How harmful are chemicals?

**IN 2004 4.9M DEATHS WERE ATTRIBUTABLE TO EXPOSURE TO CHEMICALS**

- **2M** Annual deaths from outdoor air pollution
- **1.2M** From outdoor air pollution
- **375K** From occupational particulates
- **2M** From indoor smoke from solid fuel use
- **600K** From second hand smoke
- **186K** From self-poisonings from pesticides
- **240K** From chemical acute poisonings

Comparison of deaths attributable to chemicals with other major causes:

1. **DEATHS ATTRIBUTABLE TO EXPOSURE TO CHEMICALS**
   - **4.9M**

2. **DEATHS ATTRIBUTABLE TO DIARRHOEAL DISEASES**
   - **2.16M**

3. **DEATHS ATTRIBUTABLE TO HIV/AIDS**
   - **2.04M**

4. **DEATHS ATTRIBUTABLE TO TUBERCULOSIS**
   - **1.5M**

The burden of increase in use of chemicals globally falls on developing countries.

The global chemicals industry has grown steadily over the past several decades. Chemicals industry data indicate that global chemical industry output was valued at $171 billion in 1970. In 2010, industry sources valued global output at $4.12 trillion.

Source: OECD Environment Outlook for the Chemicals Industry.

**Economic Costs of Childhood Lead Exposure:**

- **LATIN AMERICA & THE CARIBBEAN**
  - $142.3B
  - OF ECONOMIC LOSS (2.04% OF GDP)
- **AFRICA**
  - $134.7B
  - OF ECONOMIC LOSS (4.03% OF GDP)

Source: Attina and Trasande (2013) Environmental Health Perspectives 121(9) 1097-1102.