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Autor(en) des Beitrags: Fuertes, Elaine; Markevych, Iana; von Berg, Andrea; Bauer, Carl-Peter; Berdel, Dietrich; Koletzko, Sibylle; Sugiri, Dorothea; Heinrich, Joachim

Titel des Beitrags: Greenness and allergies: evidence of differential associations in two areas in Germany.

Abstract: Positive greenness effects on health are increasingly reported, although studies on allergic outcomes remain limited and conflicting. We examined whether residential greenness is associated with childhood doctor diagnosed allergic rhinitis, eyes and nose symptoms and aeroallergen sensitisation using two combined birth cohorts (GINIplus and LISAplus) followed from birth to 10 years in northern and southern Germany (Ntotal=5803). Mean residential greenness in a 500 m buffer around the 10-year home addresses was defined using the Normalized Difference Vegetation Index, a green biomass density indicator. Longitudinal associations were assessed per study area (GINI/LISA South and GINI/LISA North) using generalised estimation equations adjusted for host and environmental covariates. Despite identical study designs and statistical modelling, greenness effects differed across the two study areas. Associations were elevated for allergic rhinitis and eyes and nose symptoms in the urban GINI/LISA South area. In contrast, risk estimates were significantly below one for these outcomes and aeroallergen sensitisation in rural GINI/LISA North. Area-specific associations were similar across buffer sizes and addresses (birth and 6 years) and remained heterogeneous after air pollution and population density stratification. Existing and future
single-area studies on greenness and green spaces should be interpreted with caution.