

The HERMOSA Study:
Reducing Latina girls' exposure to endocrine
disrupting chemicals in cosmetics



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HERMOSA Study Aims

- 1) To characterize levels and sources of ED exposure from personal care products in young Latina women
- 2) To lower ED concentrations in the body by using alternate products
- 3) To empower local youth in scientific research methods
- 4) To work with local youth to develop health education and advocacy skills

The CHAMACOS Youth Council



Preparing the next generation of Environmental
Health Leaders

Learning about Endocrine Disruptors



The Campaign for Safe Cosmetics



THE STORY OF

COSMETICS

WITH ANNIE LEONARD

THE UGLY TRUTH OF "TOXICS IN, TOXICS OUT"

DONATE

share

CC (off)

A video player interface with a play button, a progress bar, and a volume icon. The video content is a hand-drawn illustration of various cosmetic products (spray cans, bottles, tubes) arranged to spell out 'COSMETICS'. The text 'THE STORY OF' is above and 'WITH ANNIE LEONARD' and 'THE UGLY TRUTH OF "TOXICS IN, TOXICS OUT"' are below the illustration. There are also 'DONATE', 'share', and 'CC (off)' buttons.

Endocrine Disruptors in Make-up

Phthalates (fragrance)



Parabens (preservative)



Oxybenzone (sunscreen)

Triclosan (antibacterial)



HERMOSA Study

- Enrolled 100 teen girls
- Pre-intervention visit:
 - Questionnaire about recent beauty product use
 - Urine sample
 - Education about EDs in make-up
- Gave low chemical products for 3 days
- Post-intervention visit:
 - Urine sample



The “Beauty Bar”

Girls Received:

- Shampoo
- Conditioner
- Body wash
- Liquid soap
- Lotion
- 1 Bar hand soap
- Deodorant
- Toothpaste (only for Colgate Total users)



Plus 4 extras from choice of: Liquid foundation, Powder foundation, Mascara, Eye liner, Lip stick, Lip gloss, Lip balm, Sunscreen

“Low Chemical” Alternatives

- Parabens, triclosan, oxybenzone:
 - ✓ Based on ingredients list
- Phthalates:
 - ✓ Not listed on ingredients
 - ✓ Chose brands that pledged not to use phthalates
 - ✓ Chose options with no fragrance or parfum
- Prioritized locally available, affordable products. Prioritized brands that used fewer chemicals across the board.

We did not conduct independent tests for the presence of these chemicals

Designing the Study



Devising a Name and Logo



HEALTH AND ENVIRONMENTAL
RESEARCH ON MAKE-UP OF
SALINAS ADOLESCENTS

Testing Alternate Products



Conducting the Data Collection





We are recruiting participants for an exciting new study! If you are interested about learning more, see our web page: www.cerch.org/hermosastudy

HERMOSA STUDY

Health and Environmental Research on
Make-up Of Salinas Adolescents



Are you a teen girl in Salinas?

Are you interested in learning about the chemicals in your personal care products?

Are you interested in earning \$100?

If you answered "Yes!" call or text us at (831)419-8610 or email us at hermosastudy@gmail.com to learn how you can join the Hermosa Study

Like · Comment · Share

Recruiting & Interviewing



Analyzing the Data



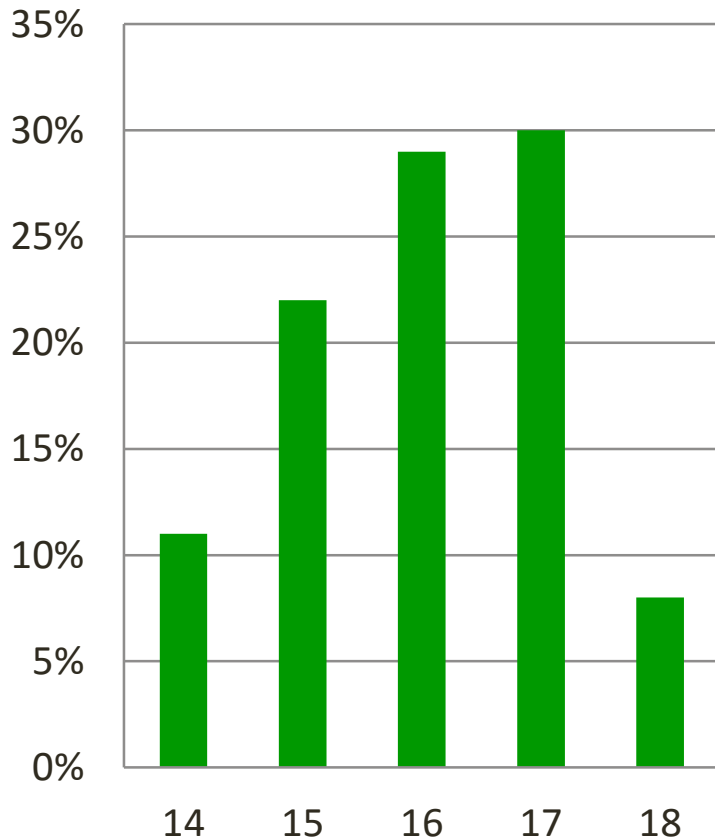
Field Trip to the CA Department of Public Health Laboratories



Results

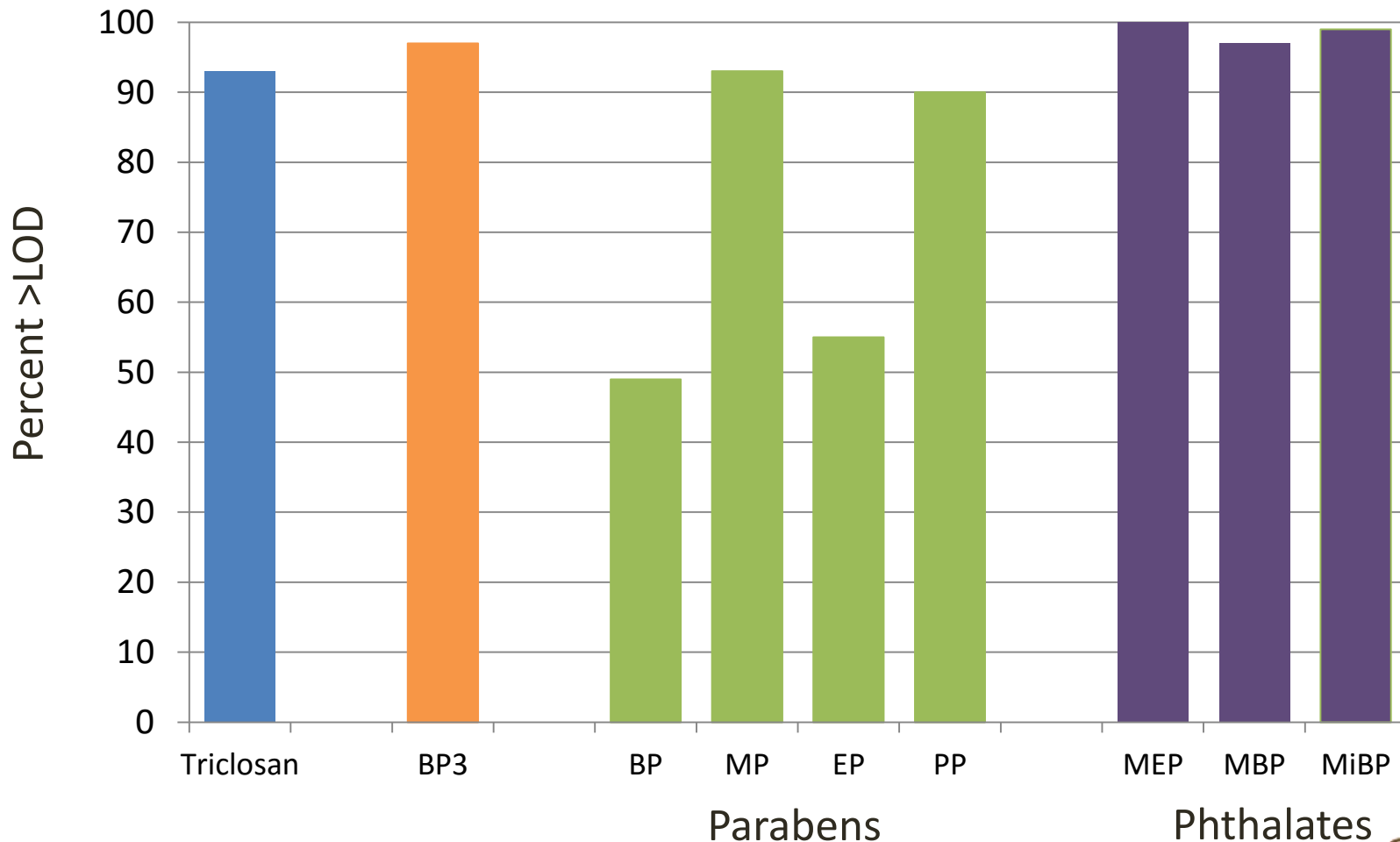
HERMOSA Participants

Age



- Mexican or Mexican-American
- Most spoke Spanish at home and English with friends

Percent of Participants with Detectable Analyte Concentrations



Higher Urinary Levels were Associated with Use of Specific Products

Triclosan:

- Colgate Total toothpaste
- Liquid hand soap

Oxybenzone:

- Sunscreen

Higher Urinary Levels were Associated with Use of Specific Products

Phthalates:

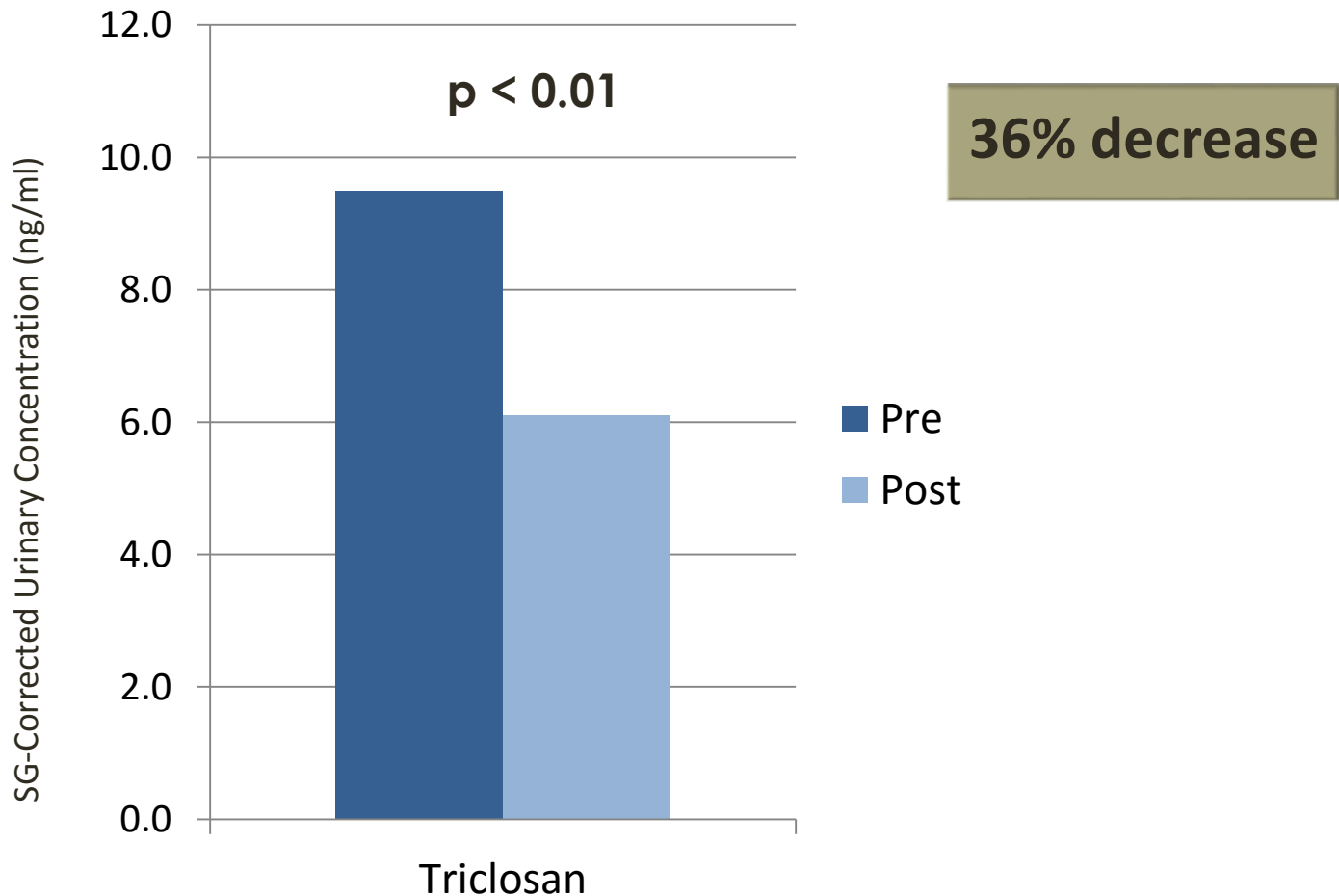
- Moisturizer
- NOT perfume or fragrance

Parabens:

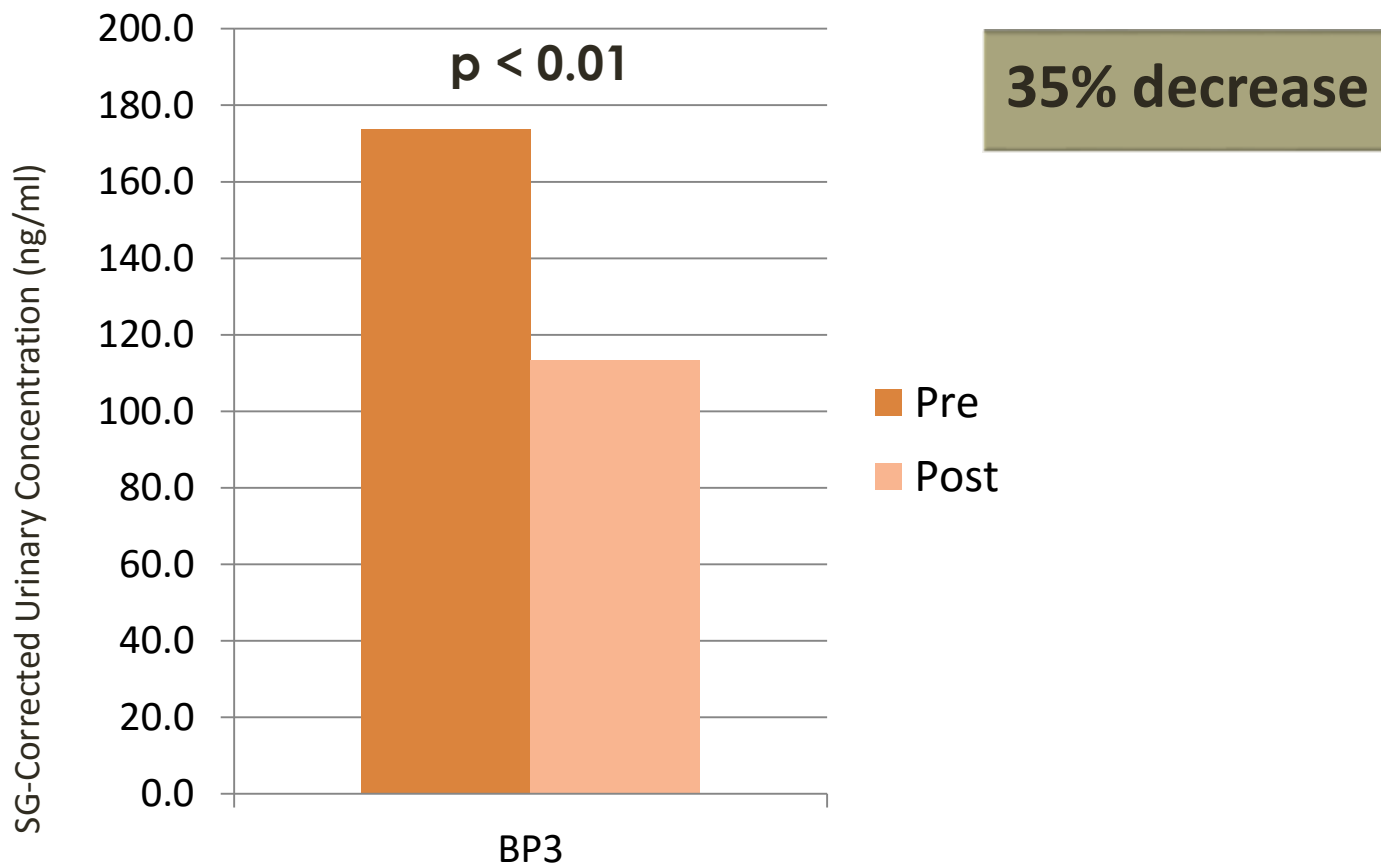
- Make-up use
- Foundation, blush, mascara

Did Levels Go Down During the Intervention?

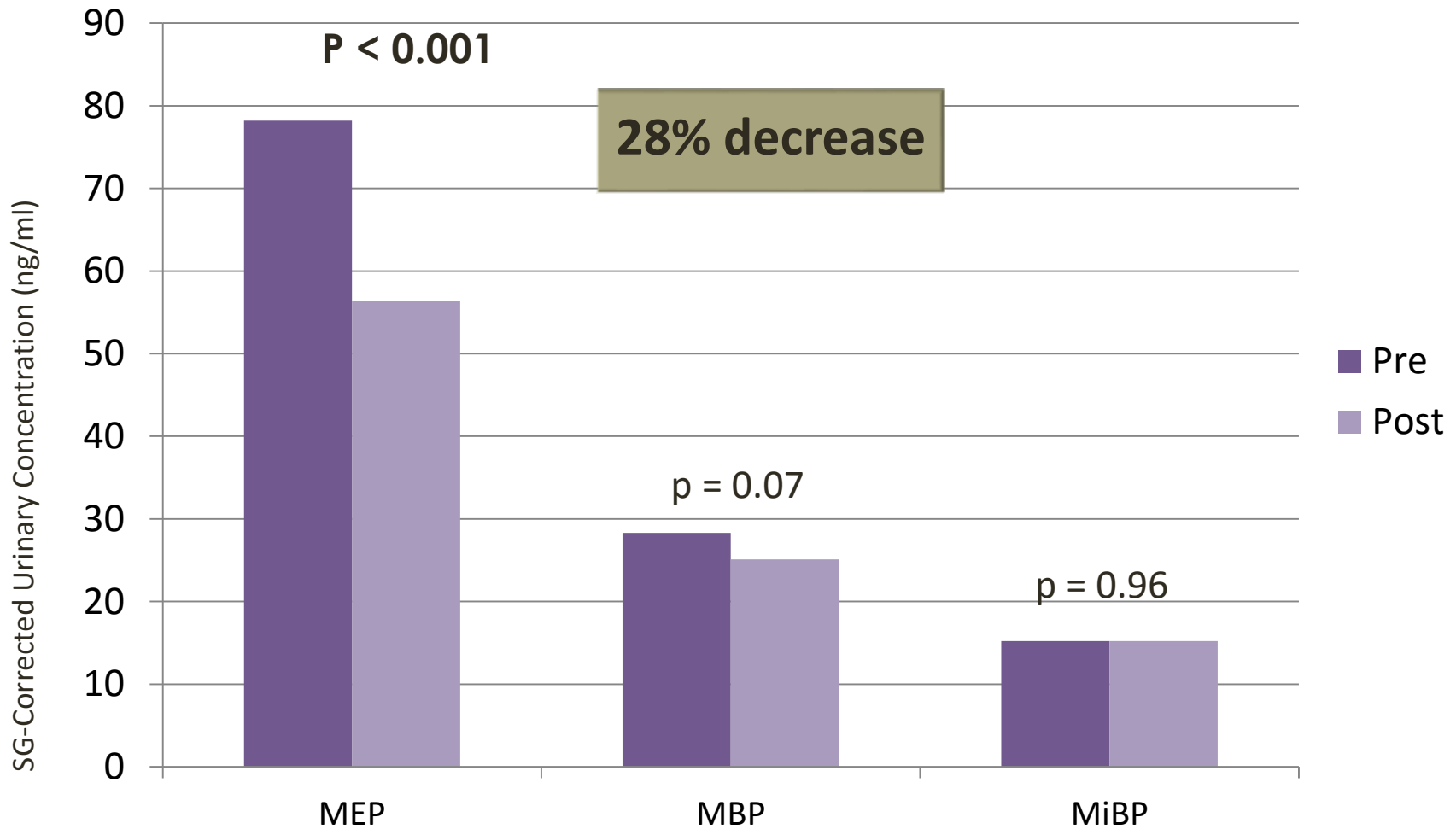
Triclosan Levels: Pre and Post-intervention



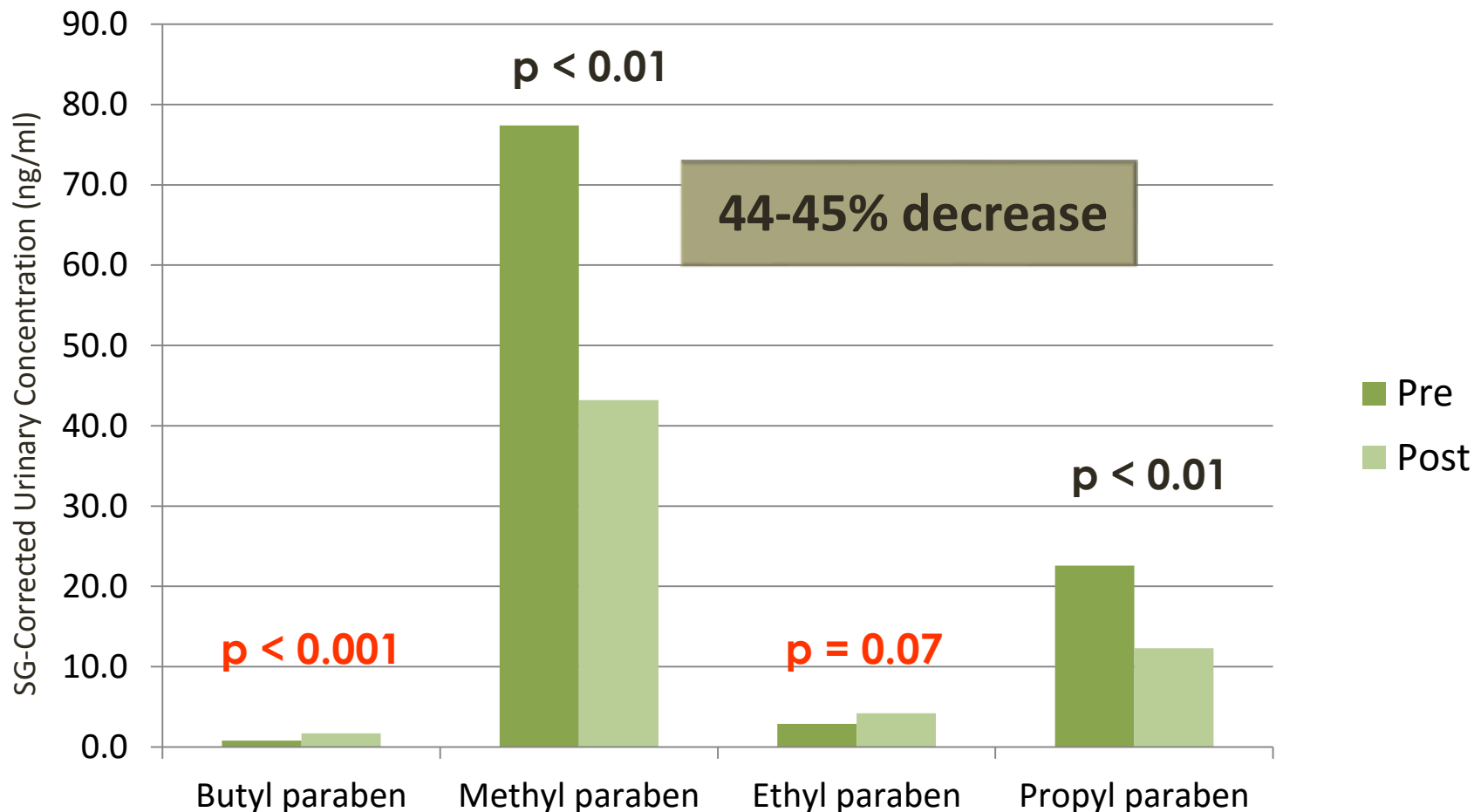
Oxybenzone Levels: Pre and Post-intervention



Phthalate Levels: Pre and Post-intervention



Paraben Concentrations: Pre and Post-intervention



Urinary Concentrations of Other Phthalates and Phenols did not Change

	Pre-intervention GM (ng/ml)	Post-intervention GM (ng/ml)	P-value
MBzP	13.0	12.3	0.78
MEHP	4.2	4.0	0.10
MEHHP	14.0	11.3	0.83
MECPP	25.9	22.6	0.48
MEOHP	10.9	9.1	0.79
MCPP	3.7	3.7	0.48
BPA	2.3	3.1	0.40

Participant's Attitudes

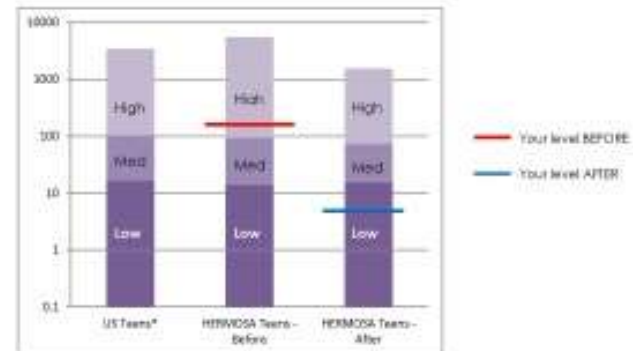
Learned something new about chemicals in cosmetics	86%
Has checked ingredient list of cosmetics	30%
Will buy beauty products without EDs	93%

Returning Results to Study Participants



Phthalate Levels

- Phthalates are often listed on ingredient lists as "fragrance" or "parfum."
- They are commonly found in perfume, lotions, shampoo, nail polish, and other cosmetics.
- In HERMOSA, girls who used lotion more often had higher phthalate levels.
- On average, phthalate levels **went down** during the HERMOSA intervention.



* 14-18 year old girls from across the US (National Health and Nutrition Examination Survey, 2011-2012). Low means lowest 25% of group, med/med means 25-75% of group, high means highest 25% of group.

Summary:

Before the intervention, your phthalate levels were **about the same** as most U.S. girls, and were **about the same** as the pre-intervention levels for most HERMOSA girls.

After using the low chemical personal care products for three days, your phthalate levels were **about the same** as most U.S. girls, and were **about the same** as the post-intervention level for most HERMOSA girls.

Your personal phthalate levels were **32% lower** post-intervention than pre-intervention.

Advocacy and Outreach Activities

Educational Materials

DIY Shampoo =



You will need:
2 tablespoons olive oil
1 egg
1 tablespoon lemon juice
1 teaspoon apple cider vinegar

Instructions: Combine all ingredients in a blender. Blend until well combined. Use like regular shampoo. Discard any leftovers.



Community Events



Social Media

- ©Twitter @ hermosa_study
- ©Instagram @ hermosa_study
- ©Facebook: Teens For Safe Cosmetics



HERMOSA Study Summary

- Identified products that were highest contributors to ED exposure
- Reduced ED concentrations by 25-45% by switching products for 3 days
- Low chemical products help!
- Able to empower youth by training them to be scientific researchers, health educators, advocates.

Thanks to our Staff and Collaborators



And thanks to our Funder



Community Research Collaborative
Award 18BB-1800