Dengue Situation in Mauritius

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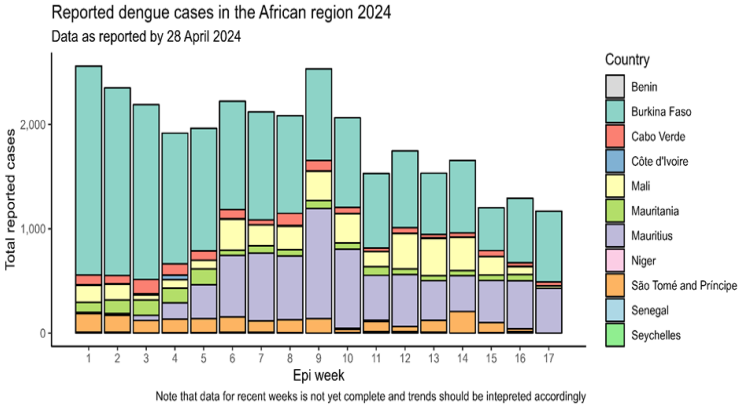
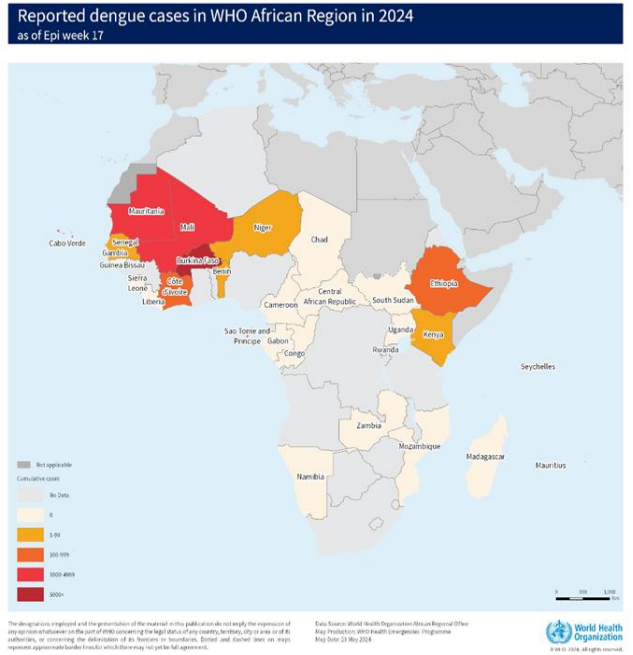
World Health Organization

African Region

Dengue in the African Region

N°	Country	Suspected cases since 2023	Probable and Confirmed Cases since 2023	Deaths since 2023	CFR 2023 (%)	Suspected cases since 2024	Probable and Confirmed Cases since 2024	Deaths since 2024	CFR 2024 (%)	Last Update
1	Burkina Faso	174 092	76 115	771	0.44	19 255	5 782	45	0.23	05/26/2024
2	Ethiopia	26 601	26 601	21	0.08	12 167	824	0	0.00	05/26/2024
3	Sao Tome and Principe	16 690	2 832	11	0.07	11	11	0	0.00	05/26/2024
4	Mali	9 976	1 422	38	0.38	4 605	614	4	0.09	5/26/2024
5	Mauritius	8 860	8 860	29	0.33	8 647	8 647	29	0.34	5/19/2024
6	Côte d'Ivoire	4 217	362	2	0.78	295	39	0	0.00	5/26/2024
7	Chad	2 325	213	1	0.04					12/31/2023
8	Cabo Verde	1 296	673	0	0.00	780	430	0	0.00	05/06/2024
9	Senegal	363	363	0	0.00	23	23	0	0.00	3/24/2024
10	Niger	148	-	-	0.00					12/19/2023
11	Kenya	88	45	-	0.00	79	36	-	0.00	3/31/2024
12	Nigeria	72	14	-	0.00					12/19/2023
13	Togo	55	17	1	1.82					12/31/2023
14	Ghana	18	9	-	0.00					12/19/2023
15	Benin	6	3	1	16.67					12/20/2023
16	Guinea	1	1	-	0.00					8/31/2023
Total		244 808	117 530	875	0.36	45 862	16 406	78	0.17	





Mauritius, Burkina Faso, and Mali are among the countries facing a situation of concern

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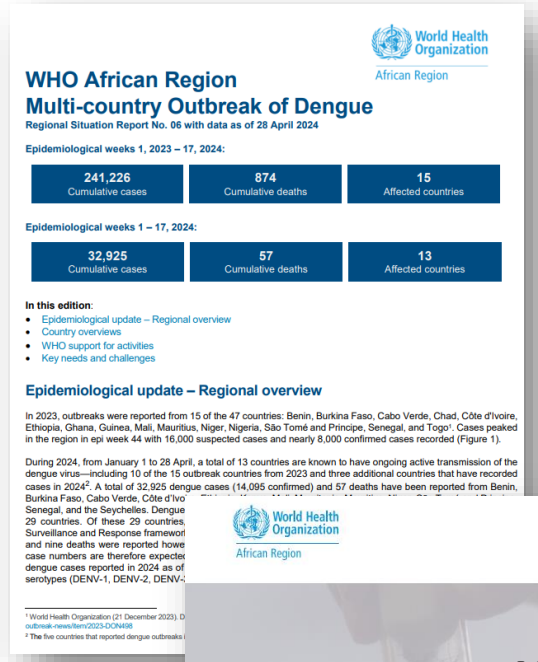
Dengue Response Achievements in the African Region

- Activation of Regional Dengue Incident Management Support Team (IMST) for enhanced coordination including health emergency and vector control specialists.
- 5-day dengue webinar series involving over 500 professionals from 50 countries.
- WHO AFRO Operations Support and Logistics cluster dispatched essential supplies valued at $187,806.
- Financial allocations of $1.8 million from WHO CFE and APHEF in 2023 for dengue responses in Burkina Faso, Cabo Verde, Côte d'Ivoire, Ethiopia, Mali, and Mauritius.
- Development of comprehensive dengue preparedness and response tailored to the African context in English, French, and Portuguese.
- Strategic deployment of specialists in entomology, vector control, epidemiology, and risk communication.

Regional SITREP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WHO African Region
Multi-country Outbreak of Dengue
Regional Situation Report No. 06 with data as of 28 April 2024

Epidemiological weeks 1, 2023 – 17, 2024:

241,226	874	15
Cumulative cases	Cumulative deaths	Affected countries

Epidemiological weeks 1 – 17, 2024:

32,925	57	13
Cumulative cases	Cumulative deaths	Affected countries

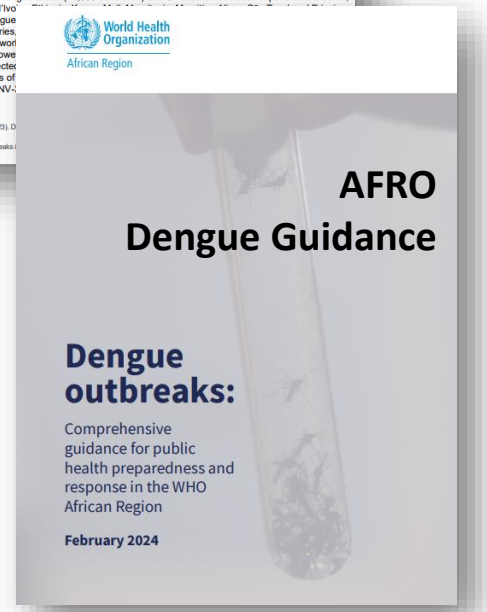
In this edition:
- Epidemiological update – Regional overview
- Country overviews
- WHO support for activities
- Key needs and challenges

Epidemiological update – Regional overview

In 2023, outbreaks were reported from 15 of the 47 countries: Benin, Burkina Faso, Cabo Verde, Chad, Côte d'Ivoire, Ethiopia, Ghana, Guinea, Mali, Mauritius, Niger, Nigeria, São Tomé and Príncipe, Senegal, and Togo[1]. Cases peaked in the region in epi week 44 with 16,000 suspected cases and nearly 8,000 confirmed cases recorded (Figure 1).

During 2024, from January 1 to 28 April, a total of 13 countries are known to have ongoing active transmission of the dengue virus—including 10 of the 15 outbreak countries from 2023 and three additional countries that have recorded cases in 2024[2]. A total of 32,925 dengue cases (14,095 confirmed) and 57 deaths have been reported from Benin, Burkina Faso, Cabo Verde, Côte d'Ivo
Senegal, and the Seychelles. Dengue
29 countries. Of these 29 countries,
Surveillance and Response framewor
and nine deaths were reported howe
case numbers are therefore expecte
dengue cases reported in 2024 as of
serotypes (DENV-1, DENV-2, DENV-

[1] World Health Organization (21 December 2023). D
outbreak-news/item/2023-DON498
[2] The five countries that reported dengue outbreaks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AFRO
Dengue Guidance

Dengue outbreaks:

Comprehensive guidance for public health preparedness and response in the WHO African Region

February 2024

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Mauritius - Background

- Republic of Mauritius:
  - Island of Mauritius
  - Rodrigues
- Population: 1.27 Million
- Population distribution: 42% Urban and 58% Rural
- Tourism is one of the key economic sector with 1.3 million tourists annually, and 1.4m in 2024
- Dengue was eliminated from Mauritius before an outbreak in 2009, but the country experienced ungraded minor outbreaks every few years
- Until 2023-2024 – small, seasonal localized outbreaks of dengue.

Map of Island of Mauritius showing local active cases of Dengue

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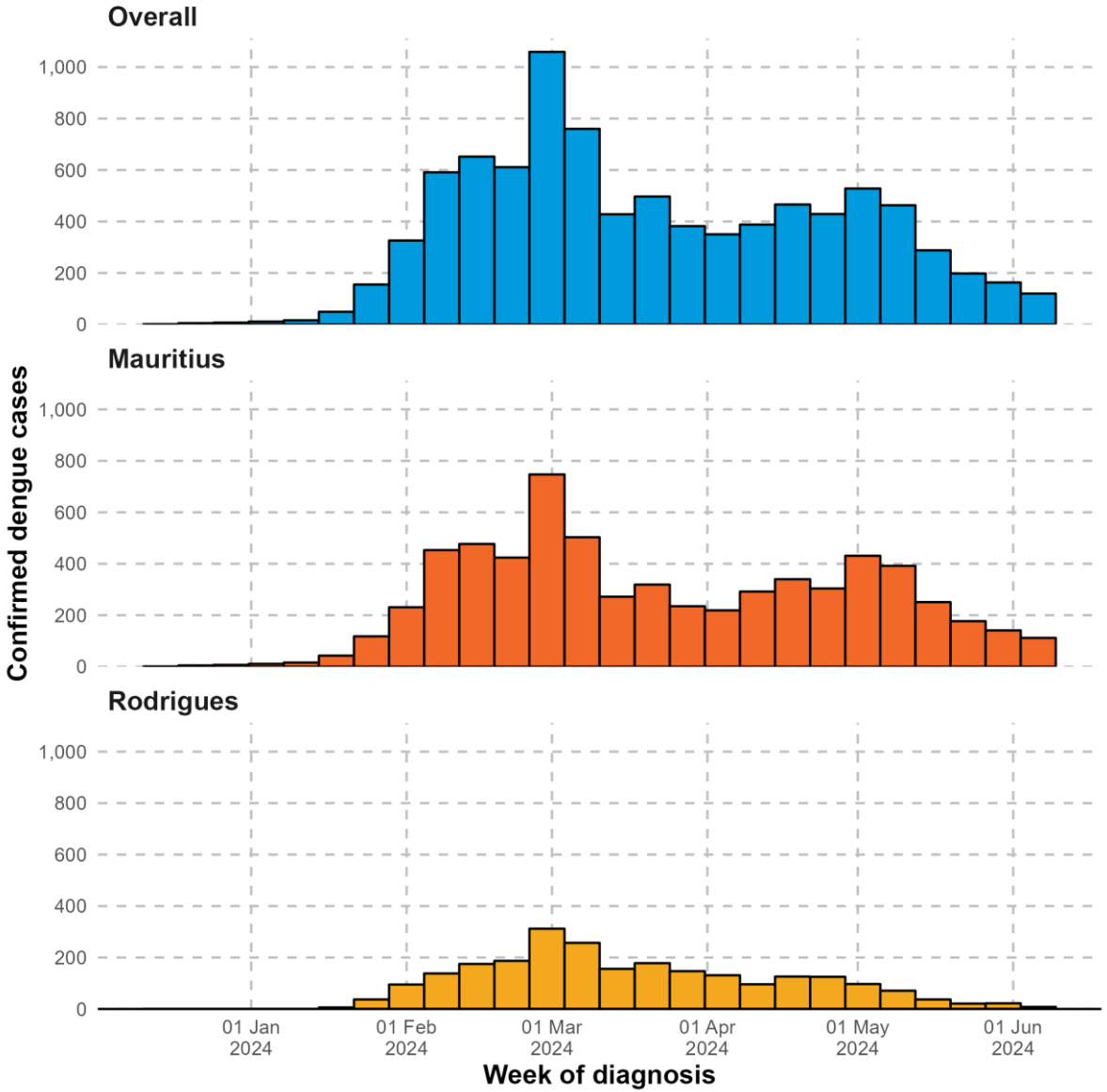
Epidemiology of outbreak

- Index case confirmed on 11 December 2023
- As of 11 June 2024:
  - 8,943 cases, 9 deaths due to dengue, 10 other deaths with patients having dengue
- Primary vector: Aedes albopictus
- Only serotype 2 detected in country
- Transmission driven primarily via small to medium sized containers near private residences
- Very high attack rate in Rodrigues:
  - 58 cases per 1000 inhabitants



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Response according to pillars

Emergency coordination	• Led by the Ministry of Health with involvement of WHO
Surveillance	• Cases are reported within 24 h, investigated within 7 days, and notified. • All cases are confirmed by RDT at HFs, PCR used only for selected cases.
Vector management	• Conducted by the vector biology division and involves mosquito surveillance: Breteau index and adult mosquito density.
Case management	• Domiciliary Medical Unit (DMU)
Risk communication and community engagement	• Radio, TV and essentially leaflets. Door to door is enhanced but still remains a challenge.
Operations support and logistics	• Intense support has been provided by WHO

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Response (1/2)

- **Technical support to Mauritius Ministry of Health and Wellbeing.**
- **Training of over 300 vector control officers.**
- **Deployment of five international WHO experts to support response activities .**
- **$250,000 WHO Dengue CFE allocation.**
- **WHO provided:**
  - 25,000 Dengue RDTs,
  - 12,000 repellent creams,
  - 1,000 l of aqua K-otrin,
  - 5,000 respirators,
  - 3,000 ITNs, and insecticide sensitivity kits.
  - lab strengthening including PCR, genomic sequencing, and vector lab strengthening
- **Development of Mauritius's Dengue SITREPs**

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Response (2/2)

- Initiation of the insecticide resistance study with the support of WHO
- Development and Implementation of risk communications and community engagement strategy and action plan
- Development and validation workshop for:
  - Integrated vector management strategy
  - Insecticide resistance management strategy
  - Risk communication and community engagement plan

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Key analysis

Worst Outbreak ever

This was the **worst dengue outbreak ever reported in Mauritius**

Climate Change Impact

Climate change played a role, with **three cyclones, flash floods, and persistent rainfall** contributing to the outbreak's severity

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Enhanced Preparedness

Importance of preparedness **for/ahead the next rainy season** and therefore to have funds/ resources available ahead (CFE)

Tourism Threat

The outbreak posed a significant threat to the tourism industry, a key economic sector for Mauritius

Insecticide Resistance

The problem of insecticide resistance underscored the importance of reinforcing vector control efforts and strengthening entomological expertise.

Multisectoral Approach

- Intensify Vector Control Efforts
- Promote Environmental Management Strategies
- Enhanced Risk Communication and Community Engagement
- Foster Intersectoral Collaboration

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Key Challenges

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- Overburdened and overstretched vector control teams.
- Community sensitisation for vector management in private residences.
- Management and testing for insecticide resistance at national level.
- Availability of weekly surveillance data for the entire republic
- Insufficient HR with vector control expertise
- There is no specific treatment nor efficient vaccine against dengue
- Budget constraints and procedural delays

Next Steps

1. **Review of the dengue response in Mauritius**

   (Operations and/or Intra-action review, and 7-1-7)

2. **Building institutional and human resource capacities**

3. **Development of an emergency workforce strategy**

4. **Complete the insecticide resistance study**

   Long-term deployment of a senior entomologist

5. **Enhance the arboviruses surveillance system**

   Integrate all arboviruses, including Zika and Chikungunya

6. **Enhance the quality of documentation and publication**

   On dengue response lessons learned, best practices, and challenges

7. **Effective data sharing**

   Contribute to the Global Dengue Dashboard

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Thank you
Merci