

PROMOTING SAFER COSMETICS THROUGH COMPREHENSIVE LEGISLATION

BY TENIOPE ADEWUMI-GUNN



Personal care products marketed to black women contain some of the most toxic ingredients on the market.

The cosmetics industry is untested and under-regulated, leaving women and vulnerable communities at risk for reproductive and developmental disorders, cancer, and other adverse health effects. Women should have the right to safe, non-toxic cosmetics products, and be protected through regulation, transparency, and accountability of manufacturers.

WOMEN ARE disproportionately exposed to toxic chemicals found in cosmetics. Because of inadequate regulation, the scope of assessment for safety in chemicals used in cosmetics is unknown. An average woman in the United States uses 12 personal care products daily, corresponding to 168 unique chemicals (Environmental Working Group). Research has demonstrated that many of the ingredients used in these products are linked to reproductive and developmental disorders, cancer, and other adverse health effects (Koo & Lee, 2004; Diamanti-Kadarakis et al., 2009; Darbre, 2006; Darbre, 2005; Dodson et al., 2012; Guo & Kannan, 2013, 33, 34). Vulnerable groups including children, women of color, and workers of reproductive age are at most risk from the health impacts caused by toxic chemicals in cosmetics.

Use of cosmetics during childhood

has also been linked to adverse health concerns. Studies have connected use of such products with earlier age of menarche and puberty, and increased metal- and hormone-disrupting chemical levels in children and teenagers (Corazza et al., 2009; Harley, 2016; Tiwary, 1998).

Black women account for the largest demographic of cosmetics spending in the U.S., contributing to \$7 billion annually (Smith, 2009). Black beauty culture is deeply interconnected with the conversation around class, gender, race, colorism and colonialism (Adewumi & Flint, 2016). The most toxic products marketed to Black women are those aimed at achieving a Eurocentric look that has deep roots in colonialism. Personal care products that are marketed to and used by Black women contain some of the most toxic ingredients on the market (Holloway, 2003). These products include hair relaxers and skin lighteners; both have been linked to reproductive health effects, such as uterine fibroids, smaller placentas, and infants with low birth weight (de Souza, 2008; Kooyers & Westhof, 2006; Wise et al., 2012). Still to this day, due to racism, many Black women and girls are unable to wear their natural hair at work or in school.

Women who work in the beauty industry are also at a greater risk of adverse health impacts from professional use of personal care products (Bofetta, 1994; Halliday-Bell et al., 2009; Hollund & Moen, 1998). Over 1.2 million people are employed in this sector, including hairdressers, cosmetologists, and nail-salon workers. Some of the most hazardous chemicals in salon products are dibutyl phthalate, formaldehyde, toluene (together often referred to as the toxic trio), and sodium hydroxide (Roelofs et al., 2008; Tsigonia et al., 2010). These products are consistently linked to reproductive and developmental disorders (Porter, et al., 2011). Hairdressers in particular face increased risk of infertility and spontaneous abortion (Burdorf et al., 2006; Cnattingius et al., 2000; Ronda et al., 2010).

The Federal Food, Drug and Cosmetics Act fails to sufficiently protect consumers and workers from the adverse health impacts of chemicals in personal care products (Schultz, 1981). Current laws—including the Toxic Substances Control Act—do not require companies to test their products for safety before releasing them. The Federal Drug Administration (FDA) has no practical authority to regulate cosmetics products and cannot recall those that are misbranded or proven to be toxic. The FDA can only act through bringing lawsuits for misbranded or adulterated cosmetics. In 2011, for example, the FDA responded to calls from professionals, consumers, and activists to test “Brazilian Blowouts,” a hair-smoothing product, for formaldehyde, a carcinogen known to cause asthma and allergic dermatitis (US Food and Drug Administration). Testing found high levels of formaldehyde-releasing chemicals (Dahlgren et al., 2013; Maneli et al., 2014). However, under current legislation, the products could not be removed from sale in the U.S. and are currently still available

(US Department of Labor).

The FDA has a variety of Scientific Advisory Committees whose focus include evaluating a number of products such as tobacco and pharmaceuticals. Currently there is no Scientific Advisory Committee solely focused on cosmetic products (“About Advisory Committees”). Without effective federal oversight, the industry relies for ingredient assessment on the nonprofit Cosmetic Ingredient Review (CIR) (Elder, 1984; McNary & Jackson, 2007). In contrast to widely accepted scientific consensus, the CIR considers certain chemicals including, at one point, formaldehyde safe for cosmetic use (Duhayon, 2008; Elder, 1984; McNary & Jackson, 2007).

Cosmetics products face more stringent regulation in the European Union and Canada than the United States. In 1976, the European Union enacted the EU Cosmetics Directive, a law regulating the cosmetic industry in the 28 EU countries (Buzek & Ask, 2009). The directive, requiring premarket assessments of cosmetics and mandatory registration of products, has been instrumental in banning over 1,300 chemicals from cosmetic use in the EU. Similar legislation in Canada includes cosmetic ingredient disclosure to Health Canada, strict product labeling requirements, and an accessible database of prohibited cosmetic ingredients (Legislative Services Branch).

Introduced by California State Senator Dianne Feinstein, the Personal Care Product Safety Act of 2015 would have aimed to improve regulation in the cosmetic industry. Key provisions included ingredient disclosure for all personal care products for consumers and professionals; mandatory registration of cosmetic product, ingredients and facilities; and the authority for the FDA to recall unsafe products from market. Additionally, the FDA would have been required to conduct safety investigations of at least five cosmetic chemicals annually.

While a key step toward consumer health and safety, this bill fell short of full protection from toxic cosmetic ingredients. Fragrances would have been exempt for ingredient disclosures, adverse health

reactions could go unreported, and safety review retained by the industry. The bill also prevented states from establishing legislation to address chemicals reviewed by the FDA. For those reasons several safer personal care products advocates who would have liked to see stronger legislation opposed the bill in its original state (Campaign for Safe Cosmetics, 2015). In addition, a number of manufacturers opposed the bill as they believed it “places too large a burden on small business, stifles innovation in the cosmetics and personal care industry, and does not provide appropriate and significant national uniformity” (Independent Cosmetic Manufacturers, 2015.) The Personal Care Product Safety Act of 2015 was held in the Senate - Health, Education, Labor, and Pensions committee and has yet to be introduced again in 2017.

California became the first state to pass legislation for safe cosmetics and ingredient reporting. The California Safe Cosmetics Act created the California Safe Cosmetics Program Database where manufacturers must disclose any product ingredient that is on state or federal lists of chemicals that cause cancer or birth defects (Walsham, 2006). However, this list is far from comprehensive, as chemical ingredient safety, testing is still limited and the burden of proof lies with independent researchers rather than manufacturers (California Department of Public Health).

RECOMMENDATIONS

Policy:

In order to ensure that women, children, and families are adequately protected from the impacts of possibly toxic chemicals, strong and comprehensive policies ensuring safe cosmetics must be enacted. Individual states should introduce policies similar to the California Safe Cosmetics Act that disclose harmful chemicals in cosmetics. Policies that include comprehensive safety testing and full disclosure hold cosmetics manufacturers accountable.

Federally, the Personal Care Product Safety Act of 2015 should be reintroduced with additional provisions that

comprehensively protect consumers and professionals. Extensions should grant the FDA authority to publicly report products known to cause adverse health effects; to require ingredient reporting in fragrances; and include funding to establish a Scientific Advisory Committee of scientists appointed by a regulatory body to assess the safety of chemicals and ingredients used in cosmetics.

Stronger regulations and enforcement of policies is crucial to mitigate toxic exposure. Legislation that funds and implements a system to regulate and/or remove chemicals that are proven health risks should be high priority. Those impacted should be included in the creation of policies that reduce exposures, increase safety protocols and regulate the chemical industry manufacturing products.

Research:

Currently there is limited information about ingredients, chemical composition and the health impact of products that hair care professionals and consumers use, especially in the products used in the Black community. Proper labeling practices will help empower stylists and consumers to make healthy and informed decisions when shopping for products to use.

Additional research is needed that is community participatory, focused on product use and workplace exposures to communities of color, and that seeks solutions to the increased health risks. Currently very few studies research the impact of chemical exposure on Black women.

Inclusion of African American/Black researchers, adequate funding and links to policy makers and administrators is critical to reverse the adverse impacts of chemical exposures from personal care and beauty products.

Campaigns:

There have been some successful campaigns around toxic chemicals in everyday products. Some noted campaigns include Detox the Box by Women’s Voices for the Earth, which aimed to remove toxic

continued on page 10

chemicals from feminine hygiene products. Through partnering with allies, pushing an aggressive online petition campaign, and other organizing tactics, the campaign was able to get Procter and Gamble and Kimberly Clark, the largest feminine care manufacturers to disclose ingredients in pads and tampons. In 2011 Black Women for Wellness, Physicians for Social Responsibility, Los Angeles and other groups worked together to launch a campaign to ban Bisphenol A (BPA) from baby bottles. The campaign saw huge wins in the passing of California Assembly Bill 1319 (Butler) into law that banned BPA from baby bottles in California. These are just a few examples of how community organizing and grassroots led efforts have pushed changes in toxic chemical disclosure and bans to better impact the lives of women and children.

There are current campaigns for safer cosmetics and personal care products in California led by groups including Black Women for Wellness, California Healthy Nail Salon Collaborative, Californians for a Healthy and Green Economy, Physicians for Social Responsibility, Los Angeles and more. Researchers and interested consumers should link up with these groups and work collaboratively to decrease toxic chemicals in our everyday products.

Teniope Adewumi-Gunn is currently a doctoral student in the Environmental Health Sciences department at UCLA Fielding School of Public Health. Previously, she was the Environmental Justice Research and Policy Analyst for Black Women for Wellness, where she used her industrial hygiene skill set to engage community members to influence local, state, and national level policies that regulate the safety of chemical use in cosmetics and personal care products. Her work has been featured in *HuffPost Live*, *Cosmopolitan*, *Essence Online*, *Atlantic CityLab*, *Think Progress* and more. She completed her Bachelor of Science in Environmental Health Sciences at California State University, San Bernardino and her Masters of Science in Environmental Health Sciences at UCLA.

REFERENCES

- Adewumi, T., & Flint, N. (2016). *Natural Evolutions One Hair Story*. Retrieved from <http://www.bwwla.org/natural-evolutions-one-hair-story/>
- Bergfeld, W. F., Belsito, D. V., Marks, J. G., & Andersen, F. A. (2005). Safety of ingredients used in cosmetics. *Journal of the American Academy of Dermatology*, 52(1), 125-13
- Boffetta, P., Andersen, A., Lyng, E., Barlow, L., & Pukkala, E. (1994). Employment as hairdresser and risk of ovarian cancer and non-Hodgkin's lymphomas among women. *Journal of Occupational and Environmental Medicine*, 36(1), 61-65.
- Branch, L. S. (2007). Consolidated federal laws of Canada, Cosmetic Regulations. Retrieved April 18, 2017, from http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.%2C_c._869/
- Burdorf, A., Figà-Talamanca, I., Jensen, T. K., & Thulstrup, A. M. (2006). Effects of occupational exposure on the reproductive system: core evidence and practical implications. *Occupational Medicine*, 56(8), 516-520.
- Buzek, J., & Ask, B. (2009). Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products. *Official Journal of the European Union L*, 342.
- California Department of Public Health (2012). House of Representatives Committee on Energy and Commerce Health Subcommittee Hearing on Examining the Current State of Cosmetics [Press Release]. Retrieved from <https://www.cdph.ca.gov/programs/cosmetics/Documents/TestimonyQuestions.pdf>
- Campaign for Safe Cosmetics (2015). Historic Federal Cosmetic Safety Legislation Could Finally Protect Consumers from Dangerous Chemicals in Personal Care Products [Press Release]. Retrieved from <http://www.safecosmetics.org/about-us/media/press-releases/historic-federal-cosmetic-safety-legislation-could-finally-protect-consumers-from-dangerous-chemicals-in-personal-care-products/>
- Cnattingius, S., Signorello, L. B., Annerén, G., Clausson, B., Ekblom, A., Ljunger, E., ... & Granath, F. (2000). Caffeine intake and the risk of first-trimester spontaneous abortion. *New England Journal of Medicine*, 343(25), 1839-1845.
- Corazza, M., Baldo, F., Pagnoni, A., Miscioscia, R., & Virgili, A. (2009). Measurement of nickel, cobalt and chromium in toy make-up by atomic absorption spectroscopy. *Acta dermato-venereologica*, 89(2), 130-133.
- Dahlgren, J., Roback, R., Dominguez, M., Byers, V., Silver, D., & Faeder, E. (2013). Case Report: Autoimmune Disease Triggered by Exposure to Hair Straightening Treatment Containing Formaldehyde. Darbre, P. D. (2006). Environmental oestrogens, cosmetics and breast cancer. *Best Practice & Research Clinical Endocrinology & Metabolism*, 20(1), 121-143.
- Darbre, P. D. (2005). Aluminium, antiperspirants and breast cancer. *Journal of Inorganic Biochemistry*, 99(9), 1912-1919.
- de Souza, M. M. (2008). The concept of skin bleaching in Africa and its devastating health implications. *Clinics in Dermatology*, 26(1), 27-29.
- Diamanti-Kandaraki, E., et al., Endocrine-disrupting chemicals: an Endocrine Society scientific statement. *Endocrine Reviews*, 2009. 30(4): p. 293-342.
- Elder, R. L. (1984). Final report on the safety assessment of formaldehyde. *Journal of the American College of Toxicologists*, 3(3), 157-184.
- Dodson, R. E., Nishioka, M., Standley, L. J., Perovich, L. J., Brody, J. G., & Rudel, R. A. (2012). Endocrine disruptors and asthma-associated chemicals in consumer products. *Environmental Health Perspectives*, 120(7), 935.
- Duhayon, S., Hoet, P., Van Maele-Fabry, G., & Lison, D. (2008). Carcinogenic potential of formaldehyde in occupational settings: a critical assessment and possible impact on occupational exposure levels. *International Archives of Occupational and Environmental Health*, 81(6), 695-710.
- Elder, R. L. (1984). The cosmetic ingredient review—a safety evaluation program. *Journal of the American Academy of Dermatology*, 11(6), 1168-1174.
- Environmental Working Group, EWG's Skin Deep Cosmetic Database. 2011.
- Guo, Y., & Kannan, K. (2013). A survey of phthalates and parabens in personal care products from the United States and its implications for human exposure. *Environmental Science & Technology*, 47(24), 14442-14449.
- Halliday-Bell, J. A., Gissler, M., & Jaakkola, J. J. (2009). Work as a hairdresser and cosmetologist and adverse pregnancy outcomes. *Occupational Medicine*, 180-184
- Harley, K. G., Kogut, K., Madrigal, D. S., Cardenas, M., Vera, I. A., Meza-Alfaro, G., ... & Eskenazi, B. (2016). Reducing phthalate, paraben, and phenol exposure from personal care products in adolescent girls: findings from the HERMOSA Intervention Study. *Environmental Health Perspectives*, 124(10), 1600.
- Hollund, B. E., & Moen, B. E. (1998). Chemical exposure in hairdresser salons: effect of local exhaust ventilation. *The Annals of Occupational Hygiene*, 42(4), 277-281.
- Holloway, V. L. (2003). Ethnic cosmetic products. *Dermatologic Clinics*, 21(4), 743-749.

Koo, H.J. and B.M. Lee, Estimated exposure to phthalates in cosmetics and risk assessment. *Journal of Toxicology and Environmental Health, Part A*, 2004. 67(23-24): p. 1901-1914.

Independent Cosmetic Manufacturers and Distributors (2015). Feinstein Bill Would Burden Small Business and Stifle Innovation [Press Release]. Retrieved from <http://www.icmad.org/news/press-releases>

About Advisory Committees. (n.d.). [Website]. Retrieved April 18, 2017, from <https://www.fda.gov/AdvisoryCommittees/AboutAdvisoryCommittees/default.htm>

Kooyers, T. J., & Westerhof, W. (2006). Toxicology and health risks of hydroquinone in skin lightening formulations. *Journal of the European academy of Dermatology and Venereology*, 20(7), 777-780.

McNary, J. E., & Jackson, E. M. (2007). Inhalation exposure to formaldehyde and toluene in the same occupational and consumer setting. *Inhalation Toxicology*, 19(6-7), 573-576.

Maneli, M. H., Smith, P., & Khumalo, N. P. (2014). Elevated formaldehyde concentration in "Brazilian keratin type" hair-straightening products: A cross-sectional study. *Journal of the American Academy of Dermatology*, 70(2), 276-280.

Olsen, J. H., Jensen, S. P., Hink, M., Faurbo, K.,

Breum, N. O., & Jensen, O. M. (1984). Occupational formaldehyde exposure and increased nasal cancer risk in man. *International Journal of Cancer*, 34(5), 639-644.

Porter, C., et al. (2011). Policy recommendations to reduce toxic exposures for nail salon workers. *AAPINexus: Policy, Practice and Community*, 9(1-2), 43-50.

Roelofs, C., Azaroff, L. S., Holcroft, C., Nguyen, H., & Doan, T. (2008). Results from a community-based occupational health survey of Vietnamese-American nail salon workers. *Journal of Immigrant and Minority Health*, 10(4), 353-361.

Ronda, E., Moen, B. E., García, A. M., Sánchez-Paya, J., & Baste, V. (2010). Pregnancy outcomes in female hairdressers. *International Archives of Occupational and Environmental Health*, 83(8), 945-951.

Schultz, H.W. (1981). Federal Food, Drug, and Cosmetic Act. In *Food Law Handbook* (pp. 530-546). Springer Netherlands.

Smith, S. (2009). Essence panel explores beauty purchasing. *Women's Wear Daily*. Retrieved from <http://www.wwd.com/beauty-industry-news/marketing-trends/essence-panelexplores-beauty-purchasing-2139829>

Tiwary, C. M. (1998). Premature sexual develop-

ment in children following the use of estrogen-or placenta-containing hair products. *Clinical Pediatrics*, 37(12), 733-739.

Tsigonia, A., Lagoudi, A., Chandrinou, S., Linos, A., Evlogias, N., & Alexopoulos, E. C. (2010). Indoor air in beauty salons and occupational health exposure of cosmetologists to chemical substances. *International Journal of Environmental Research and Public Health*, 7(1), 314-324.

US Department of Labor. Hazard Alert: Hair Smoothing Products That Could Release Formaldehyde [website]. Washington, DC: Occupational Safety and Health Administration, US Department of Labor (2011).

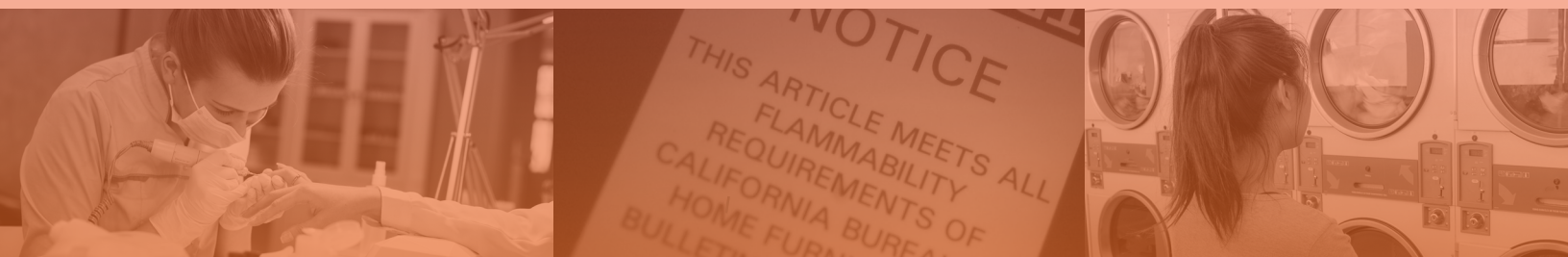
US Food and Drug Administration. (2011). FDA receives complaints associated with the use of Brazilian blowout.

Washam, C. (2006). Legislation: California Enacts Safe Cosmetics Act. *Environmental Health Perspectives*, 114(7), A402.

Wise, L. A., Palmer, J. R., Reich, D., Cozier, Y. C., & Rosenberg, L. (2012). Hair relaxer use and risk of uterine leiomyomata in African-American women. *American Journal of Epidemiology*, kwr351.

CHEMICAL ENTANGLEMENTS

GENDER AND EXPOSURE



For updates on the UCLA Center for the Study of Women's Chemical Entanglements research initiative, visit

CSW.UCLA.EDU/CE