

Climate Change and Health: Impacts of heat to Public Health

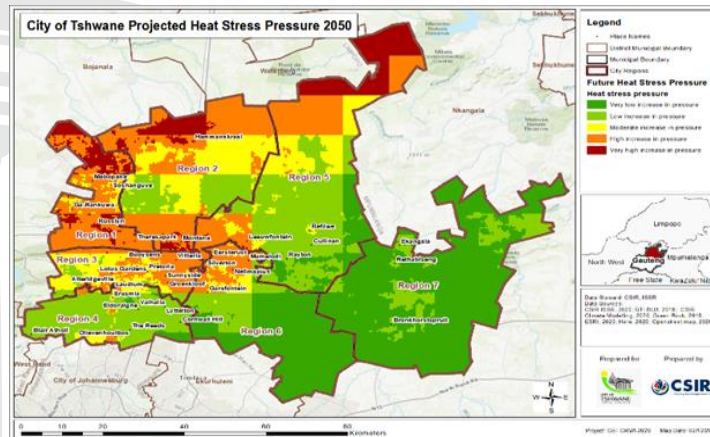
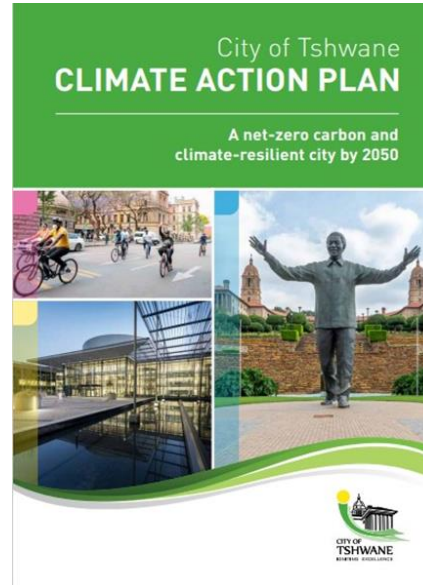
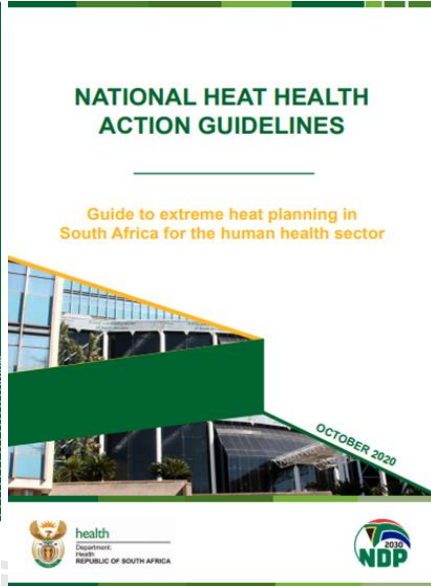
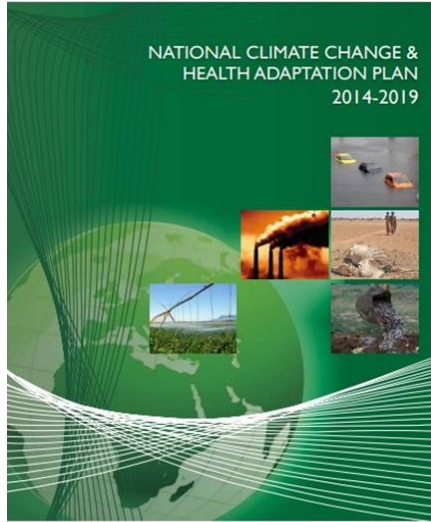
Heat Exposure and Health Risks Project in Tshwane by City of Tshwane

Health Department

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Background



The National Policy Framework by the Department of Health provides overall guidance for climate change adaptation from a health perspective

Climate Risk and Vulnerability Assessment: Mapping of heat stress in Tshwane

Heat and Health Guidelines 2020



- Health sector leadership and coordination of stakeholders
- Heat Health Warning System
- Heat Health Information Plan
- Reduce exposure to heat in indoor settings
- Care for vulnerable groups
- Preparedness of health and social services
- Monitor and evaluate the Heat Health Action Plan

Health Department plays lead role of the Urban Heat Officer and in an urban heat forum

Emergency Services Department

How to keep homes cool | How to keep cool if you must be outdoors | How to keep body cool and hydrated | How to help others vulnerable to heat stroke

Growing trees, shading outside windows, cool rooms, public shaded areas, cooling system, water sprays, electric fan, solar air conditioning

Elderly, infants, young children, pregnant women, chronic patients, people working in a hot environment

Training of healthcare workers on the guidelines

During periods of extreme heat, activate the Heat Health Action Plan

Health Sector taking a lead

- Health Department plays lead role of the Urban Heat Officer and in an urban heat forum

Heat Health Warning System

Emergency Services Department



Heat Health Information Plan

TOO HOT? Throw shade on heat this summer



Take a water bottle with you everywhere.

Overdressed? Wear loose, light clothing.

Open windows while you are travelling.

Look out for signs of illnesses caused by heat.

Open an umbrella or wear a hat.

Take care of babies, our elderly and others who ask for help.



HOW TO KEEP A HOME COOL

- Keep the windows and doors closed during the day, especially those that face the sun.
- Hang curtains, sheets or shade awnings on windows that face the sun during the day to help reduce indoor temperatures. Dark coloured materials absorb heat and heat up a room, while light coloured ones reflect heat.
- Turn off lights and electrical devices if possible, as these generate heat.
- Try to stay in the coolest room in the dwelling, especially at night.
- Open all windows during the night. If it is safe to do so that cooler air during the night and early morning can cool your home.
- Keep indoor plants and place bowls of water inside the house, as evaporation from these helps to cool a room.
- Electric fans may provide relief, but when temperatures are higher than 36 °C, they may not prevent heat related illness and may increase the body's temperature and cause dehydration, which may become dangerous, because fans do not actually cool the air, but raise evaporation from the skin if the air temperature is lower than 36 °C.
- If it is not possible to keep your home cool, find a cool place to spend two to three hours of the day, such as an air-conditioned shopping mall or a community centre.





HOW TO KEEP THE BODY COOL AND HYDRATED

- Take cool showers, baths or body washes.
- Sprinkle water over your skin or clothing, use cold packs and wraps, place a damp cloth or towels on the back of your neck, or use sponging and foot baths with cool water.
- Wear light, loose fitting clothes that are made of natural materials.
- If you go outside, wear a wide brimmed hat or a cap and sunglasses.
- Use light bed linen and sheets, without cushions, to avoid heat build up.
- Drink regularly, but avoid alcohol, hot drinks, tea, coffee and sugary drinks.
- Eat small meals and eat more often; avoid foods that are high in protein.
- Spend a few hours in a cool place such as an air conditioned shopping mall or a community centre.





HOW TO HELP OTHERS WHEN IT IS HOT

- Promote community involvement as a critical strategy for ensuring the health of vulnerable individuals during extreme heat.
- Check on family and friends, especially vulnerable people, in case they need assistance; elderly or sick people who live alone need to be visited at least twice a day.
- Talk with family and friends about what to do when it is hot.
- If you are taking medication, ask a health worker whether anything needs to be done differently when it is hot, because some medicine may need to be changed during very hot weather, and make sure that medicine is stored at the correct temperature (read the instructions on the packaging!).
- Read pamphlets, notices and other types of media from the Health Department to help you learn how to respond to extreme heat.





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WHAT TO DO WHEN YOU OR OTHERS FEEL UNWELL WHEN IT IS HOT

- Move to a cool place and drink some water.
- Monitor your temperature.
- Seek care if you feel dizzy, weak or anxious, have intense thirst and a headache, or a raised temperature.
- Rest and drink oral rehydration fluids if you have muscular spasms or heat cramps.
- If someone has hot, dry skin and confusion or fits or is unconscious, call an ambulance immediately or urgently arrange transport for the person to a health facility, and while waiting for help, do the following:
 - Move the person to a cool place.
 - Put the person in a horizontal position and elevate the legs and hips.
 - Remove the person's clothing and begin external cooling, for example by placing cold packs on the neck, armpit and groin, fanning continuously and spraying the skin with water at 25 °C to 30 °C.
 - Measure the body temperature.
 - Do not give aspirin or paracetamol.
 - Position an unconscious person on her or his side.







Heat waves are anything but fun in the sun. Extreme heat and humidity can be extremely uncomfortable and pose serious health risks, especially for infants, children, pregnant women and the elderly.

When the heat wave hits, make sure it does not harm you or anyone you know. Without taking the proper precautions, extreme heat can lead to heat stroke and, even worse, fatalities.

 **STAY SAFE IN EXTREME HEAT**

Reduce exposure to heat in indoor settings

Care for Vulnerable



The City of Tshwane cordially invites you to the **TSHWANE YOUTH AND CLIMATE CHANGE** Event to be held as follows:

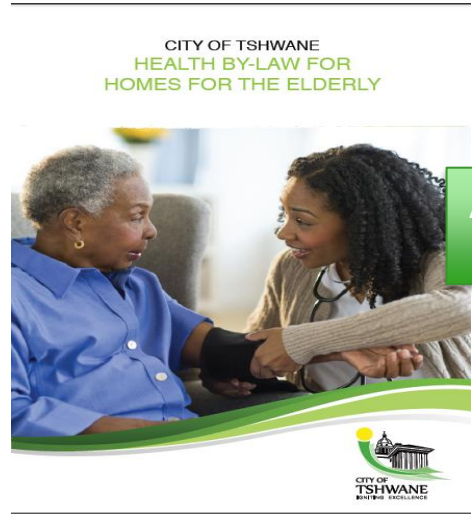
Date: 26 July 2024
 Time: 08:00 to 14:00
 Venue: 9109 Pilane Street, Ga-Rankuwa Zone 1, Pretoria
 NB: There will be a clean-up Campaign at the start of the program

Enquiries: Kgomoiso Y Kivenaite at kgomotsomek@tshwane.gov.za

RSVP on or before 25 July 2024



Hapi and High Horizon Studies that focuses on pregnant Women and Health care workers



Awareness, enforcement and adherence of Homes for elderly centres

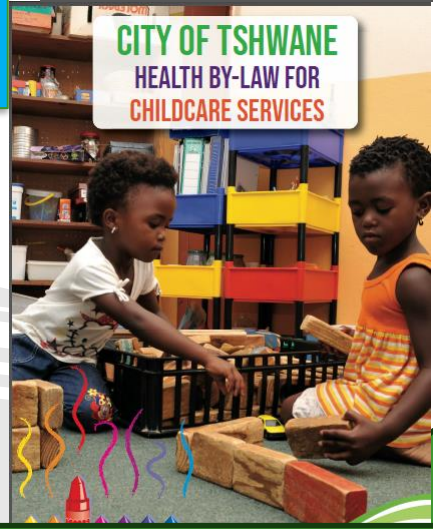
City of Tshwane launching Youth Program on climate change adopting them as climate change champions

Draft Green Building bylaw

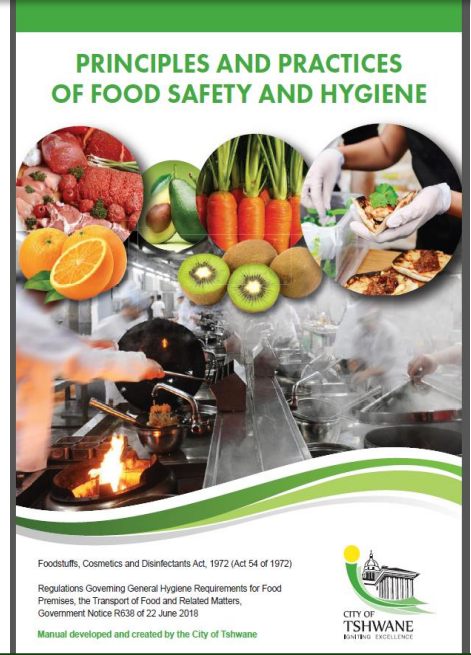
A Re Jwaleng



Executive Mayor of Tshwane, Ald Cilliers Brink, officially launching the A Re Jwaleng Campaign on 22 April 2024



Awareness, enforcement and adherence of early childhood development centres, such as shading of play areas



Food Handlers training incorporating Climate Change effects of Heat on Food

Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972)
 Regulations Governing General Hygiene Requirements for Food Premises, the Transport of Food and Related Matters, Government Notice R638 of 22 June 2018
 Manual developed and created by the City of Tshwane



Preparedness of health and social services

Capacity-building of the
Municipal Health Services
Section on heat health
response as the lead in Heat
health action guideline



Training of healthcare
workers on the
guidelines

Disaster Management Seminar 2023

Role of Environmental Health During disaster: Tshwane University of Technology

National Heat Health Guidelines: National Department of Health

Urban heat island and urban heat: City Sustainability

Disaster Management Plan: City of Tshwane Emergency Services

Cholera Outbreak Response

Cholera Outbreak Response in Gauteng: Makopa Mohlala CDC

Cholera Outbreak Response in Tshwane: Rina Nel Outbreak Response

Cholera Outbreak Response in Region 1: Noma Aphane MHS

Cholera Outbreak Response by Contract Workers: Clement Monyai

MMC for Health, Cllr Rina Marx, opens a CPD awareness session on heat health responses with City partners: Wits RHI, South African Medical Research Council, World Bank and Walter Sisulu Environment Centre

Meat Safety

Tshwane Meat Safety Forum: Dr Maretha Van der Merwe MHS

Food Safety Agency Palesa Millicent Mpana

Veterinary law Enforcement Ndivhuwo Evelyn Tshivhase

Veterinary Public Health Officials Juanita de Jager

SAMIC Cornelius Johannes Nell

Gauteng Heat Health Research CPD 2024

Climate Action Plan: Lutske Newton City Sustainability

Gauteng Heat Health Response Research: Mr Bradley Douglas Riley: World bank

Climate change and the impact of heat on health : Dr Caradee Wrights: MRC

HAPI and HIGH Horizon Research on Heat : Dr Gloria Maimela: Wits RHI

Cool Cities Heat Mapping Campaign: Mr Bradley Douglas Riley: World Bank

Tree Caring and Tree Planting : Naome Rabothata: WSEC

City of Tshwane Are Jwaleng Project : Ms Amulet Thobane: Environment Man &

Capacity Building for Peer Educators

Training of peer educators on climate change, food safety, garden care and tree care.

Peer Educators are a group of contract workers appointed under Multisectoral Aids Unit to create awareness on HIV and Aids.

The Department's use co-benefit approach, by effectively capacitating them on All Health aspects to run full awareness of the Health department service



Food Safety

- Pamphlets Distribution
- Awareness on MHS Function
- Complaints reporting and referral
- MHS Offices location

Climate change

- Awareness on CC
- Heat response
- Distribution of pamphlets
- Innovations on adaptation
- Adopt a spot and clean up campaigns

Garden Care

- Soil treatment
- Manure treatment
- Seedlings
- Planting and seasons to plant
- Vegetation care

Tree Care

- Hole digging
- Soil treatment
- Tree Irrigation
- Tree pruning

Monitor and evaluate the Heat Health Action Plan



Health Response Strategy

Draft Green Building Bylaw

Integrating Climate Actions into COT Strategic Documents

Tshwane Market Protocols around Organic Waste Disposal and Separation at source

E-Health system pilot to reduce carbon footprint emissions in clinics

Training of Health Care Workers on Heat Health Guidelines

Training of supply chain and SAP users on sustainable procurement

Planting of fruit bearing Trees in Clinic

Pilot specification includes sustainable procurement components

Research
Wits RHI HAPI and HIGH horizon
SAMRC- Heat Exposure at Taxi Ranks
World Bank- Heat mapping campaign
C40 – Waste separation at source

Infrastructure
Develop Lusaka Clinic building as green building
Maintenance plan
Retrofit City-managed buildings with energy-saving bulbs
Clinics are used as COOL CENTRES with access Water dispensers in clinics

Develop a heat adaptation policy for field workers to enhance productivity and human resources effectiveness during heatwaves

Gauteng Heat Action Plan Task Team

City of Tshwane Heat bylaw

Lesson learned NCCAP and Recommendations



Capacity-building	Community Development
Monitoring and surveillance	Data Resources for Climate Change, DHIS
Baseline assessments	Provide interventions where they are greatly needed
Research	Leverage on partnership Locate C40 Offices Partner with institutions around for informed decisions
Health impact assessment – Vulnerability Assessments and the Climate Action Plan (CAP)	Evidence based solution
Intersectoral actions	Climate Change is interdependent. Engage with everyone to find solutions
Pilot climate change and health adaptation projects Scaling up existing interventions	Do not despise humble beginnings. Adopt a spot. Roof painting. Cool off centres. Providing access to water point. C40 Workshops, Food Handlers Training, Climate Change Training
International information exchange	Join Networks on climate Change

Lesson learned/Recommendation



No conversation of Heat should continue without an EHP

See yourself as Focal Point

Health Department plays lead role of the Urban Heat Officer and in an urban heat forum

Early warning System

Emergency Services Department

Messaging

How to keep homes cool | How to keep cool if you must be outdoors | How to keep body cool and hydrated | How to help others vulnerable to heat stroke

Greening

Growing trees, shading outside windows, cool rooms, public shaded areas, cooling system, water sprays, electric fan, solar air conditioning

Prioritise the Vulnerable groups for interventions

Elderly, infants, young children, pregnant women, chronic patients, people working in a hot environment

Cool off Rooms

Training of healthcare workers on the guidelines

Develop sectoral Response

During periods of extreme heat, activate the Heat Health Action Plan

Stay safe when it's hot

- 1 Be active in the mornings
- 2 Listen to weather warnings
- 3 Drink water often
- 4 Rest in shade in the heat of the day
- 5 Wear a hat and loose, light clothes
- 6 Seek medical help if you get a heat illness
- 7 Be active in the evenings

COT Climate Action Plan Outcome 1: People and Community
The People and Communities awaits help from us **Environmental Health Practitioners** to be safe during extreme climate events like heat waves.

Thank You

