

TRIBAL CHILDREN'S ENVIRONMENTAL HEALTH



**PROTECTING CHILDREN
FOR THE HEALTH OF WHOLE COMMUNITIES**

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WHY FOCUS ON THIS?



ORIGINS OF DISEASE



INCREASED EXPOSURES

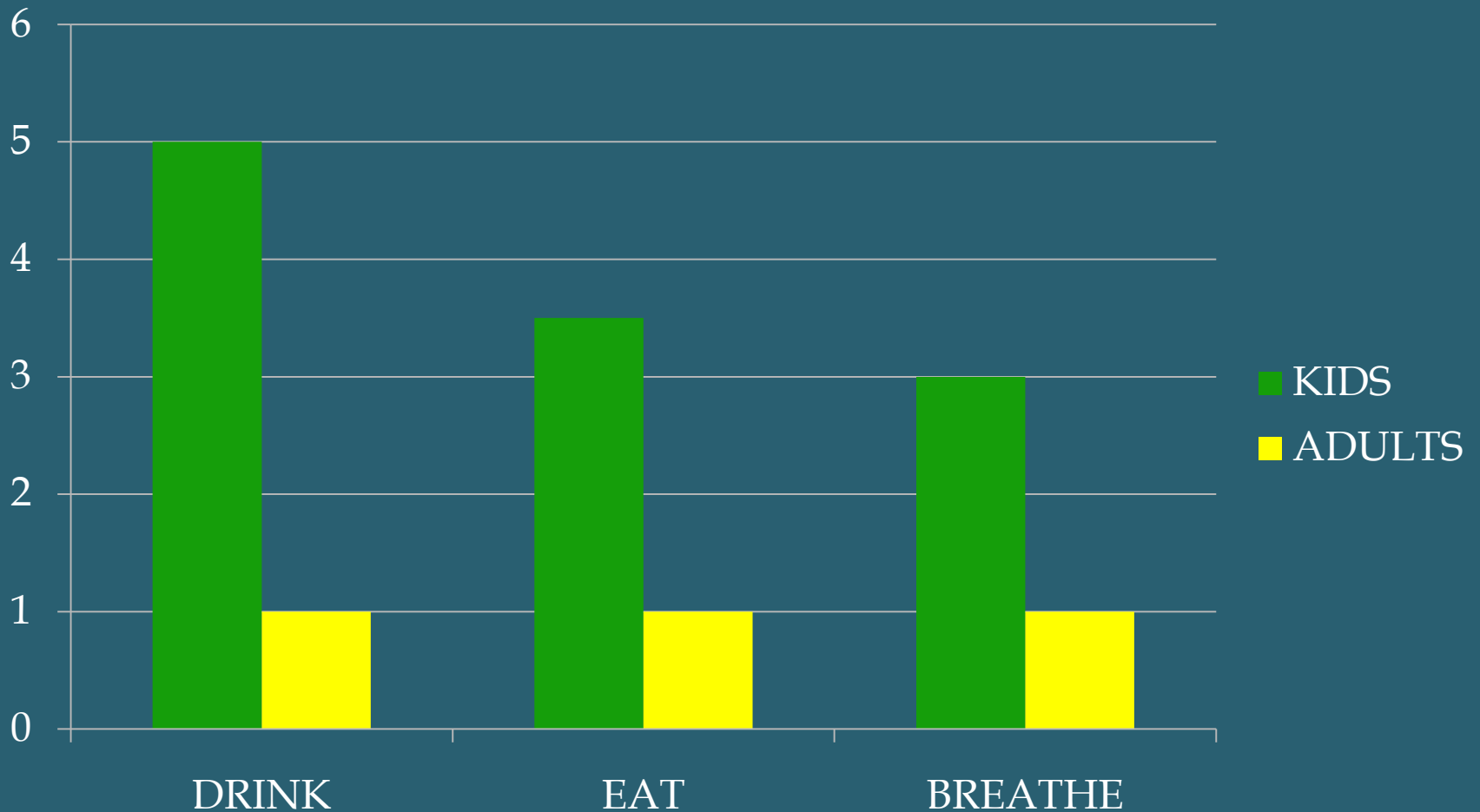
- ▣ ADJUSTED FOR BODY WEIGHT, KIDS:
 - EAT MORE
 - DRINK MORE
 - BREATHE MORE

- ▣ HAVE A LESS VARIED DIET:
 - BREASTMILK /FORUMLA
 - PICKY EATERS

- MUCH HIGHER EXPOSURES IF FOOD OR WATER IS CONTAMINATED

KIDS VS ADULTS

(rough comparisons, adjusted to
bodyweight)



KIDS HAVE UNIQUE BEHAVIORS

KIDS:

- CRAWL
- TEETHE
- PUT THINGS IN THEIR MOUTHS
- SPEND MORE TIME INDOORS



EFFECTS OF POLLUTANTS – MORE SEVERE

CRITICAL WINDOWS = TARGETS

- ▣ Lungs
- ▣ Immune System
- ▣ Brain
- ▣ Reproductive System
- ▣ Skeleton
- ▣ Others



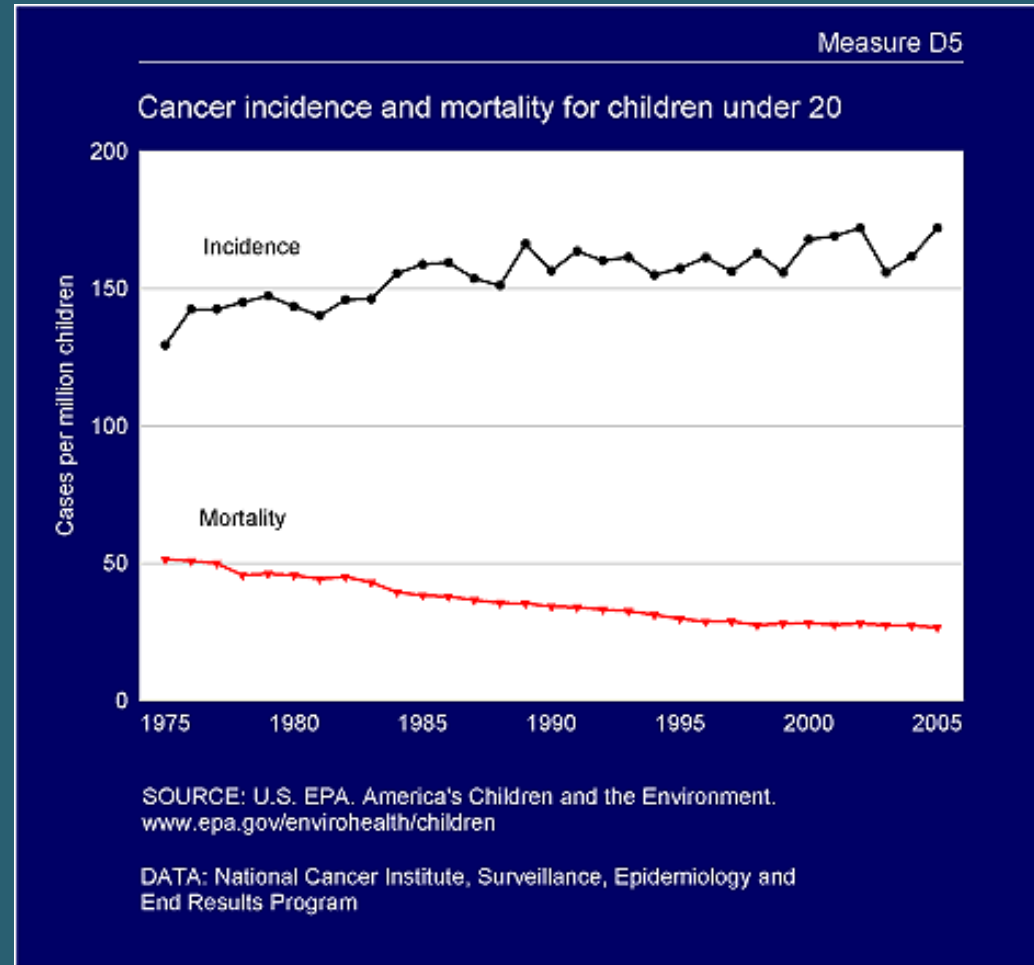
DIFFERENT PHYSIOLOGY = MORE TOXIC

- ▣ Detox pathways
- ▣ Immature barriers
- ▣ Increased Uptake

→ CONCERNS FOR FETUS, INFANTS AND TODDLERS, KIDS, AND TEENS

CHILDHOOD DISEASES OF CONCERN

- ▣ Asthma
- ▣ Cancer
- ▣ Obesity
- ▣ Developmental Disorders
- ▣ Others



Asthma Among Children 2-17 yr

(NHIS 2001-2005)

Asthma Status	Total	White	Black	AI/AN	Chinese	Filipino	Asian Indian	Other or Multiple Race
Current asthma	9.2 (0.2)	8.4 (0.2)	13.3 (0.4)	13.0 (1.7)	5.1 (1.3)	10.7 (2.2)	4.4 (1.2)	8.1 (0.5)
Lifetime asthma	13.2 (0.2)	12.3 (0.2)	18.1 (0.5)	18.0 (2.0)	9.0 (1.8)	15.7 (2.4)	9.4 (1.9)	12.4 (0.5)
Attack past 12 mo ^a	60.7 (0.9)	61.3 (1.1)	59.1 (1.6)	67.3 (7.0)	47.1 (13.4)	61.2 (11.1)	59.8 (12.3)	59.6 (2.7)

From: Asthma Prevalence Among US Children in Underrepresented Minority Populations: American Indian/Alaska Native, Chinese, Filipino, and Asian Indian; Brim et al (2008, American Academy of Pediatrics)

<http://pediatrics.aappublications.org/cgi/content/full/122/1/e217#SEC2>

CHILDHOOD EXPOSURES OF CONCERN

- ▣ Lead and Mercury
- ▣ Pesticides and Other Poisonings
- ▣ Air pollution (indoor and outdoor)
- ▣ Water Quality
- ▣ Consumer Products



CHILDREN'S ENVIRONMENTS

▣ SCHOOL

▣ HOME

▣ COMMUNITY



WHAT IS YOUR ROLE?



As Environmental Leaders,
You Can:

- Designate a **point of contact** in your organization for children's environmental health.
- Form a community-wide **children's environmental health workgroup** to assess and prioritize children's environmental health concerns in your community and develop a plan to address those concerns.