Mozambique

Response to Cyclone Idai

April 29 to May 5, 2019

Week 18

Weekly epidemiological bulletin

Publication nº5

Highlights

Cholera

Since the declaration of the cholera outbreak on 27 March 2019, and up to 5 May 2019, 6 739 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 569 per 100 000 population, with Beira being the most affected district.

In week 18, from 29 April to 5 May, 21 suspect cases and no deaths were reported. This represents a notable decrease in new cases as compared to previous weeks (Figure 1). The number of new reported suspect cases remained low in all four affected districts.

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.

From 16 April to 5 May, 115 samples were tested with RDT of which 62 (54%) were positive (Table 1). Of 50 RDT-positive samples tested by culture, 13 (8%) were positive with eleven results pending. In week 18, 12 of 18 RDTs performed (66%) were positive, and two of nine cultures on RDT-positive samples (22%) were positive with seven pending. The percentage culture positive does not notably differ from that in week 17 (54% of RDTs positive and 19% of cultures positive).

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, the number of facilities in the four affected districts reporting daily confirmed malaria cases to m-alert system has increased from one facility on 14 March to a peak of 44 facilities on 24 April. This increase in number of reporting facilities has coincided with an increase in weekly reported cases.

At 14 sentinel sites selected for consistent reporting, reported cases seem to have increased over the month of April. This trend was most pronounced in the sentinel sites in Nhamatanda District (Figure 4).

For week 18, 31 reporting facilities were able to be matched to facility-specific weekly historical surveillance data for the same time of year. Of the 31, eight reported weekly cases above their facility-specific historical averages (Table 4). Of these eight, one exceeded the upper 95% confidence interval of their historical average (Table 4 and Figure 6). Of note, several facilities in Nhamatanda that reported elevated case counts in Week 17 did not report data for Week 18.

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.

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. As of 5 May 2019, the following sites were reporting:

Table 1. Sites reporting suspect cholera cases, Sofala Province, (29 April – 5 May 2019)

Type	Number reporting	Locations
CTC	1	Beira
CTU	5	Búzi, two in Nhamatanda, and one 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 = 6 739). 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 = 5 242). 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. Number of suspect cholera cases, attack rate, deaths and case fatality ratio by district, Sofala Province (27 March – 5 May 2019)

District	Cases	Population	Deaths	Case Fatality Ratio	Attack Rate (per 100 000 population)
Beira	**4 733**	465 918	4	0.1%	1 016
Dondo	**1 093**	189 259	2	0.2%	578
Nhamatanda	**780**	322 511	2	0.3%	242
Búzi	**133**	207 631	0	0.0%	64
Total	**6 739**	1 185 319	8	0,1%	569

Table 3. Cholera diagnostic testing , Sofala Province (16 April– 5 May 2019)

Site	RDTs Performed	Positive RDTs	Cultures on RDT-positive Samples	Positive Cultures	Cultures Pending
ORP Munhava	13	5	0	N/A	N/A
CTC Macurungo	26	15	15	5	2
ORP Chingussura	4	2	2	1	0
CTU Dondo	12	10	9	6	1
CTU Mafambisse	11	6	5	1	0
ORP Nhaconjo	29	12	11	1	1
CTC Nhamatanda	10	8	4	1	2
CTC Búzi	10	4	4	0	4
TOTAL	115	62	50	15*	10

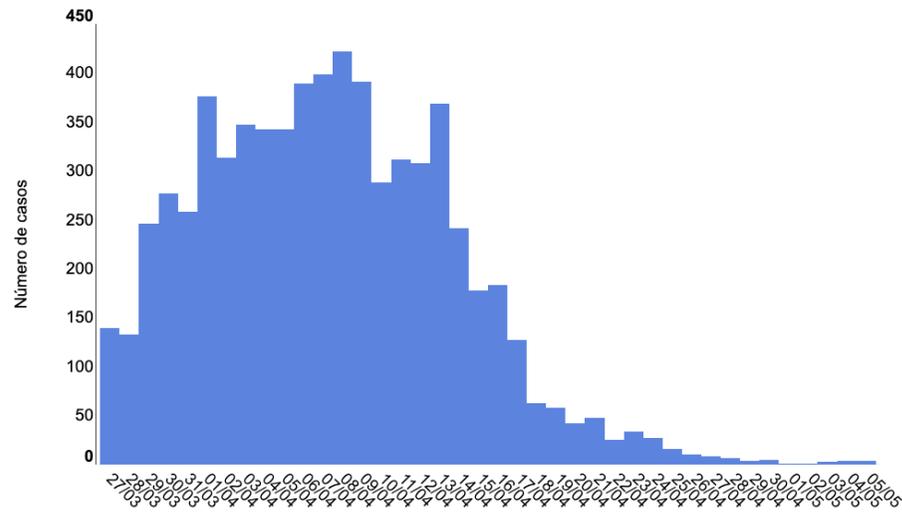**Two positive cultures (both from CTC Macurungo) of the 15 were not tested by RDT*

Figure 1. Suspect cholera cases by day of reporting, Sofala Province (27 March – 5 May 2019) (n = 6 739)
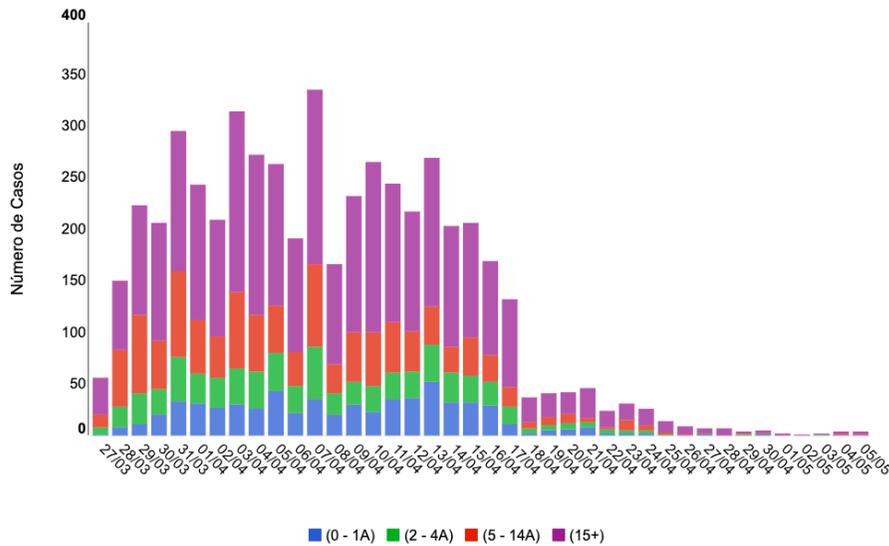

Figure 2. Suspect cholera cases by day of reporting and age group Sofala Province (27 March – 5 May 2019) (n = 5 225)
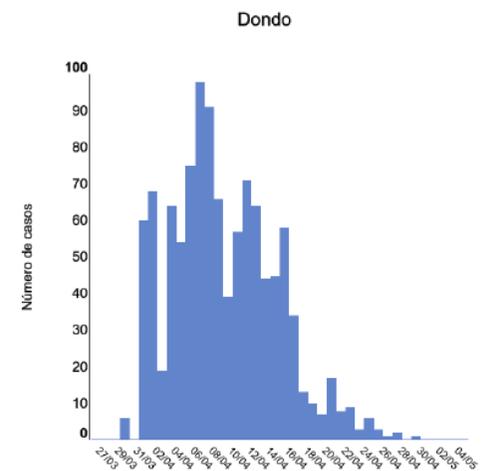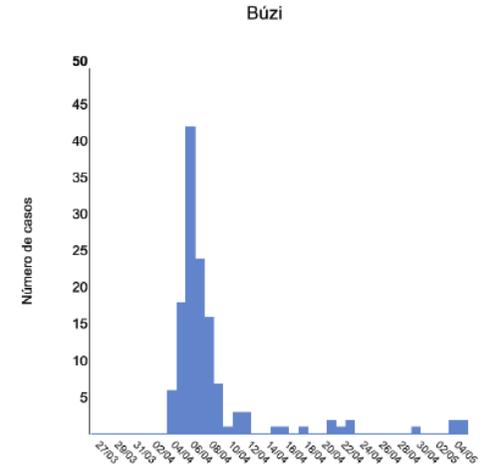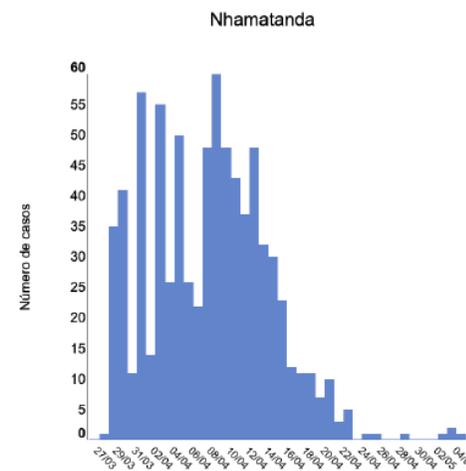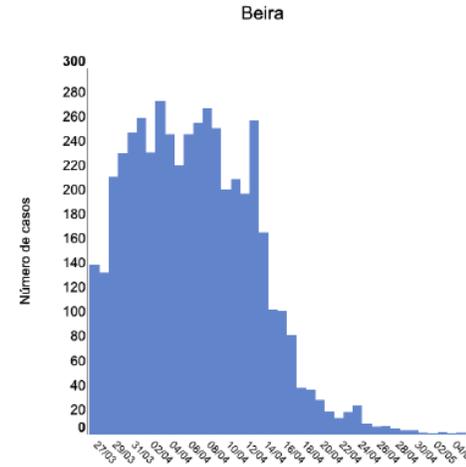

Figure 3. Suspect cholera cases by day of reporting by affected district, Sofala Province (27 March – 5 May 2019)

Malaria weekly case reporting
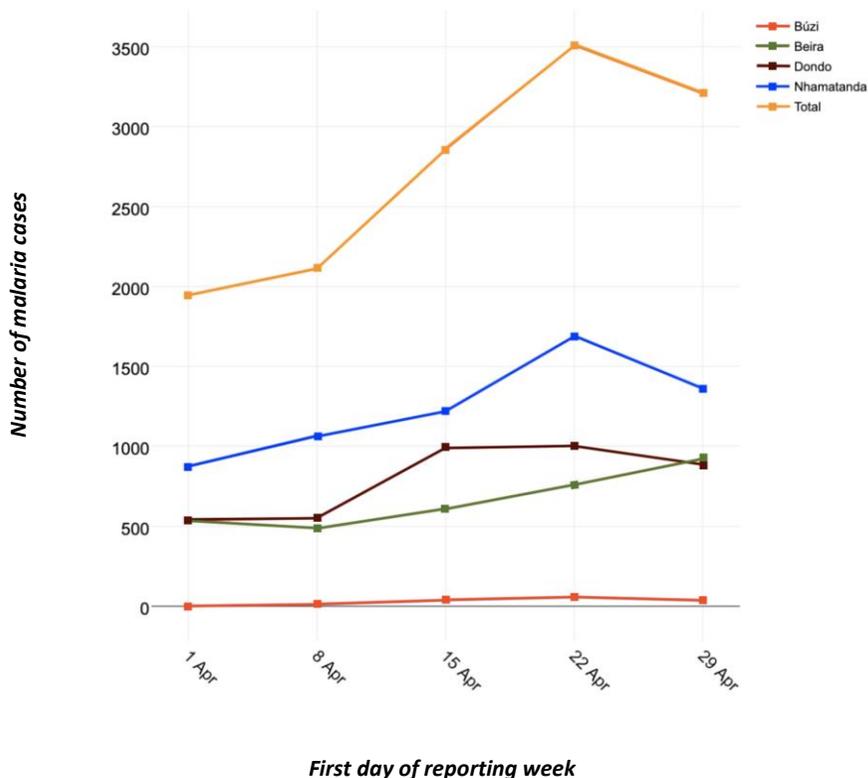

First day of reporting week

Figure 4. Weekly reported malaria cases at sentinel sites (27 March – 5 May 2019)*

*Sentinel sites are facilities which have reported daily to m-alert system for at least 90% of days since April 1, as well as HR Buzi (the only reporting site in Buzi). Sentinel sites consist of 7 in Beira, 1 in Buzi, 3 in Dondo, and 3 in Nhamatanda.
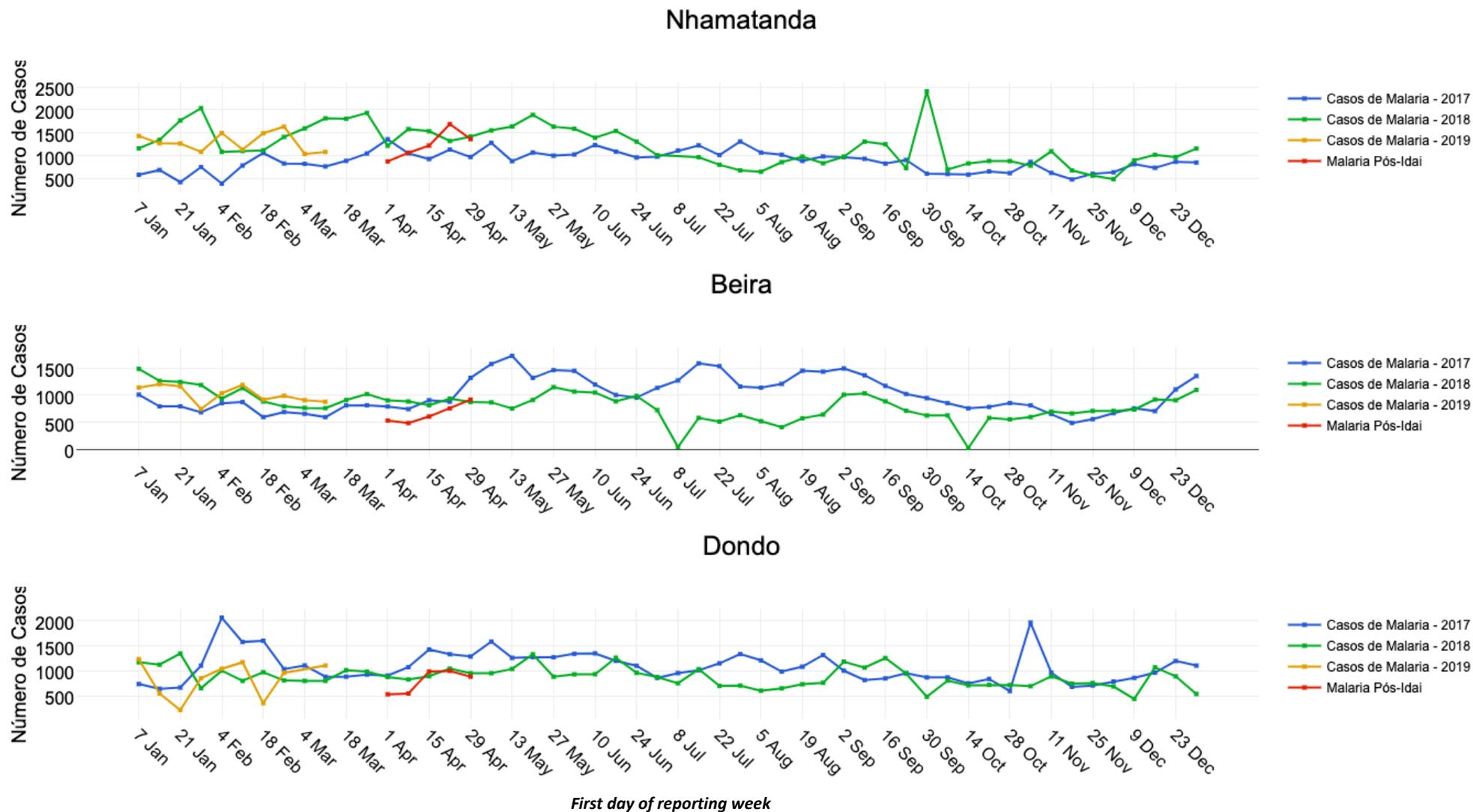
Table 4. Facilities reporting elevated weekly malaria cases compared to facility-specific historical average*

Site	District	Malaria Cases Week 18 2019	Weekly Historical Average*	Percent Above Historical	Number of Cases Above Historical
CS Bloco 9	Dondo	72	51.1	141%	21
CS Samora Machel	Dondo	71	53	134%	18
HR Nhamatanda**	Nhamatanda	834	646.8	129%	187.2
CS Chirassicua	Nhamatanda	136	116.1	117%	19.9
CS Nhangau	Beira	190	162.3	117%	27.7
CS Lamego	Nhamatanda	311	297	105%	14
CS Macurrungo	Beira	109	106.9	102%	2.1
CS Manga Mascarenha	Beira	61	59.9	102%	1.1

*Post-Idai reporting facilities were matched to their historical weekly reporting (BES/SIS-MA) from 2017 and 2018. Percent above Historical is Week 18 2019 RDT-positive malaria cases as percent of mean of weekly RDT-positive cases for weeks 16-20 of 2017 & 2018 from the same facility. Number of Cases above Historical is difference between 2019 Week 18 and the historical mean. An increase does not necessarily imply an outbreak, but could reflect increased population movement to the facility's catchment area.
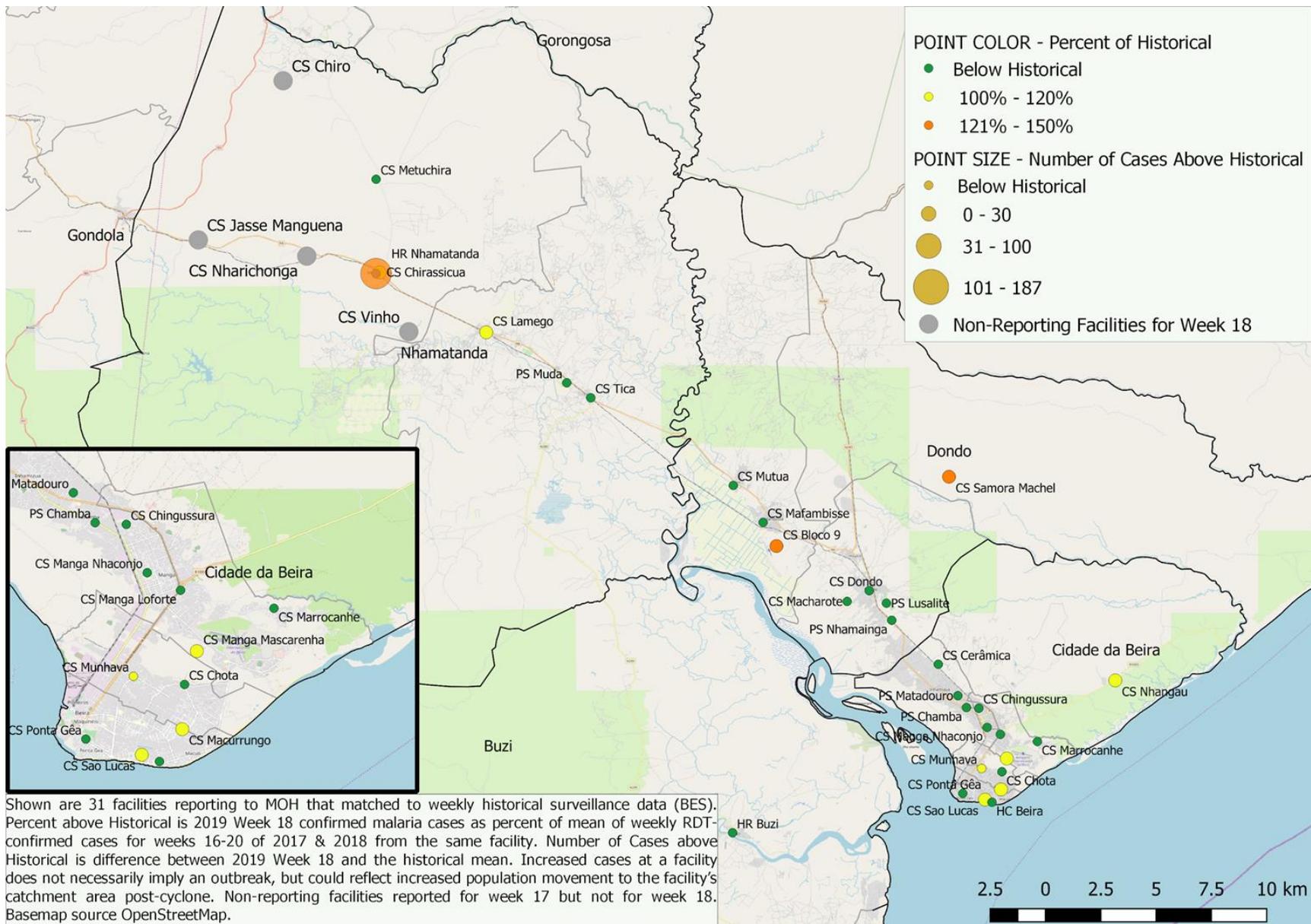***Facilities with weekly cases exceeding the upper 95% confidence interval of historical mean.*

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 14 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 in this report.

Figure 6. Weekly reported malaria cases, as compared to facility-specific historical average, 29 April - 5 May 2019

POINT COLOR - Percent of Historical
- Below Historical
- 100% - 120%
- 121% - 150%

POINT SIZE - Number of Cases Above Historical
- Below Historical
- 0 - 30
- 31 - 100
- 101 - 187
- Non-Reporting Facilities for Week 18

Shown are 31 facilities reporting to MOH that matched to weekly historical surveillance data (BES). Percent above Historical is 2019 Week 18 confirmed malaria cases as percent of mean of weekly RDT-confirmed cases for weeks 16-20 of 2017 & 2018 from the same facility. Number of Cases above Historical is difference between 2019 Week 18 and the historical mean. Increased cases at a facility does not necessarily imply an outbreak, but could reflect increased population movement to the facility's catchment area post-cyclone. Non-reporting facilities reported for week 17 but not for week 18. Basemap source OpenStreetMap.

Acknowledgments

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