

POSTER

HUMAN OLFACTORY SENSITIVITY VARIES ACROSS GEOGRAPHICAL LOCATIONS

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ABSTRACT

It has been assumed that olfactory sensitivity is relatively consistent in different populations worldwide. Emerging, yet fragmented, evidence lends credit to the hypothesis that olfactory sensitivity may be ethnically and geographically diverse. To gain deeper insight regarding the interplay between environmental, demographic, and health factors in the context of olfactory sensitivity, we conducted a multicenter study comprising data from 1046 from 19 locations around the world. Our results revealed that location accounted for 17-20% of the variance in chemosensory sensitivity. Demographic and psychological factors related to working memory and depressive symptoms are additionally helpful in explaining sensitivity to odors, accounting for 1.8-2.7% of variance in chemosensory sensitivity. People inhabiting different regions may have different sensitivities to chemical stimuli due to varying exposures to atmospheric conditions and different chemosensory experiences in daily life. We discuss the potential source of ~80% of unexplained variance.