accurate description of the present epidemiological situation and projection of demand for healthcare services, what is crucial for health policy that should be based on reliable data.

Key messages:
- Data linkage and treatment pathways analysis is a tool to supplement incidence data from disease specific registries
- Health care system analysis need to be based on reliable data to foster evidence based policy