HEALTH BENEFITS OF POLICIES TO CLEAN UP POLLUTED SITES OF GELA AND PRIOLO, ITALY.

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Background and Aims: In 1998, law 426/98 established Priolo and Gela among the first 15 Italian sites included in the National Reclaim Program. Since then little has been done to reclaim the two petrochemical industrial sites. To date the agreed funds allocated for cleanup are €774.5 million for Priolo and € 127.4 million in Gela. However, these estimates cover only a part of the cost for the interventions required. This study aims to quantify in monetary terms the health benefits resulting from cleanup interventions in the toxic hot spots of Gela and Priolo and to evaluate if further needed investments would be cost beneficial (benefits outweigh cost).
Methods: A damage function approach was used to estimate the number of health outcomes attributable to industrial pollution exposure. Extensive one-way analyses and probabilistic analyses were conducted to investigate the sensitivity of results to different model assumptions.
Results: It has been estimated that, on average, 47 cases of premature death, 281 cases of non-fatal cancer and 2,702 hospital admissions could be avoided each year by removing environmental exposure in these two areas. Assuming a 20 years cessation lag and a 4% discount rate we calculate that the potential monetary benefit of removing industrial pollution is €3,592 million in Priolo and €6,639 million in Gela.
Conclusions: Given the annual number of health outcomes attributable to pollution exposure and the limited amount of funds up to now established, the effective cleanup of Gela and Priolo should be prioritised. This study suggests that cleanup policies costing up to €6,639 million in Gela and €3,592 million in Priolo would be cost beneficial. These two amounts are notably higher than the funds allocated thus far to clean up the two sites, implying that further economic investments – even considerable ones - could still prove cost beneficial.