

HEALTH IN THE GREEN ECONOMY: HEALTH SECTOR GREENING AND HEALTH CO- BENEFITS

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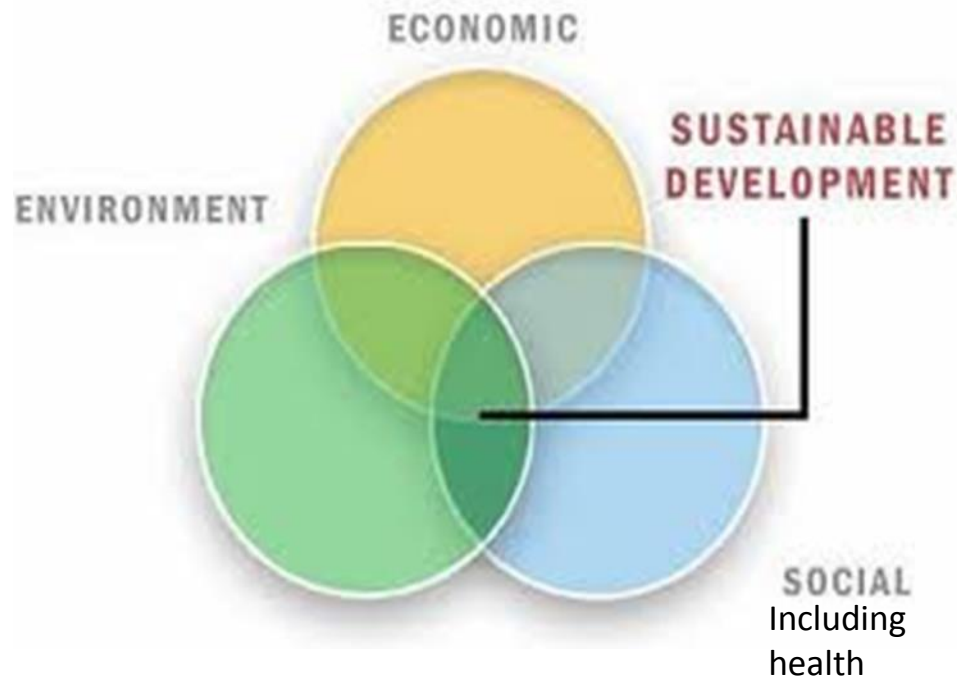
Outline of the presentation

- Introduction
- Health in the Green Economy
- Health sector greening
- Co-benefits of health sector greening.
- Examples from the region
- Conclusions/recommendations & way forward.

Health in the context of sustainable development

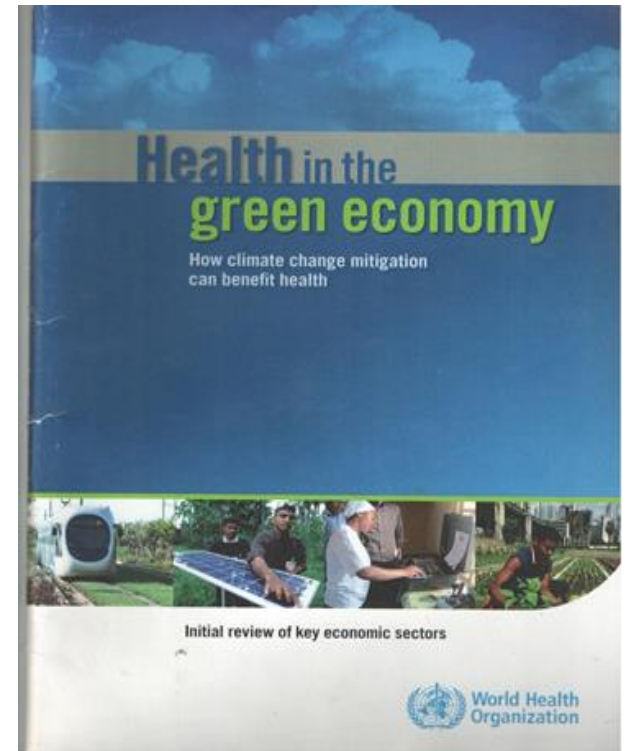
(future we want report, RIO+20, 2012)

“we recognize that Health is **a precursor, an outcome** and an **indicator** of all three dimensions of sustainable development “



Health in the Green economy

- WHO developed health in the green economy series” for the following key economic sectors (http://www.who.int/hia/green_economy/en/) :
 - Housing
 - Household Energy
 - **Health-Care Facilities**
 - Urban Transport
 - Occupational Health



Health in the Green Economy

(examples of health co-benefits for some sectors)

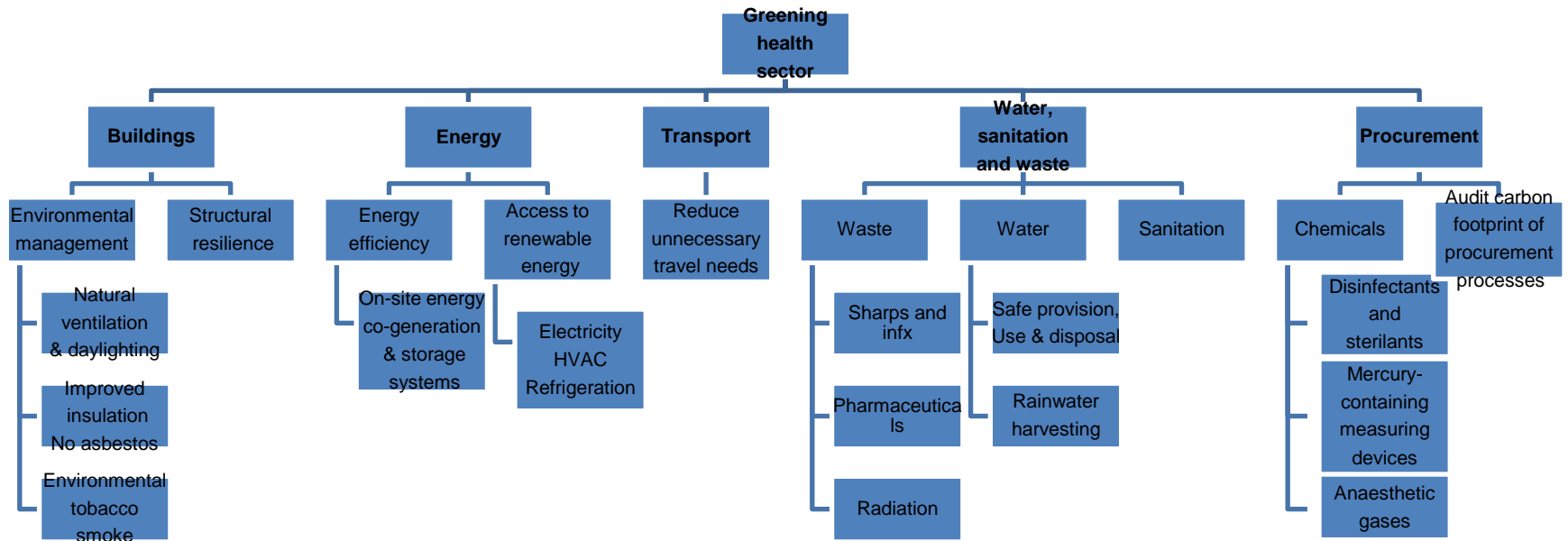
- Investing in public transport along with networks for cyclists and pedestrians can reduce air pollution, more physical activity, less traffic injuries and better mobility for poor and vulnerable groups and less emissions of pollutants e.g. GHG
- Better home insulation, heating and cooking systems and indoor ventilation can reduce respiratory diseases (e.g. asthma, pneumonia and tuberculosis) and reduce people's vulnerability to heat and cold, low energy cost, and less pollutants emissions.
- Shifting to non-incineration waste treatment policies/technologies reduces air pollutants such as PM10, PM2.5, Nox, Sox.....and respiratory diseases.

N.B. Reduction of air, water and chemical pollution can prevent up to 25% of the global burden of communicable and non-communicable diseases.

WHO WORK

- WHO implements initiatives on **health sector greening** (natural ventilation, energy efficiency, renewable energy, procurement, etc)
- WHO explores **how health can benefit from greener development** (clean home energy reduces respiratory diseases) and **promote good models** of green economy.

Framework for Greening the health sector



The above areas acts at three levels of impact:

- Patient and occupational health
- Community environmental health
- Climate mitigation

Energy

Energy

Energy
efficiency

Access to
renewable
energy

On-site energy
co-generation &
storage systems

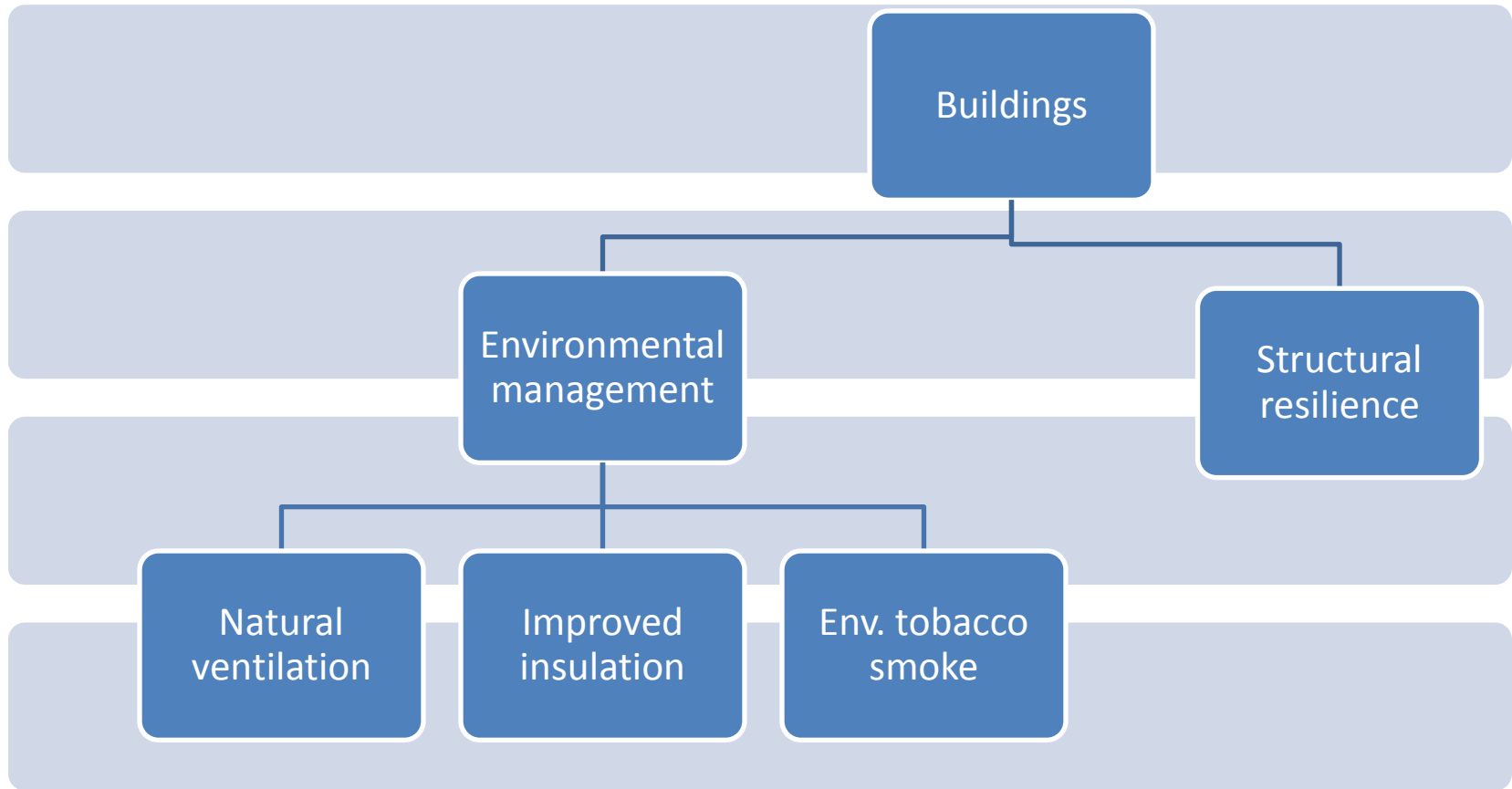
Electricity HVAC
refrigeration

Energy efficiency and access to renewable energy (heating, cooling and lighting)

- Examples of health co-benefits
 - Use of solar panels (for electricity or water heating): e.g. electricity for the cold chain of vaccines for immunization/vaccination in healthcare centers in rural settings and during emergencies as well.
 - Energy efficiency: Efficient use of electric equipment/lighting/heating and cooling: less consumption of electricity, reduced energy costs and reduced carbon foot print of the health sector and thus better health sector resilience.
 - Non-incineration technologies for waste treatment: **minimize transmission of diseases within and outside HCFs and** reduce the carbon foot print of the health sector and fuel/energy costs.



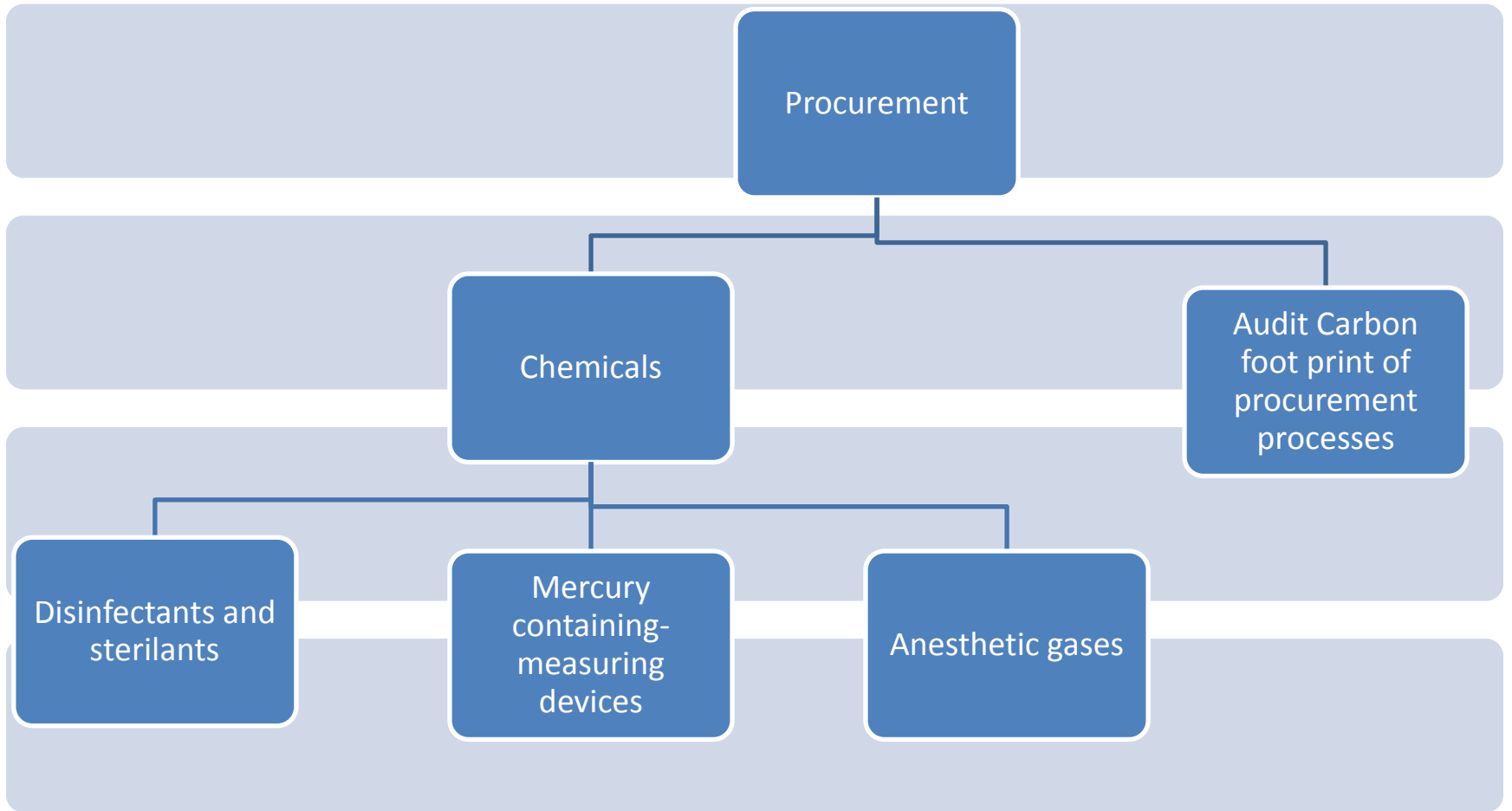
Buildings



Buildings design and resilience

- Examples of health co-benefits
 - Natural ventilation coupled with good day lighting enhance potential for higher worker morale and **patient satisfaction** and outcomes and prevent **air borne transmissible diseases** (e.g. TB) while minimizing energy and carbon foot print.
 - Use of Green building designs and building codes for healthcare(insulation,ventilation,orientation,exposure to Solar radiation,etc) minimize the use of energy, energy costs, reduce the carbon foot print and **promote patients and workers' health** (e.g. improved thermal comfort , reduced humidity and moulds as well as reduction of air borne diseases by natural air exchange flow).

Procurement



Procurement of equipment and management of consumables

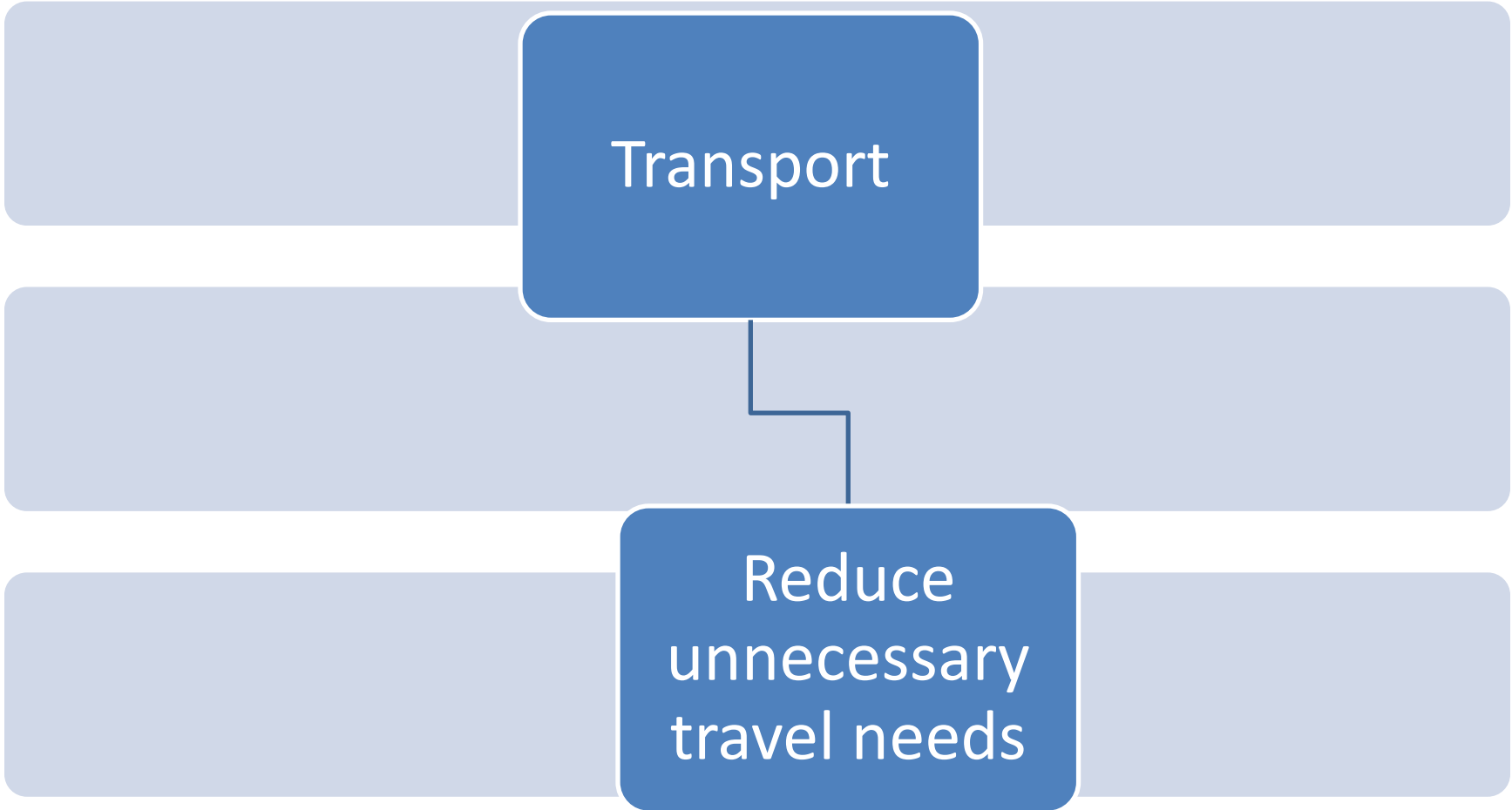
- Examples of health co-benefits
 - Procurement of non-incineration technologies for waste treatment: reduce **infections transmissions**, less carbon emissions and cost savings.
 - Safe and efficient management of pharmaceuticals (e.g. FIFO) will reduce the volume of pharmaceuticals to be treated and disposed of: less emissions of pollutants impacting (directly/indirectly) **public health, reduced disposal costs, reduced occupational health**. Special attention should be made to management of **cytotoxics** to avoid their discharge in water ecosystems .
 - Procurement of mercury free devices: less mercury vapor in HCFs (e.g. from broken thermometers) which might harm **patients and workers' health**, less discharge of mercury in water ecosystems and thus less impact on drinking and recreational waters.

N.B: Group purchasing may empower healthcare facilities and drive suppliers to offer products that are healthy and environmentally friendly (with reduced costs).

Transport

Transport

Reduce
unnecessary
travel needs



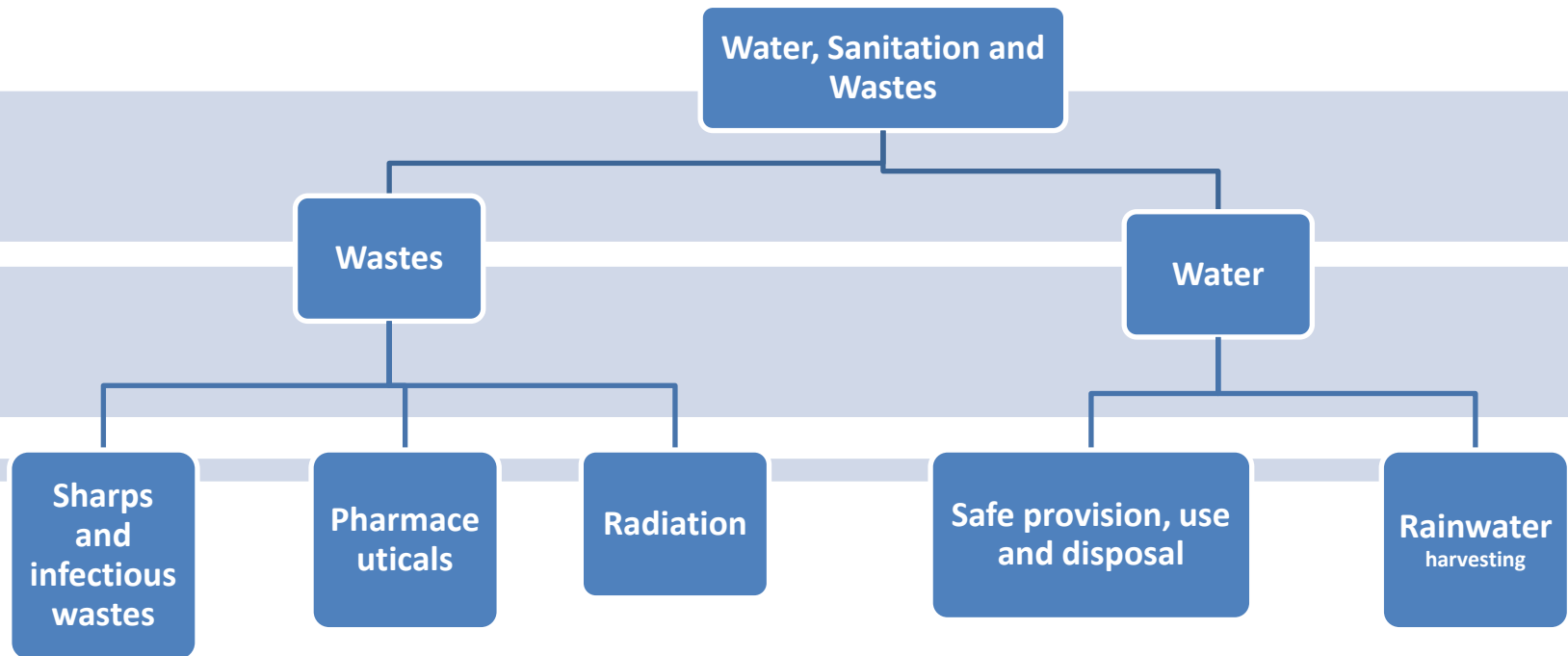
Transport

(reduce unnecessary travel needs)

Examples of health co-benefits

- Efficient management of consumables and pharmaceuticals would reduce transportation and thus less pollutants emissions and reduced **public health impacts**.
- Siting of health facilities in proximity to public transport reduces pollutants emissions from health workers and hospital visitors travel and thus less impacts on **public health**.
- Use of tele-medicine (telecommunication and virtual technology to deliver healthcare) reduces health care related transport (particularly for vulnerable people, diabetes, cardiac diseases, mental health, high-risk pregnancy monitoring,..) and improves access of poor people to healthcare services/facilities. Thus, less pollutants emissions and reduced **impacts on public health**.
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Water, Sanitation and wastes



Water, Sanitation and Wastes

- Examples of health co-benefits
 - Recycling **medical plastics** reduces emissions of dioxins (cancerogenic), furans and GHG as well as disposal costs, provide raw plastic materials for processing non-medical products, provide revenue for the hospital and protect the environment.(e.g. Holy family hospital in Pakistan).
 - On-site **medical waste autoclaves** reduce emissions and GHG, generate savings compared to incineration and prevent diseases transmissions within and outside the healthcare facility.
 - On-site wastewater pre-treatment in healthcare facilities reduce transmission of diseases within and outside healthcare facilities (**patients and health workers**) and prevent aquifer and ecosystem damage .

Examples from the region

- Procurement of non-incineration technologies for treatment of medical infectious wastes (Egypt, Morocco, Jordan, ...)
- Recycling medical plastics (holy family hospital, Pakistan).
- Greening in Egypt would **create 75,000 Jobs**, reduce 13 per cent of CO2 emissions, and a 40 per cent in water consumption.
<http://www.unep.org/newscentre/Default.aspx?DocumentID=26788&ArticleID=34795&l=en>

Conclusions

- WHO implements initiatives on health sector greening (natural ventilation, energy efficiency, renewable energy, procurement, etc)
- WHO explores how health can benefit from greener development (clean home energy reduces respiratory diseases) and promote good models of green economy.

Recommendations

- Support the development of national policies, plans and programmes on health sector greening (WHO regional strategy on EH)
- Provide tools, technical support and guidance on methodologies and approaches for greening the health sector (WHO regional strategy on EH)
- Document health sector greening initiatives in the Arab countries and related co-benefits and promote good models.

THANK YOU

