



Framing a Proactive Research Agenda to Advance Worker Health and Safety in the Nail Salon and Cosmetology Communities

CONVENING REPORT



CALIFORNIA
healthy
nail salon 
COLLABORATIVE

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EXECUTIVE SUMMARY

The beauty service industry has undergone dramatic growth over the last two decades, and the cosmetology industry has become one of the fastest growing professions in California, largely influenced by the emergence of the manicurist specialty. Currently, there are nearly 37,000 nail establishments, nearly triple the number in the 1980's, and approximately 400,000 technicians who are licensed to perform hair and nail care services in California alone. The vast majority of nail salon workers are women of color, with Vietnamese immigrants representing a large proportion of the workforce (estimated 60-80%) in the state.

The health and safety of workers in this industry have increasingly attracted public attention due to the concerns associated with ingredients found in personal care products. Nail care products contain, in varying amounts, many toxic and potentially hazardous ingredients, and are largely unregulated in the U.S. In fact, of the 10,500 chemicals used in personal care products, including nail care products, nearly 90% have not been assessed for safety. While the U.S. Food and Drug Administration (FDA) is responsible for the regulation of cosmetics, it lacks the legal authority to require manufacturers to conduct pre-market testing of their products to ensure safety of salon workers and consumers. Worker exposures to toxic chemicals in salons are exacerbated by poorly-labeled products, limited safety information, small workplaces, and inadequate ventilation. The combination of hazardous chemicals, inadequate ventilation, lagging regulatory standards and enforcement, and a large immigrant workforce with cultural and language barriers underscore the need for research to understand the health impacts associated with working in this industry.

In response to growing health concerns and the dearth of existing research, the California Healthy Nail Salon Collaborative (Collaborative), in partnership with Women's Voices of the Earth (WVE), the National Asian Pacific American Women's Forum (NAPAWF), and the National Healthy Nail Salon Alliance (Alliance), organized a multi-stakeholder convening in April 2009 to discuss the state of the science on occupational chemical exposures of cosmetology workers and resulting health effects, with the intention to inform and build upon current efforts in California and nationally to develop a proactive research and advocacy agenda for the salon sector. Held in Oakland, California, the convening attracted over 120 researchers, scientists, environmental, public health and labor advocates, nail salon workers and owners, cosmetologists, industry members, regulatory representatives, and public health experts.

The following report provides an overview of the convening's discussions, proceedings, key outcomes, and the recommendations that were collectively developed by the convening's participants over the course of the two-day meeting. Key recommendations formulated during the convening are listed below:

- ✓ Establish a national research advisory committee to provide technical guidance on future research efforts to advance a proactive research agenda.
- ✓ Explore ways to advance green chemistry efforts, including understanding barriers (e.g., information data gaps, safety and accountability gaps, and technology gaps); advocating for product reformulation; and incentivizing product manufacturers and beauty salons to adopt "greener" products,
- ✓ Develop a health surveillance program for tracking health problems in the cosmetology workforce, including hair and nail care professionals.

- ✓ Advocate for more affordable and accessible health care for salon workers who often lack health benefits.
- ✓ Promote research that investigates the cumulative and synergetic impacts of occupational exposure to multiple chemical compounds through multiple routes of exposure in salons over long periods of time.
- ✓ Advocate for more accessible information to workers by: 1) ensuring that material safety and data sheets (MSDS) of salon products are made more easily readable and accessible and are translated into multiple languages, and 2) ensuring more (detailed) labeling of salon products so workers will know what compounds they contain and the corresponding safety precautions to take.
- ✓ Develop and implement culturally and linguistically appropriate health and outreach interventions that focus on worker exposure reduction, including: personal protective equipment (i.e., proper masks and gloves); improved ventilation; use of safer product alternatives with least-toxic compounds; and safer handling of products.
- ✓ Promote more comprehensive education outreach programs that include labor and worker rights issues in education and outreach efforts, such as reviewing the (mis) classification of nail salon workers as independent contractors, which results in workers not being eligible for health benefits.
- ✓ Push for changes and greater transparency in how salon inspections are conducted by regulatory agencies, with regards to regulations, fines, process, worker/owner responsibilities, and dispute resolution.

The report also provides select resources and a compilation of research on occupational exposures in salons.

The California Health Nail Salon Collaborative and the National Alliance for Healthy Nail Salon are committed to strategically advancing the health, safety and workers' rights of the beauty salon sector. Towards those ends, we invite diverse partnership and collaboration from organizations and agencies in California and nationally.

INTRODUCTION

In recent years, considerable public attention has been focused on the safety of cosmetics, beauty and personal care products. These products are largely unregulated, despite the potentially harmful chemicals they contain, including carcinogens, endocrine disruptors, allergens, neuro-toxicants and irritants. Concerns about the health impacts of these products are being raised from a diversity of stakeholders, including cosmetology workers, public health and environmental advocates, labor groups, and consumers. The health concerns of cosmetology workers who provide nail, hair and other beauty care services for a living are especially significant since their exposure to a host of potentially hazardous chemicals on a daily basis for long hours at a stretch is likely to be greater than that of consumers. Yet, little research has been conducted to date on the acute and chronic health impacts associated with the cumulative and synergetic risk of occupational exposure to multiple chemicals in salons. Such research is necessary to inform current policy debates, legislation, regulation, and manufacturing activities to restrict the use of harmful agents in salon products and to support education and outreach programs to promote greater workplace health and safety.

In response to these concerns, the California Healthy Nail Salon Collaborative (Collaborative), in partnership with Women's Voices of the Earth (WVE), the National Asian Pacific American Women's Forum (NAPAWF), and the National Healthy Nail Salon Alliance (Alliance), organized a multi-stakeholder convening in April 2009 to discuss the state of the science on occupational chemical exposures of cosmetology workers and resulting health effects, with the intention to inform, guide, and build upon current efforts in California and nationally to develop a proactive research and advocacy agenda for the salon sector. While there are a number of overlaps between hair and nail care

sectors and the research convening included issues that affect both workforces, it focused more heavily on nail care workers due to the recent dramatic growth and the large concentration of Vietnamese workers in this business sector.

Held in Oakland, California on April 27-28, 2009, the convening attracted over 120 researchers, scientists, environmental, public health and labor advocates, nail salon workers and owners, cosmetologists, industry members, regulatory representatives, and public health experts. The two-day event generated significant cross-movement, cross-sector dialogue, information and resource sharing, and collective strategizing around the development of a research agenda for the nail salon and cosmetology community. Bringing together for the first time diverse groups from across the nation, the convening helped to strengthen alliances within California and nationally and to energize the emerging movement to assure salon worker health and safety. Although the convening centered on surfacing research questions and on establishing a research agenda, the gathering became a unique place for connection, sharing, and learning as participating nail and beauty salon workers expressed their ideas, concerns, and needs, grounding the meeting in the lived experiences and wisdom of this workforce. One of the many critical outcomes of the convening was the establishment of a national research advisory committee, designed to provide technical guidance to the Collaborative and the Alliance in our efforts to advance the recommendations generated at the convening and a proactive research agenda moving forward.

The broad objectives of the convening were:

- ✓ To highlight the environmental health, salon hazards and chemical exposure issues facing the nail salon and cosmetology occupational sectors.
- ✓ To review and discuss recent research on the links between occupational chemical exposures and health outcomes, including breast cancer, reproductive health effects, respiratory illnesses, neurological issues, and other impacts affecting cosmetology and nail salon workers.
- ✓ To provide a conducive forum for a diverse group of stakeholders (i.e., salon workers and owners, advocates, policymakers, government representatives, funders, researchers, academics, industry representatives and others) to: (1) collectively identify research gaps and needs; (2) inform future research directions; and (3) articulate strategies for moving such research forward.
- ✓ To advance an overall understanding of the health impacts associated with this sector's workplace exposures.
- ✓ To develop a research agenda to inform future research, policy advocacy, health-outreach efforts, regulatory approaches, and industry advocacy aimed at improving worker health and safety in the cosmetology sector.
- ✓ To form a research advisory committee to help guide and articulate next steps and specific commitments towards moving the research agenda forward.

This report provides an overview of the convening's discussions, proceedings, key outcomes, and the recommendations that were collectively developed over the course of the two-day meeting.



BACKGROUND AND CONTEXT

In California and throughout the United States, the beauty industry is booming. Manicures and pedicures are all the rage, as customers want to be pampered with the latest nail designs, colors, and styles. To meet this demand, nail salon services have more than tripled over the last two decades, and cosmetology is the fastest growing profession in California. Currently, there are nearly 37,000 nail establishments and nearly 400,000 technicians who are licensed to perform hair and nail care services in California alone.¹ The majority of nail salon workers are women of color, an estimated 60-80 percent are Vietnamese immigrants, and more than half are of reproductive age.^{2,3} Many salon workers speak limited English, do not have health insurance, and lack understanding of the regulatory, legal and health care systems. Most tend to earn less than \$18,200 a year and work in conditions that can be hazardous to their health.²

On a daily basis and often for long hours, nail salon technicians handle solvents, glues, polishes, and other nail care products, containing a multitude of chemicals known or suspected to cause cancer, allergies, and/or respiratory, neurological and reproductive harm.

Occupational exposures to toxic chemicals in salons are exacerbated by poorly-labeled products, limited safety information, small workplaces, and inadequate ventilation.

Although product manufacturers are required to provide information about proper handling techniques, they often fail to do so, and when safety data sheets are provided, they are generally in English only and are rarely translated into the languages spoken by many salon workers (i.e., Vietnamese, Korean, and Spanish). Thus, workers and cosmetology students are often not adequately educated on the array of possible chemical exposure and other safety issues in salons due in large part to language barriers and the

limited available data on chemical ingredients in products. Additionally, workers often face pressure by consumers and owners not to wear protective masks or gloves, which may appear off-putting to customers.

Despite such occupational exposures, there is very limited federal regulation and review of chemicals used in cosmetic and personal care products.

Of the more than 10,500 chemicals used in personal care and nail products, nearly 90 percent have not been tested independently for their safety or impacts on human health before entering the marketplace.⁴ This vacuum in regulatory protection creates a landscape where manufacturers are not accountable for reducing or providing information on the upstream toxicity and safety of the chemicals used to produce salon products. The burden of chemical toxicity falls, instead, upon salon workers and owners, leading to disproportionate exposures with potential implications for poor health outcomes.

Women working in nail salons are increasingly reporting acute health concerns such as headaches, skin rashes and difficulty breathing.

Furthermore, there have been documented and undocumented anecdotal stories of spontaneous abortions, birth defects, cancers and respiratory illnesses in nail salon workers, which may suggest a link to occupational chemical exposures. A California study analyzing calls to an occupational hazard hotline showed that cosmetologists and nail technicians are concerned about the health impacts of salon work, particularly as it relates to their pregnancies.⁵ A number of nail salon workers have reported quitting their jobs when pregnant to avoid the possible harm associated with occupational exposures to their unborn fetuses. While acute impacts such as rashes, headaches, dizziness and respiratory ailments have been well-documented among salon workers, unfortunately, little research has been conducted to date on long-term, chronic



health impacts resulting from occupational exposures. Anecdotal stories from workers of adverse reproductive outcomes, including spontaneous abortions, preterm birth and low-birth weight, in addition to asthma and cancer, are often not reported to health authorities due to language and socio-cultural barriers. Even when workers have reported health problems, little has been done to further investigate the association between occupational exposures and health problems. Thus, there has been little to no systematic documentation of chronic health impacts experienced by workforce members.

Recent research attention has been drawn to three compounds due to their toxicity.

Nicknamed the “toxic trio” because of their serious health impacts, toluene, formaldehyde and dibutyl phthalate have been identified as three chemicals of high concern.⁶⁻¹³

Toluene creates a smooth finish across the nail and keeps the pigment from separating in the bottle, and is a common volatile solvent that can impact the central nervous system, cause irritation of the eyes, throat and lungs, and is also a possible reproductive toxin. Formaldehyde, a nail-hardening agent, is also a volatile chemical that evaporates into the air of salons and is known to cause cancer. Exposure to dibutyl phthalate (DBP), added to polishes to provide flexibility and a moisturizing sheen, can affect thyroid function and has been linked

to reproductive problems, including decreased sperm count in adult men. While the science on the toxic trio provides some evidence for health concern, we need better research on the potential impacts to nail salon workers from these chemicals through exposure to nail products. Additionally, the health effects of a myriad of other compounds used in salons, which lack toxicology data, are not completely known, suggesting the need for increased research in this arena.

Given the environmental health and safety issues facing the salon worker population, advocates, salon workers and owners, scientists, allies in government agencies and others from across the country are increasingly coming together to develop a multifaceted platform to support the removal of harmful chemicals from beauty care products in order to assure greater worker health and safety. In addition, other efforts for reducing exposures include increased ventilation, proper personal protective equipment, improving work practice controls (e.g., safe handling, transfer and storage of products containing harmful compounds) and administrative controls (e.g., regular outdoor breaks during work shift). However, these other mechanisms shift the onus on the workers whereas source reduction (i.e., removal of toxic compounds from cosmetic products) provides the most effective way for reducing exposures for both workers and consumers and focuses on industry responsibility and accountability.

The Collaborative and the Alliance are providing leadership in raising the profile of this issue nationally, connecting and leveraging the resources of concerned groups, and advocating for industry reformulation and greater regulatory protection. We assert the urgent need for more research on the acute and the long term chronic health impacts associated with occupational exposures to a dizzying array of toxic and potentially hazardous compound ingredients in cosmetics. In addition, as part of a precautionary approach, we advocate for better regulation of chemicals in cosmetic products, increased access to safety information and education for workers, source reduction through the development of “greener” salon products by manufacturers, and targeted outreach efforts to promote safer workplaces and workplace practices in order to protect and improve the health and welfare of women working in the nation’s beauty salons.

Finally, it is important to note that while the Collaborative and the Alliance’s work to date has primary focused on nail salons, we recognize that occupational exposures face all cosmetology and beauty salon workers. Hair stylists and other beauty care professionals contend with similar

conditions that nail salon workers face: poor ventilation, small businesses, exposures to an array of chemicals, and occupational-related health problems.

In addition, great concerns have also emerged around hair products marketed to African American women.¹⁴

There have been a number of raised concerns about hormone-containing hair products (conditioners, relaxers, hair dyes and hair-growth promoting products), which contain hormonal extracts, (i.e., placental tissue) arguing that they may affect the hormonal system and subsequently alter the timing of puberty in girls.^{15, 16} African American hair care professionals and beauticians may experience higher levels of these compounds. Thus, there have been steadily growing health concerns for these workforce members. While this convening could not fully address the broader cosmetology sector, we believe the similar research, policy advocacy, outreach and organizing attention should be given to the entire cosmetics occupational sector, inclusive of all beauty care professionals and salons workers. This will require additional dedicated funding and increased capacity by community groups and nonprofits.

While exposure to chemicals in salon products also poses a concern for consumers, salon workers bear the brunt of exposure. Workers are exposed to a multitude of chemicals on a daily basis and often for prolonged periods of time. The lack of adequate ventilation systems in most salons exacerbates the level of chemical exposure, as does the lack of safety training regarding the use of gloves and masks as a way to minimize exposure.

RESEARCH CONVENING PLENARY SESSIONS



As outlined below, the convening was organized around four plenary sessions designed to touch upon the key topics, themes and issues facing nail salon workers:

A. WORKFORCE DEMOGRAPHICS AND CONTEXT SETTING

B. OCCUPATIONAL EXPOSURES AND HEALTH OUTCOMES

C. LOWERING EXPOSURES THROUGH GREENING THE INDUSTRY AND SALONS

D. GOVERNMENT AND REGULATORY AGENCIES AUTHORITY AND RESOURCES

The research convening provided a platform for different stakeholders to participate in the discussions. In addition to recruiting a number of salon workers and owners to the convening and providing simultaneous language translation for Vietnamese participants, the convening also integrated their voices into the presentations and discussions. Workers and owners testified throughout the convening on both days about their health experiences and concerns as workforce members. In addition to the plenary sessions, there were a number of small group discussions to allow the diversity of stakeholders attending the convening to discuss, share information and collectively develop a set of recommendations for future research, policy advocacy, industry advocacy, and outreach and education efforts.

In addition, over thirty nail and hair salon workers and owners attended the two-day convening. During the course of meeting, several salon workers provided personal testimony on their workplace experiences, chemical exposure issues and health impacts. Their stories and very presence at the meeting, as experts who have experienced occupational exposures firsthand, grounded the convening's discussions and were very moving for the other attendees. The summaries of several workers testimonies are provided in this report.

A. WORKFORCE DEMOGRAPHICS AND CONTEXT SETTING

The first session of the convening provided context setting background information as well as an overview of the cosmetology and nail salon industry in the United States. Topics included the demographics of the nail and cosmetology workforce, occupational hazards and toxic exposures, the need for targeted outreach and research, and the current lack of federal regulation and oversight of toxic chemicals in cosmetic and personal care products and workplace exposures. Julia Liou of Asian Health Services moderated the session.

Workforce Demographics and Context Setting

Julia Liou, Program Planning and Development Director, Asian Health Services

Lenh Tsan, Nail Salon Project Manager, Asian Law Caucus

Ms. Julia Liou is co-founder and manager of the California Healthy Nail Salon Collaborative and has been working with the members to advocate for worker's rights and health and safety. She gave an overview of the cosmetology and nail salon workforce to provide a context and background for the convening.

The California cosmetology industry is the largest professional licensee in the nation. In the last two years, nail salons have tripled in number and have become a major growth sector for new immigrants and small business owners. Over 300,000 cosmetology workers are licensed to provide nail care services, 115,000 of who are licensed manicurists (providing nail services) and over 264,000 are licensed cosmetologists (providing hair and nail services).¹ Over 95% of manicurists are women of reproductive age and an estimated 60-80% are Vietnamese.^{17, 18} Immigrants are drawn to nail salon work because of several factors, including the training and certification process, which is inexpensive, readily available

and does not necessarily depend on fluency in English. In California, manicurists typically earn less than \$18,200 per year and, in most instances, lack employer-based health insurance.³ Salon workers often work over eight hours a day and are exposed to a host of toxic chemicals through the products they use. In addition, most workers are not employees of salons but rent stations as independent contractors in shops. There is a high turnover rate of shops and ownership. All of these factors combined contribute to a lack of job security and the low socioeconomic status of manicurists.

Ms. Liou spoke about the need to protect workers and owners from occupational exposure by transforming the industry so that salon product manufacturers remove toxic ingredients from salon products upstream. She also pointed out that the occupational issues facing nail salon workers are indicative of broader issues affecting the entire cosmetology community.

Ms. Lenh Tsan is the manager of the Nail Salon Project at Asian Law Caucus. Since its inception, the Project has completed over 250 of these trainings in the nail salons, cosmetology schools, and occupational health classes and has outreached to over 500 workers, students, and nail salon owners in the bay area. Ms. Lenh provided additional background on the nail salon workforce based on her extensive experience providing educational trainings and outreach directly to that workforce. She noted that there are many barriers to working with a largely immigrant community, which may contribute to a resistance to advocacy efforts, including embarrassment by workers to speak up and a lack of perceived power to change their working conditions. In addition, Ms. Tsan found that workers are registered as either independent contractors or employees, both of which can complicate dynamics around access to health care and family relations (particularly if the owner is a family member, which is frequently the case).

Potential workplace health hazards are created through countless hours of chemical exposure in salon shops that are

often insufficiently ventilated. Despite the large percentage of Vietnamese workers in the industry, the training materials used are not translated to fit the needs of this culturally and ethnically diverse workforce. In addition, training materials often do not include information about the safety precautions salons can take to minimize chemical exposure, including recommendations and resources about the availability of the least-toxic salon products. One method of addressing these critical issues is to push forward a green chemistry agenda to remove toxic chemicals in products upstream, and to promote a green business approach that is environmentally friendly and sustainable in order to protect salon owners and workers.

Environmental Health and Ethnic Hair Care

Jessica Counts-Arnold, Pollution Prevention Specialist, Environmental Protection Agency, Region 9

Ms. Jessica Counts-Arnold works at the Office of Pollution Prevention & Solid Waste at EPA Region 9 and has championed waste/toxics reduction work in the nail and hair salon sectors, while also addressing the environmental justice issues linked to these sectors. She spoke about occupational and consumer exposures from the cosmetology industry specifically within the African American community. While the demand for nail salon services has grown, resulting in a near three-fold increase in the number of nail salons, so too has





the market for ethnic hair care. Ethnic hair care is currently a multi-billion dollar industry and growing, with African Americans spending approximately nine billion

dollars per year on personal care products. The average African American woman spends \$150 or more per month on hair and nail care services. Cosmetology workers catering to this beauty trend are typically between the ages of 17 and 70 years of age and earn anywhere between \$1,500 and \$6,000 per month.¹⁹ Workers specializing in ethnic hair care are often referred to as stylists, hairdressers, beauty operators, braiders, colorists, locticians, hair experts, or style gurus. Services primarily include shampoo and set, relaxers, flat iron, weaves, wigs, twists, locs, braids, color, and hair prosthesis. There are a range of concerns around the health effects of some of these treatments, both for salon workers and customers. According to the Food and Drug Administration (FDA), hair relaxers and dyes have received the most attention as the most research has focused on these products. It has been shown that darker hair dyes present a greater risk of cancer for hair stylists. The use of products that promote hair growth may contain estrogen/or other hormones that can lead to early puberty in African American girls. Other health impacts resulting from the use of these services include permanent hair loss, asthma, skin rashes, and allergic reactions.

In 2007, Ms. Counts-Arnold helped to plan and convene an African American Hair Salon Roundtable, held in California with over 50 organizations and individuals in attendance. Topics at the roundtable included the practice, science, regulation and business of beauty within the African American community.¹⁹ In early 2010,

the Environmental Finance Center Region 9 and the EPA will be distributing a Healthy Hair Guide and working to develop “green” standards for hair salons. They will also be identifying committed stakeholders in hair salons and the broader cosmetology community to examine these issues more deeply.

Ms. Counts-Arnold concluded by stating that there is a resounding lack of research about the ethnic cosmetology worker population, occupational exposures and health outcomes. She recommends that more research as well as educational outreach to this worker population be conducted.

Federal Oversight of Chemicals in Cosmetics and Cosmetic Manufacturers

Jamie Silberberger, Campaign Manager,
Women’s Voices for the Earth (WVE)

Ms. Jamie Silberberger spoke about the role that federal regulation and policies play in addressing the health impacts of chemicals in cosmetics products and worker health and safety in salons. Her organization, WVE, is a steering committee member of the Campaign for Safe Cosmetics and has demonstrated substantial leadership on this issue. The current regulatory structure that oversees the use of chemicals in cosmetics and other beauty products fails to protect workers from exposure to harmful chemicals in the workplace. Cosmetics, including products used in salons, are one of the least regulated consumer products on the market today. Due to gaping holes in federal law, it is legal for cosmetics companies that manufacture salon products to use unlimited and unregulated amounts of virtually any ingredient, including chemicals linked to cancer, reproductive and developmental harm, hormone disruption and other adverse health impacts, with no premarket safety assessment to protect the public. Essentially, these products can go on the market without consideration of their impacts on human health. As a result, cosmetics used in the cosmetology and nail salon industries in the United States contain ingredients known

to be hazardous to human health. Although some cosmetic manufacturers are voluntarily removing chemicals of concern from their products, the safety of the substitute ingredients are not guaranteed. A loophole in federal law also exempts salon products from cosmetic labeling requirements, making it difficult for salon workers and owners to know what chemicals they are being exposed to. Federal cosmetic regulation must be strengthened to require premarket safety testing of ingredients, to ban ingredients with known links to negative health outcomes (including cancer, genetic mutation and reproductive harm), and to give the FDA the authority it needs to regulate the cosmetic industry and require the labeling of salon products.

SESSION RECOMMENDATIONS

- ✓ Provide training, educational and outreach materials on safer workplace practices in multiple languages, including Vietnamese and Spanish, to salon workers and owners.
- ✓ Conduct inexpensive, readily-available, short educational trainings on chemical safety and safer workplace practices in relevant languages for workers.
- ✓ Mandate continuing education requirements for lice used cosmetologists and manicurists.

- ✓ Advocate that product manufacturers reformulate and remove known hazardous chemicals from salon products.
- ✓ Promote “green salons” best practices and standards that use less/non-toxic products, manage waste effectively, and promote energy efficiency and effective ventilation systems.
- ✓ Introduce legislation aimed at improving salon worker health and safety.

B. OCCUPATIONAL EXPOSURES AND HEALTH OUTCOMES

This session’s purpose was to present the state of research conducted to date on occupational chemical exposures in nail salons, and what is known about resulting acute and chronic health outcomes for the nail salon workforce. The session also provided an overview of the key chemicals and compounds of concern in salon products and services, the gaps in research focused on workplace exposures and impact on human health, and research opportunities for further investigation of health concerns. The session was moderated by Thu Quach of the Cancer Prevention Institute of California.

AMILLA EDWARDS, Hair Salon Owner and Natural Hair Stylist



Ms. Amilla Edwards has been a natural hair stylist for nine years, and hair salon owner for five years. Her salon works with customers to help restore and grow natural hair. She also educates clients on how to maintain their hair when they are not in the salon. She has noticed over the years that both men and women would like to wear their hair natural, but they are not confident about what their hair would look like. As an owner and hair stylist working with products on a daily basis, Ms. Edwards is concerned about colors and dyes. In the past, she has experienced severe headaches from colors, dyes and relaxers, so decided not use those products in her salon. She has clients who have experienced loss of hair due to colors, dyes and relaxers. Ms. Edwards believes that salon product labels should be more detailed with regards to their chemical ingredients, and she recommended that there should be some safety classes for stylists and clients to help educate them about how to create safer salon environments and protect themselves.



How Can Working in a Nail Salon Affect your Health?

Cora Roelofs, Research Faculty, University of Massachusetts Lowell

Dr. Cora Roelofs works with community-based organizations to conduct research with Vietnamese nail salon workers regarding their work environment and health. She shared information from two surveys conducted with nail salon workers in Boston and in California, which reported that salons are poorly ventilated and that workers are reporting substantial exposures to chemicals, high dust levels and the occurrence of a variety of health symptoms, including headaches, skin irritations and breathing difficulties.^{17,20} While measured levels of chemical exposure may be considered low by regulatory agencies, such as the Occupational Safety and Health Administration, Dr. Roelofs made the point that existing regulatory limits are likely outdated and not protective enough for workers. Additionally, salon workers and owners may be experiencing health problems because they are exposed to a mix of chemicals (at various levels) over long workdays and workweeks and synergistic effects need to be considered when examining potential health effects. She also discussed the lack of protection that current use of some personal protective gear provides such as paper masks because they do not minimize exposure, but in some cases can exacerbate it and cause more acute health

symptoms. Dr. Roelofs recommended reducing the toxicity of nail salon products through the use of products with less-toxic ingredients, and improving salon ventilation and workplace practices.

Nail Salon Industrial Hygiene Evaluation

Tuan Nguyen, Industrial Hygiene Consultant, State Compensation Insurance Fund

Mr. Tuan Nguyen is an industrial hygienist with extensive experience in respiratory protection, process safety management, indoor air quality, transportation of hazardous materials, industrial ventilation and ergonomics. He conducted worksite evaluations at 15 nail salons in Southern California to assess air quality and to gain an understanding of workplace practices and exposures. These salons are owned by Vietnamese or Chinese-Vietnamese who tend to have family and friends work at their salons. He conducted air sampling on a broad spectrum of compounds, including toluene, methyl methacrylate, ethyl acetate, isopropyl alcohol and acetone. He reported that while occupational exposure levels of a number of compounds were well below the regulatory limits, the synergistic and compound effects of multiple chemical exposures are not well understood, particularly as they relate to long-term exposure and health outcomes. He also noted, however, that many of the existing standards were established very long ago. In addition, Mr. Nguyen conducted worksite

evaluations and reported that workplace ventilation could be greatly improved by the proper use and maintenance of ventilation systems to control airborne chemical exposures, such as those from volatile organic compounds (VOCs). He also found that a number of ventilation systems within salons are poorly designed and may not contribute much to improving ventilation in salons. In summary, he highlighted the fact that there should be more education of workers on ways in which they can reduce their exposures.

Implementing the CA Safe Cosmetics Act

Michael DiBartolomeis, Section Chief, California Department of Public Health (CDPH), Safe Cosmetics Program

Dr. Michael DiBartolomeis described the California Safe Cosmetics Act, which passed in 2005, requiring cosmetics manufacturers to report chemicals found in their products that are known carcinogens or reproductive toxicants to the CDPH. Information on toxic ingredients collected from cosmetic manufacturers by the Safe Cosmetics Program could be used to further research, inform consumers and advance protective public policies. The Program has been working with a committee composed of industry representatives, health advocates, governmental workers and researchers to develop the reporting system. While the CDPH has been working to implement this law over the past three years, as a state funded agency, it has faced budgetary challenges, which have slowed the timeline on the program considerably. An online cosmetic products reporting system for manufacturers was activated in June 2009. The future focus of the Program will be to evaluate reporting compliance and data completeness by manufacturers, including verification of changes in product formulations, as well as assessing potential health implications based on the collected data.

Cancer Risk in CA Cosmetologists and Manicurists

Thu Quach, Research Scientist, Cancer Prevention Institute of California (CPIC, formerly known as the Northern California Cancer Center)

Peggy Reynolds, Senior Research Scientist, Cancer Prevention Institute of California

Drs. Thu Quach and Peggy Reynolds are research scientists at the Cancer Prevention Institute of California, focusing on environmental and occupational links to cancer. They spoke of a partnership between Asian Health Services and the CPIC on a community-research study focused on (1) investigating the occurrence of cancer in nail salon workers and cosmetologists to determine if there may be excess cancers in this workforce and (2) measuring chemical exposures (e.g., toluene, isopropyl acetate and ethyl acetate) in the ambient air of nail salons in Alameda County, California. For the first research question, they linked state-mandated licensee files for manicurists and cosmetologists to the California Cancer Registry to identify cancer cases occurring in this worker population. The purpose was to estimate cancer rates in this workforce to compare to that of the general population as means of determining if the former is at greater risk for developing cancer, which may suggest an occupational link. The study's preliminary results show that cancer rates, including breast cancer, are not higher in nail salon workers compared to the general population in California.²¹ That said, both speakers stressed that it is important to note that cancer takes a long time to develop after initial exposure, so may not be fully showing up in their study. Since a large proportion of the workforce has entered the salon industry in the last 10 years, a longer follow-up period may be needed before cancer risk can be appropriately evaluated in this population. Furthermore, a large proportion of the workforce are still fairly young and may not have entered into age groups at risk of cancer, further underscoring the need for extending

the study follow-up time. The study was currently completing its air monitoring data collection component at the time of the presentation. Preliminary results based on a small group show that salon characteristics like size and number of work stations significantly influence the measured levels of compounds found in the ambient air.

Highlights of Question and Answer Discussion

Although according to some exposure assessment studies, measured levels of air contaminants are below regulatory limits, salon workers are clearly experiencing adverse acute health symptoms and there is still a need to conduct more research on chronic health problems, such as cancer and adverse reproductive outcomes. A few key points were raised during the discussion: (1) current regulatory standards may not be adequate to protect the health and safety of the salon workforce and

thus, the use of these standards for comparison of the salon measurements may not be sufficient for a worker health and safety agenda; (2) exposure may not be limited to inhalation and ingestion routes but may also take place through skin absorption, suggesting that air monitoring may not capture the complete exposure to chemicals by salon workers; (3) greater research and regulatory focus should be placed on the high prevalence of adverse health outcomes among salon workers, as well as consumers, as an indicator of worker health and safety. The emphasis currently being placed on evaluating measured levels of exposures against outdated regulatory standards ignores the health problems that many workers are facing. In addition to acute health symptoms and cancer, a broader set of health issues, including adverse reproductive health outcomes and ergonomic problems, needs to be considered in research examining the health

CONNIE NGUYEN, Nail Salon Worker

Ms. Connie Nguyen has been working in the nail and beauty industry for over 15 years. She has seen family members and friends get sick working in nail salons, and she herself has become sick from working in salons. She does not fully understand or know about all the toxic chemicals in the nail products used on customers and on her own body. Even with descriptions of the products, there is difficulty in understanding the information as most workers cannot read or completely understand English. She asked her boss about these issues but they also did not seem to know much.



While nail products might be labeled safe for consumers who visit a salon once every two weeks, the average technician works in a salon 6-10 hours a day, 6-7 days a week. Connie questions, what are some of the health impacts as a result of workers being exposed during those hours? And what happens to the children exposed in the salons?

Ms. Nguyen is happy to work in this profession but also want to stay healthy and live a fulfilling life for herself and her family. She does not want to choose between her job and her health. She believes that state agencies and advocates need to work together to be most effective. This is why Ms. Nguyen joined the Asian Law Caucus and the California Healthy Nail Salon Collaborative. She wants to help her fellow nail salon workers and to move beyond language barriers. She hopes to lead a good example so that other workers will also become strong advocates for themselves and others.

impacts of workplace exposure. This session also highlighted the dearth of existing health studies focusing on this diverse workforce.

SESSION RECOMMENDATIONS:

- ✓ Future research needs to consider the effects of exposures from multiple chemicals through multiple routes of exposure and over longer periods of time.
- ✓ Comparing measured levels of compounds in salons to existing regulatory standards may not be sufficient in protecting workers because these standards are outdated and do not take into consideration the context of the chemical exposures on workers, including the synergistic effects of multiple compounds, small work environment and prevalence of health problems in workers.
- ✓ A wide array of health outcomes should also be explored, including cancers, neurological illnesses, reproductive health outcomes such as miscarriages, spontaneous abortions, and low birth weight, allergies, and ergonomic problems.
- ✓ Researchers should utilize the California Safe Cosmetic Program reporting system as a resource for exposure assessment.
- ✓ There is a need to identify and/or develop better surveillance program for tracking health impacts in this workforce.
- ✓ More targeted health and education efforts are imminently needed to educate workers and owners on ventilation (i.e., proper use and maintenance); personal protective equipment (i.e., proper gloves); use of safer product alternatives with least-toxic compounds; and safer handling of products (i.e., storage and transfer).

C. LOWERING EXPOSURES THROUGH GREENING THE INDUSTRY AND SALONS

This session explored avenues to lowering occupational exposures to chemicals in salons through the greening of salons and the manufacturing industry that produces salon products. The focus was on greening the industry and transforming the upstream activities of manufacturers and salon owners to reduce and/or prevent exposures and corresponding health impacts by the salon workforce and consumers. This session also focused on the role that green chemistry could play in developing the building blocks necessary to produce safer products, which would ultimately result in advancing overall worker health and safety. Tina Ling, formerly of Asian Law Caucus, moderated the session.

Green Chemistry & Chemicals Policy

Megan Schwarzman, Research Scientist,
University of California Berkeley
Center for Environmental and Occupational
Health

Dr. Megan Schwarzman is a research scientist focusing on reproductive environmental health, chemical policy, and the implications of the production, use and disposal of chemicals on human health and the environment. She provided an overview of green chemistry and chemical policy reform in California.

There are over 74 billion pounds of chemicals produced or imported in the US every day. Over 164 billion pounds of chemical products are sold in California daily. Global chemical production is doubling every 25 years. The federal Toxic Substance Control Act (TSCA) grandfathered in 62,000 chemicals. Under the current regulatory system, a chemical has to be proven as harmful before it can be removed from the market. Regulations that can be used to control harm from

chemicals include: controlling chemical disposal and dilution, controlling chemical exposure (workplace safety), toxics policy (which addresses the toxicity of one chemical at a time), and comprehensive chemical policy reform.

Schwarzman asserted that advancements in green chemistry might address some of the upstream issues of toxic chemicals that are currently used as the building blocks for the industrial production. The green chemistry efforts are working to develop non-toxic chemicals with similar functionality to traditional chemicals. Because “green chemicals” are not persistent or bioaccumulative in the environment,

they are inherently less toxic to humans, wildlife and ecosystems, and are safer to use. Advancements in green chemistry have created safer products, less toxic chemical feedstocks and

processes, cradle-to-cradle use, and greater energy efficiency. That said, there are several practical and policy barriers to advancing green chemistry including: (1) information data gaps, including the 62,000 chemicals grandfathered in with the passage of TSCA, as well as new chemicals proceeding to market without a timely review; (2) gaps in safety and accountability, such as the EPA taking the least burdensome route of regulatory action and therefore regulating only five existing chemicals since 1979; and (3) gaps in technological capacity, in which advancements in green chemistry lag without sufficient market demand. There remains significant resource and design and funding challenges. Fortunately, however, shifts in science,



societal priorities and policy are creating windows of opportunity to advance green chemistry and transform production upstream.

Green or Greenwash?

Mark Deason, Executive, Aquarella

Mr. Mark Deason is an executive at Aquarella, an innovative salon product manufacturing company that has developed an entire line of non-toxic nail salon products. Aquarella’s product line exclusively uses water-base solvents, and is free of petrochemicals and the toxic trio chemicals (toluene, dibutyl phthalates, and formaldehyde).

Mr. Deason stated that industry-wide, the overall formulation of nail products has not changes much in decades, and most manufacturers continue to produce petrochemical solvent-based products that rely on a host of

toxic chemicals. Innovation has been limited by challenges with research and development towards the successfully creation of “greener” products that have the functionality that salons and consumers demand. He also noted that while a market exists for greener salon products, penetration into that market is very difficult given the dominance of larger manufactures.

That said, demand from consumer and advocacy groups is currently pushing the nail and cosmetics industry toward going greener and some cosmetic manufacturers are taking steps towards producing less toxic products. Deason stressed that consumer demand for non-toxic salon and beauty products, innovations in green chemistry, proactive research



TIFFANY ANDERSON, Owner of Tiffany's Hair Salon

Tiffany's Hair Salon specializes in healthy hair for African Americans. Ms. Tiffany Anderson encourages and motivates individuals to transition from chemically treated hair to wearing their own natural hair. She said that, "There is no such thing as bad hair, just bad maintenance of healthy hair." Natural hair is connected to oxygen and moisture, so there is no need for chemicals to maintain the hairstyle. She advocated for stylists to help the environment by recycling and being aware of the amount of energy consumed by using more natural light. Tiffany's salon participated in the National Blackout to help preserve the environment.

and development, and investment are all key to moving the industry forward toward reformulation and the production of greener products.

Campaign for Safe Cosmetics

Stacy Malkan, Co-Founder, Campaign for Safe Cosmetics

Stacy Malkan is the co-founder of the Campaign for Safe Cosmetics (www.safecosmetics.org), a coalition effort launched in 2004 to protect the health of consumers and workers by securing the corporate, regulatory and legislative reforms necessary to eliminate dangerous chemicals from cosmetics and personal care products. Ms. Malkan highlighted the power that activism can play in pushing cosmetic manufacturers to reformulate their products. For example, the Campaign for Safe Cosmetics successfully pressured the large nail product manufacturer, OPI, to remove the toxic trio of chemicals (dibutyl phthalate, toluene, and formaldehyde) from their nail polishes.

Ms. Malkan also highlighted Skin Deep (www.cosmeticsdatabase.com), an online product safety guide and database, which includes more than 52,000 cosmetics and personal care products with 8,830 ingredients. People want to know that their products are safe. Responding to that need, Skin Deep promotes the power of information and enables consumer and workers to access data about the chemicals contained in a host of cosmetics and personal care products and their associated health risks. Ms. Malkan also stressed the power of policy

advocacy as critical to moving industry practices and achieving regulations to make the entire market safe. The Campaign has been pushing for more protective policies at the federal level that would require full disclosure of product ingredients, pre-market safety studies, a ban on the worst chemicals ingredients, and the creation of incentives to advance green chemistry.

Healthy Nail Salon Project: Reducing Chemical Exposures in Nail Salons

Laurie Foster, Environmental Investigator II, Local Hazardous Waste Management Program of King County Washington

Ms. Foster coordinates King County's Healthy Nail Salon Project in Seattle, Washington. She described the county's Local Hazardous Waste Management program's partnership with the Cosmetology Licensing Department to reduce chemicals exposure and ensure greater environmental compliance in salons. The program conducts salon site visits to provide technical assistance, hold bilingual workshops and outreach events in the Vietnamese community, and offers reimbursement vouchers for environmental upgrades in salons. Ms. Foster also highlighted that King County recognizes salons implementing "green" practices through an EnviroStars incentive program. EnviroStars offers free advertising and government recognition to reward salon practices that demonstrate an increased commitment to greening, environmental efficiency, sound management practices, etc. The

greater commitment to environmental practices, the more stars awarded. The program also provides technical assistance and salons receive recognition for their efforts around sound chemical handling and storage practices, the use of personal protective gear, adequate ventilation, client safety and sanitation, among other efforts.

A Nail Owner Greens Her Salon

Uyen Nguyen, Founder and Owner, Isabella Nail Bar

A few years ago, Ms. Uyen Nguyen decided to design and open a healthier/greener nail salon after witnessing a host of negative health impacts associated with occupations exposures in salons by family members and friends. The decision to go

“green” was both a professional and personal one for Ms. Nguyen, as her sister-in-law (a nail salon technician) miscarried late in her pregnancy, which Nguyen suspects was due to her exposure to toxins from working in a nail salon. Ms. Nguyen wanted to create a salon that would provide high quality services to customers, in a toxic free environment, where neither clients nor nail technicians are exposed to hazardous chemicals.

Located in Oakland, California, Nguyen’s salon, Isabella Nail Bar (www.isabellanailbar.com), only uses salon products that are “three-free,” and does not offer artificial nail services using the gels and acrylics that pose greater risk to human health. Deciding not to offer acrylics had economic risks for Ms. Nguyen, as artificial nails tend to generate

THU PHAM, Manicurist in Oakland

Ms. Thu Pham has been working as a manicurist in Oakland, California for the past six years. She came to the research convening to speak on behalf of nail salon owners and workers: “I am advocating on behalf of my co-workers and peers.” She learned about workplace safety and chemicals in cosmetology school a long time ago. She participates in Asian Communities for Reproductive Justice (ACRJ)’s POLISH program and in focus groups has shared stories with others of similar aches, pains and miscarriages while working in the nail salon industry. She believes that it is important for workers to advocate for themselves and their community.

She sees that there are several barriers to using safer, alternative, and organic products: prices are often too high for such products while the fees for the services are too low to cover those costs. This makes it difficult for owners to choose the safer products. Some workers, who provide organic or more natural services and products, end up paying for them out of their own pocket. It is also somewhat challenging for nail salon workers to wear protective gloves and masks, as customers may not feel comfortable seeing workers wearing gloves and masks, and thus often ask the salon technicians to remove them.

Inspection fines by the California Board of Barbering and Cosmetology provide another difficulty for nail salon workers, who are already burdened with low income as a result of the low price of services as well as the high cost of health care. This makes it difficult to address the health and safety issues for both workers and owners with all these factors. Ms. Pham believes that there is also a lack of access to health care for nail salon workers and owners: “there is a need for more services for this industry and we cannot afford expensive health care costs. We also definitely need more training available in Vietnamese for nail salon workers and owners.”





more revenue for salons. That said, even without offering artificial nail services, Isabella Nail Bar has maintained a robust client base and a strong profit margin. Ms. Nguyen sees this as a testimony to market demand for healthier salons. She would like to see the Vietnamese salon working community build its power and ability to say no to using salon products and services that are harmful in order to protect the health of both salon workers and consumers. While Nguyen selects and uses nail products that pose the least health risks, she acknowledges that many salons purchase potentially more harmful products because they are cheaper and more readily available. Ms. Nguyen hopes her “green” salon business model will be replicated by others in the Vietnamese salon community.

SESSION RECOMMENDATIONS:

- ✓ Examine resources for informing exposure assessment, including the Skin Deep database and the Safe Cosmetics Program.
- ✓ Consider how to address important barriers to advancing green chemistry: (1) information data gaps; (2) safety and accountability gaps; and (3) technology gaps.
- ✓ Advocate for product reformulation and the development of safer “green” salon product alternatives by manufacturers that are safer, affordable and retain high functionality.
- ✓ Incentivize salon product manufacturers to create safer products through financial benefits and publicity.
- ✓ Incentivize beauty salons that follow “greener” practices (e.g., use of products with less toxic ingredients).

D. GOVERNMENT AGENCIES’ ROLE IN ASSURING WORKER HEALTH AND SAFETY IN SALONS

This session profiled a panel of representatives from key California government agencies, which have regulatory or administrative authority over the nail salon industry and sector. The purpose of the panel was to discuss the governmental agencies’ role in assuring worker health and safety for the nail salon workforce and the need for more proactive regulation on the industry. Due to a last-minute emergency, representatives from the California Board of Barbering and Cosmetology were not able to participate on the panel. The session was moderated by Dr. Julia Quint, an environmental toxicologist, formerly with the California Department of Public Health.

The Role of Cal OSHA

Peter Schulz, Associate Safety Engineer, CA Occupational Health and Safety Administration (Cal OSHA)

Mr. Peter Schulz is a safety engineer at Cal OSHA. He provided an overview of Cal OSHA’s Consultation Department, which reviews workplaces and identifies safety and health hazards so that employers can address the identified issues. Mr. Schulz explained that the Consultation Department does not participate in the enforcement of regulations, and therefore does not issue fines or citations. Some examples of health and safety hazards that the Consultation Department has observed include electrical hazards, workplace violence and ergonomic issues. Mr. Schulz spoke of some of the challenges Cal OSHA faces in enforcing regulations for small businesses, including the lack of resources to address the needs of the numerous small businesses and language barriers. He emphasized that one of the things Cal OSHA can do to help improve nail salon worker health and safety is to help small businesses identify and promote best practices in nail salons.

Pollution Prevention for Nail Salons

Matt McCarron, Senior Hazardous Substances Scientist, CA Department of Toxic Substance Control (DTSC)

Mr. Matt McCarron is a seasoned scientist at DTSC. He characterized DTSC as being in the “hazardous waste business.” DTSC’s focus is on pollution prevention and on preventing waste materials from becoming hazardous waste. As salons often use products that contain hazardous substances, DTSC has regulatory authority over nail salons. This includes working to prevent and contain contamination and regulating workplaces that use a large amount of hazardous chemicals. Mr. McCarron stressed the need to learn more about the toxicity and potential health impacts of chemicals in salon products. He suggested that perhaps the California Green Chemistry Initiative, a collaborative approach for identifying options to significantly reduce the impacts of toxic chemicals on public health and the environment, might provide more data about some of chemicals used in salons. DTSC is working on creating safer salon workplaces through the following efforts: defining “green products”; exploring alternatives to glues; developing regulations for sanitizers; developing green standards for salons; creating best management practices for owners; and recommending legislation to regulate the industry.

The Role of the State Food and Drug Branch

John Wallace, Research Scientist, Food & Drug Branch of the California Department of Public Health

Mr. John Wallace is a research scientist at the California Department of Public Health in the Food and Drug Branch, providing technical consultation in chemical manufacturing and education to industry and the public around issues of consumer safety and cosmetics products. He spoke about the different regulations that affect nail salon products and some regulatory challenges, including labeling and the misbranding of ingredients. Under the current regulatory system, salon products do not have to be preapproved before they enter the market as in other industries. He noted that unfortunately, efforts that might address these issues, such as the voluntary Cosmetic Registration Program, were eliminated due to California state budget cuts. He closed his remarks by identifying three key action items that need to be done to help create safer salon products: (1) define what a “safe” product is; (2) create better manufacturing practices; and (3) advance legislation to regulate the industry more effectively.

THU PHAM, Nail Salon Worker and Owner

Ms. Thu Pham has worked as a nail salon worker in Oakland, California for the past seven years and is currently a salon owner. She has enjoyed working in this industry because of the opportunity for advancement to ownership, but is now choosing to leave salon work because of the many obstacles of working with the State Board of Barbering and Cosmetology. The other reason she is leaving is that she has experienced adverse health effects from working in nail salons, including blood in her urine and iron deficiency. She suspects that these symptoms are related to exposure to chemicals in salon products and working long hours. In addition, the economy is impacting her work and as a result she cannot afford health insurance for herself or for her workers. She hopes that everyone attending the convening will help workers and owners fight for health benefits.

Nail Salons and Outdoor Air

Margaret Chu, Air Pollution Specialist, California Air Resources Board (CARB)

Ms. Margaret Chu is an Air Pollution Specialist at CARB. She explained that while CARB's mandate is to regulate outdoor air quality, rather than indoor air, if toxic contaminants from inside of buildings seep outside, then CARB has the authority to regulate them. While chemical compounds used in salons are often vented or drift outside, the air quality and health impacts of those chemicals, which get into the ambient air is largely unknown. There is thus clearly some potential for CARB to review and regulate nail salons as emitters of toxins into the ambient air. CARB is taking a number of actions to address questions of salon-related air pollution, including: (1) conducting an evaluation of the outdoor impacts of certain chemicals used in salon; (2) holding an informal telephone survey with nail product manufacturers to see what chemicals they use in their products; and (3) planning a stakeholder meeting to discuss the data that they found.

Highlights of Question and Answer Discussion:

The discussion highlighted that there was a lack of clearly defined worker health and safety programs and green standards for nail salons from the regulatory agencies, and the impact of toxics on the health of nail salon owners and workers. Questions arose regarding the lack of clarity in the laws regulating cleaning practices and the use of personal protective equipment. Panelists acknowledged the inconsistencies and insufficient oversight of the laws, and several owners and workers testified that they were heavily fined for reasons unclear to them. In an attempt to address some of the confusion, Matt McCarron offered a definition of "green," saying that it is a "holistic effort," and Scott Laney pointed to the National

Institute for Occupational Safety and Health (NIOSH)'s health hazard evaluations as a tool for workers to better protect themselves. Workers and owners were frustrated because they wanted to hear directly from the Board of Barbering and Cosmetology. A separate meeting was suggested for the workers and owners with the Board of Barbering and Cosmetology to answer some of their regulatory questions. Panelists underscored the need for more research, focused not only on the chemical ingredients within nail care products, but also on the nail salon workers' experiences, and issues of worker health and safety, include wages, hours, ergonomics and violence in the workplace.

SESSION RECOMMENDATIONS:

- ✓ Push for federal chemical policy reform (such as the European Union's REACH [Registration, Evaluation, Authorization and Restriction of Chemical substances] program).
- ✓ Advocate for increased authority within the U.S. Food and Drug Administration (FDA) to regulate cosmetic ingredients.
- ✓ Work to secure the passage of the federal Safe Cosmetics Act to prevent the use of toxic chemicals in cosmetic products and in salons.
- ✓ Advocate for better enforcement of existing regulatory standards and worker rights (e.g., minimum wage, mandated breaks, etc.).
- ✓ Push for changes and greater transparency in how salon inspections are conducted by regulatory agencies, with regards to regulations, fines, process, worker/owner responsibilities, dispute resolution, etc.

CONVENING RECOMMENDATIONS

During the convening, several sessions were dedicated to collective discussion and development of next steps and recommendations for action by the participants. As outlined below, a number of key recommendations for further activities to advance worker health and safety in salons were formulated. The summary recommendations are organized into five categories: (1) Exposure Assessment and Reduction; (2) Health Effects and Surveillance; (3) Effective Education and Outreach; (4) Worker's Rights and Empowerment; and (5) Policy Advocacy. Additionally, there was a recommendation to establish a national research advisory committee (RAC) to support the ongoing work of the California Collaborative and the National Healthy Nail Salon Alliance to advance on these recommendations.

EXPOSURE ASSESSMENT AND REDUCTION

- ✓ Examine resources for informing exposure assessment, including the Skin Deep database and the Safe Cosmetics Program.
- ✓ Work with the National Institute for Occupational Safety and Health (NIOSH) to expand exposure assessment taking into account multiple pathways of exposure.
- ✓ Advocate for additional ambient air quality studies, both within salons as well as in the immediate vicinity outside of salons.
- ✓ Consider how to address important barriers to advancing green chemistry: (1) information data gaps; (2) safety and accountability gaps; and (3) technology gaps.
- ✓ Advocate for product reformulation and the development of safer “green” salon product alternatives by manufacturers that are safer, affordable and retain high functionality.
- ✓ Advocate that ventilation in many salons be improved to decrease toxic chemicals in the ambient air.
- ✓ Incentivize salon product manufacturers to

create safer products through financial benefits and publicity.

- ✓ Incentivize beauty salons that follow “greener” practices (e.g., use of products with less toxic ingredients).

HEALTH EFFECTS AND SURVEILLANCE

- ✓ Compile a comprehensive list of research on the health impact of salon products targeted to particular ethnic groups to identify research needs and help inform future research efforts.
- ✓ Develop a health surveillance program for tracking health problems in the cosmetology workforce, including hair and nail care professionals.
- ✓ Advocate for more affordable and accessible health care for salon workers; explore group rates for salon workers.
- ✓ Explore opportunities for developing free medical testing for workers.
- ✓ Promote research that investigates the cumulative and synergetic impacts of occupational exposure to multiple chemical compounds through multiple routes of exposure in salons over significant periods of time.
- ✓ Advocate for further research on reproductive health outcomes related to occupational exposures (i.e., miscarriages, spontaneous abortions, low birth weight, infertility, etc.).
- ✓ Advocate for research focused on the health impacts of products targeted to specific racial/ethnic groups (e.g., African American hair products, Japanese thermal hair straightening, etc.).

EFFECTIVE EDUCATION AND OUTREACH

- ✓ Ensure that the material safety and data sheets (MSDS) of salon products are made more easily readable and accessible and are translated into multiple languages.
- ✓ Advocate for better, more detailed labeling

of salon products so workers will know what compounds they contain and the corresponding safety precautions to take.

- ✓ Develop and implement culturally and linguistically appropriate health and outreach interventions that focus on worker exposure reduction, including: personal protective equipment (i.e., proper masks and gloves); improved ventilation; use of safer product alternatives with least-toxic compounds; and safer handling of products. These outreach efforts can include occupational safety classes for workers to refresh and update their knowledge on workplace safety and best practices, including: exposure to chemicals; use of protective equipment; prevention of ergonomic injuries; and review of MSDS sheets, etc.
- ✓ Evaluate whether Vietnamese beauty schools include the appropriate safety training in their curriculum.
- ✓ Engage in social research on attitudes of workers to engage in research (e.g., willingness to discuss their occupational or health concerns, etc.).
- ✓ Conduct a survey of consumer knowledge and attitudes regarding health and safety issues in salons.

WORKERS' RIGHTS AND EMPOWERMENT

- ✓ Advocate for better enforcement of existing regulatory standards and worker rights (e.g., minimum wage, mandated breaks, etc.).

- ✓ Research models and programs for worker empowerment and engagement so that salon workers increasingly advocate on their own behalf.
- ✓ Promote more comprehensive education outreach programs that include labor and worker rights issues in education and outreach efforts, such as reviewing the (mis)classification of nail salon workers as independent contractors, which results in workers not being eligible for health benefits.
- ✓ Push for changes and greater transparency in how salon inspections are conducted by regulatory agencies, with regards to regulations, fines, process, worker/owner responsibilities, dispute resolution, etc.
- ✓ As beneficial, advocate for new laws and regulations to assure workers' rights and safety.

POLICY ADVOCACY

- ✓ Push for federal chemical policy reform (such as the European Union's REACH [Registration, Evaluation, Authorization and Restriction of Chemical substances] program).
- ✓ Advocate for increase authority in the U.S. Food and Drug Administration (FDA) to regulate cosmetic ingredients.
- ✓ Introduce legislations aimed at improving salon worker health and safety at the state and national level.
- ✓ Work to secure the passage of the federal Safe Cosmetics Act to prevent the use of toxic chemicals in cosmetic products and in salons.



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CONTACT INFORMATION & HOW TO GET INVOLVED

The California Healthy Nail Salon Collaborative and the National Healthy Nail Salon Alliance welcome partnerships with diverse organizations, salon workers and owners, researchers, community based groups and agencies that would like to work with us to advance a proactive research agenda to assure greater worker health and safety in the salon sector. Both the Collaborative and the Alliance are membership organizations and invite likeminded entities to join our efforts. Please visit our respective websites and contact us for additional information or to formulate a partnership.



THE CALIFORNIA HEALTHY NAIL SALON COLLABORATIVE

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NATIONAL HEALTHY NAIL SALON ALLIANCE

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RESEARCH CONVENING SPEAKER BIOS

Margaret Chu, Ph. D., Biochemistry is an Air Pollution Specialist with the California Air Resources Board (CARB). Prior to joining CARB in 2008, she was a Toxicologist with the National Center for Environmental Assessment in the Office of Research and Development of the USEPA. The focus of her activities were assessing environmental health risks, develop health risk assessment guidelines and methods. She also spent two years as Senior Science Fellow in the US Congress. Ms. Chu has taught university chemistry, biochemistry and principles of risk assessment and risk management. Email: mmchu@arb.ca.gov.

Jessica Counts-Arnold has worked as a Pollution Prevention Specialist since 1997 in the Office of Pollution Prevention & Solid Waste at EPA Region 9. She has championed waste/toxics reduction work in the nail and hair salon sectors, while also addressing the environmental justice issues linked to these sectors. Jessica convened a highly successful African American Hair Salon Roundtable that focused on the health impacts of products and processes used in ethnic hair salons and waste reduction opportunities. Jessica's current work has involved working with Tribal Casinos to identify pollution prevention opportunities in their operations to help reduce their environmental footprint. She has identified emerging problems, developed strong partnerships and identified and listened to stakeholder concerns to find and work on solutions to ensure everyone has a healthy and safe environment in which to live, learn, work and play. Email: Counts-Arnold.Jessica@epamail.epa.gov.

Mark Deason is an Executive at Acquarella LLC, a manufacturer of a completely non-toxic line of water based nail polish products. Mark's background is in manufacturing processing with a BS in Systems Engineering from the University of Arizona. Email: mdeason@acquarellapolish.com.

Michael J. DiBartolomeis, PhD, DABT, heads the Occupational Lead Poisoning Prevention Program in the California Department of Public Health and was appointed to manage the California Safe Cosmetics Program in 2006. Dr. DiBartolomeis, a toxicologist by training, has 25 years of professional experience in environmental and occupational health, risk assessment, and chemical policy development. He earned his doctorate in environmental toxicology/biochemistry from the University of Wisconsin (Madison), is certified in toxicology by the American Board of Toxicology, and has presented original research in over 70 publications and conference proceedings. His professional interests include reforming chemical management policy in the United States and internationally to integrate principles of environmental justice, biological monitoring, and precaution

into environmental and occupational health decision-making. Email: mdibarto@cdph.ca.gov.

Laurie Foster is an Environmental Investigator II and Nail Salon Project Coordinator with the Local Hazardous Waste Management Program of King County, Washington, where she has worked for 17 years. Ms. Foster has inspected over 3000 sites in King County including many nail salons. She coordinates the program's Healthy Nail Salon Project, which is partnering with nail salon owners and nail technicians in King County to create healthy workplaces for nail salon technicians. This has provided her with the opportunity to write outreach materials, give numerous educational presentations and workshops and develop an extensive network of collaborative partners to aid the project's goal to reduce nail salon technician exposures. Email: laurie.foster@kingcounty.gov.

Lisa Fu is the Coordinator for the California Healthy Nail Salon Collaborative. The Collaborative's mission is to advance and preventive environmental health agenda to assure the health and safety of the nail and beauty salon communities. She was previously the National Organizing Director for the National Asian Pacific American Women's Forum (NAPAWF). There she provided capacity building, policy and community organizing trainings to their chapters and also directed their young women's community health research project. Lisa also consults and has been involved with numerous Asian and Pacific Islander and women's organizations throughout the country, where she is continually moved and motivated by the people that she meets. Lisa was born and raised in Los Angeles and has lived in San Diego, San Francisco and Guam. Email: nailsaloncollab@gmail.com.

Priscilla Huang, JD, is the Associate Policy Director at the Asian Pacific Islander American Health Forum. Prior to working for the Health Forum, Priscilla was the Policy and Program Director of the National Asian American Women's Forum (NAPAWF), where she oversaw their reproductive justice, anti-trafficking and emerging immigrant rights programs. Priscilla was a Georgetown Women's Law and Public Policy fellow, and the recipient of Choice USA's 2007 "Courting Justice" Generation Award. She has worked on gender-based employment discrimination cases at Equal Rights Advocates, performed policy work at the National Abortion Federation, and worked as a child case manager at a transitional housing program for families with a history of homelessness and domestic violence. She currently sits on the board of SisterSong Women of Color Reproductive Health Collective, and is an Advisory Board member of Law Students for Reproductive Justice and Raising Women's Voices. Priscilla holds a law degree from American University,

Washington College of Law, where she was a Public Interest/ Public Service Scholar. Her writings have been published in the Harvard Law and Public Policy Review, Feministing.com, RH Reality Check, and other publications. She graduated with a B.A. in English and Philosophy from Boston College. Priscilla is a member of the Maryland Bar. Email: phuang@apiahf.org.

Mary Kathleen Lau is a hazardous substances scientist, who has worked at the California Department of Toxic Substances Control since 1988. Over the years, her program has developed significantly. DTSC currently works on waste minimization, pollution prevention, source reduction, and green chemistry. The agency works to eliminate hazardous waste by encouraging businesses to develop manufacturing processes and products without hazardous materials. This means that workers are not exposed, hazardous waste is eliminated, and the public has safe products. When warranted necessary, DTSC will take action without scientific proof or evidence of the need, if the agency determines that there may be harmful effects in the long term. Ms. Lau has worked with printers, jewelers, hospitals, pharmaceuticals, and other industries and look forward to working with the nail salon industry. Email: MLau@dtsc.ca.gov. (Represented by Matt McCarron).

Tina Ling, MPH, was previously the Policy Analyst at the Asian Law Caucus where she developed a policy agenda that engages lower income Asian Pacific American communities in improving workplace health and safety, with a particular focus in the nail salon community. Prior to joining ALC, Tina completed a Health and Human Rights fellowship at the World Health Organization (WHO) in Geneva, Switzerland and worked as a Sexual and Reproductive Health Advocate for the Instituto Peruano de Paternidad Responsable (Peruvian Institute of Responsible Family) in Lima, Peru, where she worked to advance human and reproductive rights for marginalized communities. Tina Ling holds a Master of Public Health degree with a focus on Health Law, Bioethics and Human Rights from Boston University School of Public Health.

Julia Liou, MPH, is the Program Planning and Development Director for Asian Health Services (AHS), a comprehensive community health center in Oakland Chinatown that provides services to the underserved Asian American and Pacific Islander population in Alameda County, California. At AHS, Julia oversees program planning, grant, fundraising, and public relation activities as well as coordinates the Oakland Chinatown Advisory Committee, an advisory committee to the Alameda and Oakland City Councils and Planning Boards on Chinatown issues related to the future development and environmental review process for projects within

Alameda and Oakland. As its co-founder, Julia manages the California Healthy Nail Salon Collaborative, a statewide effort working to address the health and safety issues faced by nail salon workers. The Collaborative recently received an Environmental Protection Agency award for its work. Julia currently sits on UCLA's Asian American and Pacific Islander Multi-Campus Research Program Advisory Board, the East Bay Municipal Utility District Community Advisory Board, and was a Policy Fellow with the Women's Policy Institute where she worked with the Safe Cosmetics Coalition on legislation related to protecting the health and safety of nail salon workers and consumers in general. Julia holds a Masters in Public Health from UC Los Angeles. Email: jliou@ahschc.org.

Stacy Malkan is the author of the award-winning book, "Not Just a Pretty Face: The Ugly Side of the Beauty Industry" (New Society, 2007), and co-founder of the Campaign for Safe Cosmetics, an international coalition of health and environmental groups working to eliminate toxic chemicals from beauty products. She is frequently interviewed about the latest research and market developments in safer products. In 2008, a Wall Street Journal article named "Not Just a Pretty Face: The Ugly Side of the Beauty Industry" one of the best environmental reads, and the book won a 2008 Silver Medal Award from the Independent Book Publishers Association. Prior to working as an environmental health activist, Ms. Malkan worked for ten years as a journalist, magazine editor and newspaper publisher in the Colorado Rockies. She is a graduate of the University of New Hampshire, and currently lives in the San Francisco Bay Area. For more information: www.NotJustaPrettyFace.org and www.SafeCosmetics.org. Email: smalkan@hcwh.org.

Anuja Mendiratta, MES, is an independent consultant working in the philanthropic and nonprofit sectors on a diversity of environmental and social justice issues. Anuja previously served as a senior program officer with the Women's Foundation of California, worked as a program officer at the Marin Community Foundation, and designed and managed the San Francisco Foundation's Environmental Health and Justice Initiative. Anuja is the co-founder of the California Healthy Nail Salon Collaborative and serves on its steering committee. Currently, she co-chairs the Center for Environmental Health's Justice Fund, which makes small grants in support of environmental justice efforts in California, is a member of the coordinating team of the Women's Health and the Environment Initiative (WHEI), and is a 2009 New American Media Environmental Health fellow. Anuja holds an undergraduate degree from Antioch College in Yellow Springs, Ohio and a Masters in Environmental Studies from York University in Toronto, Canada. Email: anujamendiratta@yahoo.com.

Tuan N Nguyen, CIH, ARM, has been a certified Industrial Hygiene Consultant for State Compensation Insurance Fund since 1990. Prior to working at State Fund, he worked for six years as a Staff Research Associate at University of California Irvine Medical School, Air Pollution Health Effects Laboratory, coordinating and conducting research on inhalation toxicology for air pollution studies. Tuan has received extensive training in: respiratory protection, process safety management, indoor air quality, transportation of hazardous materials, industrial ventilation, ergonomics and pesticide handling. He has also earned a certification in Occupational Safety from the UC Irvine Extension and an associate degree in risk management designation from the Insurance Institute of America. Tuan has a Bachelor's Degree in Biological Science, with a minor in Chemistry and Arts from the UC Irvine and additional industrial hygiene training from Southern Occupational Health Center at UC at Irvine. Email: tnnguyen@scif.com.

Uyen Nguyen is a chemist and the founder and owner of Isabella Nail Bar in Oakland, California. The products used in her salon are free of formaldehyde, toluene and dibutyl phthalate. Uyen designed her unique salon to have a toxic free ambience so her clients and nail technicians do not have to worry about hazardous chemicals during treatments. See: www.isabellanailbar.com. Email: info@isabellanailbar.com.

Thu Quach, PhD, MPH, is a research scientist, whose work focuses on environmental / occupational links to health problems, including cancer and reproductive outcomes, as well as health disparities. In her current capacity at the Cancer Prevention Institute of California (CPIC, formerly known as the Northern California Cancer Center), a non-profit organization dedicated to preventing cancer through population-based research and community education, she manages a community-research collaborative project with Asian Health Services to examine cancer risks in cosmetologists and manicurists. In addition to her research experience, she has been active in advocacy efforts that tackle environmental and reproductive justice issues among Asian American populations, including serving as on the Board of Directors for Banteay Srei, a young women's empowerment program for Southeast Asian sexually exploited minors. Thu holds a Masters in Public Health from U.C.L.A. and a Ph.D. candidate at the U.C. Berkeley School of Public Health in the department of Epidemiology. Email: Thu.Quach@cpic.org.

Julia Quint, Ph.D., is a public health scientist and retired Chief of the Hazard Evaluation System & Information Service (HESIS), an occupational health program in the California Department of Public Health (CDPH). Julia has a doctorate in Biochemistry and was a staff scientist at the

Lawrence Berkeley Laboratory before joining CDPH in 1981. During her tenure at CDPH, she worked closely with environmental agencies and other organizations to develop integrated strategies to protect workers, communities, and the environment from the hazards of toxic chemicals. Julia is the recipient of a lifetime achievement award from the Western Regional Pollution Prevention Network (2006), the Helen Rodriguez Trias "Lighting the Way" award from the California Public Health Association (2008), and the Health and Safety Activist award from the American Public Health Association (2008). Julia currently serves on the Green Ribbon Science Panel, the Scientific Guidance Panel of the California Environmental Contaminant Biomonitoring Program, the Tracking Implementation Advisory Group of the California Environmental Health Tracking Program, the Cal/OSHA Health Experts Advisory Committee, and the National Academy of Sciences Committee on Tetrachloroethylene. She has authored numerous public health reports and scientific articles. Email: juliaquint@sbcglobal.net.

Peggy Reynolds, Ph.D., is a Senior Research Scientist at the Cancer Prevention Institute of California (CPIC, formerly known as the Northern California Cancer Center) and Consulting Professor, Stanford University, Department of Health Research and Policy and member of the Stanford Cancer Center. She received her Ph.D. in Epidemiology from the University of California at Berkeley, and spent several years as an epidemiologist for the California Tumor Registry and San Francisco Bay Area SEER (Surveillance, Epidemiology and End Results) program, and as the Chief of the Environmental Epidemiology Section in the California Department of Health Services. She has conducted a number of cancer epidemiology studies, with a particular focus on environmental risk factors, including several geographic information system based studies of patterns of cancer incidence in areas of high levels of hazardous air pollutants in California, as well as a number of studies of cancer in occupational cohorts. She is currently co-investigator with colleagues at Asian Health Services for an ongoing California Breast Cancer Research Program funded community research collaborative study of breast cancer risks in Vietnamese nail salon workers in California. Email: Peggy.Reynolds@cpic.org.

Cora Roelofs, Sc.D. is on the Research Faculty at the Department of Work Environment at the University of Massachusetts Lowell. She was awarded an Sc.D. in Industrial Hygiene, from the same department in 2001, and received an M.Sc. in Occupational and Environmental Health Science from Hunter College, City University of New York in 1996. Dr. Roelofs' occupational health research interests include

immigrant worker populations, nail salon hazards and health effects, prevention of worker exposure to chemicals via toxics use reduction techniques, asbestos exposure, intervention research, small businesses, interdisciplinary prevention research and qualitative methods. Email: Cora_Roelofs@uml.edu.

Megan R. Schwarzman, MD, MPH is a research scientist with the Program in Green Chemistry and Chemicals Policy at the University of California, Berkeley Center for Occupational and Environmental Health (COEH), School of Public Health. Her work focuses on endocrine disrupting substances, reproductive environmental health, U.S. and European chemicals policy, and the implications for human health and the environment of the production, use and disposal of chemicals and products. She earned her medical degree from the University of Massachusetts, completed her specialty training in Family Medicine at the University of California, San Francisco, and earned a master's of public health in environmental health at the University of California, Berkeley. She was a co-author of the 2008 report to Cal/EPA, Green Chemistry: Cornerstone to a Sustainable California. In addition to environmental health research, Dr. Schwarzman is a clinical instructor at University of California, San Francisco and practices medicine part time at San Francisco General Hospital. Email: meganschwarzman@berkeley.edu.

Jamie Silberberger, MES, is a campaign manager at Women's Voices for the Earth (WVE), an organization dedicated to creating healthy homes, workplaces, and communities by reducing environmental hazards that adversely impact women's health. In her role at WVE, she co-convenes the National Healthy Nail Salon Alliance and serves on the Campaign for Safe Cosmetics national steering committee. In addition, Jamie manages a regional mercury campaign focused on mercury in products. She is also a state steering committee member of Montana Women Vote, a coalition dedicated to educating and mobilizing low-income women to participate in the democratic process. Prior to joining the WVE staff, she spent many seasons working as a park ranger in Yellowstone National Park and spent the shoulder months working in clinical trials and procurement at a major biotech company. Most recently, she has worked as a research associate at the University of Montana. Jamie has a Masters degree in Environmental Studies from the University of Montana and a B.A. from UCLA. While attending the University of Montana, Jamie was named a Doris Duke Conservation Fellow by the Woodrow Wilson National Fellowship Foundation. Email: Jamie@womenandenvironment.org.

Ingeborg B. Small is the Chief for the Medical Device Safety and Youth Tobacco Enforcement Section and the Drug and Consumer Product Safety Section, of the Food and Drug Branch, California Department of Public Health. She graduated in 1981 from San Diego State University with a Bachelor of Science degree in Biological Sciences. She began her career with the Food and Drug Branch in June 1984. Throughout her career with the Food and Drug Branch as a Food and Drug Investigator, Senior Food and Drug Investigator, Supervising Food and Drug Investigator, Program Specialist, Unit Chief and Section Chief she has been responsible for inspection and regulation of processors of foods, drugs, medical devices, and cosmetics. Email: Ingeborg.Small@cdph.ca.gov. (Represented by John Wallace).

Lenh Tsan, Project Manager, Asian Law Caucus. At the Caucus, she works with the Immigrant Rights Project to defend low income immigrants facing deportation, to help them obtain legal status and to petition for their family members abroad. On the Nail Salon Project, she provides occupational health and safety trainings to nail salon workers and owners, who are predominantly Vietnamese immigrant women. Since joining the Caucus in 2005, she has conducted over 250 of these trainings in the nail salons, cosmetology schools, and vocational classes and has outreached to over 450 students, workers, and nail salon owners in the bay area. She also works to mobilize and build leadership among workers to be able to publicly speak about the hazards they face and to advocate for their rights. She is fluent in Vietnamese, Cantonese, and Mandarin. Email: lenht@asianlawcaucus.org.

Len Welsh, J.D. is the Chief of the CA Division of Occupational Safety and Health (Cal/OSHA). Prior to joining Cal/OSHA in 1986 to serve as counsel to the agency, he practiced as an attorney in toxic substance litigation and as an industrial hygiene consultant. As Special Counsel to Cal/OSHA, Mr. Welsh managed the health-related litigation handled by the agency as well as the development new and occupational safety and health standards. He was responsible for developing many of the agency's enforcement procedures, particularly in health-related areas such as ergonomics, tuberculosis, and blood borne pathogens. Mr. Welsh received a J.D. from Hastings College of the Law in 1983 and an M.S. in Environmental Health Sciences from U.C. Berkeley in 1984. Email: LWelsh@dir.ca.gov. (Represented by Peter Schulz).

SELECT RESOURCES

REPORTS

- [Phasing Out the Toxic Trio: A Review of Popular Nail Polish Brands](http://nailsalonalliance.squarespace.com/storage/Alliance_nail_report.pdf) (http://nailsalonalliance.squarespace.com/storage/Alliance_nail_report.pdf) by National Healthy Nail Salon Alliance
- [Phasing Out the Toxic Trio: Factsheet](http://nailsalonalliance.squarespace.com/storage/Alliance_nail_factsheet.pdf) (http://nailsalonalliance.squarespace.com/storage/Alliance_nail_factsheet.pdf) by National Healthy Nail Salon Alliance
- [Overexposed & Underinformed: Dismantling Barriers to Health and Safety in California Nail Salons](http://nailsalonalliance.squarespace.com/storage/Collab_NailSalonPolicyReport.pdf) (http://nailsalonalliance.squarespace.com/storage/Collab_NailSalonPolicyReport.pdf) by California Healthy Nail Salon Collaborative
- [The Nail Salon Industry: The Impact of Environmental Toxins on API Women's Reproductive Health Issue Brief](http://nailsalonalliance.squarespace.com/storage/NAPAWF_issuebrief_nailsalon_updated.pdf) (http://nailsalonalliance.squarespace.com/storage/NAPAWF_issuebrief_nailsalon_updated.pdf) by National Asian Pacific American Women's Forum
- [Protecting the Health of Nail Salon Workers](http://nailsalonalliance.squarespace.com/storage/CA_nailsalonguide.pdf) (http://nailsalonalliance.squarespace.com/storage/CA_nailsalonguide.pdf) by Environmental Protection Agency
- [Glossed Over: Health Hazards Associated with Toxic Exposure in Nail Salons](http://nailsalonalliance.squarespace.com/storage/WVE.NailSalon.Report.pdf) (http://nailsalonalliance.squarespace.com/storage/WVE.NailSalon.Report.pdf) by Women's Voices for the Earth
- [Toxicity, Safety and Performance Evaluation of Alternative Nail Products](http://nailsalonalliance.squarespace.com/storage/Viet%20Initiative_New%20Ecology%20Report.pdf) (http://nailsalonalliance.squarespace.com/storage/Viet%20Initiative_New%20Ecology%20Report.pdf) by Vietnamese Healthy Nail Salon Initiative
- [Beauty Secrets: Does a Common Chemical in Nail Polish Pose Risks to Human Health?](http://www.ewg.org/reports/beautysecrets) (www.ewg.org/reports/beautysecrets) by Environmental Working Group
- [Pedicures at What Price?](http://go2.wordpress.com/?id=725X1342&site=saloncollaborative.wordpress.com&url=http%3A%2F%2Fwww.sor.govoffice3.com%2Fvertical%2FSites%2F%257B3BDD1595-792B-4D20-8D44-626EF05648C7%257D%2Fuploads%2F%257B429BFBDC-BABD-4538-A4D4-84B37598B1D9%257D.PDF) (http://go2.wordpress.com/?id=725X1342&site=saloncollaborative.wordpress.com&url=http%3A%2F%2Fwww.sor.govoffice3.com%2Fvertical%2FSites%2F%257B3BDD1595-792B-4D20-8D44-626EF05648C7%257D%2Fuploads%2F%257B429BFBDC-BABD-4538-A4D4-84B37598B1D9%257D.PDF) by the CA Senate Office on Research

FACTSHEETS

- [Indoor Air Quality and Artificial Nails](http://www.mass.gov/dos/iaqdocs/iaq-400.htm) (www.mass.gov/dos/iaqdocs/iaq-400.htm) by Massachusetts Division of Occupational Safety
- [Indoor Air Quality and Artificial Nails - Brochure](http://nailsalonalliance.squarespace.com/storage/CA_iaq_artificial_fingernails.pdf) (http://nailsalonalliance.squarespace.com/storage/CA_iaq_artificial_fingernails.pdf) by Massachusetts Division of Occupational Safety
- [Artificial Fingernails and Indoor Air Quality - Vietnamese](http://www.turi.org/content/download/3593/44290/file/ArtificialFingernailsVN.doc) (www.turi.org/content/download/3593/44290/file/ArtificialFingernailsVN.doc) by Massachusetts Division of Occupational Safety
- [Artificial Fingernail Products: A HESIS Guide to Chemical Exposures in the Nail Salon](http://www.dhs.ca.gov/ohb/HESIS/artnails.pdf) (www.dhs.ca.gov/ohb/HESIS/artnails.pdf) by California Hazard Evaluation System and Information Service (HESIS)
- [Methyl Methacrylate \(MMA\)](http://www.dhs.ca.gov/ohb/HESIS/mma.pdf) (www.dhs.ca.gov/ohb/HESIS/mma.pdf) by California Hazard Evaluation System and Information Service (HESIS)

- [Healthy Air: A Community and Business Leaders Guide Owner/Operator Information Sheet: Reducing Air Pollution from Nail Salons](#) (http://nailsalonalliance.squarespace.com/storage/EPA_nail_salons_oo_sheet.pdf) by US Environmental Protection Agency
- [Community Information Sheet: Reducing Air Pollution from Nail Salons](#) (http://nailsalonalliance.squarespace.com/storage/EPA_nail_salons_comm_info.pdf) by US Environmental Protection Agency
- [Safety in Nail Salons Factsheet](#) (www.labsafety.com/refinfo/ezfacts/ezf281.htm) by Lab Safety Supply Inc.
- [Promoting Safer Nail Salons in Massachusetts](#) (www.turi.org/content/view/full/3325) by Massachusetts Healthy Cosmetology Committee
- [Occupational Hazards in Nail Salons](#) (www.ohcow.on.ca/resources/handbooks/nail_salon/nail_salons.htm) by Occupational Health Clinics for Ontario Workers Inc (OHCOW)
- [How to Handle Nail Salon Waste in King County](#) (<http://nailsalonalliance.squarespace.com/storage/King%20County%20NailSalons0507.pdf>) by King County Hazardous Waste Mgmt. Program
- [Ventilation in Nail Salons](#) (www.turi.org/content/view/full/4353) by Massachusetts Division of Occupational Safety
- [Worker Dust and Vapor Exposure in Nail Salons: Control of Acrylic Nail Emissions](#) (www.dph.state.ct.us/EOHA/Documents/news897.pdf) by Connecticut Department of Public Health
- [Silica Exposure in Artificial Nail Application Salons](#) (http://nailsalonalliance.squarespace.com/storage/IL_epi97-8.pdf) by Illinois Department of Public Health
- [Health and Safety Fact in the Nail Salon Industry](#) (<http://nailsalonalliance.org/storage/ALC%20factsheet.pdf>) by Asian Law Caucus
- [A Breath of Toxic Air](#) (www.coalitionforcleanair.org/documents/A-Breath-of-Toxic-Air.pdf) by Coalition for Clean Air
- [Can my Pregnant Patient Keep her Job at the Nail Salon? Fact Sheet for Physicians](#) (<http://nailsalonalliance.squarespace.com/storage/IConnNailSalonFactSheetPhysician.pdf>) by University of Connecticut Health Center
- [Oregon OSHA Fact Sheet Plus: Safety and Health Hazards in Nail Salons](#) (www.orosha.org/pdf/pubs/fact_sheets/fs28.pdf)
- Nail Salons: How to be Safe at Work ([English: www.cbs.state.or.us/osha/pdf/pubs/4783e.pdf](http://www.cbs.state.or.us/osha/pdf/pubs/4783e.pdf), [Vietnamese: www.cbs.state.or.us/osha/pdf/pubs/4783v.pdf](http://www.cbs.state.or.us/osha/pdf/pubs/4783v.pdf)) by Connecticut Department of Public Health

WEBSITES

- [California Healthy Nail Salon Collaborative](#) (www.cahealthynailsalons.org)
- [National Healthy Nail Salon Alliance](#) (www.nailsalonalliance.org)
- [Oregon Collaborative for Healthy Nail Salons](#) (www.oregonhealthynailsalons.org)
- [Campaign for Safe Cosmetics](#) (www.safecosmetics.org)

VIDEO

- [Nail Salon Worker Training video by the Boston Safe Nail Salon Project](#) (http://www.youtube.com/watch?v=PksAPhmm15M&feature=player_embedded)

COMPILATION OF RESEARCH ON OCCUPATIONAL EXPOSURES AND BEAUTY SALON WORKERS

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