

Updated Environmental Tool May Delve Deeper, Identify Public Health Needs

by George Lauer, California Healthline Features Editor

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A study released earlier this month showing that Hispanics, blacks and Asians have a higher risk of exposure to environmental health hazards than whites in California used an outdated version of an online tool to gather data.

The updated version -- **CalEnviroScreen 2.0** -- may go even further than its predecessor in identifying and quantifying environmental health risks, according to health advocates.

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"There are a number of significant differences between the current CalEnviroScreen and the version used to do this study," said Sarah de Guia, executive director of California Pan-Ethnic Health Network, a statewide advocacy organization based in Oakland.

"The new version looks at census tracts instead of ZIP codes. It now has an index to measure water quality and looks at other factors like unemployment," de Guia said. "It can delve even deeper, and I think is now a more valuable tool that can be used at local levels when cities and counties are updating general plans."

"The idea around the tool is to arm people with [an] easy mechanism to get ahead of challenges," de Guia said.

Advocates, including de Guia, say policy decisions on many fronts -- including housing, city planning and transportation -- influence the health of individuals and communities.

"We need to have better strategies to make sure people who are low income or members of communities of color are not priced out of the housing market," de Guia said.

Study Shows Higher Risk for Minorities

According to **research published this month** in the *American Journal of Public Health*, risk exposure to a variety of health hazards from air and water pollution was 6.2 times higher for Hispanics than whites, and 5.8 times higher for blacks in California. Native Americans and Asians face roughly double the risk exposure of whites.

Researchers at UC-Berkeley and the California Environmental Protection Agency used CalEnviroScreen 1.1 to examine 11 hazards, including exposure to particle pollution, ozone and pesticides, traffic congestion and proximity to toxic waste sites.

Combined with demographic and income data such as age, health, wealth and education, researchers assigned a risk score to a variety of groups based on ethnicity, geography and other factors. The higher the number, the higher the risk exposure.

Lead author Lara Cushing, a PhD student in UC-Berkeley's Energy and Resources Group, said researchers were surprised by the disparities between racial groups.

"It is surprising to see such a consistent and stark disparity by race when it comes to the burden of environmental health hazards. It was a bigger factor than income," Cushing said in a prepared statement when the study was released.

"What's unique about this study is that we are looking at multiple hazards at once and including factors that make populations more vulnerable to the effects of pollution, such as age and disease status," Cushing said.

Using Cap-and-Trade Money

The California Communities Environmental Health Screening Tool -- CalEnviroScreen -- was created as part of two companion bills that established California's cap-and-trade program to reduce global warming.

The second-largest cap-and-trade auction in the world (after the European Union's), California's program allows electric power plants and other industrial producers of greenhouse gas emissions to buy and sell emission allowances on an open market. California's program is being watched carefully to determine the feasibility of an economy-wide barter system with strict emission standards and public health goals.

AB 1532, by Assembly member John Pérez (D-Los Angeles), required two state agencies -- the Department of Finance and the Air Resources Board -- to prepare an investment plan that ensures that cap-and-trade proceeds reduce greenhouse gas emissions, while maximizing job creation, public health and other "co-benefits."

SB 535 -- by Sen. Kevin de León (D-Los Angeles), now California Senate President Pro Tempore -- required that specific amounts of money generated in the cap-and-trade auction must be used to the benefit of disadvantaged communities. CalEnviroScreen is the main tool used to identify and measure disadvantaged communities.

New Version Has Advantages

The most significant change in the new version of CalEnviroScreen is the switch from ZIP codes to census tracts. California has 1,800 ZIP codes compared to about 8,000 census tracts. Using census data to define study areas allows for finer detail.

"This change in the updated version is going to allow much more targeted information and we think that will have an impact on two significant areas -- housing and transportation, both of which are important factors in public health," de Guia said.

"When cities and counties are considering new housing projects, rather than putting housing on a site that has potential environmental impacts, this information can be used to find better sites or in mitigating strategies," de Guia said.

"There are also ways to use CalEnviroScreen data in conjunction with the Active Transportation Program," de Guia said. "Active transportation can be a big part of improving public health."

California's Active Transportation Program, established in 2013, encourages and supports non-motorized forms of transportation, including bicycling and walking.

In addition to switching to census tract data, the new version of CalEnviroScreen includes other notable changes including:

- Addition of index of drinking water contaminants;
- Addition of unemployment rates, which have been linked to poor health;
- Adjustment of proximity to environmental hazards, showing the closer to the problem, the greater the health impact;
- Greater emphasis on hazardous waste facilities and generators; and
- Updated air quality monitoring.

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