

SUPPLEMENTARY MATERIAL

Recent epidemiological studies addressing or suggesting the relationship between environmental risk factors and human health in the Campania Region

| First author & year of publ. | Study design | Data sources | Outcome | Summary of findings |
|------------------------------|--------------------|--|---|---|
| Crispo A et al., 2013 | Geographical study | ISTAT, Naples and Caserta provinces | Trend of mortality (APC) 1988-2009 | The decline observed in SMR between 1998 and 2009 in men of Naples and Caserta provinces was less marked compared with males from Italy overall. Focusing on men aged 65 and older, the decline in cancer mortality found for Italy overall diverged from the slight increase emerged from the metropolitan area of interest. |
| Barba M et al., 2011 | Review | Scientific evidence on waste exposure and health outcomes in Campania region | Cancer mortality (overall and site specific) and congenital malformations | Association between waste exposure and health outcomes in specific areas of Campania Region, where improper waste management and illegal waste trafficking have been documented. |
| SENTIERI Project ISS, 2014 | Geographical study | ISTAT 77 Comuni Campania Region (SIN) | All-cause mortality, cancer mortality | Significant SMR and adjusted for deprivation (SMR ID) for the main causes of death (cancers, cardiovascular diseases, etc.) |

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| Musmeci L et al., 2010 | Geographical study | The Regional Agency for Environmental Protection (ARPAC) has identified and characterized the various authorized/ unauthorized dumping sites. | A synthetical-waste index (SWRI) | Municipalities along the border between the provinces of Naples and Caserta and located on the Tyrrhenian coast are exposed to higher waste-related health risk. |
| Martuzzi M et al., 2009 | Geographical study | Mortality data from ISTAT (1994-2001) for 196 municipalities of the prov. of Naples and Caserta | All-cause mortality, cancer mortalities and congenital anomalies | Significant excess relative risks (ERR, %) for all-cause mortality in men and women; increased risks in both genders for all cancer mortality and liver cancer; significantly increased risks for stomach and lung cancer in men only. Significant ERRs also found for malformations of the urogenital system and of the central nervous system. |
| Fazzo L et al., 2008 | Geographical study | ISTAT, Naples and Caserta provinces (1994-2001) | Cancer mortality, congenital anomalies | Significant clustering of mortality by specific cancers (lung, liver, gastric, kidney and bladder) and prevalence of total and specific malformations in the northern part of Naples and southern part of Caserta provinces. |
| Comba P et al., 2006 | Geographical study | ISTAT, Naples and Caserta provinces (1994-2001) | Distribution of cancer mortality and birth defects in the Provinces of Naples and Caserta | Significantly increased rates of all cause-mortality, cancer mortality and congenital malformations in the southeastern part of the province of Caserta and in the northwestern part of the province of Naples. |

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| Menegozzo M et al., 2008 | Dossier | ARPAC and IZSM dat (Environment and food monitoring) Provinces of Naples and Caserta | Dioxin's risk in the Municipalities of Campania | Soils exceeding the regulatory limit for dioxins were found in 5 Municipalities (one sample). In 45 Municipalities livestock used for food production exceeds the limits (one or more samples for each Municipality). |
| WHO, CNR, ISS, Regione Campania 2008 | Waste processing: impact on human health | Data organized in a GIS (dal 2004) | Development of synthetic indicators of waste danger (IRSC) | Agreement with the results of epidemiological studies (already carried out) and the geographical distribution of the IRSC at municipality level. |
| De Felipe, Di Domenico A (Ed.) 2010. SEBIOREC Final Report | Epidemiologica l study of biomonitoring (2007-2010) | Individual blood sample (male+female), and 62 milk samples from primiparous. | Exposure to several organic and inorganic contaminants in biological samples from healthy donors | Different results: significant and /or not significant according to organic and inorganic contaminants (see pag. 47-63) |