

Practicing Pediatric Environmental Health: A public health need in Arabian Gulf region



Dr. Mohamed Ghaith Al-Kuwari, MBBS, ABCM, FPHM
Public Health Medicine & Health Promotion.
Primary Care Department
Hamad Medical Corporation.

Aim of the presentation

This presentation aims to:

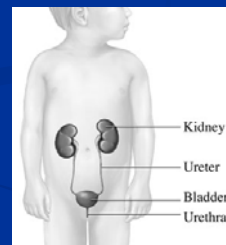
1. Show importance of pediatric environmental health.
2. Show why this specialty is important in Gulf region.

Introduction

- ***Pediatric Environmental Health "PEH"*** is the study of the impact of environmental factors on children's health.
- It covers child , fetal, maternal health, human reproductive health.

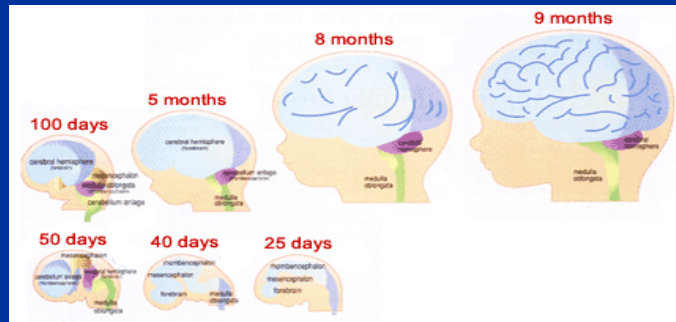
Why PEH, not General environmental health ?

- Children are not little adult.
- They have unique **physiological** characteristics that make them more vulnerable for environmental illness.
- 1. They born with immature metabolic pathway.



Why PEH?

2. Physiologically, their rapid growth process can be interrupted easily.



Why do we need PEH?

- They have unique behavior:



Examples for childhood environmental illnesses

1. **Bronchial Asthma.**
2. **Childhood cancer:** acute lymphoblastic leukemia (ALL), brain tumor.
3. **Neurodevelopmental disorders:** mental retardation, attention deficit disorder & autism.
4. **Endocrine disruption:** infertility & thyroid dysfunction.

Role of pediatric environmental health

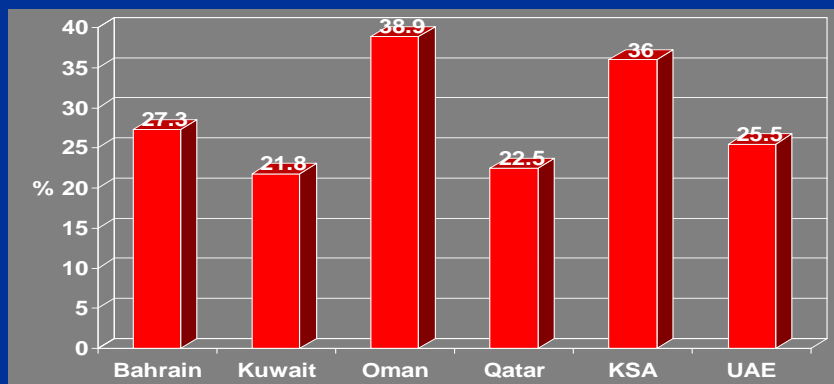
The health care providers should do the following:

1. **Investigation & reporting** of childhood environmental illnesses at clinical & community level.
2. **Research** for new evidence.
3. **Education** to patients, families & communities to reduce or eliminate toxic exposure.
4. **Advocacy** for prevention policy



Is PEH needed in Gulf region?

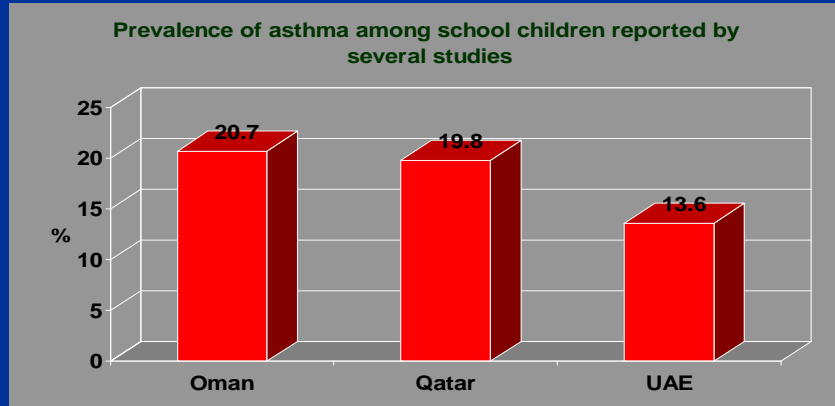
- Children < 15 years in GCC states form a large percentage of the total population (22-39%).



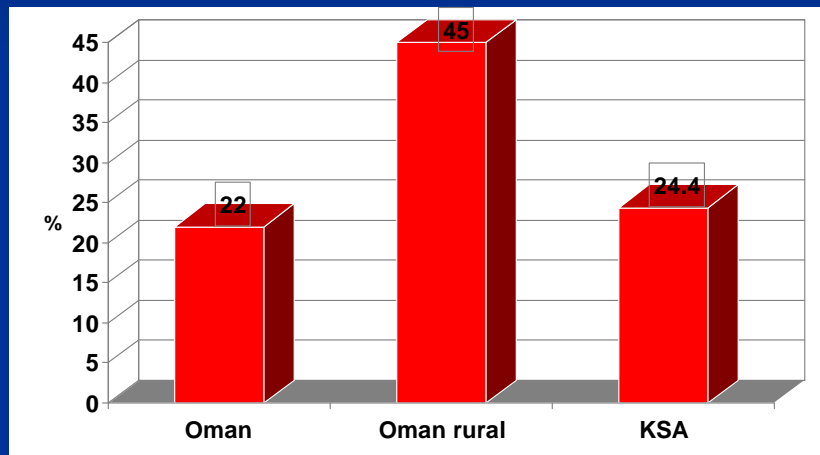
Source: Country profile – EMRO .2005.

Is PEH needed in Gulf region?

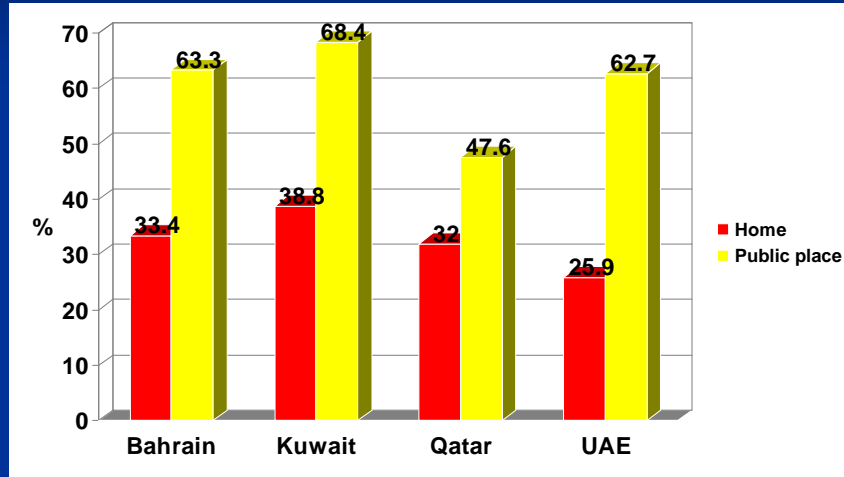
- In GCC states, childhood infections replaced by chronic disease that have some link to environmental factors .



Prevalence of Blood Lead level $\geq 10 \mu\text{g}/\text{dL}$ among children



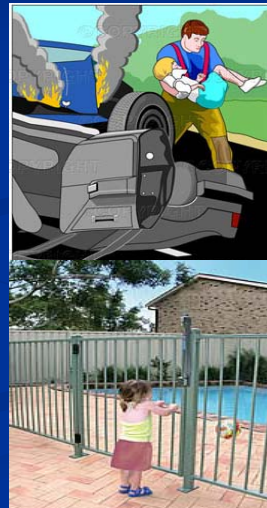
Percentage of Adolescents exposed to environmental tobacco smoke (ETS)



Source: GTYS – CDC .2001-2003.

Injuries due to unsafe physical environment

- In Qatar, children road traffic & domestic injury has annual mortality of 16.3 per 100,000 population.



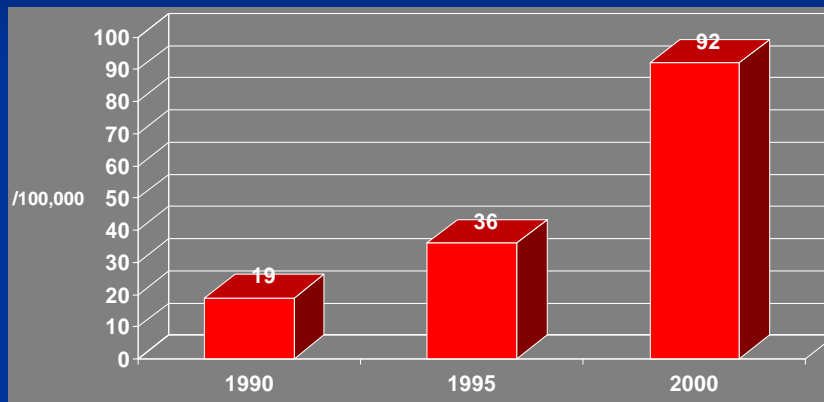
Source: Middle East Journal of Emergency Medicine
Jan 2001

Environmental challenges in Arabian Gulf Region

1. Region becomes an industrial region.
2. More chemical substances are coming to the market, with inadequate testing.
3. Climate change.
4. Conflict zone.



Annual incidence of leukemia among children <15 years in south of Iraq (per 100,000)



Source: Uranium weapon conference 2003 Hamburg, & Basra Univ Scientific Journal

Environmental challenges in Arabian Gulf Region

- Over 25% of the disease burden in the region could be reduced through available environmental health interventions, however health systems are not identifying the environmental determinants of health as part of their scope.

(Annual Report of the EMRO Director 2006)

Opportunities to develop PEH practice in Gulf

- Incorporate **PEH in curriculum** of medical & nursing school, and postgraduate training curriculum in pediatrics and public health.
- Developing a **surveillance system** for childhood environmental illnesses.
- Conducting **regional research** needed to investigate the childhood environmental illnesses.

Opportunities to develop PEH practice

- Build **regional collaboration** between countries and international agencies.
- Increase **community awareness** regarding effect of environment on children to mobilize them for advocacy.
- **Political advocacy** to develop environmental health promotion **policy** that save the children as part of prevention of chronic diseases in future.

In conclusion

- Children are large group in our community.
- They are highly vulnerable group to environmental hazards and need special protection
- Protection of the health of fetuses and children is needed to save our future.
- PEH is an ideal way to gain political commitment for promoting healthy environment for the whole community

