

DEFINITION AND APPLICATION OF THE URBAN EXPOSOME STUDY FRAMEWORK: FROM STAKEHOLDERS' PERSPECTIVES TO NON-COMMUNICABLE AND COMMUNICABLE DISEASES EPIDEMIOLOGY

Environmental health and urban indicators: an exposome approach

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ABSTRACT

The definition of the human exposome provided population studies, exposure assessment and classic epidemiology with new tools to study risk factors and health outcomes. In this study we presented the definition of the urban exposome study framework proposing a holistic approach to tackle urban health issues where cities and smaller, within-city areas are the measurable units creating a continuum with the human exposome. This study framework was applied in a case study in the city of Limassol in Cyprus. In a two-part study that combined qualitative and quantitative elements, stakeholders' perceptions about life in Limassol were described and, we mapped drinking water and quality of life indicators using data collected during a primary cross-sectional study (population survey and water sample collection) in the municipality of Limassol. To complete the application of the urban exposome framework we used routinely collected in cancer incidence (2007-2014), mortality (2007-2015) and tuberculosis (2015-2017) and described their epidemiology using the district of Limassol as a reference and aggregating the data in smaller areas (either postal code areas or municipalities/villages). The study presented the first example of developing the urban exposome of a city from developing the theoretical background to the application.

Keywords: exposome, urban, framework, health, environment, cancer, mortality, infectious diseases