



SURVEY ON THE DYNAMIC OF URBAN AIR POLLUTION IN THE MUNICIPALITY OF CRAIOVA, DOLJ COUNTY

Dorin Petrișor*, Lucrețiu Radu, Cătălin Adrian Petrișor

University of Medicine and Pharmacy Craiova, Petru Rareș Str., No. 2, 200349, Craiova, Romania

Abstract

Urban air pollution is responsible for the highest burden of environmentally related diseases in Europe. Air pollutants with strongly indicated respiratory health effects are particulate matter, nitrogen oxides and sulfur dioxide. The retrospective ecological survey has taken into account the urban air pollution with sulfur dioxide (SO₂), nitrogen dioxide (NO₂), ammonia (NH₃) and particulate matter (PM₁₀). The analyzed data show that after applying the European regulations regarding the quality of environment air, the level of air pollution with SO₂, NO₂ and NH₃ was significantly reduced; the atmospheric concentrations of the pollutants were lower than the maximal admissible values. Pollution with PM₁₀ still had high levels. Calculating the global pollution index, expressing the quality of ambient air by integrating the four surveyed pollutants, suggests that chronic simultaneous exposure to SO₂, NO₂, NH₃ and PM₁₀ from the atmosphere in the Craiova municipality makes for a significant risk towards diseases related to ambient air pollution.

Key words: environment, urban air, pollution, SO₂, NO₂, NH₃, PM₁₀

* Author to whom all correspondence should be addressed: dorinpetrisor@rdslink.ro, Phone.: +40-0722-314754, +40-770-220143