

**WORKSHOP ON CHILDREN'S ENVIRONMENTAL HEALTH
IN CENTRAL ASIA AND THE MIDDLE EAST:
*CAPACITY BUILDING AND NETWORKING AMONG SELECTED COUNTRIES***

14-16 June, 2006 Almaty, Kazakhstan

CHILDREN'S HEALTH AND THE ENVIRONMENT

KEY GLOBAL ISSUES IDENTIFIED BY W.H.O.



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WORLD HEALTH ORGANIZATION
Geneva, Switzerland**

Why children and the environment?

Causes and estimated number of deaths/year in children 0 to 4 yrs

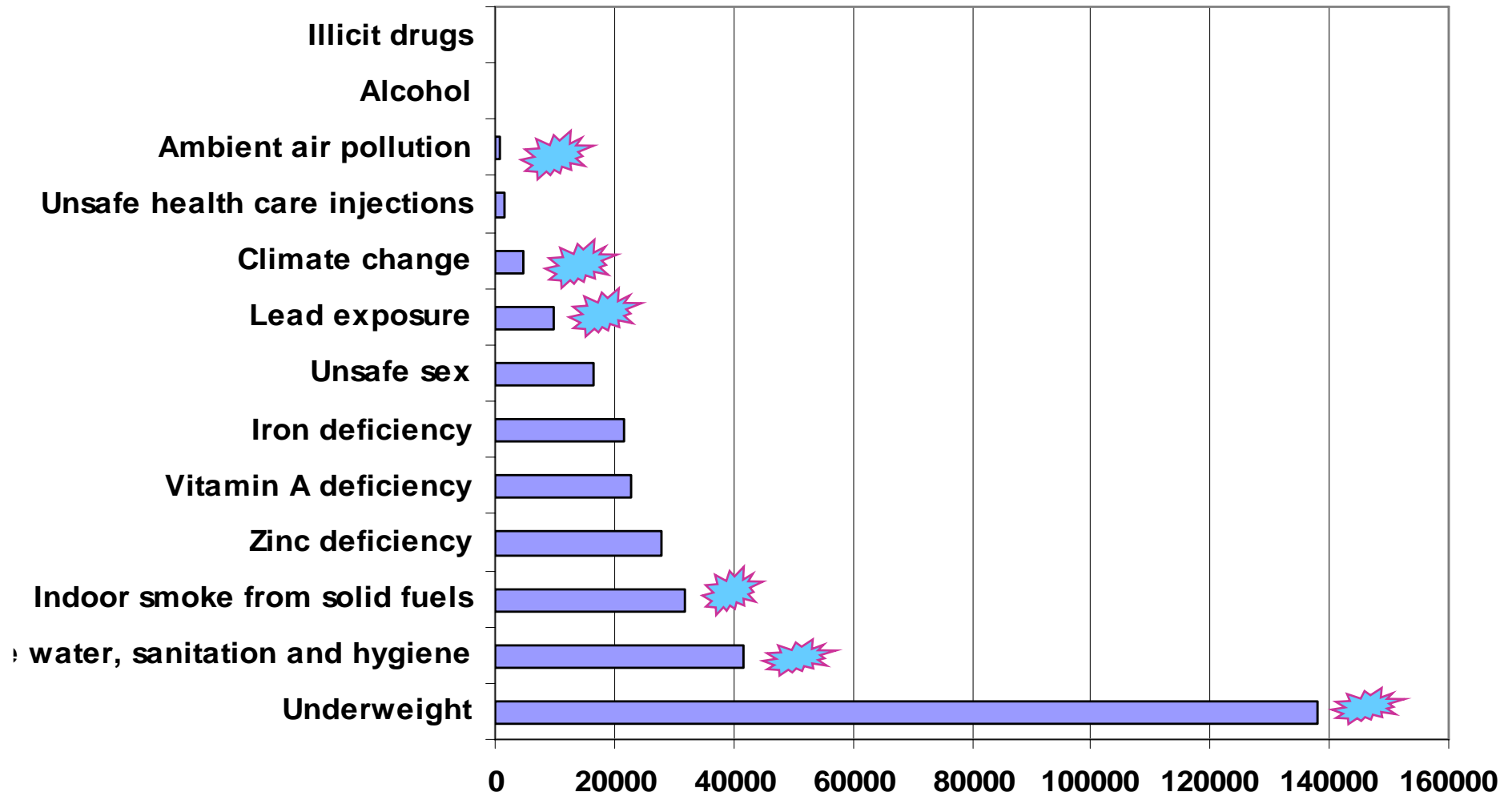
Acute respiratory infections:	1 000 000
Diarrhoeal diseases:	1 600 000
Malaria and other vector-borne:	1 000 000
Injuries (non-intentional)	300 000
Poisonings	16 000

www.who.int/evidence 2002 data

The environment and health for children and their mothers, Fact sheet WHO/284, 2005

Diseases strongly linked to environmental threats are present in places where children grow, live, learn and... work

Attributable burden of disease 0-4 years

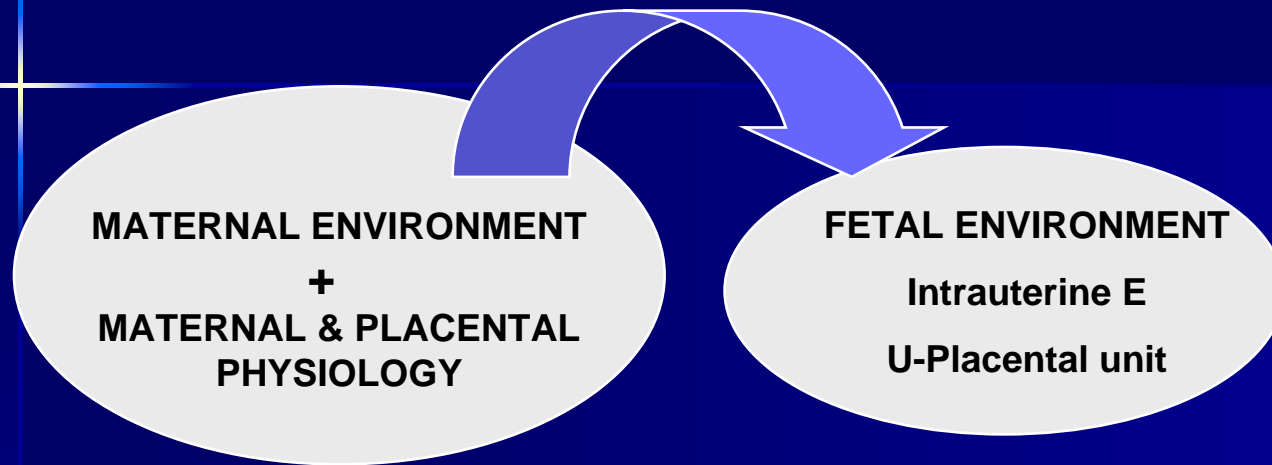


How significant is the impact of environment on health?

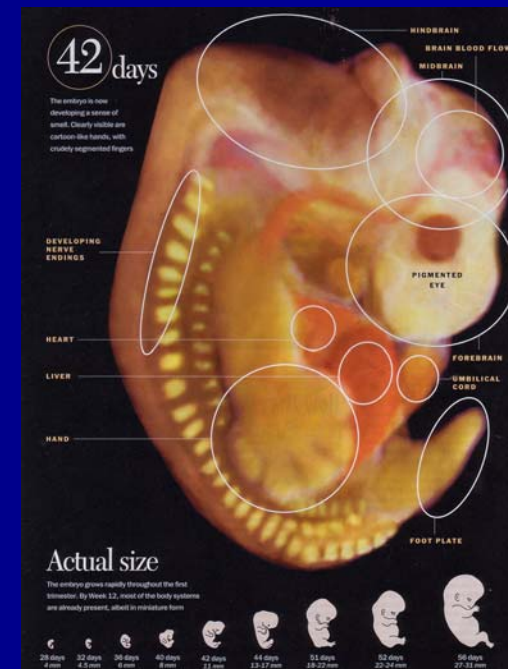
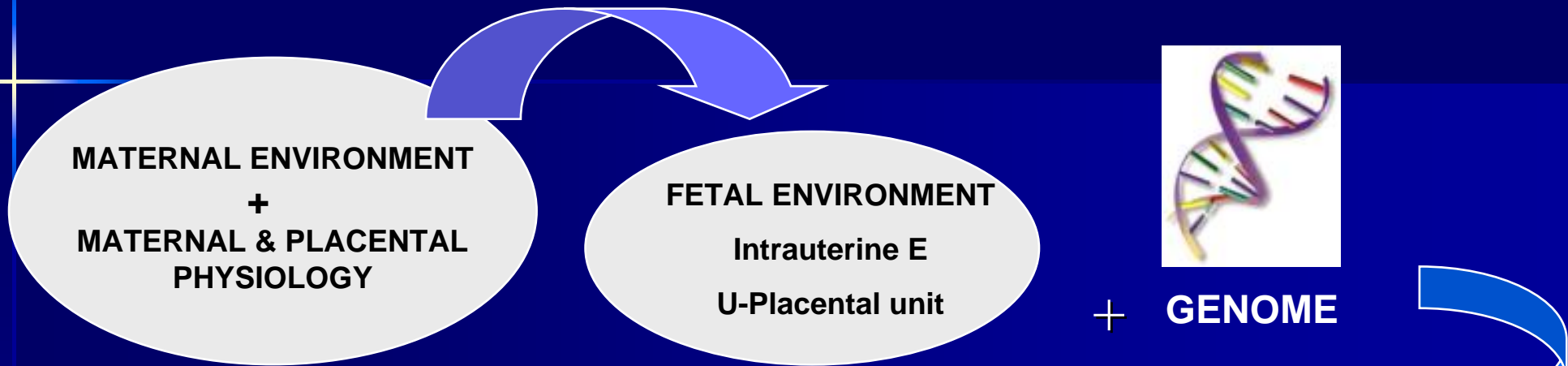
Preventing disease through healthy environments- towards an estimate of the environmental burden of disease, 16 June 2006

- An estimated 24 % of the global disease burden and 23% of all deaths can be attributed to environmental factors
 - In children 0-14 the proportion of deaths attributed to the E is 36%
 - The report further estimates that more than 33% of disease in children under 5 is caused by environmental exposures.
 - Preventing environmental risk could save as many as 4.000.000 million lives a year, mostly in developing countries.
- ...how preventable* environmental hazards contribute to a wide range of diseases and injuries.

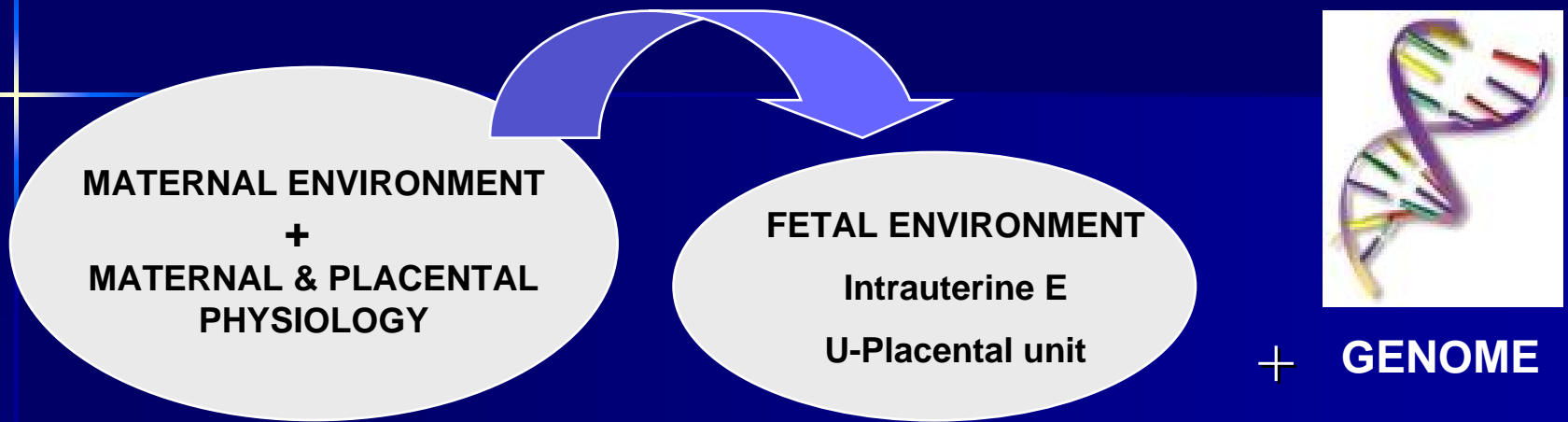
New recognition on the importance of mother's environment, fetal development and the origins of adult disease



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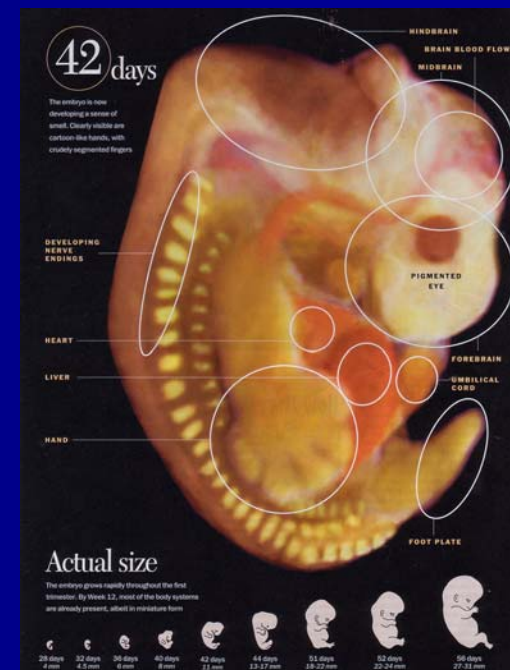


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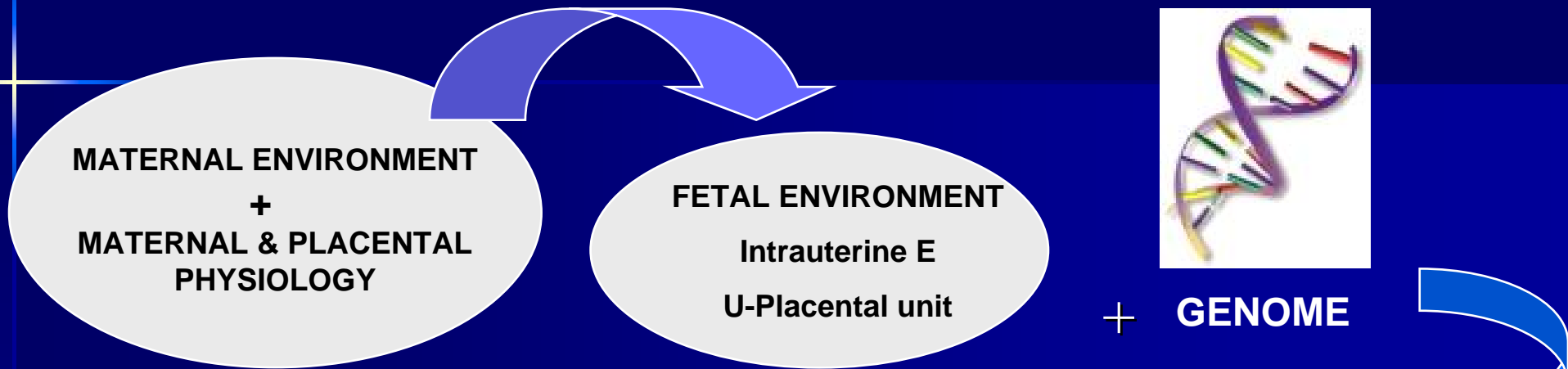


RESPONSES TO ADVERSE ENVIRONMENTS:

1. Accelerate maturation
2. Save nutrients
3. End pregnancy

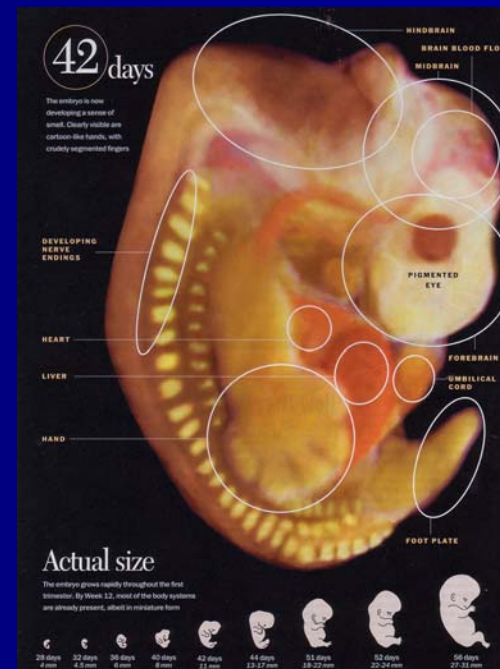


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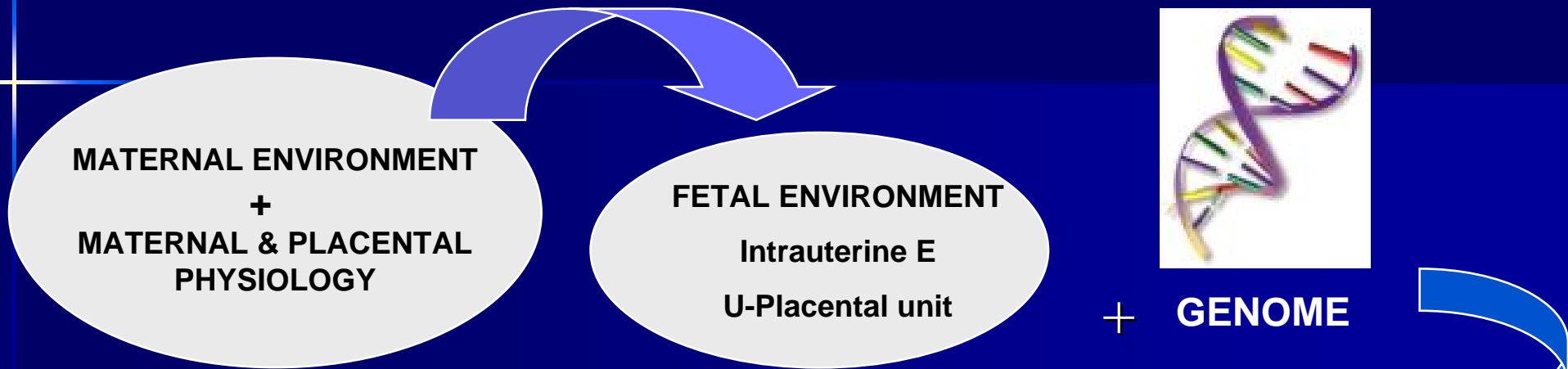
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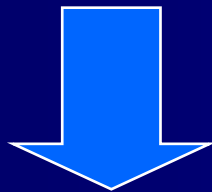
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- FETAL GROWTH**
- INTERACTION PRE- AND POST- NATAL ENVIRONMENTS**

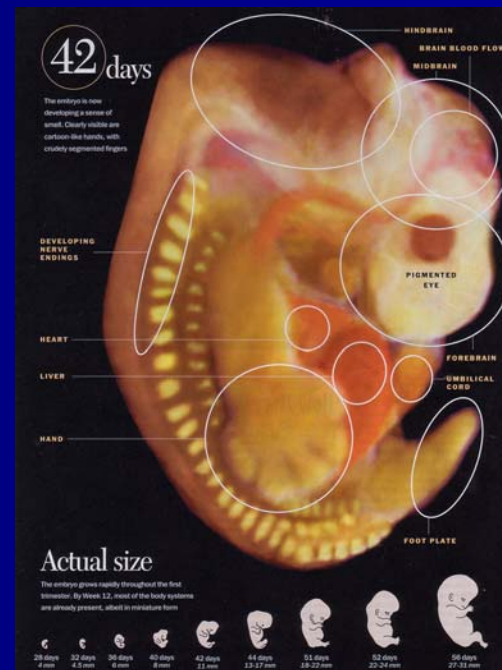
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FETAL ORIGINS OF DISEASE



PUBLIC HEALTH IMPACT



- ALTERED:**
- FETAL GROWTH
 - INTERACTION PRE- AND POST-NATAL ENVIRONMENTS

How are the Millennium Development Goals (MDGs) going to be achieved?

MDG 4
Reducing infant mortality

MDG 7
Ensuring environmental sustainability





**ENVIRONMENTAL
RISKS**

Physical
Chemical
Biological
Social



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RISKS**

Physical
Chemical
Biological
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MEDIA

Water, Air, Food
Soil, Objects



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AREA / PLACE

Rural / urban
Home, School
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ACTIVITIES

Eat, Drink, Breathe, Play,
"Test", Scavenge, ...



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SUSCEPTIBILITY

Critical windows
Age, Nutrition
Poverty



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EFFECTS

Organs
Systems
Functions
Development
Survival

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**COMPLEX ENVIRONMENTS,
MULTIPLE PROBLEMS,
STRATEGIC APPROACHES**

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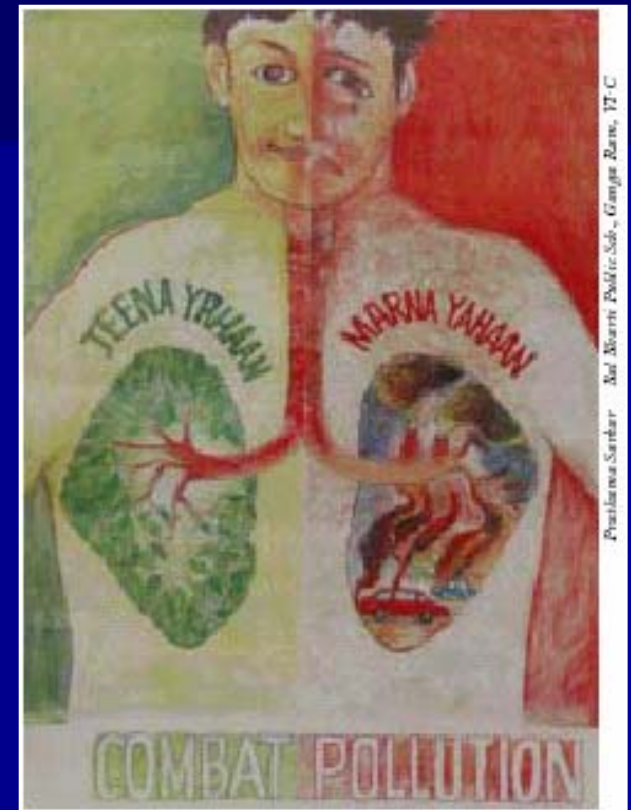
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Main global environmental threats

- Water insecurity
- Poor hygiene & sanitation
- Air pollution
- Disease vectors
- Chemical hazards
- Injuries and accidents
- *EMERGING ISSUES!*



Over 5.000.000 children under 14 y.o. die every year from diseases that relate to environmental conditions, mainly in the developing world.

www.who.int/world-health-day/2003

Global environmental health risks

- Household water insecurity
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Specific environmental health concerns in industrialized regions

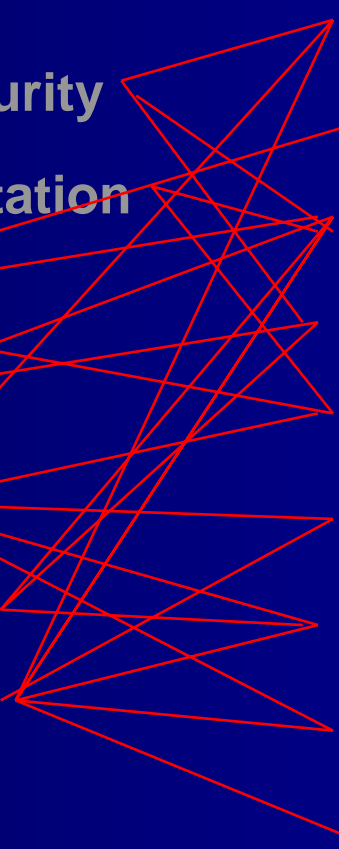
- Childhood cancer
- Respiratory disease & air quality
- Built environment
- Neurological impairments
- Birth defects
- Autism
- Foetal origin of adult disease
- Obesity/nutrition/diabetes
- Endocrine disruption

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How is WHO responding to the challenges?

CAPACITY BUILDING



- Training
- PEH history
- IMCI
- PEH units
- Leaflets
- Awareness

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INDICATORS OF CEH



**WSSD
initiative**

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WSSD initiative

COUNTRY AND INT'L ACTIVITIES

- Technical advise
 - WSSD
 - HEMA
- Budapest**
Mar del Plata

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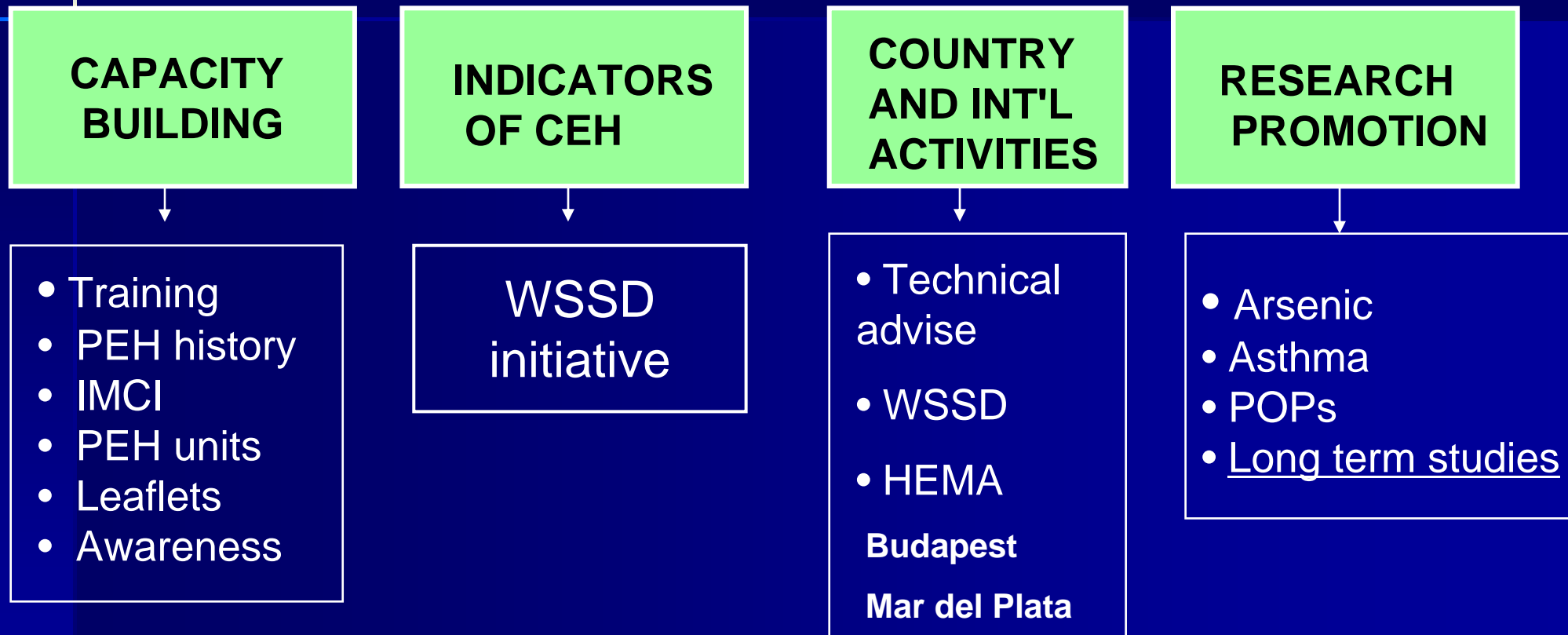
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RESEARCH PROMOTION

- Arsenic
- Asthma
- POPs
- Long term studies

How is WHO responding to the challenges?



INNOVATIVE, PROACTIVE PARTNERSHIPS

Support of USEPA, NIH/NIEHS/NICHD, German funds

Reponse of WHO: CEH activities

- Technical activities
- International initiatives
 - World Health Day on CEH (April 2003) and WHA
 - Alliance building: HECA
- Regional activities
 - EURO and CEHAPE
 - PAHO, AFRO, EMRO, WPRO

CHILDREN'S HEALTH AND THE ENVIRONMENT

EURO – DOCUMENTS AND TOOLS AVAILABLE

1. Environmental burden of disease for children and adolescents

http://www.euro.who.int/eprise/main/WHO/Progs/CHE/Monitoring/20040519_1

2. CHE case studies summary book:

<http://www.euro.who.int/Document/CHE/CHECSSBook.pdf>

3. Honoloko: on-line environment and health game for children in 25 languages

http://www.euro.who.int/childhealthenv/Publications/20040709_1

4. The Budapest collection: a WHO global e-library on children's health and environment

http://www.euro.who.int/childhealthenv/Publications/20040708_1

5. CEHAPE policy instrument: <http://www.euro.who.int/document/e83338.pdf>

6. CEHAPE Table of actions: <http://www.euro.who.int/document/che/edoc08.pdf> (currently being updated)

All information is on the CHE website: www.euro.who.int/childhealthenv