



Environmental Injustice of Beauty

Sustainability Perspectives

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OUTLINE

The problem and how we got here

What is EJ of beauty?

Beauty Inside Out research

Moving towards change

Questions





We are ALL exposed to countless chemicals

Beauty products are poorly regulated*

- Beauty products (or cosmetics) falls under the Food and Drug Administration's (FDA) jurisdiction
 - Federal Food, Drug, and Cosmetic Act (FFDCA) gave FDA this authority in 1983
 - Updated for the first time Dec 2022
 - \$100 billion domestic cosmetic industry is effectively self-regulated
- ✗ Require premarket approval of cosmetic products
 - ✗ Authorize mandatory product recalls for products that harm human health
 - ✗ Require cosmetic manufacturers to register

In the news...



CNN 
@CNN



High levels of benzene, a cancer-causing chemical, have been detected in more brands and batches of dry shampoo products, according to a new report from independent laboratory Valisure



[cnn.com](https://www.cnn.com)

Independent lab finds 'troubling' levels of cancer-causing chemical in more typ...
High levels of benzene, a cancer-causing chemical, have been detected in more brands and batches of dry shampoo products, according to a new report from ...


Chemicals in products are linked to health effects


Top Toxic Cosmetic Ingredient to Avoid

Ethyl, Methyl, and Propyl Paraben

FOUND:
Hair care
Body care + Skin care
Make-up
Sunscreen

HEALTH HARMS:
Cancer, Endocrine disruption
Early puberty, Endometriosis
Pregnancy complications,
Maternal health concerns



 Campaign for Safe Cosmetics

Top Toxic Cosmetic Ingredient to Avoid

Fragrance

FOUND:
Perfume
body spray and haircare
Skin care
Body care
Baby care products

HEALTH HARMS:
Cancer
Hormone disruption
Reproductive harm
Developmental harm
Respiratory harm



 Campaign for Safe Cosmetics

Top Toxic Cosmetic Ingredient to Avoid

PFAS chemicals

FOUND:
Long-lasting waterproof lipstick
Mascara
Eyeliner
Anti-frizz + hair products

HEALTH HARMS:
Endocrine disruption
Cancer
Reproductive harm

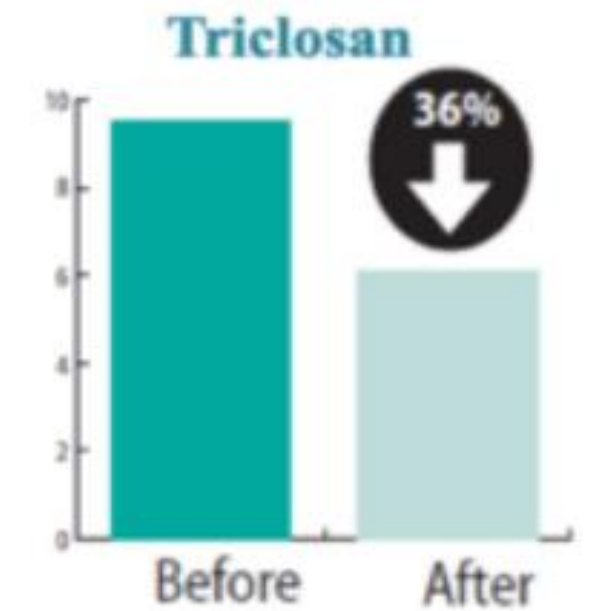
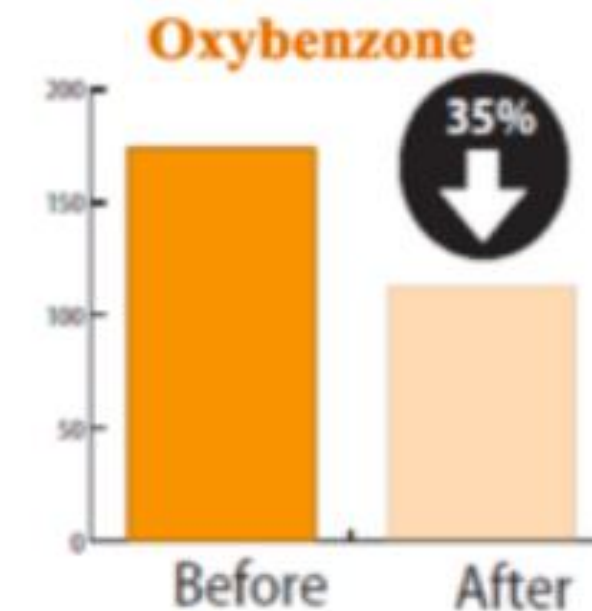
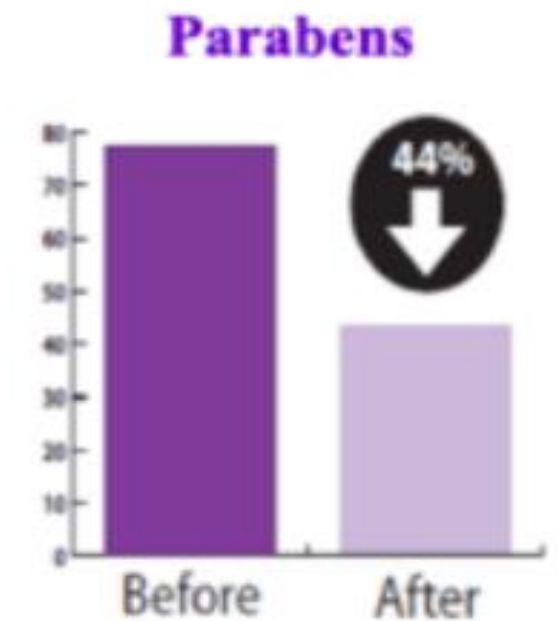
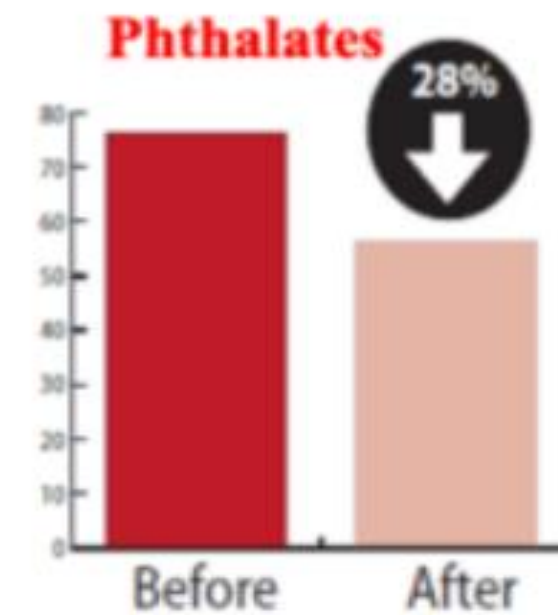


 Campaign for Safe Cosmetics

Use of clean products leads to lower measured chemicals in the body

Clean product intervention study

- 100 Latina teens were enrolled
- Researchers took **urine samples to measure chemicals in teens' bodies**
 - Urine samples were taken **before** and **after** teens were given **low-chemical personal care products to use for 3 days**
- Compared levels of hormone disrupting chemicals before and after the product switch



Women use several products per day



TAKINGSTOCKSTUDY.ORG

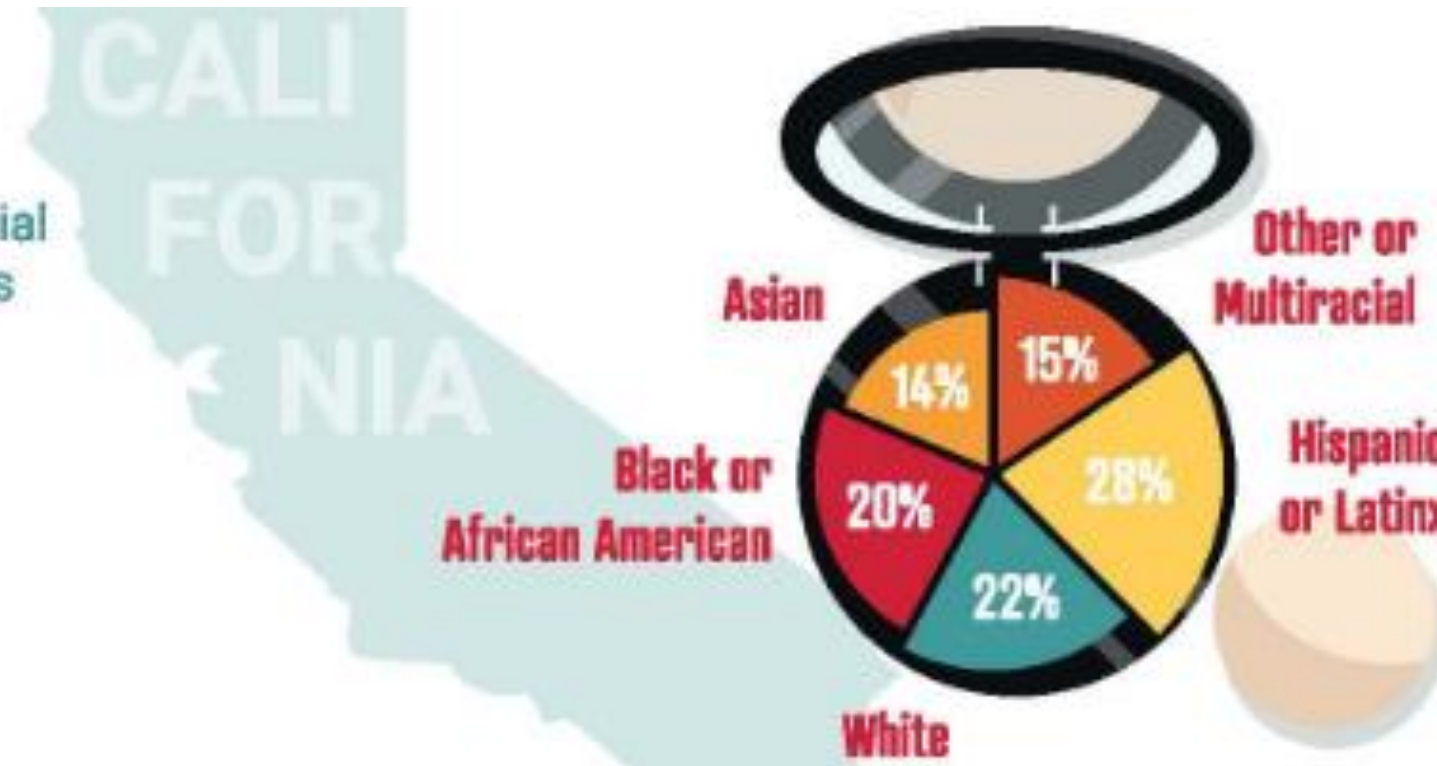
Study Goals

To document consumer product use among women of diverse ethnic and racial backgrounds and reproductive age (ages 18-34 years) living in California.

We surveyed

357 WOMEN

Including nonbinary, transgender, and self-catergorized.



What we learned from our survey

Women in the study reported using on average eight products a day, with some using up to 30 products daily.



Women of color use more products



TAKINGSTOCKSTUDY.ORG

For 28 of the 54 products, use varied significantly by race/ethnicity, with the largest difference seen between Black and White women.



Black women reported using a higher number of hair products and more menstrual/intimate products.



Source: [Taking Stock Study website](#), [Dodson et al, 2020](#)

Women of color use more products across multiple categories



Hair products

Skin lightening creams



Cosmetics

Fragranced products, vaginal deodorants



Dodson et al., 2021
Edwards et al., unpublished
Zota and Shamasunder 2018

**Beauty product
exposures**

**Environmental
racism**



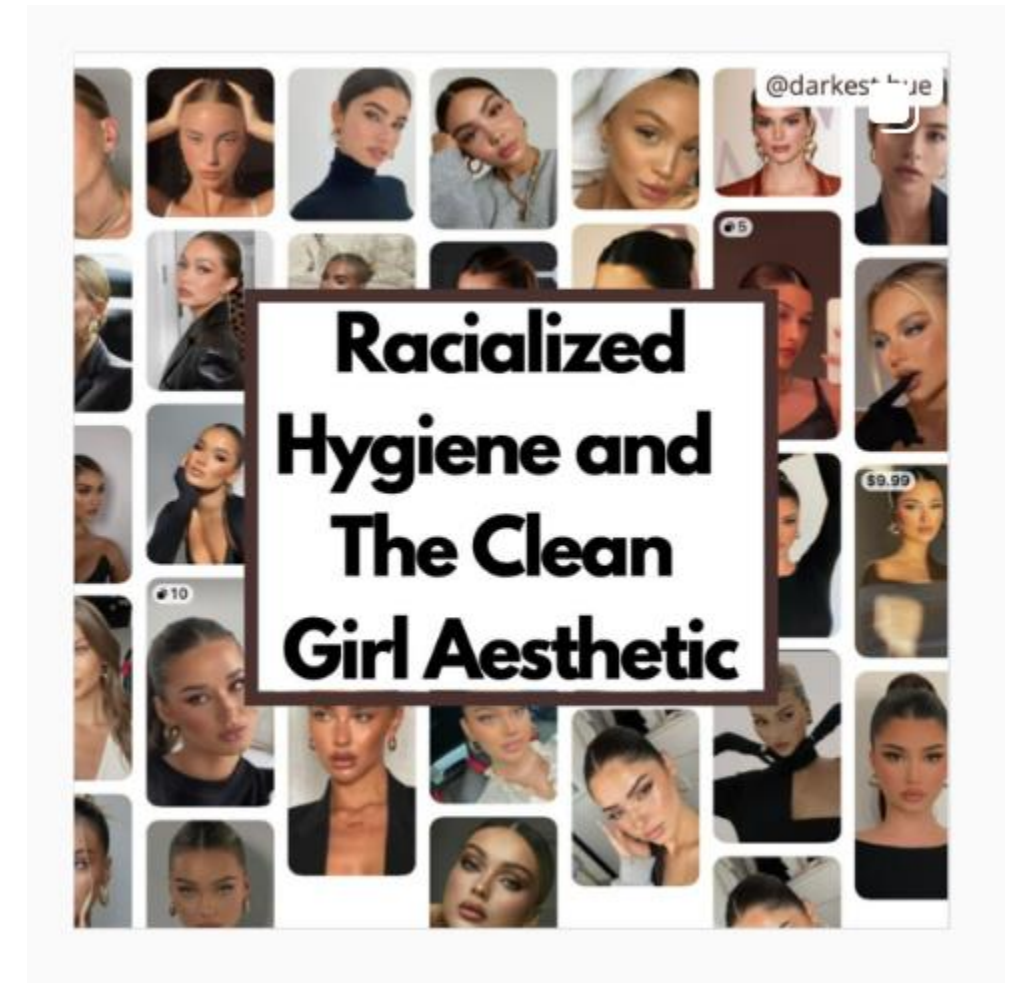
Environmental racism

Environmental racism is the disproportionate impact of environmental hazards on people of color



Beauty product exposures are a form of environmental racism

- Racialized beauty norms driving societal perception of beauty
- Being seen as pretty or attractive is not just about vanity
 - It decides who is seen as human
- Colorism and natural hair discrimination have real-world effects on people's lives
- Fitting into Eurocentric beauty standards means social, economic, and career advantages



Environmental Injustice of Beauty

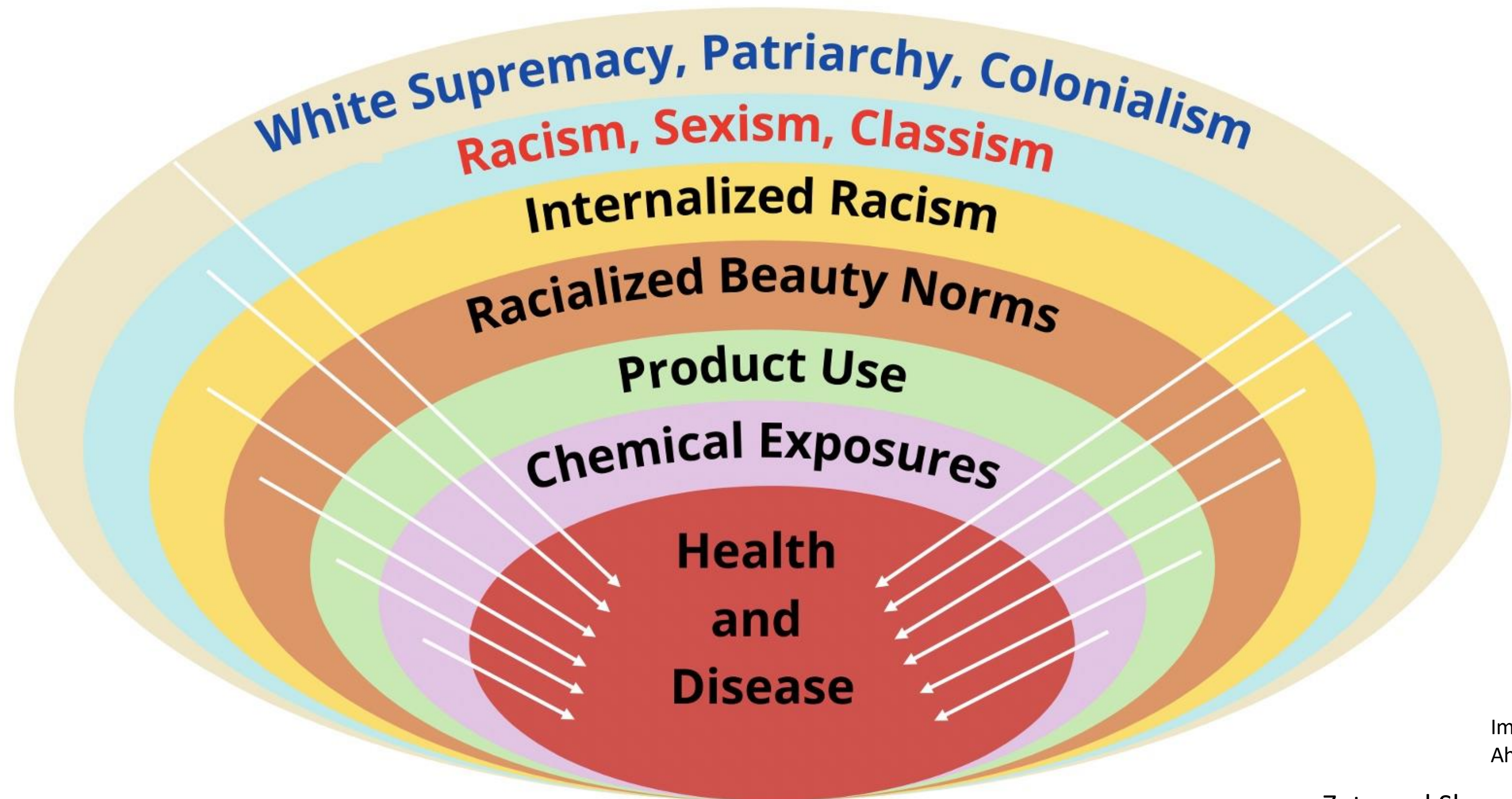


Image credit:
Ahmad and Zota

Zota and Shamasunder 2018

Environmental Injustice of Beauty

Eurocentric beauty standards disproportionately impact women of color who are **marketed** and **use** products containing **some of the most toxic chemicals**.



Chemical Straighteners

Black women

Contain **phthalates**, **parabens**, and **estrogenic chemicals**

Uterine fibroids, **premature puberty**, and **endocrine disruption**



Skin Lighteners

Dark-skinned people

Contain **mercury**, **hydroquinone**, and **corticosteroids**

Mercury poisoning, **neurotoxicity**, **kidney damage**, **metabolic problems**

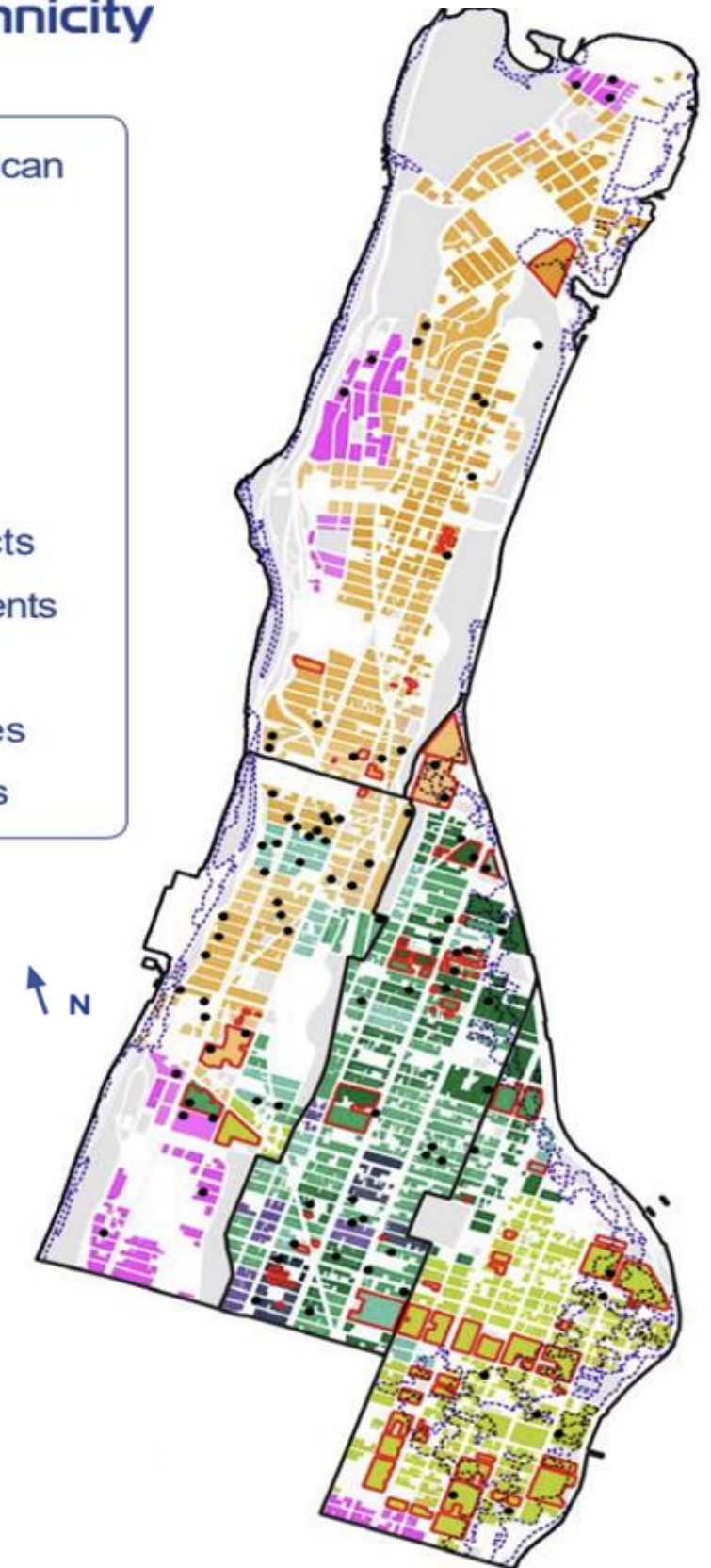
Health and exposure disparities *already* exist for women of color

- Studies already show that women of color have higher concentrations of beauty product chemicals, such as phthalates
- Women of color also face higher rates of diseases
 - Black women face highest breast cancer mortality, earlier puberty, and higher rates of hormone-mediated problems, such as pre-term birth and uterine fibroids)
 - Also, there's evidence of increasing incidence of endometrial cancer and poorer ovarian cancer outcomes

Beauty Inside Out Campaign at WE ACT

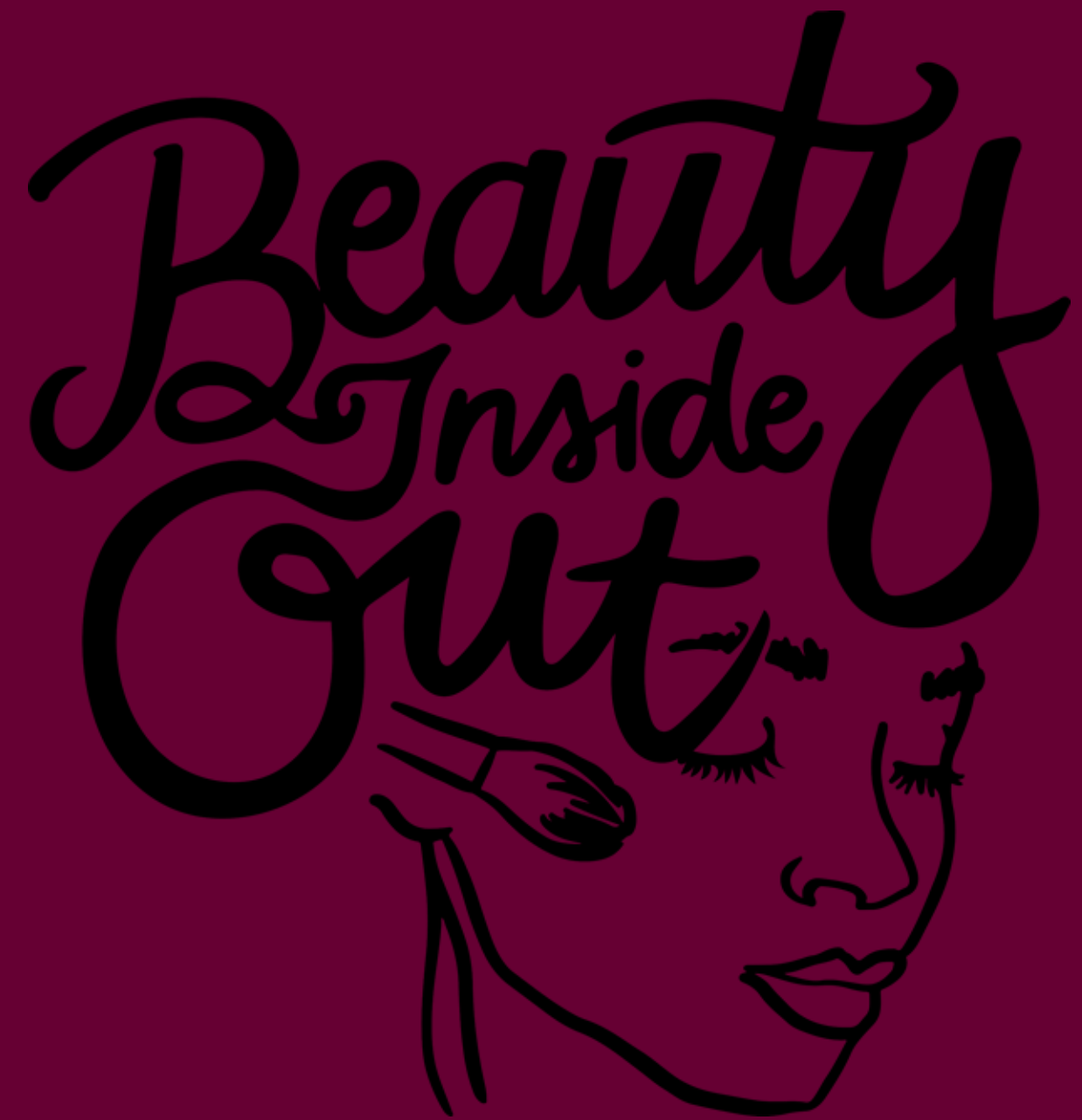
- To raise awareness about toxic beauty products in order to protect consumers in WE ACT's communities
- Results from store canvassing show that toxic skin lighteners and chemical straighteners are sold in these neighborhoods
- *Research arm* – survey of women and femme-identifying individuals about use and sentiments towards skin lighteners and chemical straighteners

Map: Race and Ethnicity



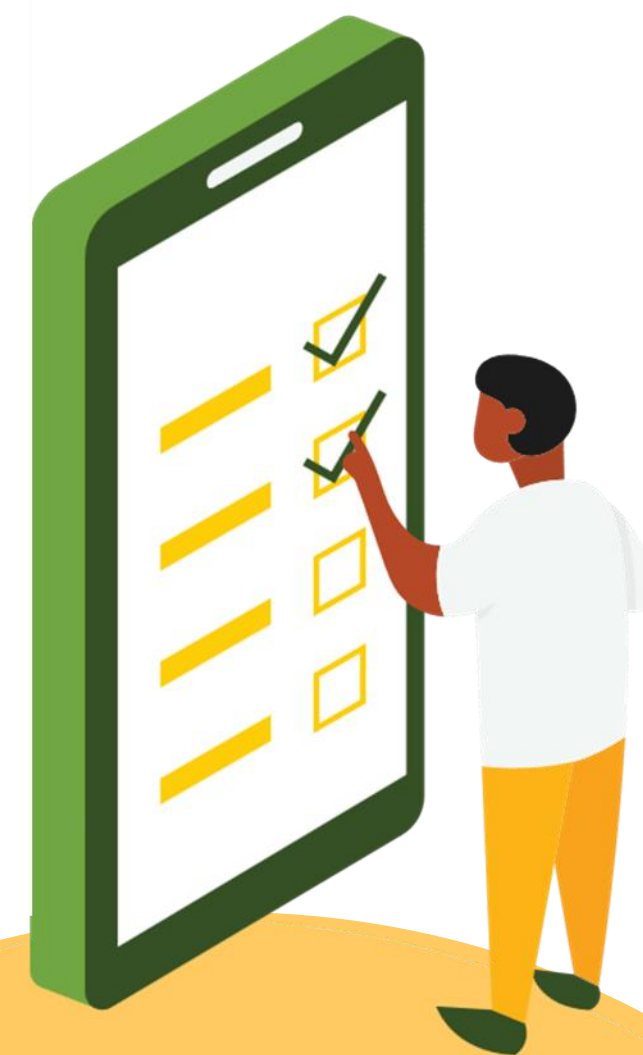
PAPER OBJECTIVES:

- 1) Characterize chemical straightener and skin lightener use in the study sample
- 2) Identify socio-demographic factors and social influences associated with product use



About the Survey

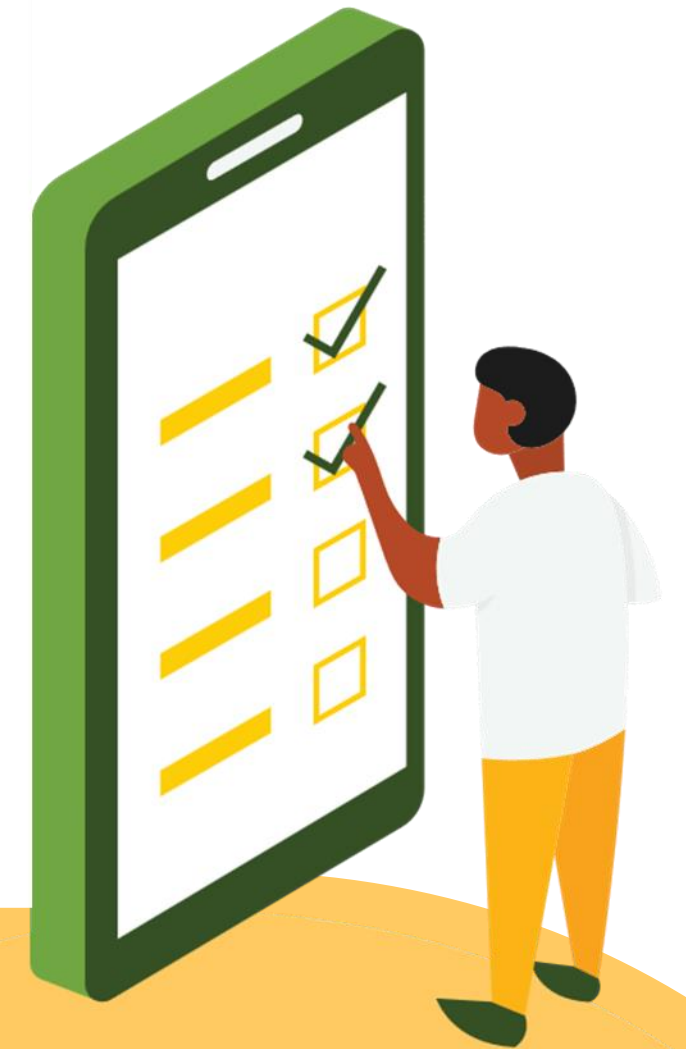
- Created by WE ACT staff and Yale SPH students
- Edited and finalized thanks to feedback from the research team, community focus groups, survey administrators and community informants
- 92 questions, in English and Spanish
 - Product use
 - Perceptions and attitudes around product use and light skin and straight hair generally
- Survey administered to women and femme-identifying individuals in Northern Manhattan and the South Bronx



Study Population Highlights

297 surveys primarily completed:

- in English (77%)
- By respondents aged 25-34 years (30%) or 35-44 years (22%)
- By respondents who identified as female (92%)
- By respondents who were born in the U.S., had a college degree or higher, and were single/not in a relationship (~50% for all)
- By respondents who identified as Hispanic (55%)
- By respondents who identified as Non-Hispanic Black (63%) and Asian (14%)



Big picture findings

- Individuals surveyed, **primarily women of color**, were **frequent users of chemical straighteners and skin lighteners**
- **Product use varied by race/ethnicity and country of birth**
- **Beauty** was the **top reported reason why individuals used products**
- **Racialized beauty norms** were **drivers of product use**



Product use varied by race/ethnicity

- Lifetime use of chemical straighteners was **44%** for females and for femme-identifying respondents **34%**
- Use was highest among Non-Hispanic and Hispanic Black respondents at **60%** and **48%** lifetime use, respectively



Product use varied by race/ethnicity and birth country

- Lifetime use of skin lighteners was **25%** among females and **22%** among femme-identifying respondents
- Use was highest among Asian respondents at **57%** for **lifetime and current use**
- **Respondents born in other countries were more likely to use skin lighteners** than respondents who were born in the U.S., particularly for Asian and Hispanic respondents*



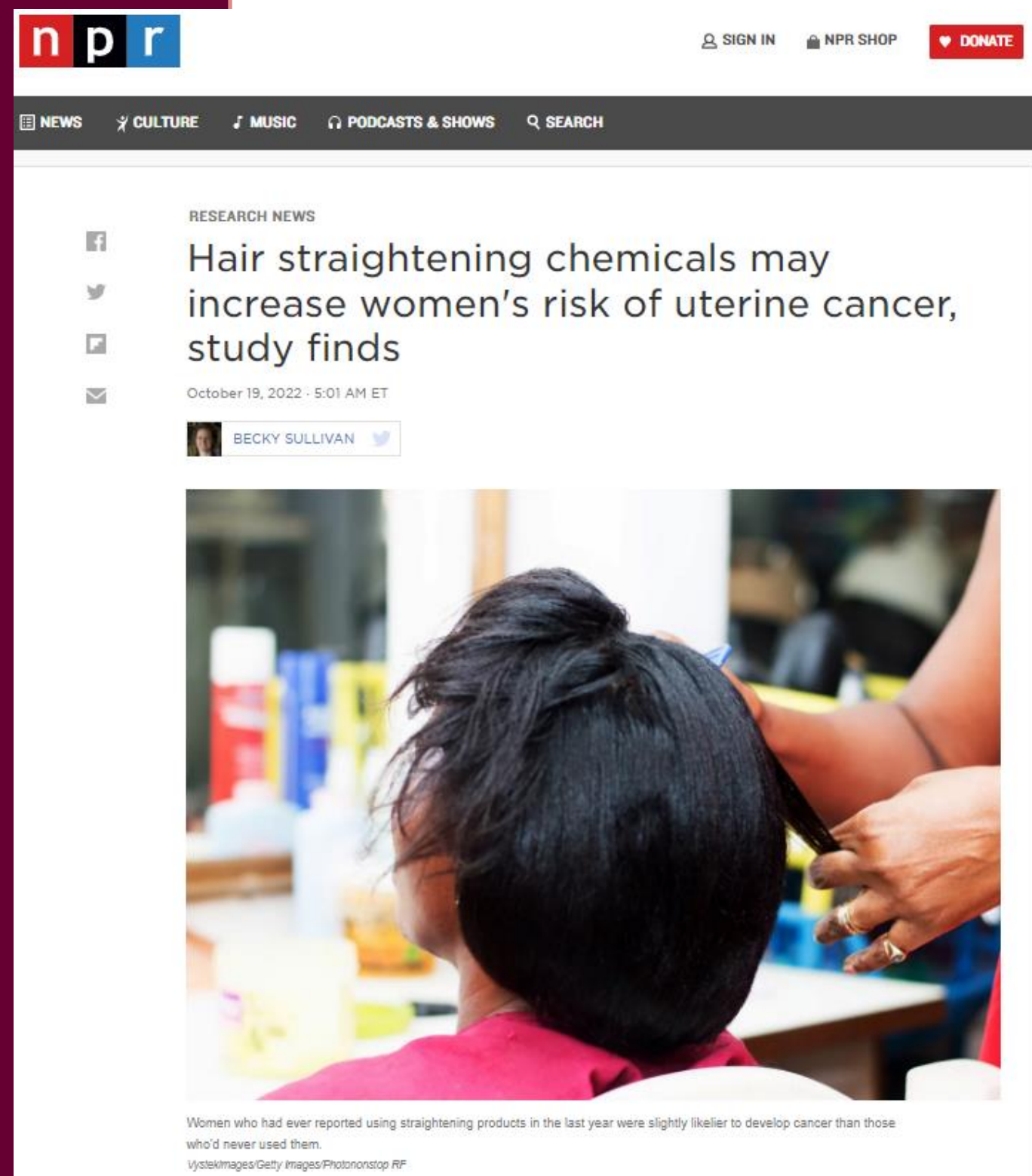
Racialized beauty norms & product use

- Respondents **were more likely** to use chemical straighteners in their lifetimes if they **believed others thought straight hair makes a women look a wealthier or more professional** *
- Respondents **were more likely to currently use skin lighteners** if they believed **others thought light skin make a woman look more beautiful or youthful** *



Hair relaxers linked to adverse health effects...again

Results in context...



The screenshot shows an NPR news article. At the top, there are links for 'SIGN IN', 'NPR SHOP', and 'DONATE'. Below that is a navigation bar with 'NEWS', 'CULTURE', 'MUSIC', 'PODCASTS & SHOWS', and 'SEARCH'. The article is categorized as 'RESEARCH NEWS' and has the title 'Hair straightening chemicals may increase women's risk of uterine cancer, study finds'. It is dated 'October 19, 2022 · 5:01 AM ET' and is by 'BECKY SULLIVAN'. The main image shows a woman with dark hair being styled by a hairdresser. Below the image is a caption: 'Women who had ever reported using straightening products in the last year were slightly likelier to develop cancer than those who'd never used them. VystekImages/Getty Images/Photononstop RF'.

- Higher incident uterine cancer rate for women who self-reported using hair straighteners in their lifetimes ever or greater than 4 times a year
- Compared to never users, frequent users were twice as likely to develop uterine cancer by the age of 70

Source: [Chang et al, 2022](#)

Results in context...

Colorism affects a lot us

"YOU ARE PERCEIVED AS BEAUTIFUL, CLEAN AND A MUCH BETTER PERSON"

CNN, White Lies

"YOU WILL NOT BE SELECTED [FOR THE JOB]"

CNN, White Lies

"TAUNTED, TEASED, HARASSED AND LOOKED DOWN UPON"

CNN, White Lies

62% of U.S. Latinos said having darker skin hurts their ability to get ahead

Pew Research Center

Sources:

[CNN article](#); [Pew Research Center Report](#)

Moving towards change

Solutions-oriented research informed by a theory of change

Social Norms

Address natural hair discrimination and colorism

Business

Greater availability of affordable, toxic-free products

Policy

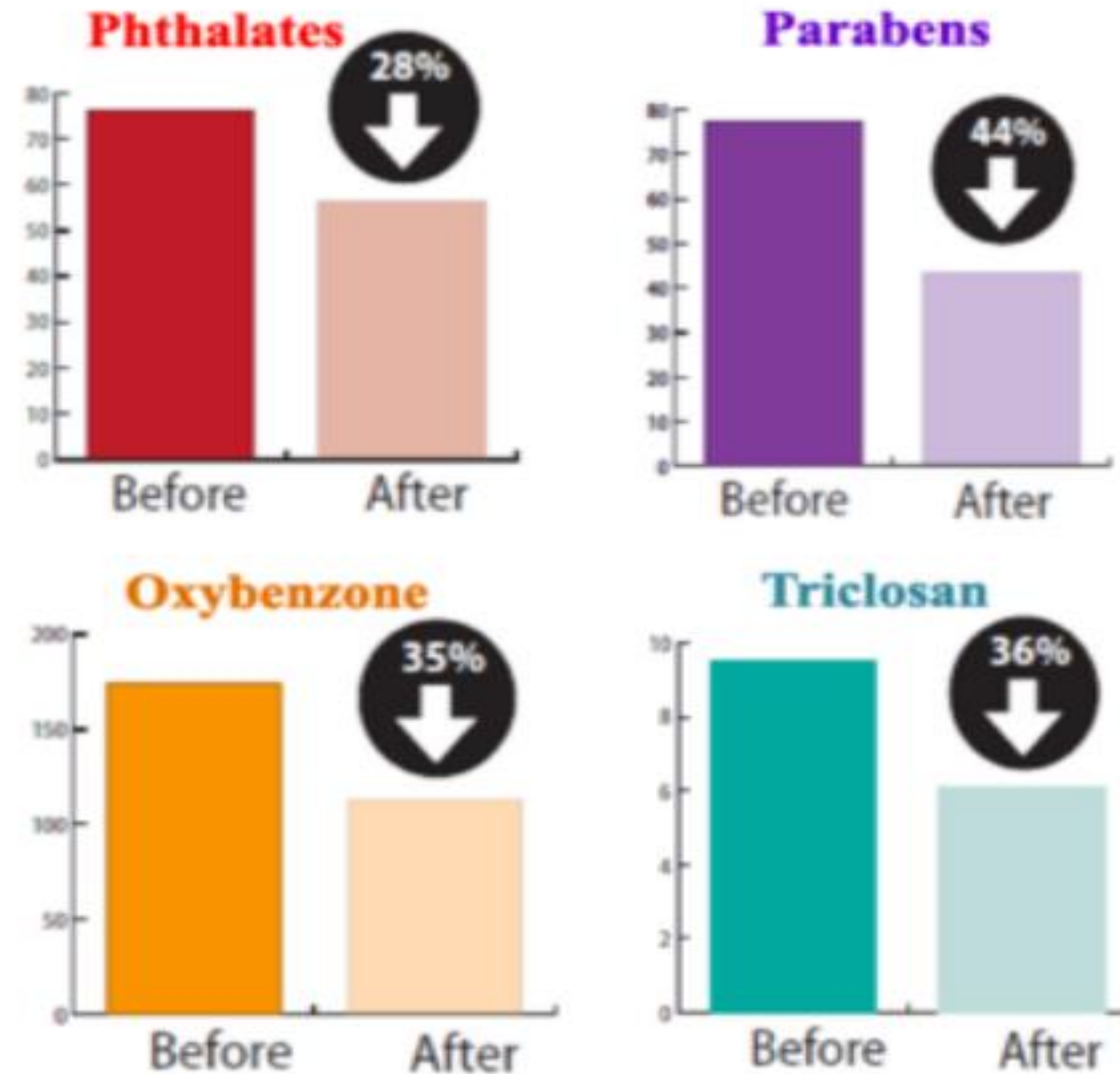
Regulate chemicals in products through state and federal laws

Individual Behavior

Educational interventions



Clean products lead to lower exposures



Sources: [Berkley CERCH](#) and [Harley et al 2016](#)

Clean, non-toxic products are accessible

- Many brands make shopping for clean products easier (e.g., Target, Credo)
 - Labels and filtering mechanisms to make finding product easier
 - Increased ingredient readability and transparency
- Availability of apps and databases that rate the toxicity of products based on ingredients (e.g., EWG Skin Deep, Think Dirty, Clea



Search...

Where All Beauty is Clean Beauty ▾

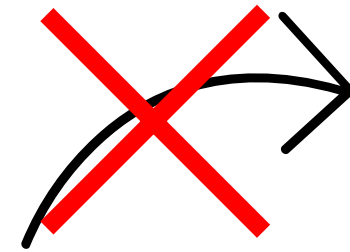


Look for the Target Clean symbol on beauty products to find those without phthalates, propylparaben & butylparaben, sodium laureth sulfate (SLES) & other ingredients you may not want.

Well, clean, non-toxic products are *kind of* accessible

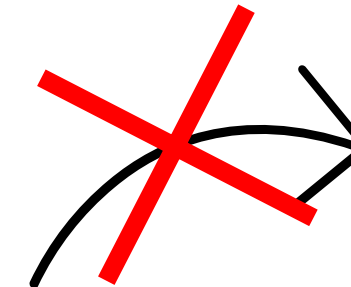
- Affordability – clean products are often more expensive
- Availability of clean products – only in certain neighborhoods
- “Greenwashing” with beauty products = when brands make claims about “cleanliness” of products
 - However, there is **no** industry standard definition of “clean”
 - The terms “natural” and “organic” are not defined specifically in the FFDCFA
 - Terms like “clean”, “non-toxic” may provide a false sense of security for consumers

Reduce your
carbon footprint.
But first, find
out what it is.



Combating
climate
change

Call it your mark on the world. It's the amount of carbon dioxide emitted due to your daily activities—from mowing your lawn to vacuuming your home. Find out the size of your household's carbon footprint, learn how you can reduce it, and see how we're reducing ours at bp.com/carbonfootprint. It's a start.



Addressing
beauty
injustice

Individual choice is complicated by larger forces

Importance of Policy

- **CROWN ACT:** Creating a **R**espectful and **O**pen **W**orld for **N**atural Hair addresses hair discrimination
- Law that prohibits race-based hair discrimination, which is the denial of employment and educational opportunities because of hair texture or protective hairstyles including braids, locs, twists or bantu knots
- Passed in 18 states, including New York
- Policy that fights discrimination and potentially helps to change narratives around hair

Importance of Policy

- Modernization of Cosmetics Regulations Act = first time federal cosmetics law has been updated in over 80 years
- California and Maryland banned the most toxic chemicals from products updated cosmetics regulation

Change also means acknowledging gaps

- Disproportionate exposures to beauty product chemicals often centers women
 - other groups are missing from the conversation
- Research should include people of all gender identities
 - Rise of gender-neutral makeup
 - Use of hormones + beauty product chemical exposures could lead to health effects that are going unstudied
- Hair and nail salon workers who work with these products daily post-COVID infection
 - How has COVID increased susceptibility?

ACKNOWLEDGEMENTS

GW Milken School of Public Health Columbia University Mailman School of Public Health Research Team- Dr. Ami Zota, Samar Ahmad, Lariah Edwards, Rena Miu

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THANK YOU TO ALL THE COMMUNITY MEMBERS WHO PARTICIPATED IN THE STUDY AND HELPED MAKE THIS WORK POSSIBLE!



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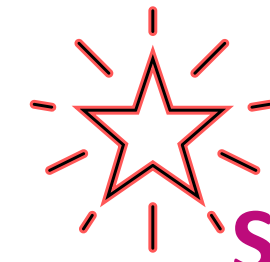
Ime2156@cumc.Columbia.edu



Stronger policies would protect **everyone**

Safer Beauty Bills package for real cosmetics safety reform

1. Ban 11 of the most toxic chemicals such as mercury, formaldehyde, parabens, phthalates, and PFAS
2. Defend the health of women of color and salon workers
3. Require the disclosure fragrance and flavor ingredients
4. Ensure supply chain transparency, so cosmetics companies can get the information they need from their upstream suppliers to make safer products



**State-level
wins!**



**CA and MD:
banned the most
toxic chemicals
from products!**



BEAUTY INSIDE OUT: Examining Beauty Product Use Among Diverse Women and Femme-Identifying Individuals in Northern Manhattan and South Bronx Through an Environmental Justice Framework

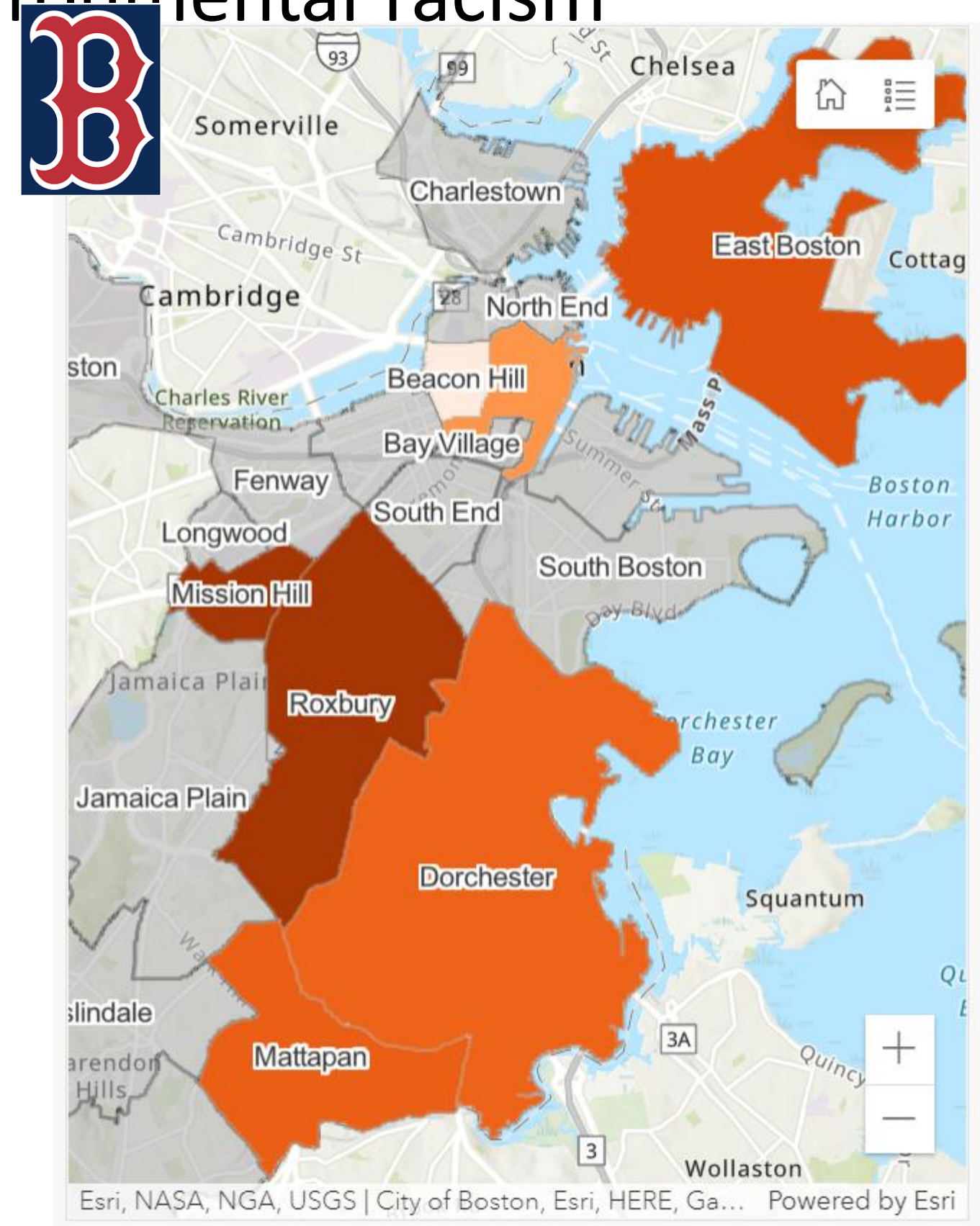
Lariah Edwards, Lubna Ahmed, Leslie Martinez, Sophia Huda, Bhavna Shamasunder, Jasmine A. McDonald, Robert Dubrow, Beaumont Morton, and Ami R. Zota

Published in *Environmental Justice*, check under New Articles, Online Now



Beauty product exposures are a form of environmental racism

- Where you **live** can determine your ability to find non-toxic products
- Neighborhoods where predominately people of color live have more stores that sell toxic products
 - In the map, darker orange = more likely to find hazardous hair products in the neighborhood compared to Beacon Hill



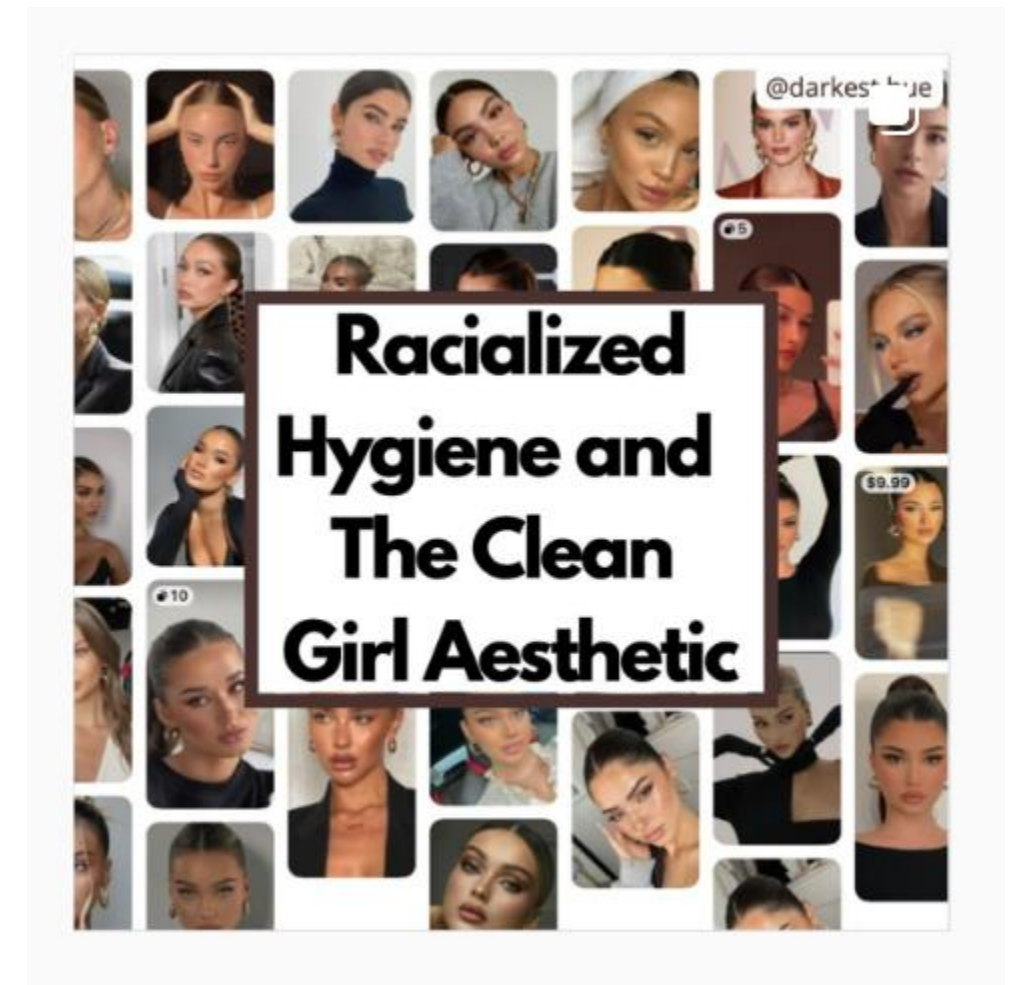
Beauty product exposures are a form of environmental racism

- **Occupation** can determine your chemical exposures
- Beauty industry workers, hair stylists and manicurists and are highly exposed to chemicals in personal care products because of their jobs
- 8+ hrs a day handling and breathing in personal care products
- Who? In 2020, people of Asian descent made up **10%** of workforce. Yet, **75%** of manicurists and pedicurists.



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- Being seen as pretty or attractive is not just about vanity
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- Colorism and natural hair discrimination have real-world effects on people's lives
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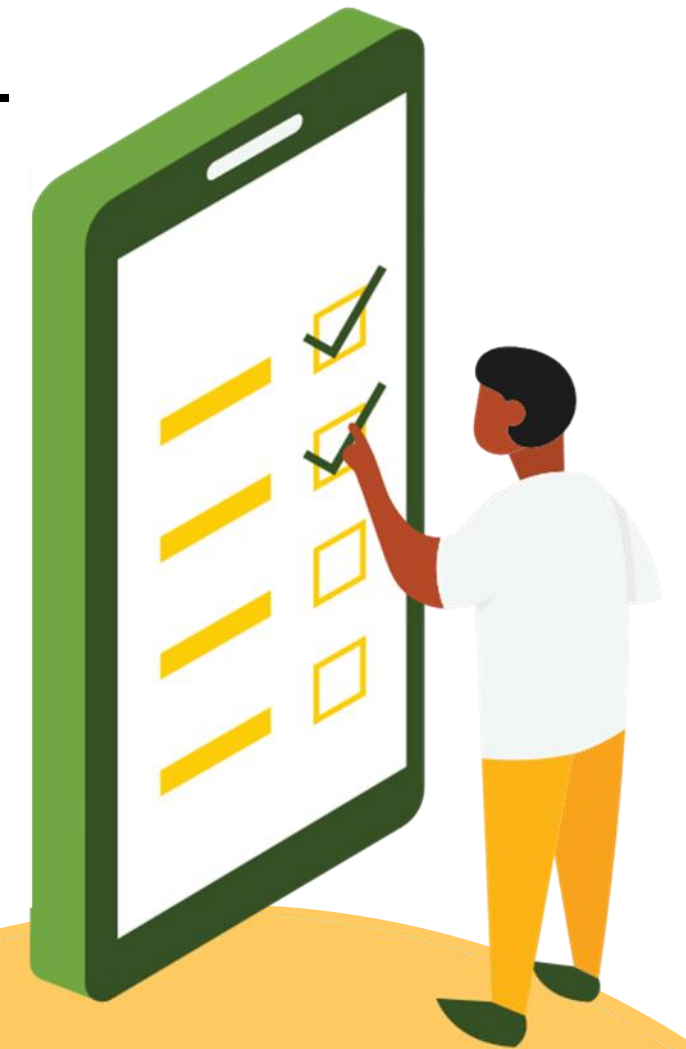
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 - Also, there's evidence of increasing incidence of endometrial cancer and poorer ovarian cancer outcomes

Survey Dissemination

- Trained community members administered the survey March and Oct-Nov 2020
- 18–45-year-old women and femme-identifying individuals
- Study neighborhoods included:
 - Morningside Heights
 - Hamilton Heights
 - Manhattanville
 - West Harlem
 - Central Harlem
 - East Harlem
 - Washington Heights
 - Inwood
 - South Bronx

396
surveys
collected!



The influence of personal networks on straightener use

- Messaging about hair was an important factor
- **Respondents who heard peers or family members express a preference for straight hair were more likely to use chemical straighteners in their lifetimes***
- This was compared to respondents who recalled that family and peers had mixed preferences about hair type



Perceptions are important

- **50%** of respondents thought that others find lighter skin more beautiful on women, while only **33%** of respondents reported personally feeling this way.*
- Similar findings with light skin making women look **younger, wealthier, or more professional***
- Respondents **were more likely to currently use** if they believed **others thought light skin make a woman look more beautiful or youthful ***



Key Takeaways

- Use of products was common among survey respondents
- Product use varied by race/ethnicity and place of birth
- Racialized beauty norms are important drivers of product use
 - Our results speak to deeper themes about internalization of racialized beauty norms that may surface when purchasing products – even if folks say they do not hold these beliefs themselves

