Study: Quagmire surrounds the use and misuse of race in identifying and preventing health disparities

In the 18th and early 19th centuries, Carl Linnaeus and Johann Blumenbach used "race" to taxonomically classify human types. Linnaeus defined four human races based, largely, on skin color that matched continental population differences; Blumenbach similarly described races based mainly on physical traits.

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Although skin color was used as a primary criterion to assign "race," we now know this classification is only "skin deep" because skin color is an adaptive trait in response to high UV exposure, with the most darkly pigmented people originating from across the globe in areas close to the equator.

Indeed, populations from Africa, often referred to as a single race based on skin color, have <u>higher levels</u> of <u>genetic diversity than that observed among all other global populations</u>. Nevertheless, skin color–based human "typology" continues to be used and has largely contributed to falsely premised, biological racist theories with tragic consequences.

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For example, African Americans, on average, have approximately 80% West African ancestry and approximately 20% European ancestry (though this varies among individuals and by geographic region in the United States) but they may have <u>100% European</u>, <u>100% African</u>, or <u>mixed ancestry</u> at <u>particular loci</u> <u>that affect disease</u>. Thus, "global genetic" ancestries may not correspond with genetic risk for disease at any particular locus.

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Hence, "racial" classifications may not capture genetic differences that associate with disease risk. Variants associating with diseases will not, in most cases, have any relationship to "race" as socially defined, and hence, using this categorization can be misleading.

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