

ITALIAN CANCER BURDEN BY BROAD GEOGRAPHICAL AREA

Paolo Baili¹, Roberta De Angelis², Ilaria Casella¹, Enrico Grande², Riccardo Inghelmann², Silvia Francisci², Arduino Verdecchia², Riccardo Capocaccia², Elisabetta Meneghini¹, and Andrea Micheli¹

¹Unità di Epidemiologia Descrittiva e Programmazione Sanitaria, Fondazione IRCCS "Istituto Nazionale dei Tumori", Milan;

²Reparto di Epidemiologia dei Tumori, Centro Nazionale di Epidemiologia, Sorveglianza e Promozione della Salute, Istituto Superiore di Sanità, Rome, Italy

Aims and background: Cancer burden estimates in Italian regions are available for the period 1970-2010 as a result of the project "ITUMORI IN ITALIA" connected with EUROCHIP, the European project on cancer control. The Italian health-care system is organized at a regional level, so regional estimates of cancer indicators are useful to identify priorities for cancer plans. We compared cancer site-specific epidemiological estimates by 3 macro-areas (obtained by grouping regions) to suggest priorities for Italian cancer control plans, both at national and regional levels.

Methods: Mortality and incidence estimates for all cancers combined and for stomach, colorectal, lung, breast and prostate cancers were downloaded from the website www.tumori.net and aggregated in broad age classes (0-54, 55-74 and 75-84 years) and macro-areas (northern, central and southern Italy).

Results: Historically, Southern Italy had a lower cancer risk than the Center and North. After 2000 this epidemiological picture disappeared and the incidence and mortality rates in the Center are reaching those of the North. Also the weight of various cancer sites on all cancers has changed in Italy in the last decades. Lung cancer is still the most frequent cancer in the male population in the South, while in the Center-North it has been surpassed by prostate cancer and colorectal cancer. The

lung cancer weight on all cancer deaths is increasing in women. Prostate cancer has become the most frequent male cancer in the Center-North in the age class 55-84. Breast cancer is the most frequent cancer in the female population and its incidence rates in the North are higher than those in the Center-South for all age classes. Colorectal cancer incidence rates have dramatically increased in men and colorectal cancer is nowadays the second cancer diagnosed in women in all age classes and macro-areas.

Discussion: From the epidemiological data here presented we derived the following suggestions and observations for cancer control plans: a) tobacco prevention should focus on the male population in the South, and on female populations in the country as a whole; b) prevention concerning diet and physical activity (risk factors for colorectal cancer) should be considered mainly for men at a national level; c) the coverage of breast cancer screening programs should be increased in the Center-South; d) colorectal cancer screening should be promoted at a national level; e) PSA testing (that is not actually included among the screening programs recommended) for prostate cancer is probably more widespread in the Center-North, resulting in an increased incidence without any evident decline in mortality as yet.

Key words: Italian cancer burden, Italian cancer control.

Acknowledgments: The study was supported by: Italian Ministry of Health (projects "I TUMORI IN ITALIA" promoted by Alleanza Contro il Cancro, "HO CURA", and "Dieta e salute" promoted by CCM); European Commission, Health and Consumer Protection Directorate-General (project "EUROCHIP-2: European Cancer Health Indicator Project – The Action").

Correspondence to: Dr Paolo Baili, Unità di Epidemiologia Descrittiva e Programmazione Sanitaria, Fondazione IRCCS "Istituto Nazionale dei Tumori", Via Venezian, 1, 20133, Milan, Italy. Tel +39-02-23902867; fax +39-02-23903528; e-mail lifetable@istitutotumori.mi.it

Received December 20, 2006; accepted March 5, 2007.