Potential Priority Chemicals

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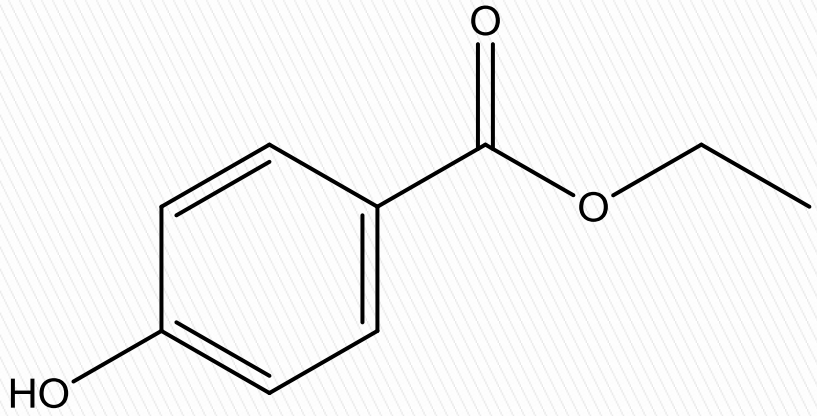
Presentation to Scientific Guidance Panel
May 24, 2010

Criteria for recommending priority chemicals (SB 1379)

- The degree of potential ***exposure*** to the public or specific subgroups
- The ***likelihood of a chemical being a carcinogen or toxicant*** based on peer-reviewed health data, the chemical structure, or the toxicology of chemically related compounds
- The ***limits of laboratory detection*** for the chemical, including the ability to detect the chemical at low enough levels that could be expected in the general population
- ***Other criteria*** that the panel may agree to

Potential priority chemicals

- Butylparaben
- Ethylparaben
- Methylparaben
- Propylparaben



Example structure: ethylparaben

Background information

- Antimicrobial preservatives widely used in:
  - Cosmetics
  - Lotion, shampoo, deodorant
  - Sunscreens
  - Pharmaceuticals
  - Food and beverages
- Concerns about endocrine disrupting effects

CDC findings

Calafat et al. (2010) detected parabens in urine:

Paraben	Detection (% of individuals tested[a])	Range (µg/L)
Methyl	99	1.0 - 17,300
Propyl	93	0.2 - 7,210
Butyl	47	0.2 - 1,240
Ethyl	42	1.0 - 1,110

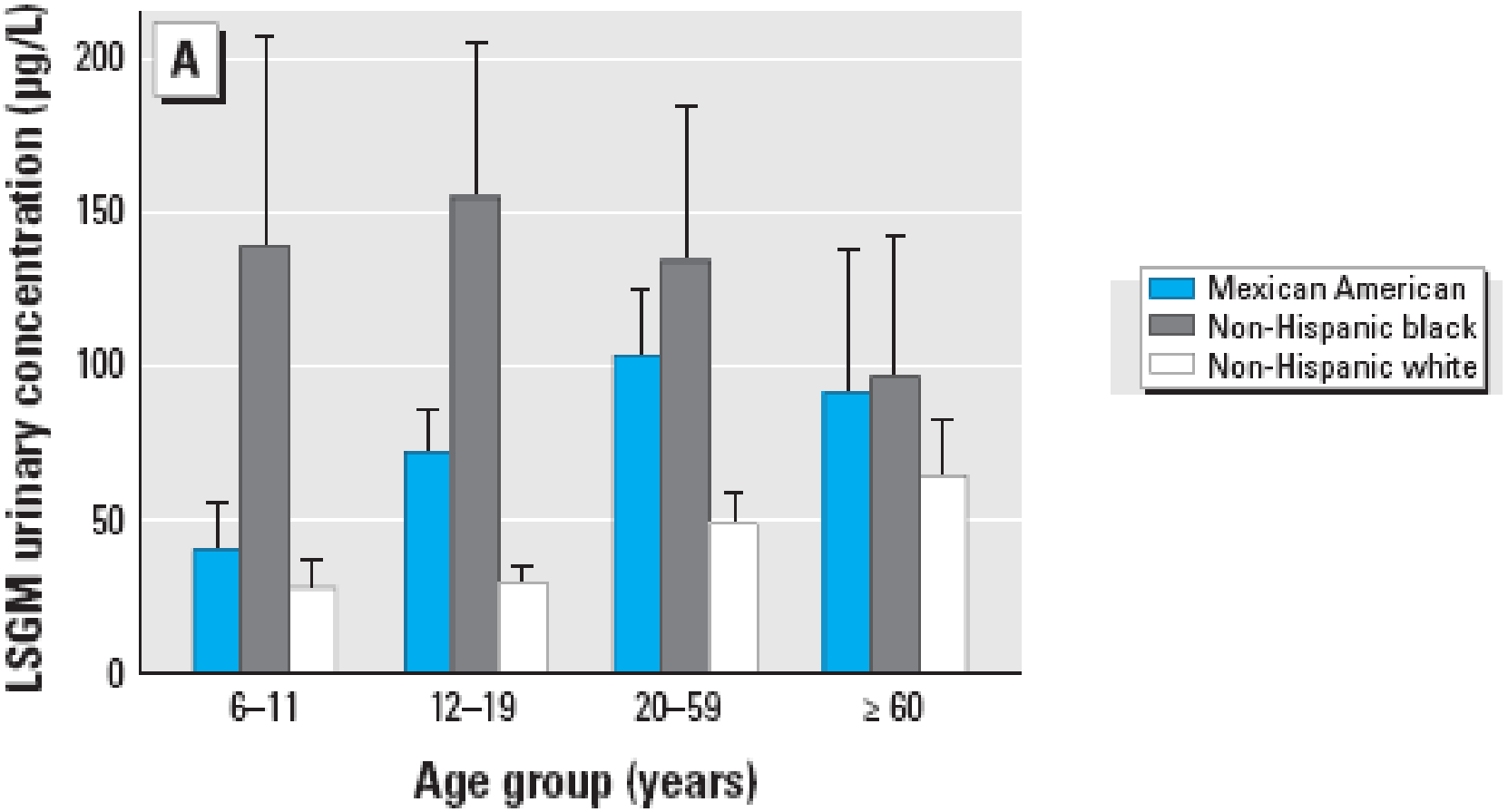
[a]2,548 individuals tested

CDC findings (cont.)

Methyl and propyl:

- Urinary levels in females >> males
- CDC category comparison:
  - Non-Hispanic blacks > Mexican-Americans > Non-Hispanic whites
  - Non-Hispanic black children and adolescents ≥ Non-Hispanic black adults

Methylparaben



From Calafat et al., 2010, reprinted with permission

Chemical name	Laboratory Considerations			
	Lab	Biospecimen	Timeline for lab capability	Found in humans?
Butylparaben	CDPH	Urine	Methods for related chemicals under development	Yes
Ethylparaben				
Methylparaben				
Propylparaben				