OCCUPATIONAL EXPOSURE: BENIN

Exposure to hazardous chemicals and pollutants in the workplace is a growing public health concern in Benin, a west African country. Occupational exposure to hazardous chemicals and pollutants in Benin mainly concerns the agricultural, industrial, and craft sectors due to limited safety measures, inadequate training, and poorly ventilated environments. Effective surveillance and monitoring of exposure are crucial to protect worker health and promote safer practices.

Burden in Benin

- · In 2016, the World Health Organization (WHO) reported that 24% of the global disease burden and 23% of all deaths were caused by modifiable environmental factors.
- · In Benin, where cotton is the primary export, occupational exposure to cotton dust poses significant health risks, including byssinosis.
- · In the industrial and craft sectors, workers are exposed to solvents, paints and toxic products, often in poorly ventilated working environments and without strict monitoring of health and safety standards.

Injuries, Noise, Dust Construction: Construction sites,

Roads, Bridges

Air/water pollutants At risk: Construction workers, Craft workers, Engineers

(Silica) exposure.

rds: Pesticides.

Animal-borne disease,

Air/water pollutants

At risk: Farmers,

Seasonal workers At risk: Laborers, Industry workers, Miners informal workers Hazards: Pathogens. Hazards: Physical

Major source of occupational exposure in Benin

Hazards: Chemicals,

Heavy Metals,

Persistent Organic

Pollutant, Injuries,

Air/water pollutants,

Silica dust

Contaminated waste, Radiation, Chemical exposure At risk: Health professional, Nurses. **Doctors**. Laboratory technicians, Waste

handlers

Manufacturing: nnery, Textile, Plasti factories,



Major challenges





- · Shortages in personal protective equipment (PPE) and monitoring technology.
- · Poor ventilation and limited implementation of engineering controls in the industries.
- · Workers and employers often lack knowledge about safe practices.
- High exposure risks in unregulated industries like artisanal mining and e-waste recycling.



















Route of exposure

- · Inhalation: Breathing in fumes, pesticides, dust and chemical vapors
- · Ingestion: contaminated water and food
- · Skin Contact: Direct chemical absorption



Exposure related health effects

- · Respiratory illness (byssinosis, silicosis, asthma) and cardiovascular illnesses
- Skin conditions, allergies
- Gastrointestinal issues
- · Long-term risks: Chronic diseases, cancer
- Hospital acquired infections

Protective measure

- · Enforce occupational health laws and workplace safety standards.
- · Train workers on hazards, safe practices, and proper PPE use.
- · Develop data collection systems on occupational health to guide policies and interventions.







Behavioral and socio-economic exposure

· Tobacco use, alcohol consumption, and poor diets are common behavioral exposures in occupational certain sectors, often driven by workplace stress, irregular schedules, poor socio-economic status, and limited access to healthy alternatives.



In case of acute exposure



- · Move to fresh air if inhaled
- · Remove contaminated clothing
- · Rinse affected areas with clean water
- · Seek medical help if symptoms persist!

Helplines and facilities

- Fire department: Tel: 118
- · National emergency medical service (Samu Bénin): Tel: +229 01 21 30 82 31
- · Beninese health and safety emergency number: Tel: 166

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