

Role of Health Sector in Preparedness and Response - Heat Health Action Guidelines



CLIMATE CHANGE AND HEALTH: EL NINO PREPAREDNESS WEBINAR



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22 October 2026



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Overview of the presentation



- **Spatial inequality in climate change**
- **Policy and strategic response**
- **Surveillance and Early Warning System**
- **Heat health action guideline**
- **Research**
- **Intervention / implementation;**



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Slide 2



Spatial Inequality in Climate Resilience



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Slide 3



Legislative framework



Government Gazette

REPUBLIC OF SOUTH AFRICA

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23 July 2024

No. 50966

THE PRESIDENCY

No. 5050 **23 July 2024**
It is hereby notified that the President has assented to the following Act, which is hereby published for general information:—

Act No. 22 of 2024: Climate Change Act, 2024

VHUPRESIDENDE

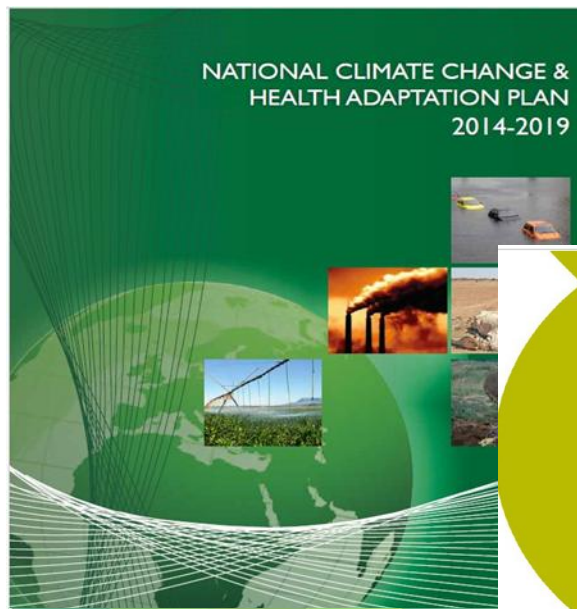
No. 5050 **23 July 2024**
Zwi khou divhadziwa heneffa uri mupresidende o tendelana na uyu mulayo une wa khou andadziwa hu u itela ndivhadzo kha tshitshavha:—

Nom 22 ya 2024: Mulayo wa Tshanduko ya Kilima, 2024



AIDS HELPLINE: 0800-0123-22 Prevention is the cure

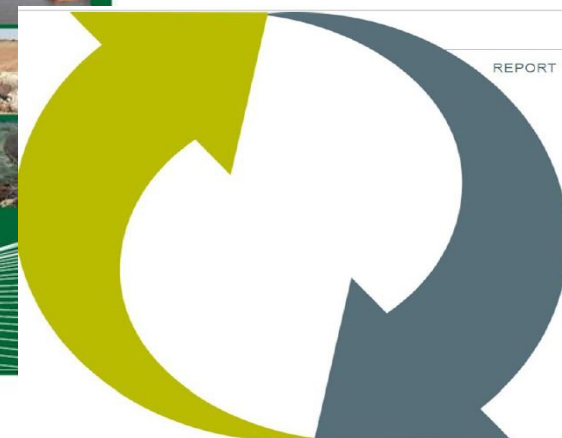
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NATIONAL CLIMATE CHANGE & HEALTH ADAPTATION PLAN 2014-2019

NATIONAL HEAT HEALTH ACTION GUIDELINES

Guide to extreme heat planning in South Africa for the human health sector



REPORT

Synthesis Report

Capacity Building on Risk and Vulnerability Assessment Tool and Development of National Climate RVA for Health

Processing No.: 16.9002.3-001.00 | Ref No. 8336282

15TH MARCH



Synthesis Report / Risk and Vulnerability Assessment



INTERACTION BETWEEN CLIMATE CHANGE AND BURDEN OF DISEASE

Interaction of climate change exposures on the Communicable, Maternal, Perinatal and Nutritional category of burden of disease : Table 10. Interaction of climate change exposures on the Non-Communicable Diseases category of burden of

BoD Sub-category	Climate Change Parameters						Reasoning
	Very Hot days	Relative Humidity	Extreme precipitation days	Flood	Drought	Fire	
Cardiovascular disease	Significant Increase	Significant Increase	No Effect	Increase	No Effect	Increase	Could cause stroke via stress or aggravate cerebral perfusion insufficiency via drought conditions with dehydration. Also heat exhaustion and heatstroke.
Diabetes mellitus	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No relationship
Hypertensive heart disease	Significant Increase	Significant Increase	No Effect	No Effect	No Effect	No Effect	Could aggravate and reduce cardiac output through venous pooling and dehydration
Ischaemic heart disease	Significant Increase	Significant Increase	No Effect	No Effect	No Effect	No Effect	As for hypertensive heart disease
Endocrine, nutritional, blood, immune system	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No relationship
Chronic obstructive pulmonary disease	Increase	Increase	No Effect	Increase	No Effect	Increase	Aggravate via the work of breathing, growth of mould and fungus in damp/humid conditions and via smoke particulates
Nephritis/nephrosis	Increase	No Effect	No Effect	No Effect	Increase	No Effect	No relationship
Epilepsy	No Effect	No Effect	Increase	No Effect	Increase	No Effect	No relationship
Asthma	Increase	Increase	Significant Increase	Increase	No Effect	Increase	Hot and humid conditions could promote allergens such as pollens and mouldy fungal growth indoors
Prostate	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No relationship



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Strategic Tool for Assessing Risk (STAR)



Strengthening disaster risk reduction and emergency preparedness

Impact →	Severe	• Lassa Fever, Ebola, Lujo, Marburg, etc	• Typhoid fever • Rabies • Paratyphoid fever • Diphtheria • Schistosomiasis • Drought • Power outage/ or blackout • Water supply failure • Chemical agents	• Cholera/ Acute Watery Diarrhea • Measles	• Flood/Tropical Cyclones • Air pollution
	Moderate	• Poliomyelitis	• Rubella • Rift Valley fever • Cold wave/Severe winter • Sea-level rise • Cyber attack • Explosive agents	• Malaria • Forest/Wildfires • Civil unrest	• Respiratory pathogens with pandemic potential (influenza, coronavirus, orthopox virus, etc.) • Mpox (formerly monkeypox) • Storm • Extreme Heat • Water pollution • Deforestation • Transportation accidents • Violence
	Minor		• Listeriosis	• Structural collapse (building collapse, dam/bridge failures) • Stampede or crushing or Mass gathering	• Substance Abuse

Surveillance and EWS



- Improving **surveillance, early warning and response systems**

3. Summary Implications

Water and Energy

The anticipated favourable rain of the winter season, are likely water storage capacity and availability. Such conditions are likely to be rainfall during winter seasons. systems, resulting in flash floods. Notable below-normal rainfall in rainfall areas during September respectively. Such conditions, of the country during the winter pressure on water-scarce regions to be above normal countrywide forecast period. Decision-makers businesses and communities.

Health

The seasonal forecast indicates potential health risks associated with both rainfall variability and above-normal temperatures. In the winter rainfall region, increased rainfall may elevate the risk of localised flooding, poor drainage, contamination of water sources, waterborne disease transmission, and flood-related injuries, particularly in vulnerable and low-lying areas. By contrast, below-normal rainfall along the eastern coast and across large parts of the country during early summer may place added pressure on water availability, hygiene, and sanitation.

Above-normal minimum and maximum temperatures across most of South Africa during spring are also likely to increase the risk of heat stress, dehydration, and ultraviolet exposure, especially among vulnerable populations. Health authorities should therefore monitor both rainfall- and heat-related hazards closely and strengthen public communication on safe water use, sanitation, hydration, and sun protection. Communities are advised to avoid flood-prone areas, use water responsibly, remain adequately hydrated, reduce strenuous activity during the hottest parts of the day, and follow official weather advisories.

1. Overview

The El Niño-Sout current predictio next couple of m that El Niño will that South Africa summer.

Surveillance and EWS



Improving surveillance, early warning and response systems: PHEOC



NATIONAL DISASTER MANAGEMENT CENTRE

CIRCULAR NO.17 OF 2026

EL NIÑO ADVISORY FOR DISASTER MANAGEMENT STAKEHOLDERS

1. PURPOSE

- 1.1 This Advisory is aimed to provide strategic guidance to Disaster Management Stakeholders regarding the potential impacts associated with El Niño conditions during 2026.
- 1.2 Stakeholders are encouraged to use the Advisory to strengthen preparedness, risk reduction, contingency planning and coordinated response measures.

2. SITUATION OVERVIEW

- 2.1 The El Niño conditions are commonly associated with a warmer central eastern Pacific Ocean and may influence Seasonal Climate Patterns across Southern Africa.
- 2.2 South Africa may experience below-normal rainfall in some Regions, elevated temperatures, water stress, increased veld and forest fire risk, agricultural impacts and localized socio-economic consequences.
- 2.3 Conditions should be continuously monitored through official Meteorological and Sectoral information sources.



NATIONAL DISASTER MANAGEMENT CENTRE: CIRCULAR NO. 17 OF 2026

4. PROJECTED RISK TIMELINES

Period	Risk Level	Expected Situation
July–August 2026	Low	Existing water resources remain adequate.
September 2026	Moderate	Seasonal transition; monitor SAWS outlook updates closely.
October–December 2026	High	Highest probability of rainfall suppression and heat impacts if El Niño continues strengthening.
January–March 2027	High	Potential peak impacts on agriculture, water availability, and drought conditions if rainfall deficits persist.

5. PREPAREDNESS ACTIONS

- 5.1 Review and activate Drought and Climate Contingency Plans;
- 5.2 Enhance Intergovernmental Coordination Structures;
- 5.3 Monitor Dam Levels, Water Demand and Supply Systems;
- 5.4 Strengthen Wildfire Prevention and Response Capacity;
- 5.5 Support Climate-Smart Agricultural Practices;
- 5.6 Conduct Public Awareness Campaigns; and
- 5.7 Ensure Readiness of Emergency Response Resources.

6. SECTOR-SPECIFIC CONSIDERATIONS

Priority Area	Recommended Action
Water Security	Implement Conservation Measures and Monitor Critical Infrastructure.
Agriculture	Strengthen Advisory Services and Drought Mitigation Interventions.
Wildfire	Increase Readiness, Awareness and Suppression Capacity.
Municipalities	Update Risk Assessments and Business Continuity Measures.
Community Preparedness	Risk Communication and Support to Vulnerable Groups.

Impacts of heat on health in South Africa



Indirect impacts

Impact on health services

- Increased ambulance call-outs & slower response times
- Increased number of hospital admissions
- Storage of medicines

Increased risk of accidents

- Drowning
- Work-related accidents
- Injuries, including road traffic injuries

Increased risk of

- Outbreaks of gastrointestinal disease
- Violence, including homicide
- Exposure to environmental toxins
- Marine algal blooms

Disruption of infrastructure

- Electricity
- Water
- Transport
- Productivity



Direct impacts

Heat illness

- Dehydration
- Heat cramps
- Heat stroke

Death from

- Respiratory disease
- Cardiovascular disease
- Other chronic disease (mental health, renal disease)

Hospitalisation

- Respiratory disease
- Diabetes mellitus
- Renal disease
- Stroke
- Mental health conditions
- Preterm births and other adverse birth outcomes



Health impacts
of exposure to
extreme heat



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Vulnerable group



- Rising global ambient temperatures affect all age groups and populations
- Some groups are more exposed to these heat increases than others.
- Gender can play an important role in determining heat exposure and vulnerability to heat-related conditions.
- Risks may be raised due to the:
- particular characteristics of individuals, such as age or co-existing health conditions; (elderly, young children and youth; pregnant women, people with chronic medical conditions)
- living in certain types of housing and residential areas (People living in cities, informal settlements or rural areas)
- low ability to adapt to hot weather conditions due to socioeconomic and community risk factors (Socio-economically disadvantaged people and those who work outdoors or in hot indoor areas)
- Conditions which increase the risk of dying in a heat-wave (Diabetes mellitus; mental disorders, dementia, Alzheimer's; Cardiovascular disease; Diseases of the respiratory system; Diseases of the renal system)



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Heat health action plans



- Use existing systems and link to general emergency response arrangements - Many of the approaches to planning for and responding to heatwaves draw on **principles of disaster management**.
- Adopt a long-term approach - **adapting the built environment** so that it provides better protection against heat exposure
- Be broad Nearly all emergency plans require a **multi-agency and intersectoral approach**, and this is also the case for heatwaves and extreme heat.
- Communicate effectively - implementation of the Heat-health Warning System and the Heat Health Information Plan to deliver useful, timely, accessible, **consistent and trustworthy information to their target audience and especially to vulnerable populations**.
- Ensure that responses to heat do not exacerbate the problem of climate change
- Monitor and evaluate

Short, Medium and Long Term activities



	Action	Expected results	Responsible and participating institutions
Short-term	Assessment of heatwave definition and then finalise a set of messages about heat and Health	Consistent messaging	DOH Research institutions SAWS
Medium-term	Set a temperature threshold above which sports events, school sports etc. will not be permitted to occur. Such events would need to be postponed and re-scheduled during cooler weather	Safer conditions for schoolchildren, athletes, marathon runners etc. during hot weather	Sports DOH DBE
Long-term actions	Review regulations around personal protective equipment for outdoor occupational workers	Cooler outdoor workers who can work comfortably and safely	Labour DOH

RESEARCH

THE IMPACT OF EXTREME HEAT ON MATERNAL, NEWBORN AND CHILD HEALTH

POLICY BRIEF

Redefining actionable responses using a climate lens

BACKGROUND & CONTEXT

South Africa, along with the rest of Africa, is experiencing increasingly frequent, intense and prolonged **extreme heat events** driven by climate change. These events have significant consequences for population health and health systems, with particularly severe impacts on maternal, newborn and child health (MNCH). **Heat exposure** is associated with adverse pregnancy outcomes and growing strain on frontline healthcare services.

The health impacts of climate change will continue to worsen with every increase in global temperature, making it critical that all countries urgently **reduce their carbon emissions**. At the same time, we need to be able to **accurately monitor the health impacts of heat**, especially for vulnerable populations.

Climate-health attribution studies are essential to establish the **causal links between specific climate events and measurable health outcomes**; this will provide crucial evidence for **climate justice** by demonstrating that communities least responsible for emissions bear a disproportionate burden of harm.

Evidence shows a predominantly harmful relationship between heat exposure and MNCH outcomes, especially preterm births, low birth weight and hypertensive disorders of pregnancy.¹ **Numbers reflect how many published studies reported each outcome.**



POLICY & IMPLEMENTATION GAPS

Heat warnings alone do not protect vulnerable populations unless they trigger timely, coordinated and equitable responses.

South Africa has made important progress in defining heat-MNCH indicators and strengthening national stakeholder alignment. However, these indicators are not yet consistently operationalised within health systems, municipal planning, or frontline service delivery. Existing heat warnings are not tailored to specific populations, nor do they offer clear guidance on actions for frontline health workers and community members. To be better prepared for extreme heat, heat-MNCH indicators need to be operationalised to support interventions for pregnant and postpartum women and their infants – before, during and after heat events.

- Vulnerable groups are not consistently prioritised in heat planning
- Early warning systems are insufficiently heat-focused and population-specific
- Context-specific heat thresholds and standardised protocols remain limited
- Risk communication often remains top-down rather than co-designed
- Municipalities often lack budgets and subject matter expertise
- Scarce climate-health funding keeps programmes donor-dependent
- Climate and health data systems remain fragmented across sectors



WHAT HEAT FEELS LIKE IN PRACTICE:
LIVED EXPERIENCES OF MOTHERS AND HEALTHCARE WORKERS

"...normally when it's too hot, the baby would cry even when you try breastfeeding. Nothing is helping..."

"...other words, they are cooler than this one. This one, it's a bomb."

- SAMRC and ACDI – Heat Adaptation Benefits for vulnerable groups in Africa (HABVIA) – Thohoyandou (Vhembe DM) and Khayelitsha (City of Cape Town) – 5 years project (Ghana and SA)



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clTIES SUPPORT PROGRAMME

URBAN HEAT IN JOHANNESBURG AND EKURHULENI

Impacts and Mitigation Options



INTERVENTIONS / IMPLEMENTATION



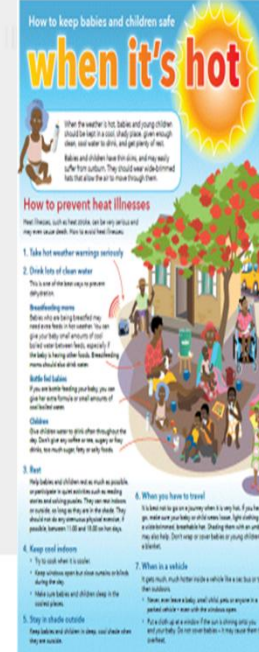
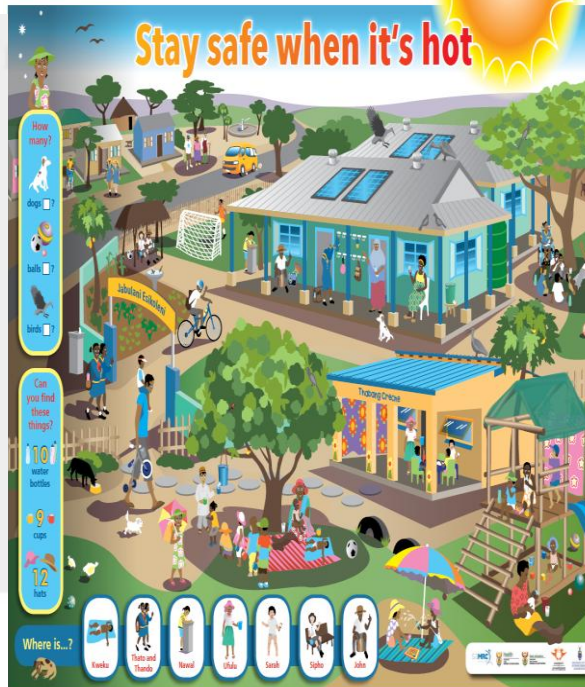
- Heat Health Action guidelines – Norms and standards assessments
- Presentations in foras including National Climate Change and Health Steering Committee NCCHSC
- PHEOC
- Sharing information with stakeholders
- RCCE
- Webinars



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SOME PROVINCIAL AND MUNICIPAL IEC



HEAT STRESS

AWARENESS
Stay cool. Stay safe.



Beat the heat,
protect your health!



Drink water

Stay hydrated, even if you don't feel thirsty.



Avoid the heat

Stay in the shade and rest during the hottest part of the day.



Wear light clothing

Cover up and wear a hat or cap.



Know the signs

Dizziness, headache, heavy sweating or nausea can be heat stress. Get help early.



Look out for others

Check on children, older people and those working outdoors.



Dehydration



Headache



Heat exhaustion



Heatstroke



Feeling dizzy



Heavy sweating



Heat rash



Muscle cramps



Feeling weak and confused



Heart disorders



Lung disorders



Kidney disease



Mental disorders



Hormonal/Endocrine effects



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Department of Health
FREE STATE PROVINCE
"Healthy People, Thriving Communities"

Xhariep District
Environmental Health Launches the

Climate Smart Bump

Together with Science,
Mummy Bump

Come join us for a healthy Pregnancy
in climate science!



Date:
21 October 2026



Venue:
Flora Park Clinic,
Gariep Dam



What You Will Learn:



Climate-smart pregnancy practices.



Protecting mothers from extreme heat and environmental hazards.



Healthy hydration and nutrition during pregnancy.



The importance of antenatal care and maternal health services.



Building climate-resilient families and communities.

Healthy Environments
Healthy Mothers
Brighter Futures

A Cleaner
Greener
Safer Xhariep
for our Children

Climate
Action
for Healthier
Mothers
and Babies

Healthy
Mothers
Healthier
Planets
Brighter
Generations

Xhariep District
Department of Health
FREE STATE PROVINCE
Hands are Safe Hands

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Hands are Safe Hands

Healthy
superpower
bump

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Hands are Safe Hands

Why Protect Mothers?



Reduces
pregnancy-related
health risks.



Protects mothers
from extreme heat
and climate-related
illnesses.



Supports healthy
pregnancies and
healthy babies.



Creates stronger
families and
communities.

Healthy People
Healthy Places
Healthy Futures

A healthy pregnancy
starts with a healthy environment.

Together, we can protect mothers and babies
through science, prevention and community action.

CLEAN AIR
SAFER
PREGNANCIES

SAFE WATER
HEALTHIER
MUMS AND BABIES

HEALTHY
ENVIRONMENTS
STRONGER
COMMUNITIES

CLIMATE ACTION
FOR A HEALTHY
TOMORROW

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Environmental Health Services
FREE STATE PROVINCE

Healthy Mothers.
Healthy Families.
Healthy Communities.

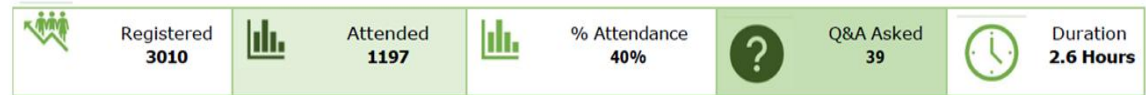


Capacity Buildings / support

- Different platform
- Webinars
- FPD – clinicians
- Non Clinicians



Climate Change and Health Webinar Stats and Report 05 December 2024

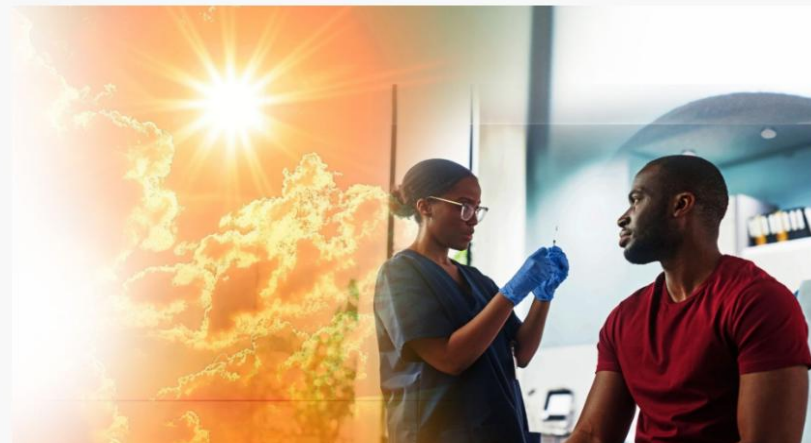


Foundation for Professional Development

Heat Health Preparedness and Response (HHPR): Building a Climate Smart Health Workforce

[View all FPD courses](#)

[About FPD](#)







ngiyathokoza!

ro livhuwa!

dankie!

ke a leboga!

enKOSi!

inkomu!

thank you!

udo livhuwa!

ke a leboha!

ngiyabonga!

siyabonga!



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Slide 19

