



World Health  
Organization

# UNITED NATIONS WEEK

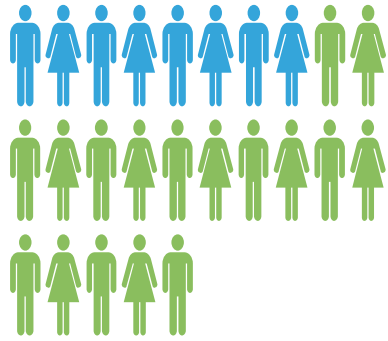
## Madrid 2016

**Dr Maria Neira**

**Director of the Department Public Health, Environmental and  
Social Determinants of Health**

**World Health Organization**

1950



100 M

Urban

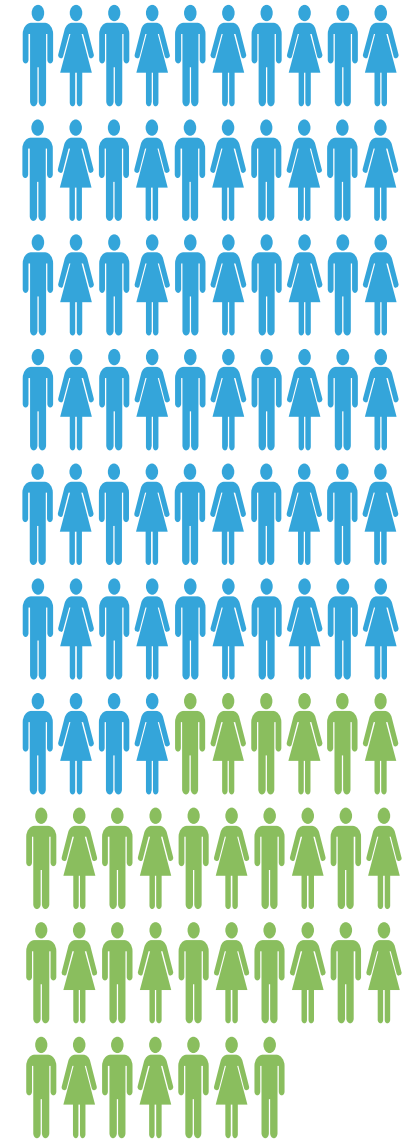
RURAL

2015



SOURCE: UNITED NATIONS

2050



# + 60 million new urban residents / year

Since 2008, for the first time ever, a majority of the world's population is living in urban areas

One in four people in urban areas lives in **informal settlements or slums**

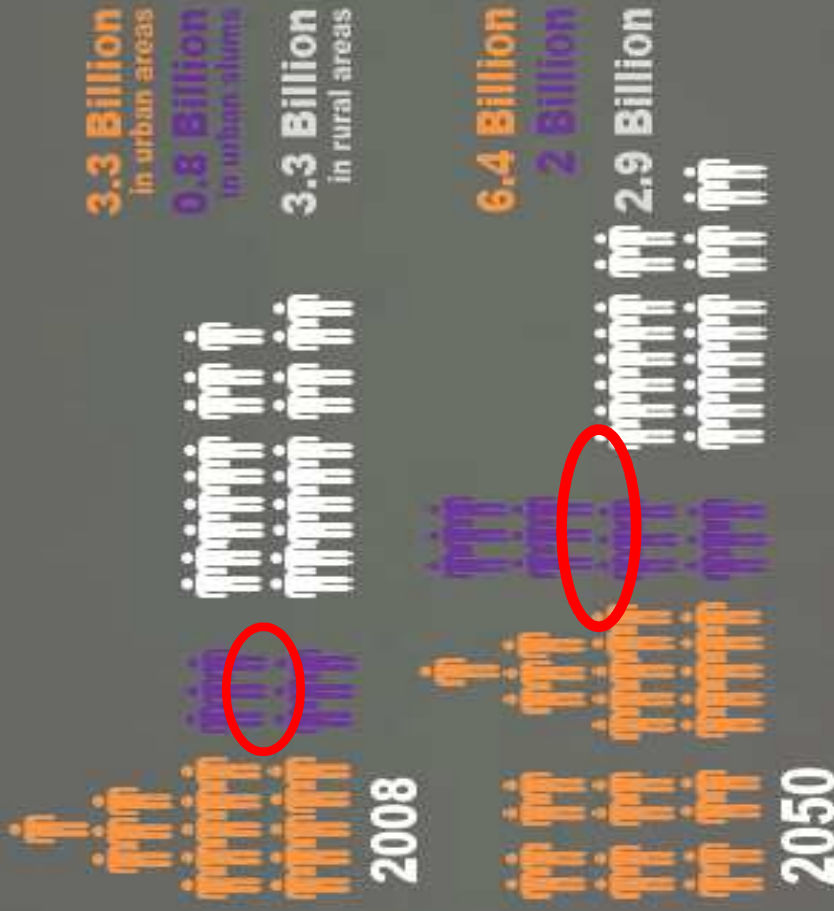


Rapid unplanned urbanization exacerbates

## Health Inequities

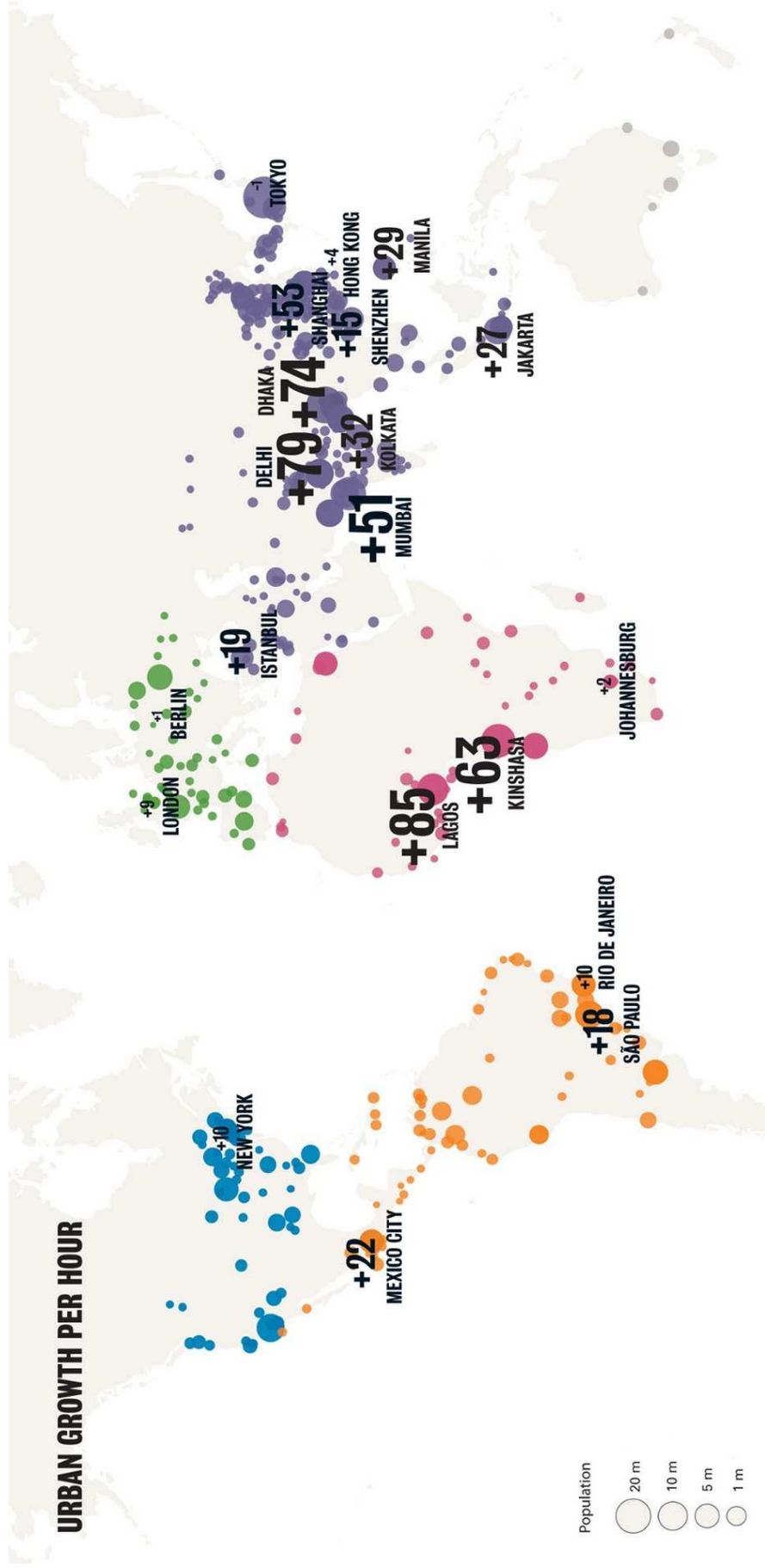
A lower social or economic status often relates to worse health outcomes

These health inequities can be reduced by a right mix of policies and actions



(United Nations projections)

# URBAN GROWTH PER HOUR





# Global population relying on clean and polluting fuels from 1980 to 2014



■ Clean fuels ■ Polluting fuels

Source: WHO Household energy database 2016



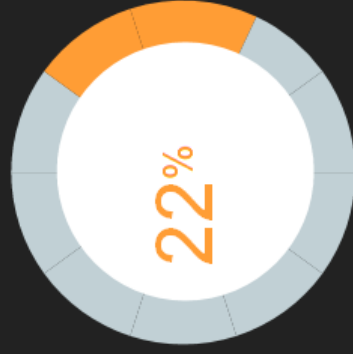
# Air Pollution

**6.5 million deaths a year**

**Sense of urgency – political issue, demand for action**

6.5 million people per year die from air pollution related diseases. Air pollution, traditionally thought of as an environmental issue, has become an urgent public health crisis.





Live in slums



Women are obese  
in LMIC



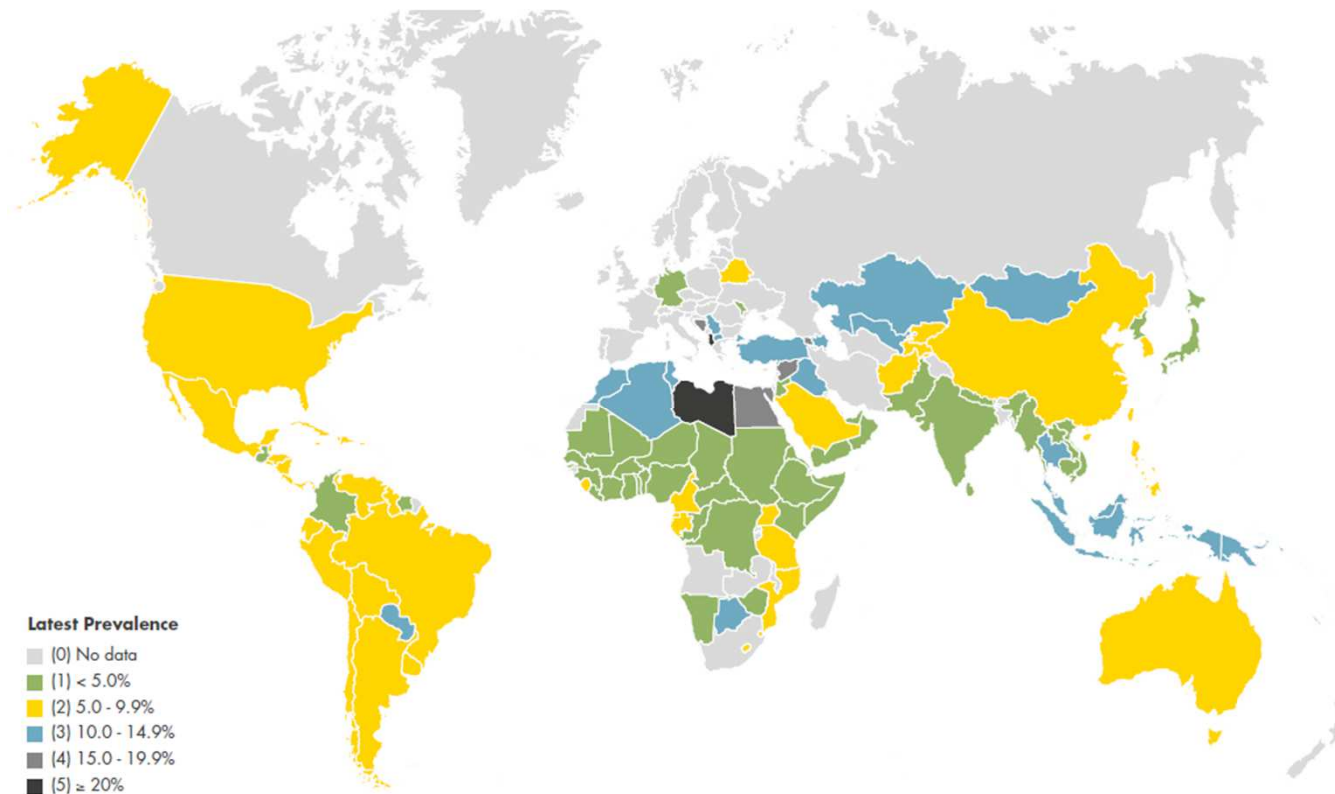
Breathe air toxic  
for their health

SOURCE: UNITED NATIONS, WHO



# Increase of NCDs in children

Age-standardized prevalence of overweight in children under 5 years of age, 2014



Resulting in the recent increase of Type 2 diabetes of children

# Enhancing reliability of electricity access in district hospitals in Africa

- Rationale
- Linkages with energy, climate change, and maternal and child survival
- Project overview



Photo credit: Partners in Health/Haiti

*Update on estimate of total preventable health impacts linked to environments*



PREVENTING DISEASE THROUGH HEALTHY ENVIRONMENTS

A global assessment of the burden of disease from environmental risks

A Prizis-Ustari, J Wolf, C Corvalán, R Bos and M Neta



## ENVIRONMENTAL IMPACTS ON HEALTH

# WHAT IS THE BIG PICTURE?

**FACT:**  
**23%**

of all global deaths are linked to the environment.

That's roughly **12.6 million deaths** a year.



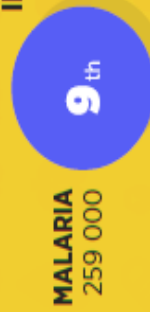
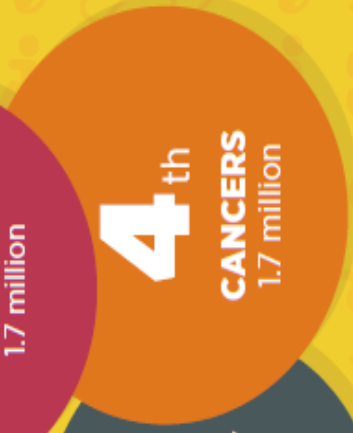
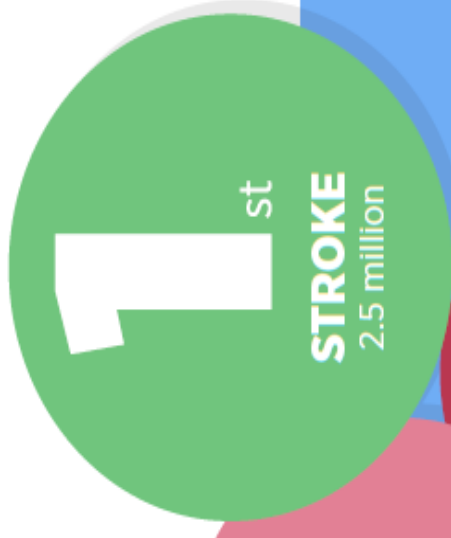
## WHERE IS IT HAPPENING?



World Health Organization  
#EnvironmentalHealth

# TOP 10 CAUSES OF DEATH FROM THE ENVIRONMENT

**8.2 million** out of **12.6 million** deaths caused by the environment are due to noncommunicable diseases

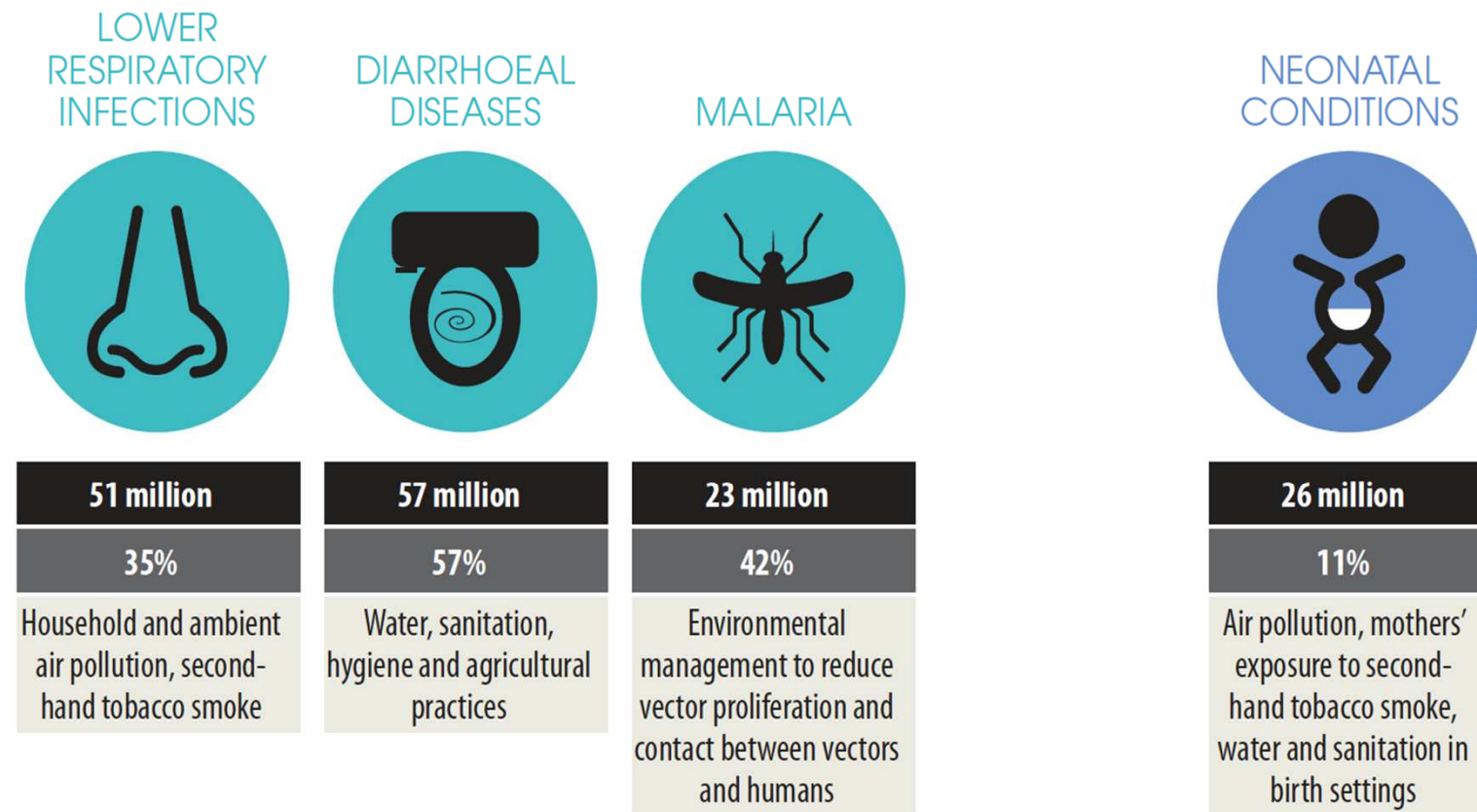


World Health Organization

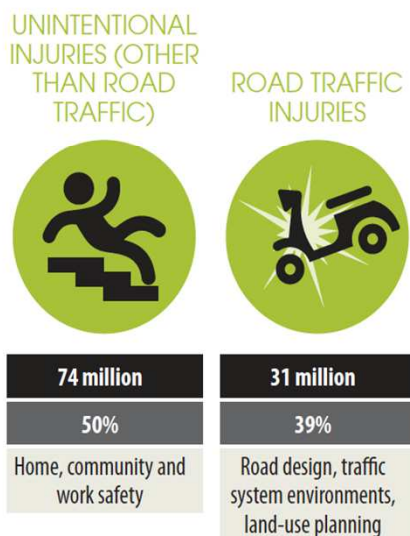
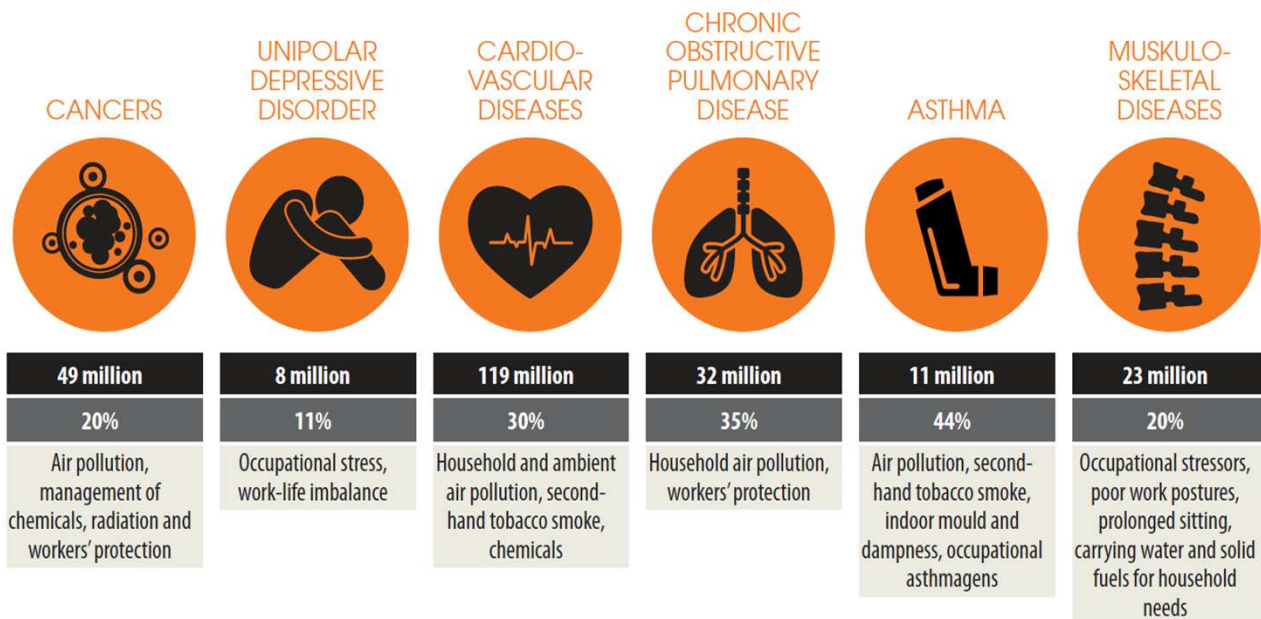
#EnvironmentalHealth

# Diseases with the highest preventable disease burden from environmental risks, in DALYs – a combined measure of years of life lost due to mortality and years of life lived with disability, 2012

- DALYs due to preventable environmental risks
- Proportion of disease attributable to the environment
- Main areas of environmental action to prevent disease



# - Continued -



# HOW THE ENVIRONMENT IMPACTS OUR HEALTH

People are exposed to risk factors in their homes, work places and communities through:





# WHO IS MOST IMPACTED BY THE ENVIRONMENT

Environmental impacts on health are uneven across age and mostly affect the poor.

Low- and middle-income countries bear the greatest share of environmental disease.



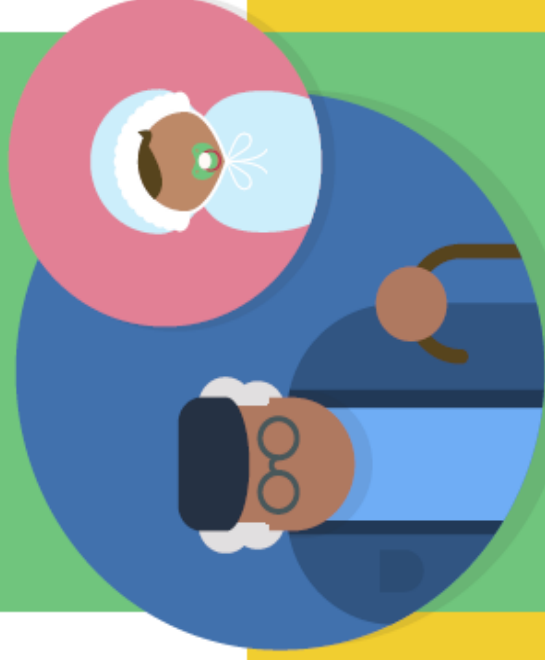
## Men

are slightly more affected due to occupational risks and injuries.

## Women

bear higher exposures to traditional environmental risks such as smoke from cooking with solid fuels or carrying water.

Children under five and adults between 50 and 75 years old are most affected by the environment.



## YEARLY

**4.9 MILLION**

### Deaths in adults

between 50 and 75 years. The most common causes are noncommunicable diseases and injuries.

**1.7 MILLION**

### Deaths in children

under five. The most prominent causes are lower respiratory infections and diarrhoeal diseases.

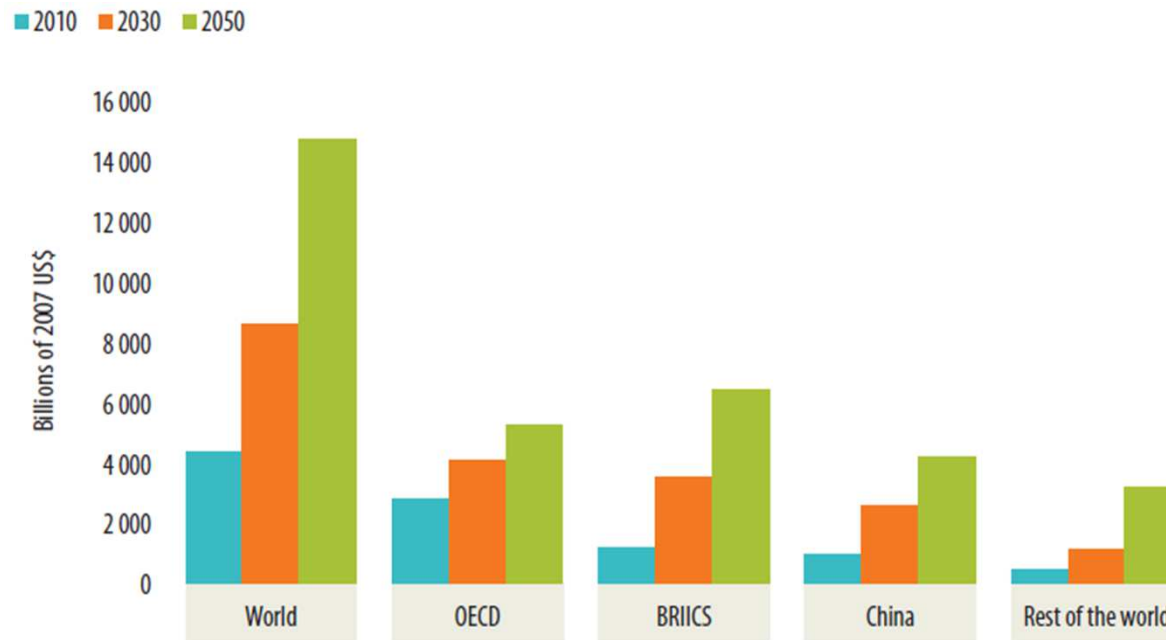


World Health Organization

#EnvironmentalHealth

# Chemicals production

Risk of chemical exposures is increasing with projected growth of chemicals production, particularly in non-OECD countries



Source: OECD Environmental Outlook to 2050: The Consequences of Inaction, (Chapter 6: Health and Environment)

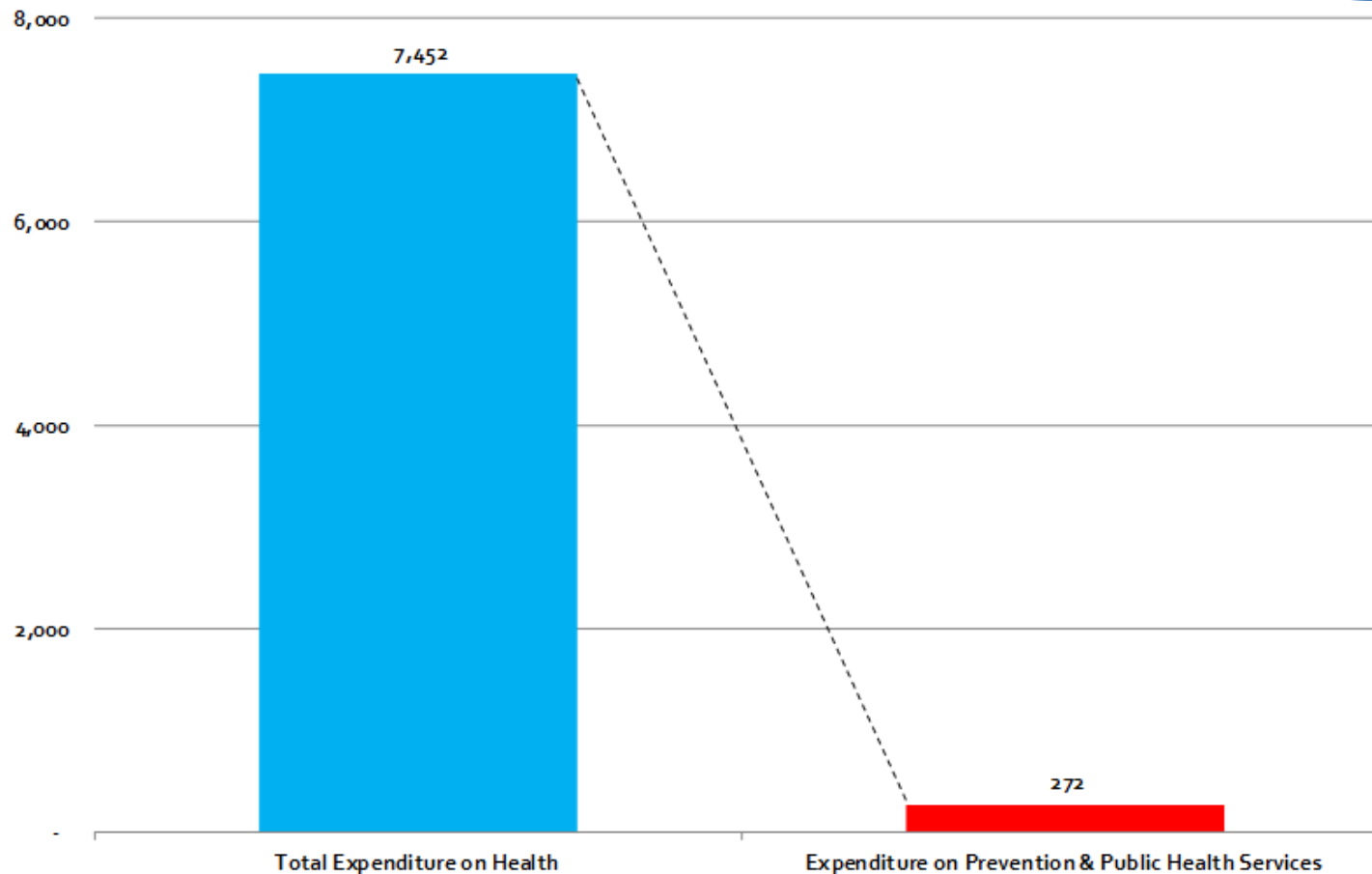


# Health opportunities



# 1-Primary Prevention

All Countries 2013 Current USD Billions



*Expenditure on Prevention and Public Health Services accounted for an estimated 3.6% of total health expenditures worldwide in 2013*

## 2-Health in all Policies



**1.** Apply low **carbon strategies** in energy generation, housing and the industry.



**2.** Use more active and **public transportation**.



**3.** Introduce **clean fuels** for cooking, heating and lighting and clean technologies.



**4.** Reduce **occupational exposures** and improve working conditions.



**5.** Increase **access to safe water** and adequate sanitation and promote hand washing.



**6.** Change **consumption patterns** to lower the use of harmful chemicals, minimize waste production and save energy.



**7.** Implement interventions that can increase **sun protective behaviour**.



**8.** Pass **smoking bans** to reduce exposure to second-hand tobacco smoke.

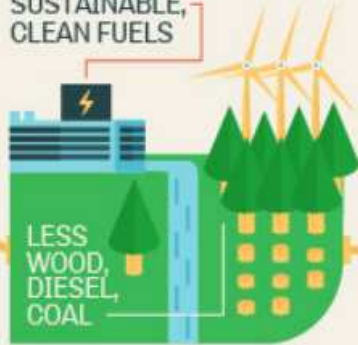


**9.** Always use a **health in all policies** approach to create healthier environments and prevent disease.

## TO TACKLE AIR POLLUTION COLLABORATION IS NEEDED

### CLEAN ENERGY

SUSTAINABLE,  
CLEAN FUELS



### HOUSING

HEATING AND LIGHTING

CONSTRUCTION  
STANDARDS



### URBAN PLANNING

COMPACT AND EFFICIENT



### TRANSPORT

LOW EMISSION  
VEHICLES



### INDUSTRY

REPLACE SMOKE STACKS



### WASTE MANAGEMENT

EMISSION CONTROLS

BIO-WASTE  
MANAGEMENT



### LOCAL AND REGIONAL AUTHORITIES

PLANNING CODES



### HEALTH MINISTRY

TRACK HEALTH IMPACT



*Health impact  
Assesment of  
projects and  
policies*

# 3-SDG's 2030

- A plan of action agreed by Member States
- The SDGs are "unprecedented in scope and significance"
  - cover the economic, environmental and social pillars of sustainable development, as well as peace and security
- The SDGs are about "Leaving no one behind"
  - strong focus on equity, addressing the needs of disadvantaged populations wherever they may live

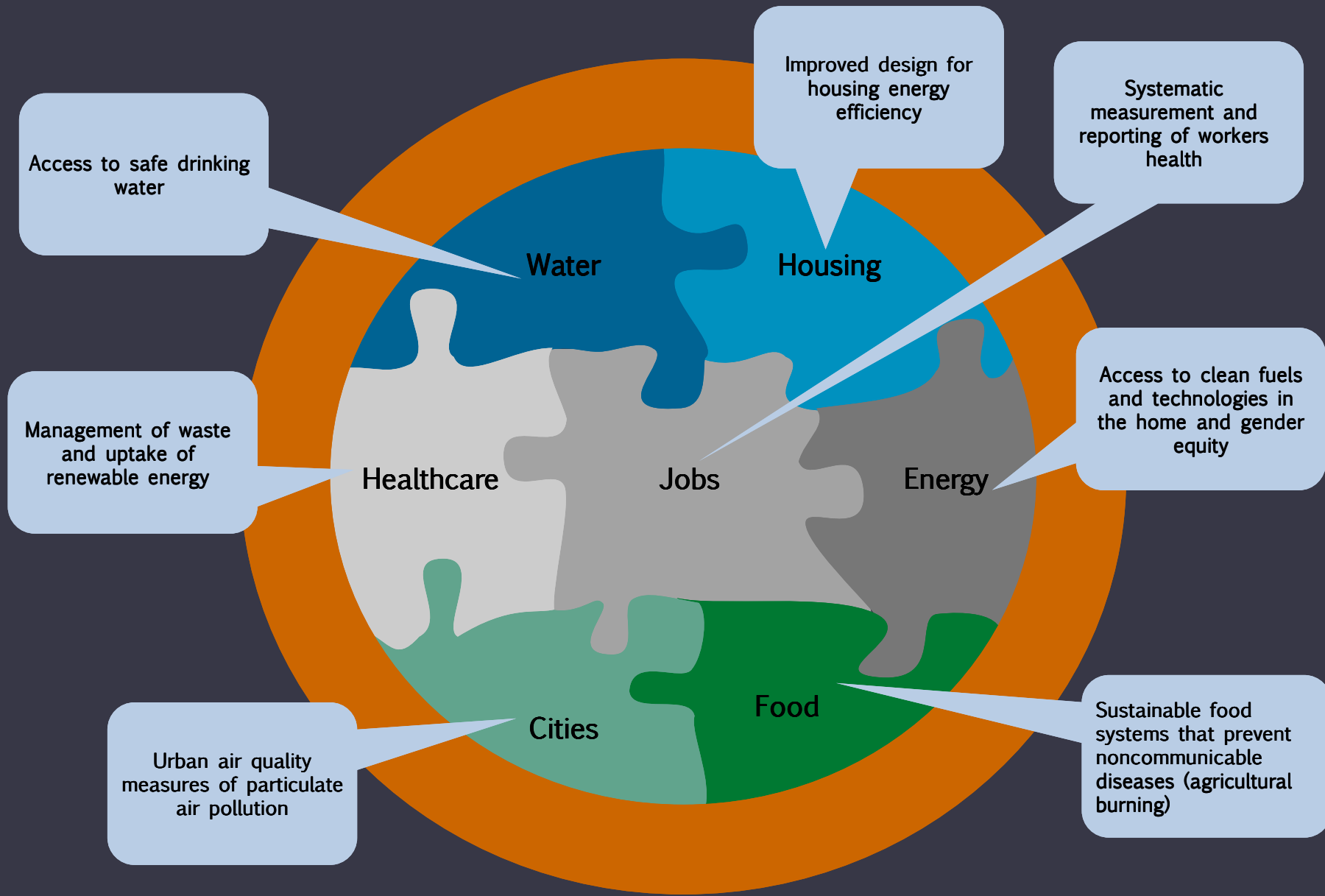


# SDG's





# Health as an indicator





## Ensure healthy lives and promote well-being for all at all ages

- 3.4 By 2030, reduce by one third premature mortality from non-communicable disease through prevention and treatment and promote mental health and well-being
- 3.9 By 2030, to substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination



## **Ensure availability and sustainable management of water and sanitation for all**

- 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- 6.3 By 2030, to improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

**361 000 preventable child deaths from diarrhoea each year**

**7** AFFORDABLE AND  
CLEAN ENERGY



**Ensure access to affordable, reliable, sustainable, and modern energy for all**

7.1 By 2030, ensure universal access to affordable, reliable and modern energy services

**Over 170 000 under five child deaths due to ambient air pollution per year**

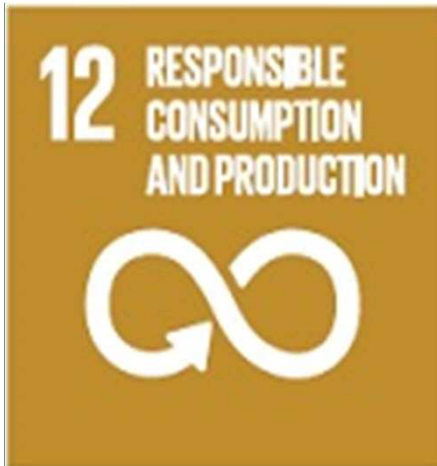
**500 000 under five child deaths due to household air pollution**



## **Make cities and human settlements inclusive, safe, resilient & sustainable**

- 11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums
- 11.7 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality, municipal and other waste management

**Safe roads, buildings and public spaces can prevent injury and encourage healthy activity among the young.**



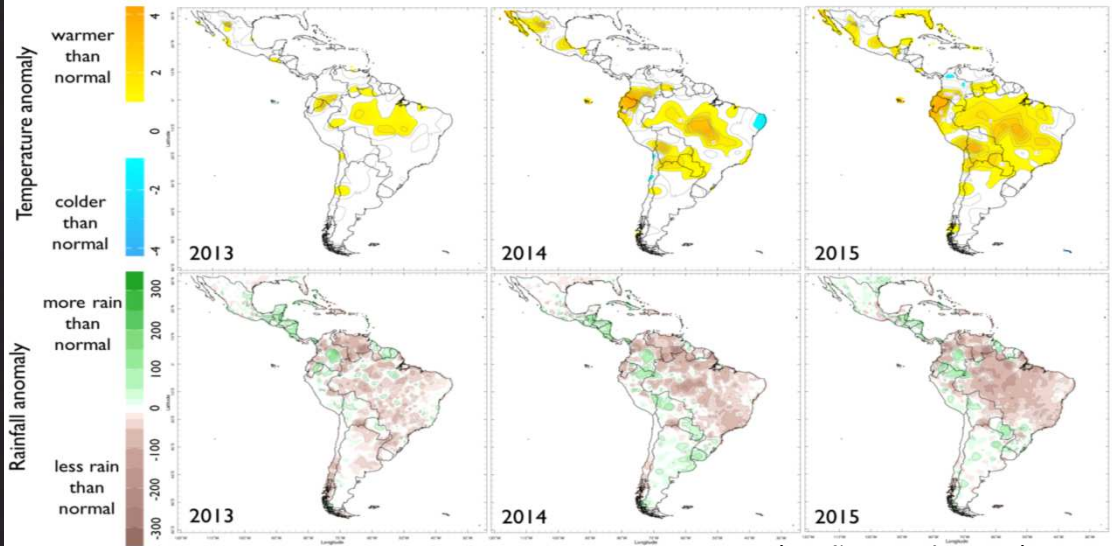
## **Ensure sustainable consumption and production patterns**

12.4 By 2020, to 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

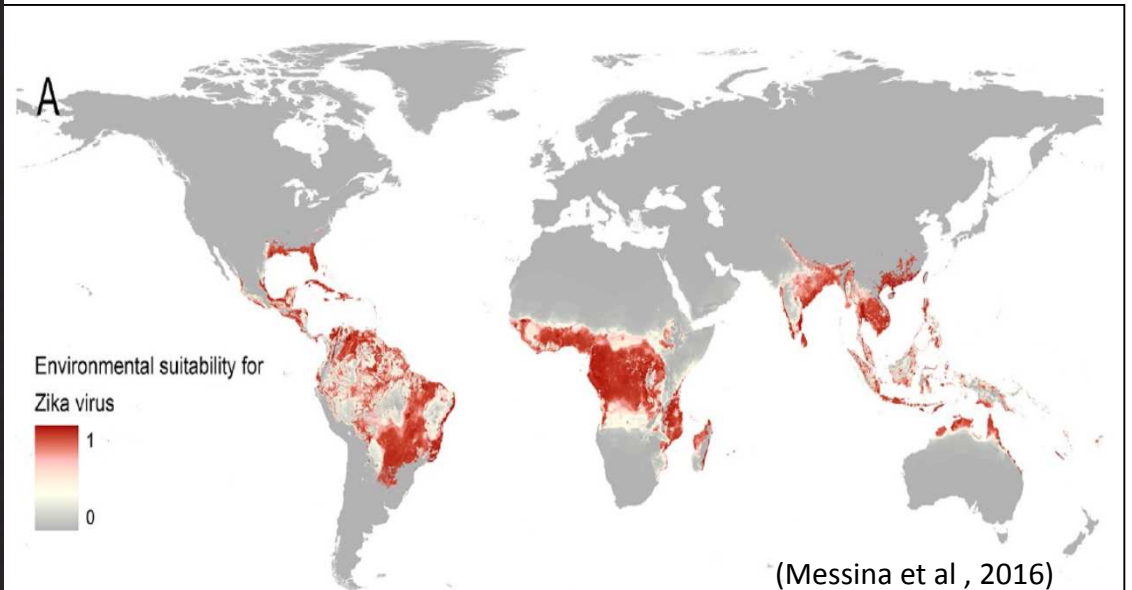


# 4-Climate Change, The Paris Agreement





(Muñoz et al, 2016)

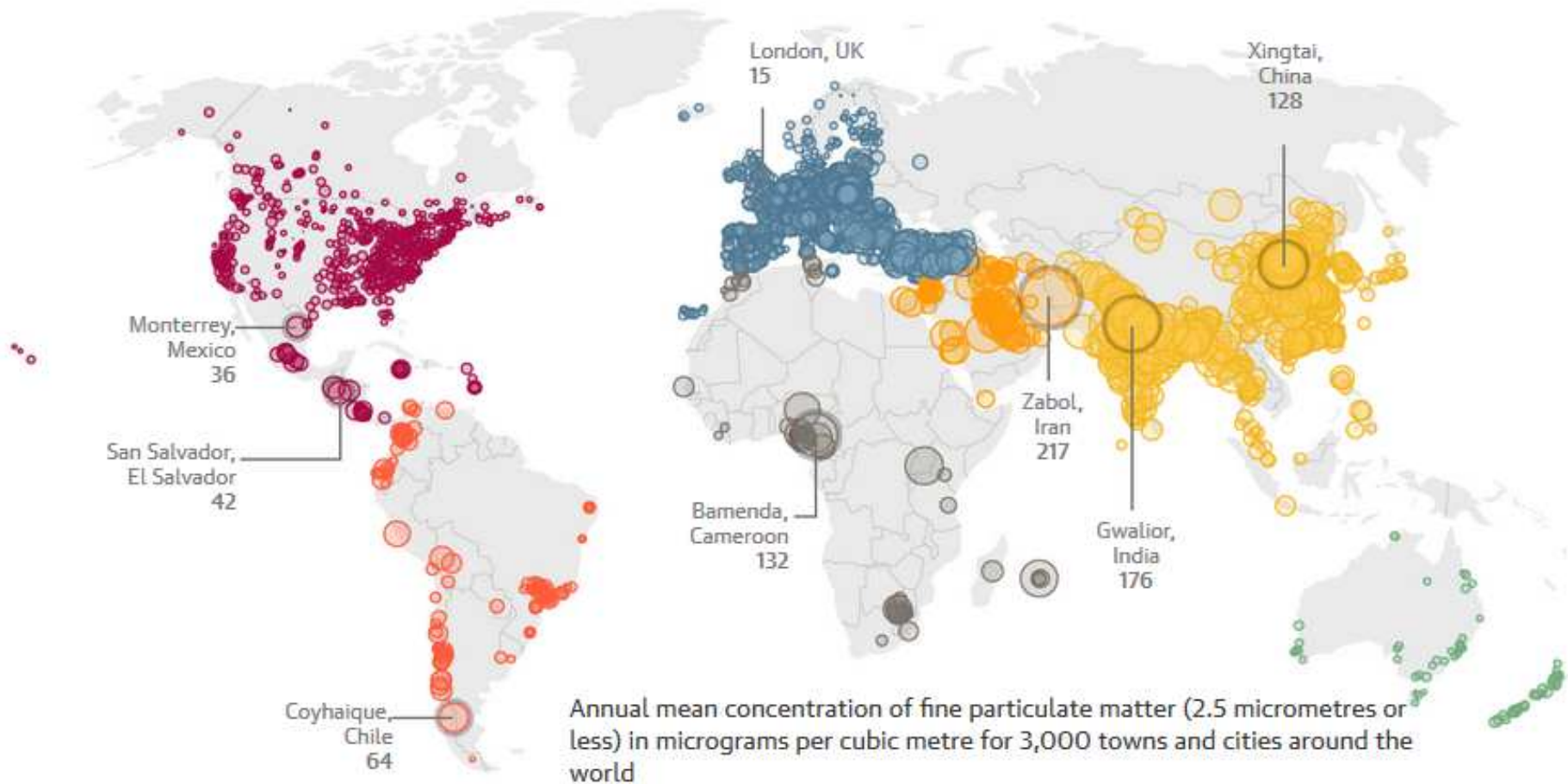


(Messina et al , 2016)

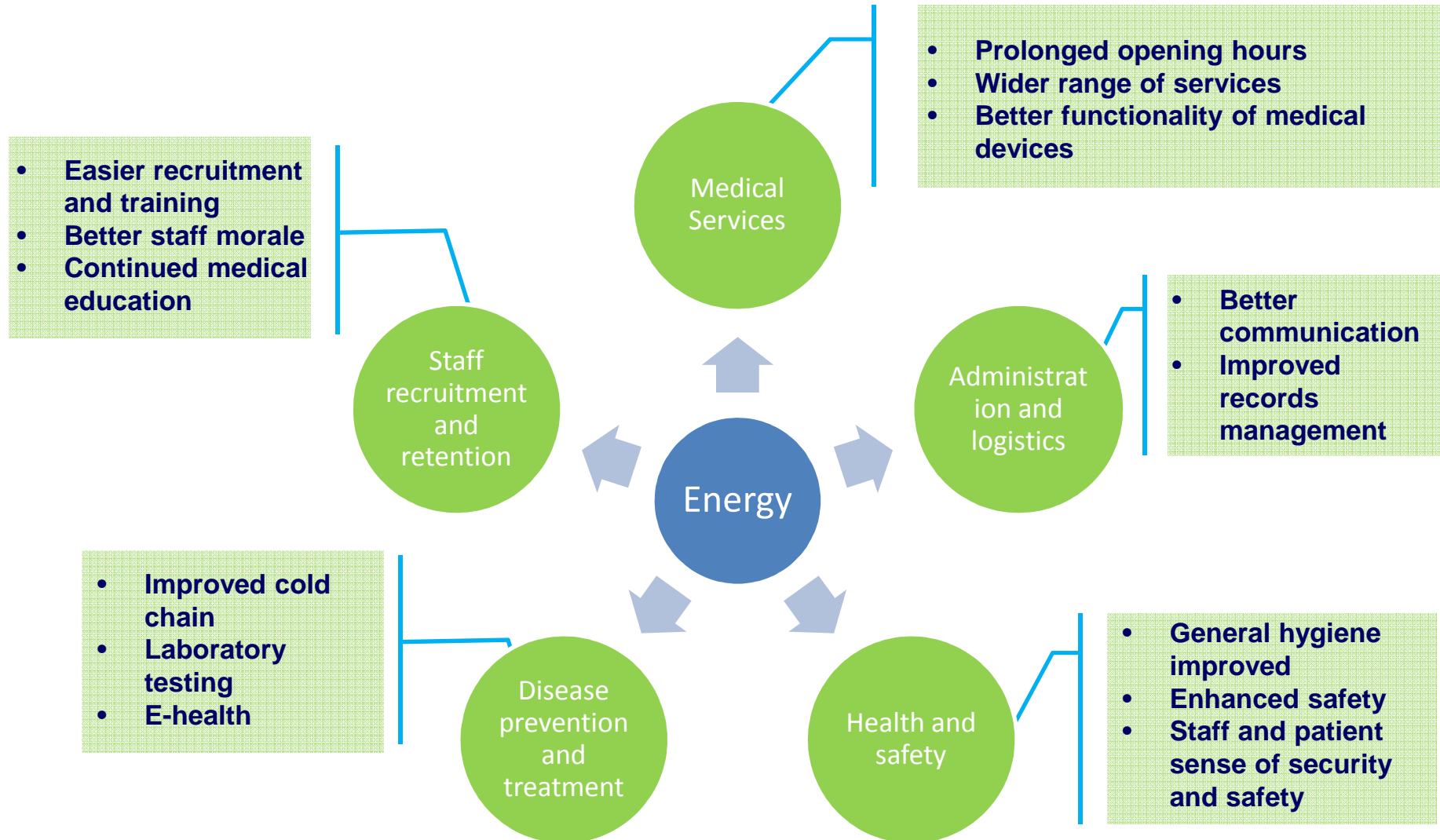


# Climate Change Mitigation

Outdoor air pollution has grown 8% globally in the past five years, with billions of people around the world now exposed to dangerous air, [according to new data](#) from more than 3,000 cities compiled by the World Health Organisation (WHO).



# Importance of energy to health services (in particular access to electricity)

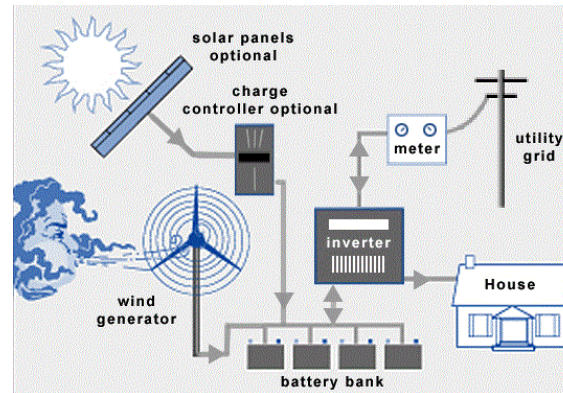


Source: WHO & World Bank (2015). *Access to Modern Energy Services for Health Facilities in Resource – Constrained Settings*.

# Opportunity associated with sustainable energy solutions



**Off-grid Solutions**



**Hybrid Solutions**



**Grid Extension**



**Energy Efficient Equipment**

# Opportunities to finance "green energy" infrastructure in health

The screenshot shows the UNFCCC website's Climate Finance page. At the top left is the UNFCCC logo and the text "United Nations Framework Convention on Climate Change". To the right is a search bar labeled "UNFCCC Google Search" and social media icons for Facebook, Twitter, and Google+. Below the header is a navigation menu with "Home", "CDM", "JI", "CC:iNet", and "TT:Clear". The main content area features a "NEWSROOM Get News on the Latest Climate Action" button, a "KEY STEPS" section with links to "The Convention", "Kyoto Protocol", and "Paris Agreement", a "NEGOTIATIONS" section with links to "Meetings", "Documents & Decisions", and "Bodies", a "FOCUS" section with links to "NDC Registry" and "INDC Portal", and a "PROCESS" section with links to "Overview", "Adaptation", "Climate Finance", "Inspiration for Action", "Mitigation", and "Technology". The main content area also includes a "FOCUS: Climate Finance" section with a "Climate Finance Finance Portal" link and a large image of a person covering their eyes in front of a stock market display. Below this is a "Climate finance" section with a paragraph of text and a "Continue" link. At the bottom is a "More on UNFCCC Climate Finance work" section with a grid of links: "Climate Finance main page", "Climate Finance Portal", "Fast-start Finance", "Standing Committee on Finance", "Long-Term Finance", "Green Climate Fund", "Global Environment Facility", "Adaptation Fund", and "Review of the Financial Mechanism".

United Nations  
Framework Convention on  
Climate Change

UNFCCC Google Search

Home CDM JI CC:iNet TT:Clear Your location: Home > Climate Finance

**NEWSROOM**  
Get News  
on the Latest  
Climate Action

**KEY STEPS**

- The Convention
- Kyoto Protocol
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**FOCUS**

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**PROCESS**

- Overview
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- Technology

**FOCUS: Climate Finance**

**Climate Finance**  
Finance Portal

**Climate finance**

Climate finance refers to local, national or transnational financing, which may be drawn from public, private and alternative sources of financing. Climate finance is critical to addressing climate change because large-scale investments are required to significantly reduce emissions, notably in sectors that emit large quantities of greenhouse gases. Climate finance is equally important for adaptation, for which significant financial resources will be similarly required to allow countries to adapt to the adverse effects and reduce the impacts of climate change. [Continue](#)

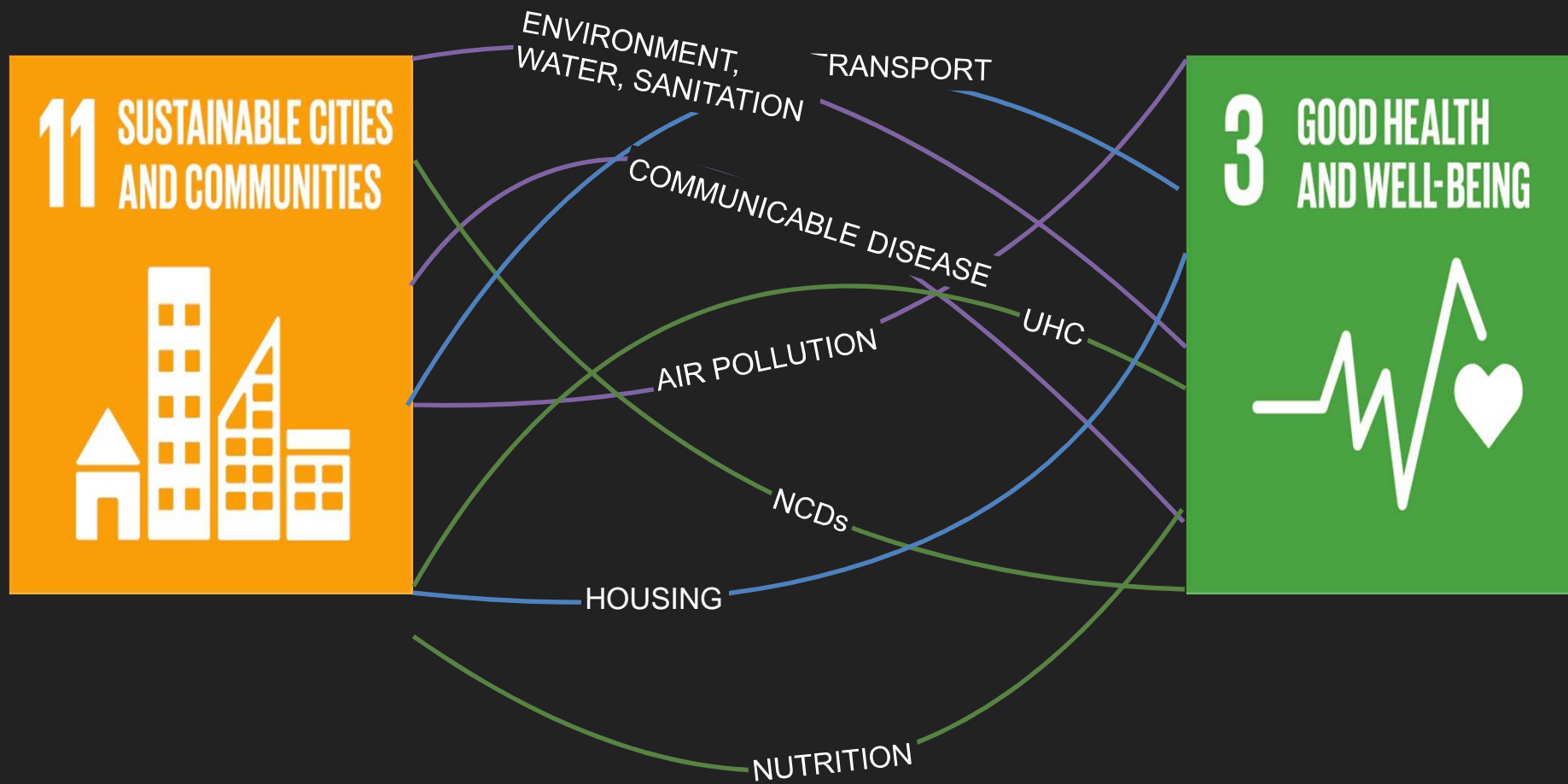
**More on UNFCCC Climate Finance work**

<a href="#">Climate Finance main page</a>	<a href="#">Climate Finance Portal</a>	<a href="#">Fast-start Finance</a>
<a href="#">Standing Committee on Finance</a>	<a href="#">Long-Term Finance</a>	<a href="#">Green Climate Fund</a>
<a href="#">Global Environment Facility</a>	<a href="#">Adaptation Fund</a>	<a href="#">Review of the Financial Mechanism</a>

Mitigation measure	Co-benefit for health
Generating electricity from renewable sources and using clean fuels for cooking and lighting	Reduction in air pollution (outdoor & indoor) and its damaging effects on cardio-respiratory health
Improving urban planning, building and housing design	Reduction in exposure to temperature extremes and disease-spreading vectors



# 5-Urban Health





# Healthy Urban Planning

# How to finance Health

1

- Evidencia científica
- Estudios Coste/E

2

- Reforzar sistema de Salud
- Evaluación

3

Co-beneficios para la salud de políticas sectoriales

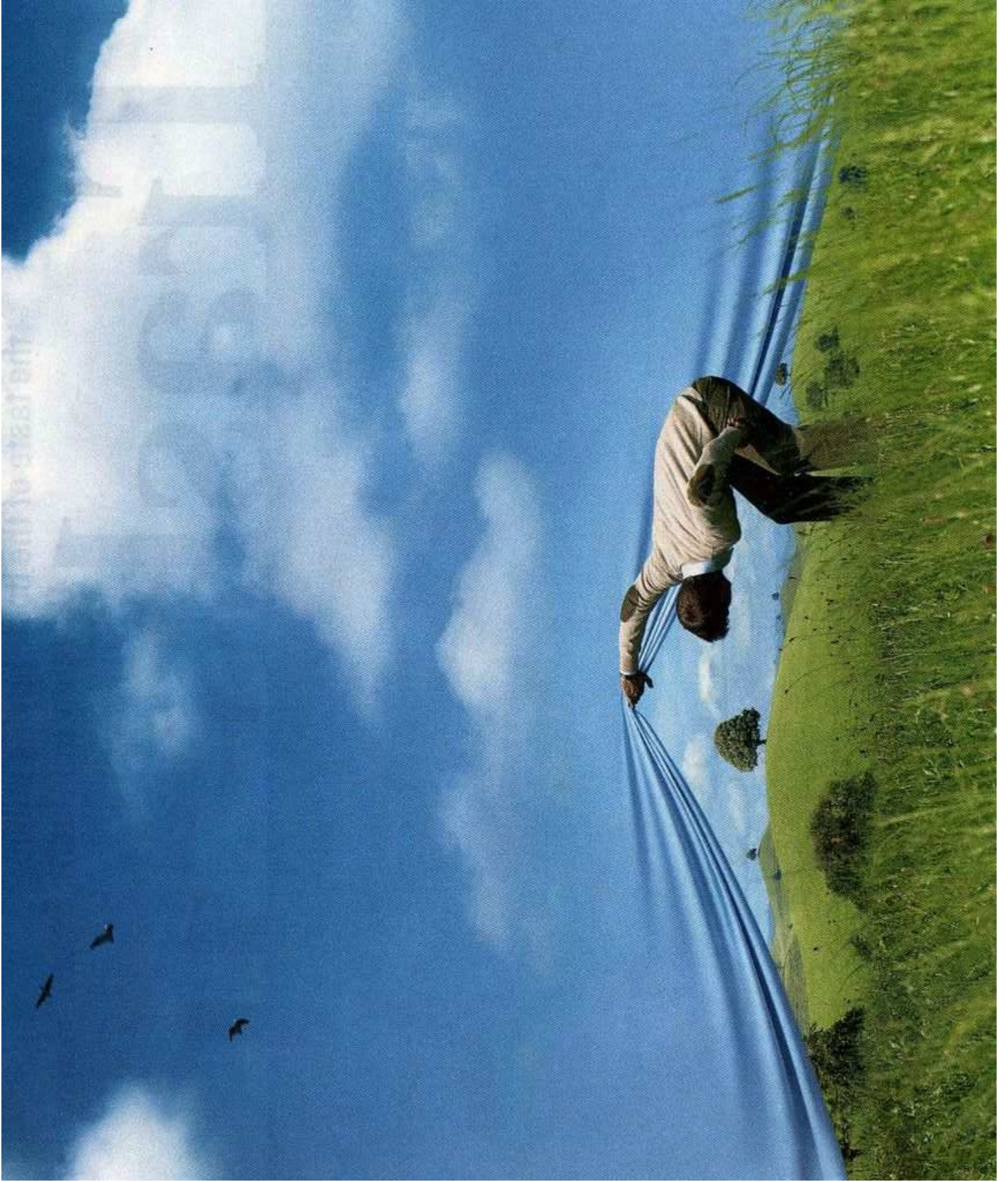
4

Liderazgo global en Salud Pública

5

Creación de redes y divulgación.







World Health  
Organization



***La Salud puede ser el mejor  
motor para el desarrollo  
sostenible***

