

Measuring health gains from sustainable development

Sustainable cities • Food • Jobs • Water • Energy • Disaster management

Measuring health can tell us how well development is advancing the three pillars of sustainability – social, environmental and economic. Whether it is transport that reduces air pollution; weather-resistant housing; safe drinking-water from sustainable water resources, or clean energy for all, putting health at the heart of strategies ensures broad public benefit, particularly for the poor and vulnerable.

Indicators of healthy development can help identify success stories, barriers, and the extent to which benefits of greener economies are equitably distributed. Examples of health-relevant indicators for six Rio+20 themes are presented here: Sustainable cities, Food, Jobs, Water, Energy and Disaster management. For the complete set of briefs, see: http://www.who.int/hia/green_economy/en/



More than two-thirds of the global population will be living in cities by 2050. The rapid rate of urban growth has created enormous challenges. The swelling number of slum-dwellers, now more than 800 million people, attests to the need for stronger urban governance. So while cities concentrate opportunities, jobs, and services, they also concentrate health hazards and risks.

Health is an important benchmark of sustainability of urban policies. Health indicators proposed here also reflect progress on urban social equity, environment, and development. Core indicators include:

- **Slum housing improvements that benefit health** – as assessed by well-defined measures for safe, resilient, and climate-adapted structures that also have access to clean energy and basic utilities;
- **Urban air quality measures of particulate pollution** – with reference to WHO air quality guidelines;
- **Healthy, efficient transport** – in terms of safety and use of sustainable modes, including walking, cycling, and public transport;
- **Urban violence** – in terms of intentional homicides.

Governance indicators also are important to assess how cities account for health in urban planning and building codes, and in the monitoring of/reporting on air and water quality and sanitation risks. Indicators of **access to urban services** essential to public health and sustainable cities also are important to consider. These may include: access to health care services, green spaces, fresh food markets, and waste management.



FOOD

Many food-related diseases and conditions – including undernutrition, micronutrient deficiency, and obesity as well as food safety risks and farmworker health – are interlinked. Sustainable food policies that place the promotion and protection of health at the core of strategies from the farm field to the dinner plate can help advance the provision of sustainable, quality foods for all, across the supply chain and the human life-cycle.¹ Health indicators that can be used to monitor progress include:

- **Health outcomes:** prevalence of anaemia in women, particularly of reproductive age; prevalence of stunting in children under 5 years; and prevalence of obesity in children under 5 and in adults.
- **Food access and dietary quality in association with sustainable foods production:** adequate access to protein supply; excessive adult saturated fat consumption; household dietary diversity; and prevalence/incidence of foodborne disease outbreaks.
- **Food market/trade policies supporting health and sustainability:** foods that comply with international food safety standards including hormone, pesticides, and antibiotic residues; number of countries that have phased out use of antibiotics as growth promoters; and assessment of health and sustainability impacts in agricultural trade negotiations, policies, and plans.



JOBS

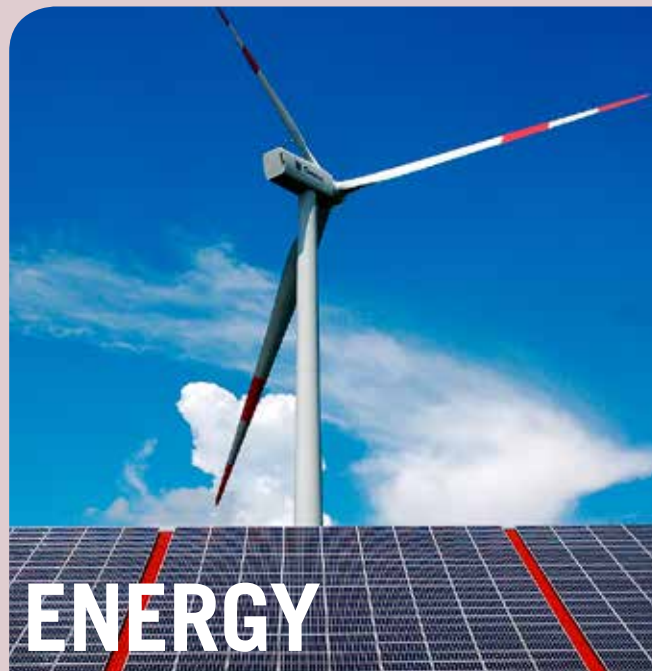
A healthy workforce is a prerequisite for social and economic development; fair terms of employment and decent working conditions are critical to the health of the working-age population.

- **More systematic measurement and reporting of workers' health** can help reduce work-related injuries, illnesses, and deaths. In 2011, an estimated 2.3 million people died from work related injuries, illnesses, and accidents.
- **Compliance with basic national occupational safety and health standards**, at country level and by sector, can support improved workers' health, including in the transition to a green economy.
- **Monitoring progress on the ratification and implementation of core international labour conventions** covering occupational safety and health policies and occupational health services is a third measure supporting improved workers' health and safety.



Measurement of access to safe and climate resilient drinking-water resources, as well as sanitation, is increasingly critical in an era of continued population growth and climate change. Ensuring access to safe, resilient and sustainable water and sanitation will accelerate attainment of multiple environment and health-related goals for sustainable development.

- **Indicators of access to safe drinking-water require** greater refinement to reflect the large, continuing gaps in access to safe drinking water among the world's poorest populations, and measure progress towards attainment of the universal right to water.
- **Monitoring access to adequate climate-resilient water and sanitation systems** is particularly critical in light of the increasing impacts of temperature change and extreme weather on water sources, sanitation systems and human health.
- **Greater inclusion of public health agencies in Integrated Water Resource Management (IWRM)** will accelerate the broader application of IWRM, which provides a comprehensive and multisectoral approach for the identification and management of water-related health risks.



Health offers a universal indicator of progress in attaining the UN Secretary General's goals for *Sustainable Energy for All*.²

Close to 1.3 million deaths annually are due to urban air pollution. Some 2 million people die from household air pollution every year. Improving household access to modern energy sources, while shifting to cleaner and more efficient modes of community energy generation and distribution, can reduce health impacts from both indoor and outdoor pollution. This will benefit millions of people today and contribute to long-term health by reducing the escalating impacts of climate change.

- **Monitoring reductions in air pollution-related diseases provides an important measure** of the social gains from a shift to more sustainable energy.
- **Progress in transition to more efficient energy generation and distribution, including greater use of renewables,** is also important to health.

Some key health-relevant indicators of progress on sustainable energy include measurement of:

- Household access to modern, low-emissions heating and cooking technologies;
- Electricity access at home and in health facilities;
- Burden of air pollution-related diseases and injuries;
- Health equity impacts of energy policies;
- Clean electricity power generation across the energy supply chain – in terms of pollution and greenhouse gas emissions and a shift to renewable energy.

DISASTER MANAGEMENT



Health system resilience and capacity for emergency risk management are critical to effective disaster management that supports long-term goals of sustainable development.

- **Monitoring and reporting on the human health aspects of disasters** – as part of measures to improve risk assessment, prevention, preparedness, response, and recovery – is important for strengthening disaster risk management. This will help reduce health impacts, particularly the loss of human lives.
- **Building health system resilience and capacity for emergency risk management**, particularly at a community level, is critical to effective disaster management.
- **Indicators of health system resilience to natural disasters include the proportion of health facilities, new and improved, to withstand hazards**, and with access to reliable clean energy and water supplies, routinely and in emergencies.

References

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2. Energy for a sustainable future: summary report and recommendations. New York, United Nations Secretary General's Advisory Committee Group on Energy and Climate Change, 2010.

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These briefings present initial findings from a WHO Expert Consultation, 17–18 May 2012 in Geneva. The consultation included over 40 participants with expertise in health, equity, development and environment from research institutions, government, and multi-lateral/bilateral development agencies.

The briefings also draw upon previous work by WHO and WHO regional offices on health in the green economy; urban transport and housing; healthy cities; social determinants of health; gender; traffic injury; diet and physical activity; disaster management; as well as frameworks for indicators and assessment of health equity; health risks and environmental burden of disease.

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