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CENTRO DE INVESTIGAÇÃO
OPERACIONAL DA BEIRA



World Health
Organization

Mozambique

Response to Cyclone Idai

May 27 to June 2 , 2019

Week 22

Weekly epidemiological bulletin

Publication n°9

Highlights

Cholera

Since the declaration of the cholera outbreak on 27 March 2019, and up to 2 June 2019, 6 768 suspect cases and eight deaths were reported (case fatality: 0.1%). These suspect cases were reported from the four districts of Sofala Province originally affected by this outbreak: Beira, Buzi, Dondo and Nhamatanda. The cumulative attack rate since 27 March in Sofala Province was 571 per 100 000 population, with Beira being the most affected district.

In week 22, from 27 May to 2 June, 2 suspect cases and no deaths were reported. Both new suspect cases were reported in Nhamatanda District, from CTC Nhamatanda.

From 16 April, a diagnostic strategy was implemented to allow for (i) monitoring the progress or resolution of the outbreak and (ii) monitoring of detected strains. All specimens from cholera treatment centres/units (CTC/Us) are tested using Rapid Diagnostic Tests (RDT), with culture performed on all positive specimens at the provincial laboratory.

In the most recent two weeks of available laboratory testing data (20 May to 2 June), 6 samples from two sites were tested with RDT of which 4 (66%) were positive (Table 3). Of 4 RDT-positive samples tested by culture, 1 (25%) was positive. In week 22, both of the RDTs performed were positive and were culture tested. Of the two samples, one (50%) was positive, with no results pending.

From 3 to 9 April, the Ministry of Health conducted a mass vaccination campaign in the four affected districts providing oral cholera vaccination to more than 800 000 individuals older than 1 year of age. Vaccination of high-risk populations has also been completed.

Malaria

Since the landfall of cyclone Idai and up to 2 June 2019, 48 724 confirmed malaria cases have been reported in Beira, Buzi, Dondo, and Nhamatanda districts. The number of facilities in these districts reporting daily confirmed malaria cases to the Ministry of Health has increased from one facility on 14 March to 61 facilities reporting for week 22.

For week 22, 49 facilities were able to be matched to facility-specific historical data. Of the 13 sentinel facilities in Beira, Dondo, and Nhamatanda districts selected for consistent reporting, those in Beira and Nhamatanda showed a decrease in cases while those in Dondo showed an increase in cases. Reporting from sentinel sites in all three of these districts remained within levels reported in previous years (Figure 5).

Of the 49 facilities matched to historical data, 11 (22%) (of which, only CS Mafambisse in Dondo is a sentinel site) reported malaria cases 25% or more above their historical averages for the same time of year (Table 4 and Figure 6). Several of these facilities in Nhamatanda and Buzi districts reported more than 100% above their historical averages, each reflecting one hundred or more additional cases.

Interpretation of the facility-level comparisons with historical data should be done with caution, given population movements post-Cyclone Idai. Thus, an increase in cases may not necessarily represent an outbreak, but could reflect increased population in the facility's catchment area or improved reporting.

Cholera reporting

Suspect cholera cases were reported by CTC/Us and Oral Rehydration Points (ORPs), as well as by health centres, accommodation centres, and certain emergency departments.

Table 1. Sites reporting suspect cholera cases, Sofala Province (27 May – 2 June 2019)

Type	Number reporting	Locations
CTC	2	Nhamatanda and Beira
CTU	4	One in Búzi, one in Nhamatanda, and two in Dondo
ORP	6	Five in Beira and one in Dondo

CTC/Us, ORPs, health centres, accommodation centres, and certain emergency departments report daily the number of new suspect cholera cases identified, disaggregated by age-group (cumulative n = 6 768). In addition, for a subset of these patients who were treated in CTCs and ORPs, the age, sex, clinical symptoms, treatment plan, and bairro were reported daily (cumulative n = 5 267). Figures in this report utilize the aggregated data unless otherwise specified. The case definition that was established at the start of the outbreak remains in use.

Cholera outbreak case definition

Suspect case

Age greater than 2 years, acute diarrhea with rice water appearance, with or without vomiting, with signs of dehydration.

Confirmed cases

Any suspect case with laboratory confirmation (isolation of *V. cholerae* O1 or O139 in stool sample).

Table 2. Suspect cholera cases, attack rate, deaths and case fatality ratio by district, Sofala Province (27 March – 2 June 2019)

District	New cases	Cases	Population	Deaths	Case Fatality Ratio	Attack Rate (per 100 000 population)
Beira	0	4 745	465 918	4	0.1%	1018
Dondo	0	1 094	189 259	2	0.2%	578
Nhamatanda	2	7 95	322 511	2	0.3%	247
Búzi	0	1 34	207 631	0	0.0%	65
Total	2	6 768	1 185 319	8	0.1%	571

The two new suspect cases in week 22 were all reported by CTC Nhamatanda

Table 3. Cholera diagnostic testing for most recent two weeks of laboratory data, Sofala Province (20 May– 2 June 2019)

Site	RDTs Performed	Positive RDTs	Cultures on RDT-positive Samples	Positive Cultures	Cultures Pending
CTC Nhamatanda	4	4	4	1	0
CTU Buzi	2	0	0	0	0
Total	6	4	4	1	0

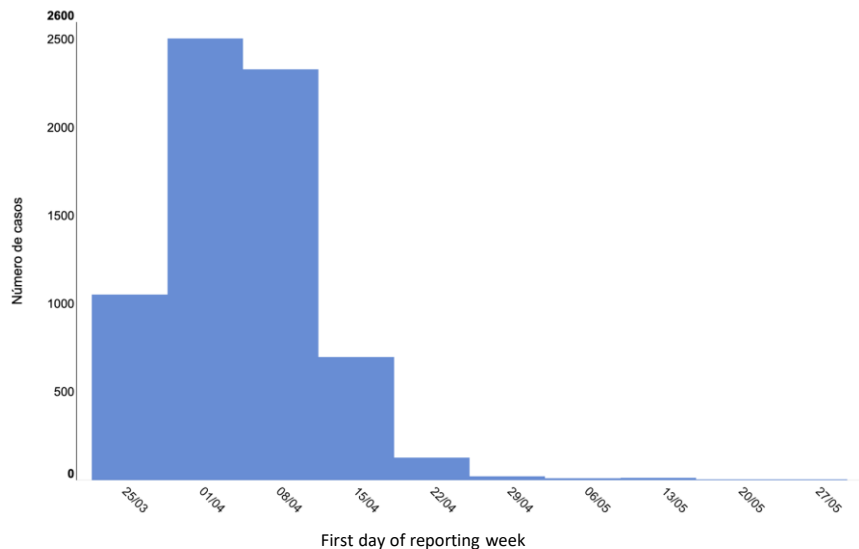


Figure 1. Suspect cholera cases by week of reporting, Sofala Province (27 March – 2 June 2019) (n = 6 768)

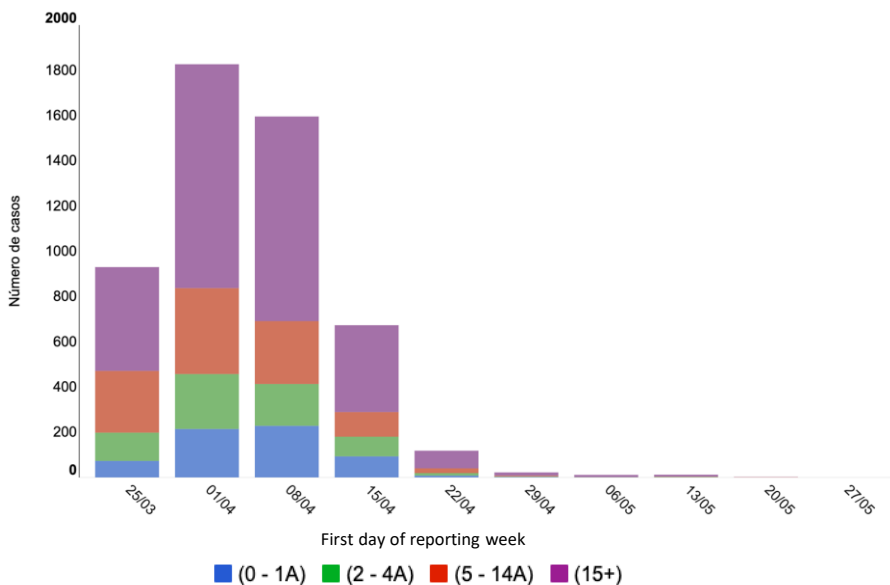


Figure 2. Suspect cholera cases by week of reporting and age group Sofala Province (27 March – 2 June 2019) (n=5 191)

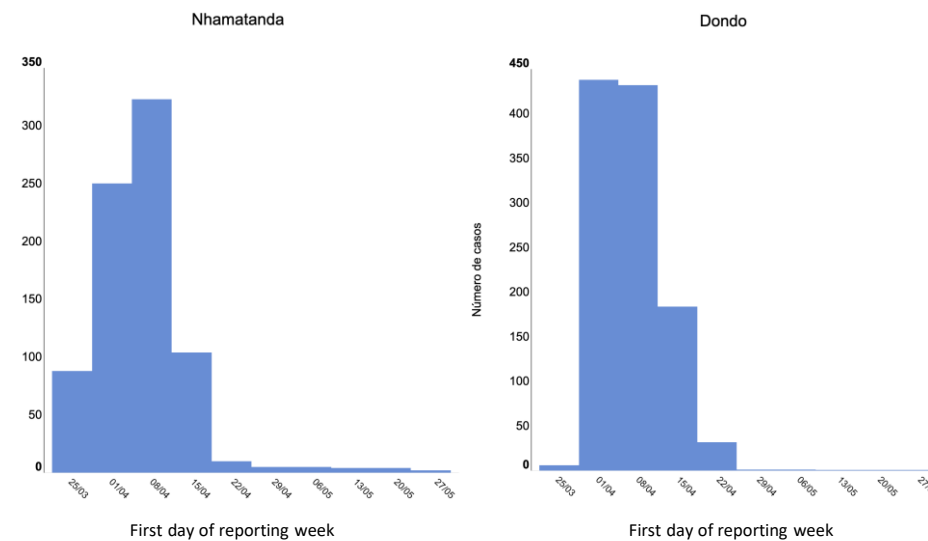
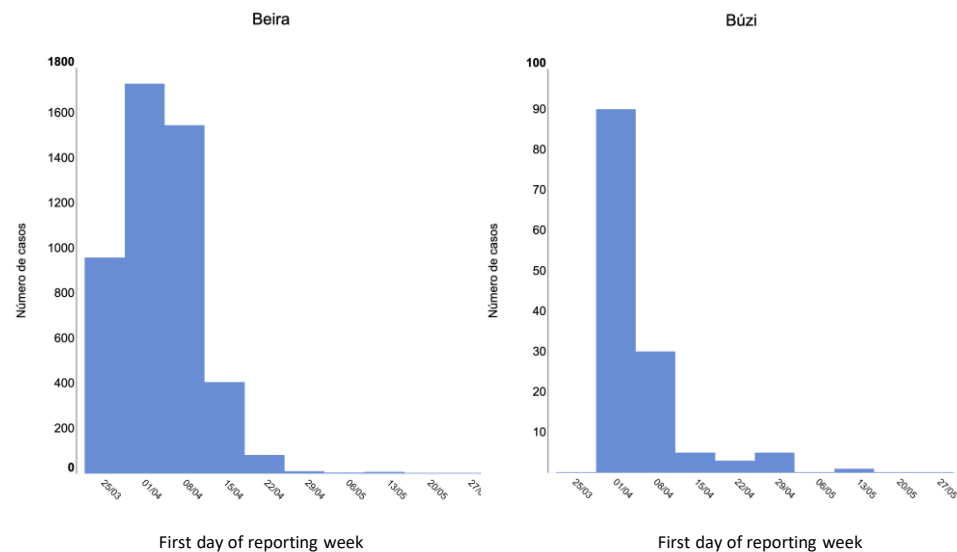


Figure 3. Suspect cholera cases by week of reporting by affected district, Sofala Province (27 March – 2 June 2019)

Malaria weekly case reporting

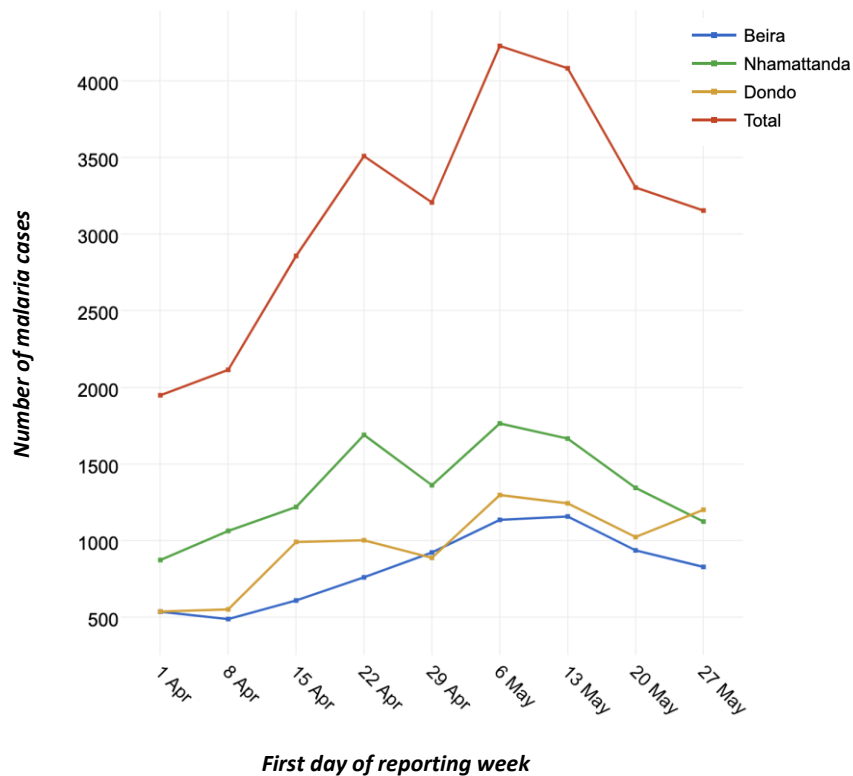


Figure 4. Weekly reported malaria cases at sentinel sites (27 March – 2 June 2019)*

*Sentinel sites are facilities which have reported daily to INS for at least 90% of days since April 1. Sentinel sites consist of 7 in Beira, 3 in Dondo, and 3 in Nhamatanda.

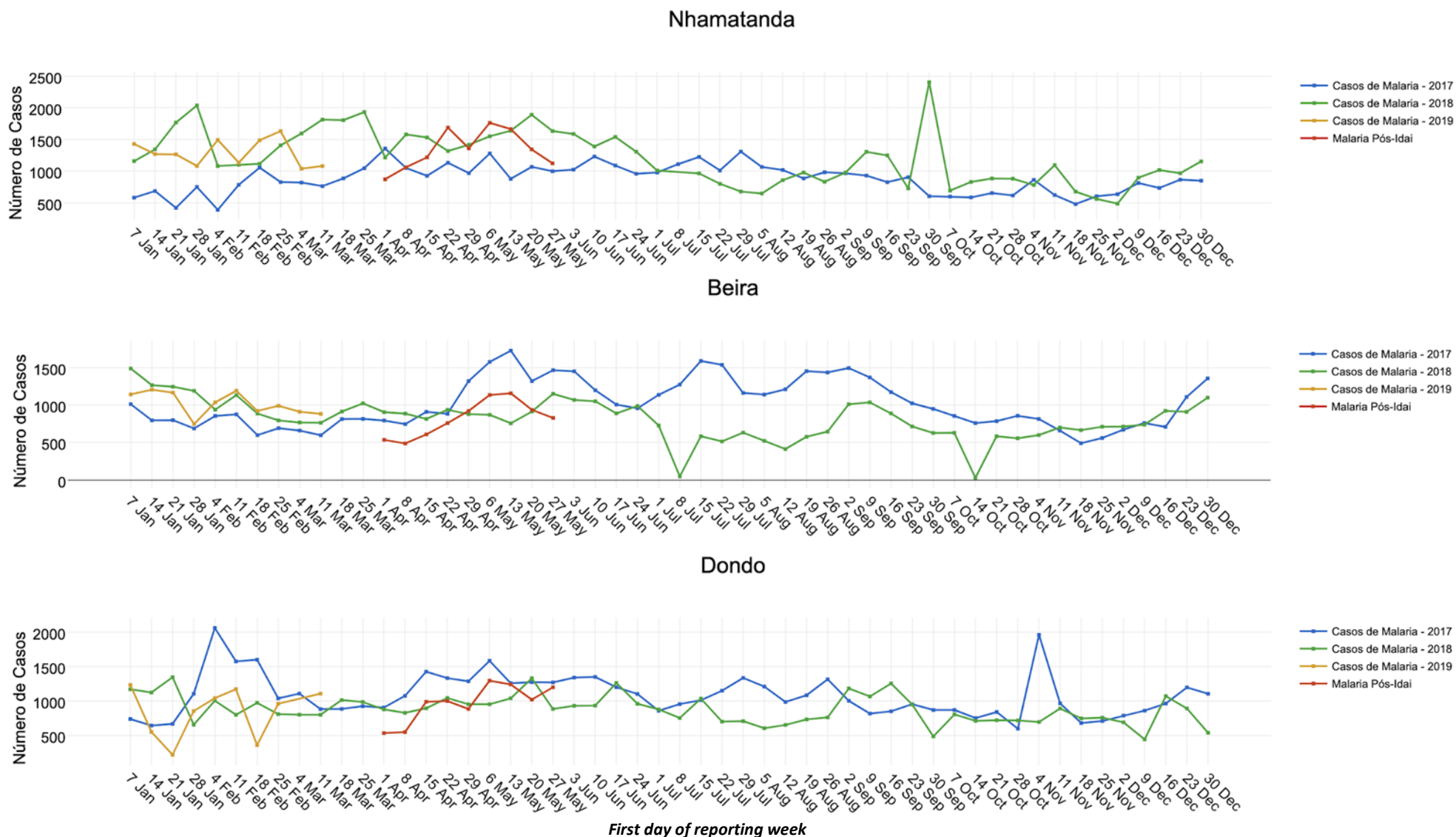
Table 4. Facilities reporting weekly malaria cases more than 25% above their facility-specific historical average*

Site	District	Cases of malaria (Week 22)	Weekly Historical Average*	% Above Historical Average	Number of Cases Above Historical Average
CS Chissinguana**	Búzi	346	82.0	322%	264.0
CS Mutondo**	Nhamatanda	273	118	131%	155.0
CS Estaquina**	Búzi	662	298.2	122%	363.8
CS Inhamichindo**	Búzi	277	139.2	99%	137.8
CS Jasse Manguena**	Nhamatanda	119	61.3	94%	57.7
CS Siluvo**	Nhamatanda	383	214.3	79%	168.7
CS Samora Machel**	Dondo	85	50.6	68%	34.4
PS Nharichonga**	Nhamatanda	326	206.1	58%	119.9
CS Bloco Nove**	Dondo	96	63.2	52%	32.8
CS Sao Lucas	Beira	15	10.6	42%	4.4
CS Mafambisse	Dondo	573	420.6	36%	152.4

*Data for week 22 from 52 post-Idai reporting facilities were matched to their historical weekly reporting (BES/SIS-MA) from 2017 and 2018. Twelve of the 52 (23%) reported above their historical average. Historical average is mean of weekly RDT-positive cases for weeks 19-23 of 2017 & 2018 from the same facility. Shown are facilities that reported more than 25% above their historical average. An increase does not necessarily imply an outbreak, but could reflect increased population movement to the facility's catchment area or improved reporting.

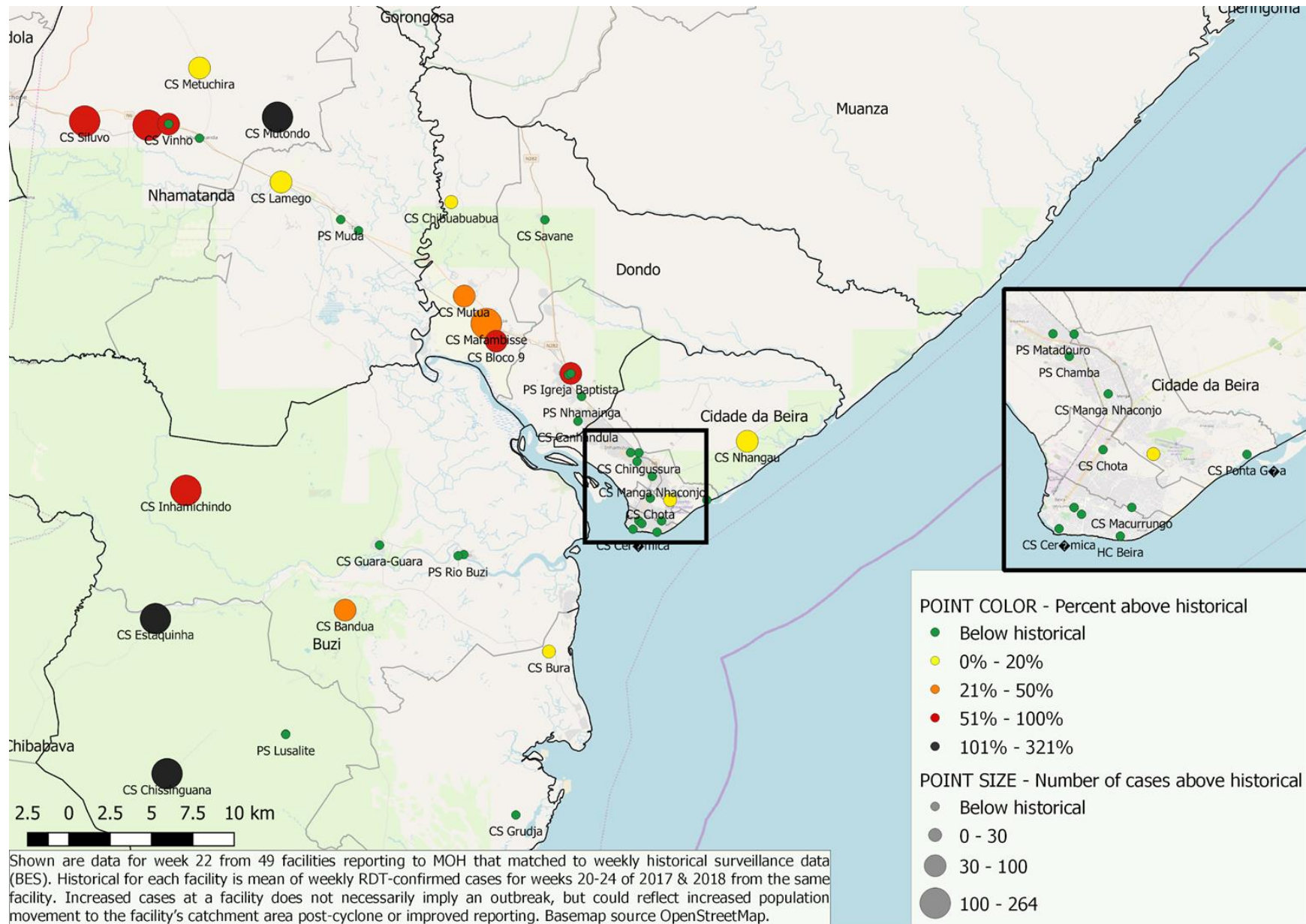
**Weekly cases exceed the upper 95% confidence interval of historical average.

Figure 5. Post-cyclone Idai weekly reported malaria by district, as compared to historical trends, at sentinel sites*



*Source for Post-Idai is daily RDT-confirmed cases, aggregated to weeks, from 13 sentinel facilities selected for consistent reporting since 1 April. Sentinel facilities consist of 7 in Beira, 1 in Buzi, 3 in Dondo, and 3 in Nhamatanda. Source for Pre-Idai is weekly RDT-confirmed cases as reported to BES, restricted to the same sentinel facilities. Data from Buzi District not sufficient to include.

Figure 6. Weekly reported malaria cases, as compared to facility-specific historical average, 27 May - 2 June 2019



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Data are subject to delays in case confirmation and reporting, as well as ongoing data cleaning. Report intended for planning purposes.