“IT IS EASIER TO BUILD STRONG CHILDREN THAN TO REPAIR BROKEN MEN."

FREDERICK DOUGLASS
Avoidable early life environmental exposures

*Kirsten R Poore, Mark A Hanson, Elaine M Faustman, Maria Neira

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Figure: The effects of environmental hazards across generations
Environmental exposures in early life can have immediate effects on health or accumulate over time to increase disease risk later. Exposure can start in the womb and can have effects throughout life. Children and adolescents are exposed to various hazards from the environments in which they live, learn, work, and play. Children are especially susceptible to these exposures because of their developing systems and behaviours. Adapted with permission from WHO.
Life course model of NCD risk

- **NCD Risk**
- **Human lifecycle**
  - **Mother & infant: biomarkers of risk**
  - **Child/adolescent: effective point to intervene**
  - **Adult: Screening may not reduce risk**
- **Compromised function and survival**
- **Better function and survival**
- **Life course**
- **Plasticity**
- **Detrimental effects of Lifestyle challenges**
Healthy environment

- Government
- HCPs
- Other professionals
- NGOs, CSOs
- Private sector
- Communities
Life course trajectory of NCD risk is not linear - path dependency means risk at any time is not just dependent on environment at that time, but on aspects of the previous environment.

Early life factors permanently affect responses of individuals to a range of later challenges; not just to those an individual was exposed to earlier.

Exposure to such early exposures is preventable.

There are sensitive or critical periods for organs/systems.

Therefore early interventions can have long-lasting effects.

In early life, phenotypes may appear similar (e.g. at birth); almost all individuals appear (and feel, e.g. adolescents) healthy: implications for paediatricians, obstetricians?

When multiple toxicants affect multiple pathways, getting evidence for action may be hard.

Through previous meetings, we have identified the problem.

If we think that we have solutions, it’s time for action!

If not, we need to think about our objectives carefully.
• Evidence

Government environment and health policy decision-making
Government environment and health policy decision-making

- Evidence
- Financial case
- Popularity
Government environment and health policy decision-making

- Evidence
- Financial case
- Popularity

Lack of appropriate information (data/anecdote)

Conflicts of interest

Conflicting agendas, priorities, trade-offs, compromises
Health care providers – access through:

- FIGO
- IPA
- ACOG
- AAP
- ICM
- etc
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What do we want them to do?
Other professionals:

- Community workers
- Educators
- Academics
- Pharmacists
- Dentists
- Social workers
- Lawyers
- Media
- Sports, entertainment personalities
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What do we want them to do?
Communities/ particular population groups (e.g. adolescents):

- Primordial vs. primary prevention
- Participating in educational initiatives
- Co-creation of interventions
- Advocacy by creating demand
Communities/ particular population groups (e.g. adolescents):

• Primordial vs. primary prevention

• Participating in educational initiatives

• Co-creation of interventions

• Advocacy

What do we want them to do?
The United Nations Sustainable Development Summit for the adoption of the post-2015 development agenda and the Sustainable Development Goals will be held from 25 to 27 September 2015 in New York and convened as a high-level plenary meeting of the General Assembly.
From the SDGs

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

Goal 6. Ensure availability and sustainable management of water and sanitation for all

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
Figure. Four Challenges That Global Health Networks Face.

Health and the environment

Draft road map for an enhanced global response to the adverse health effects of air pollution

Report by the Secretariat