

#PesticidesFreeWorld



Children are born pre-polluted



Children are born pre-polluted, pesticides like, chlorpyrifos, DDT & endosulfan have been found in mother's wombs and new born's meconium.



How are children exposed to pesticides?



- Children are exposed to pesticides while they are in the womb, through their diet, homes, schools and playground.
- Children in rural areas also play in the fields where pesticides are used.
- In New Zealand, baby food was sampled to have 530 % more pesticides than baby food in Europe



Children are more vulnerable



- Due to children's developing bodies, children are more susceptible to pesticides.
- Per unit body weight they breath more air, drink more water and eat more food per unit body weight

Children's brains are still developing



- Children brain's are also vulnerable to the impacts of pesticides.
- Children's blood brain barrier is also not fully formed and are more permeable to pesticides than adults
- There are more reported cases of ADHD, developmental disorders, autisms in the US

Children are also exposed to pesticides in plantations and nearby farms



Picture taken in Indonesia, children are exposed to pesticide containers and are working in fields that have been sprayed with pesticides

Children are exposed to pesticides in their food



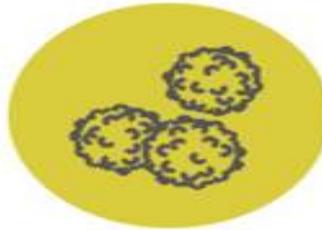
Children cakes packed from previous pesticide packets in Cambodia



Long Term Health Impacts Of Pesticide Use



**ACUTE
POISONING**



CANCER



**ASTHMA, ALLERGIES
AND IMMUNE SYSTEM PROBLEMS**



**REPRODUCTIVE
DISORDERS
AND ABNORMALITIES**



**OBESITY, DIABETES AND
OTHER METABOLIC DISEASES**



**NEURODEVELOPMENTAL
AND BEHAVIOURAL DISORDERS**

Case study of Chlorpyrifos

- Chlorpyrifos is hazardous to children and is linked to **lower I.Q scores derailed development, brain damage, impaired immune function, distributes the endocrine system, causing obesity diabetes, cancer, and reproductive problems later in life.**
- Prenatal exposure to the insecticide chlorpyrifos not only increases the likelihood of developmental delay, but may have long-term consequences for social adjustment and academic achievement,” said lead author and investigator on the study [Rauh et al 2006], Virginia Rauh,ScD.
- Four recent studies showed that children exposed to chlorpyrifos pesticides in the womb had lower IQ.



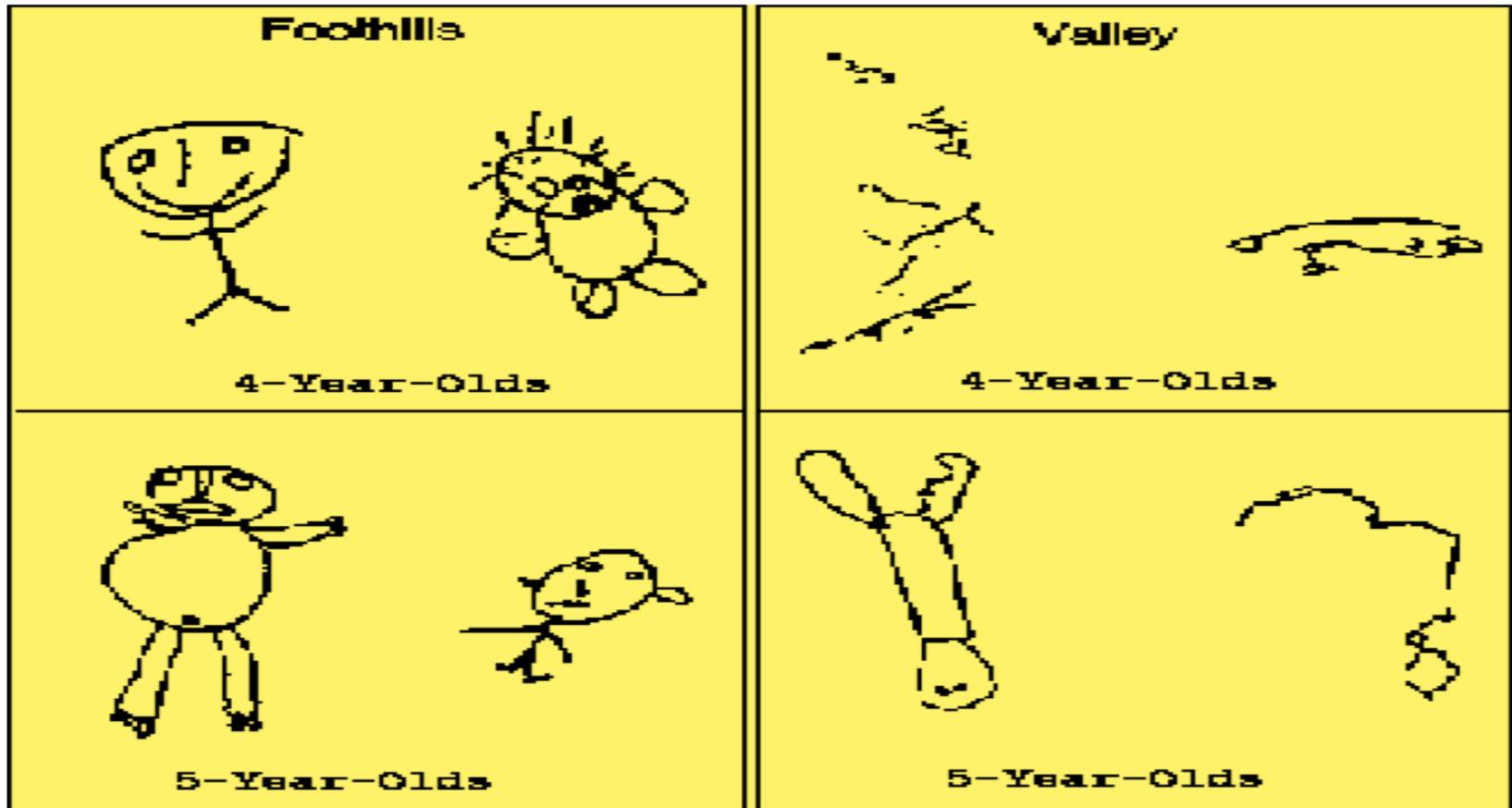
Case study of Chlorpyrifos (An Organophosphate)



- One Study in the US found that children who have been exposed to chlorpyrifos had a 7 point drop in IQ
- In one study, as little as 4.6 picograms of chlorpyrifos per gram of cord blood during gestation resulted in a drop of 1.4% of a child's IQ and 2.8% of its working memory (Rauh et al 2011).
- **"This drop in I.Q scores is alike to a 7 year old child functioning like a 6 and-a-half-year-old "** - Brenda Eskenazi, Key researcher from the study (University of California)



Case study of Yaqui Indians of Mexico (by Elizabeth Guillete, 1998)



Case study of Yaqui Indians of Mexico (by Elizabeth Guillete, 1998)

- Two groups of children sharing genetic, cultural and social backgrounds, one exposed to heavy pesticide use, and the other from an area where pesticide use was avoided were studied for overall health and cognitive abilities.
- Children in the valley were exposed to pesticides - including multiple organochlorine and organophosphate mixtures and pyrethroids. As well as this agricultural use, household insecticides were used throughout the year
- . In contrast, the ranching lifestyle of the highlands required no pesticide use, and the government DDT applications each spring for malaria control were their only contact with pesticides.
- The survey revealed no differences in physical growth or other outward manifestations, but it did reveal significant differences in functional abilities.



Case study of Yaqui Indians of Mexico (by Elizabeth Guillete, 1998)

In the following areas, the valley children showed a marked decrease in function relative to the highland children:

- physical stamina,
- ability to catch a ball,
- fine eye-hand coordination,
- ability to draw a person (the valley children providing only random undifferentiated lines in comparison with the highland children's easily recognisable human figures), recall after 30 minutes,
- although immediate recall was equivalent,
- and group play—the valley children were less creative, roaming aimlessly or swimming in the irrigation canals with minimal group interaction.
- More aggressive (hitting siblings)



Terrible Twenty pesticides that are toxic to children

1. Atrazine
2. Carbaryl
3. Chlorpyrifos
4. Chlorothalonil
5. Cypermethrin
6. DDT
7. Deltamethrin
8. Diazinon
9. Dichlorvos
10. Lambda-cyhalothrin
11. Malathion
12. Mancozeb
13. Maneb
14. Malathion
15. Methyl Parathion
16. Methamidophos
17. Paraquat
18. Parathion
19. Permethrin
20. Propoxur
21. Glyphosate – NEW



How can you help your child?

- Buy food that is pesticide free
 - A study from Seattle found that children who ate organic food had 6 times lower pesticides than that children who didn't
- Keep homes and schools pesticide free



How can you help your child?



- Support agroecology as method of farming
- Speak to local authorities, while urging them to use the precautionary principle when regulating pesticides
- Share what you have learned with here with your friends and family
- Join the growing PANAP family



How can you help support us?

**Please like us and follow us on social media.
Watch out for our updates on the campaign
and call to action.**

**Nov 20:International Children's Day
Dec 3 to Dec 10 : No Pesticide Use Week**



@PANAsiaPacific



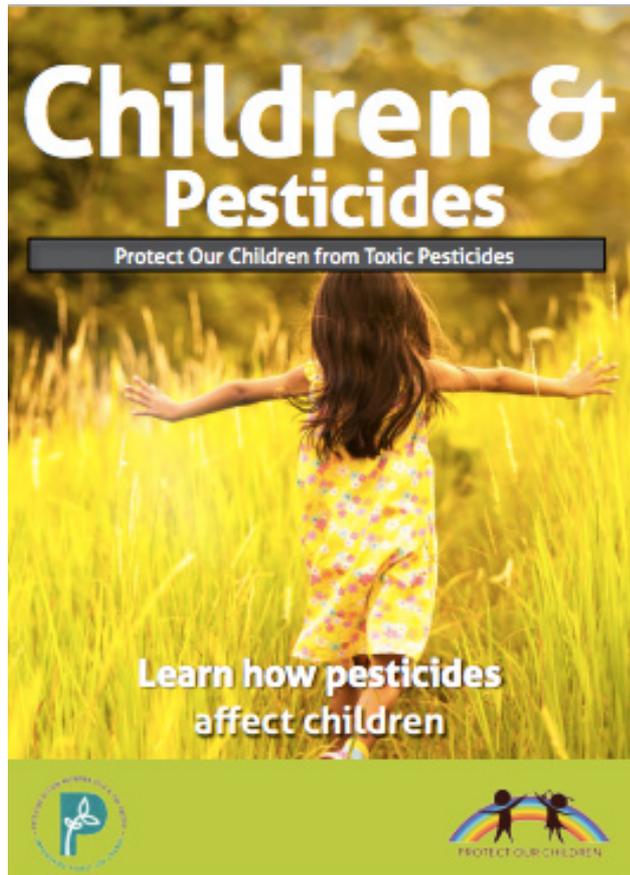
PAN Asia Pacific (PAN AP)



www.panap.net



Materials



- Booklet – Children and Pesticides
- <http://www.panap.net/sites/default/files/children-and-pesticides-booklet.pdf>
- Infographic – <http://www.panap.net/sites/default/files/Protect-Our-Children-Infographic.jpg>
- Posters and other materials - <http://panap.net/childrenandpesticide/?project=use-our-campaign-materials>