Introduction

The E8 malaria surveillance bulletin serves to provide highlights of the situation of malaria in the E8 sub-region. Specifically, it provides a report on malaria trends including quarterly and annual malaria incidence across border districts of E8 member states. Through regional malaria surveillance, the E8 is able to monitor epidemics, prepare and respond to eventual malaria outbreaks in the sub-region. In 2020, like all sectors, malaria programmes were hugely affected by the COVID-19 pandemic, which complicated the delivery of basic malaria services. Restrictions in population movements and other COVID-19 regulations presented with new ways of malaria programming, i.e., the provision of PPE for field officers, increasing the number of training sites to accommodate a small number of personnel to be trained per site, quarantining those who test positive and self-isolation of field personnel who are suspected to be exposed to COVID-19.

Malaria burden in the region

ANNUAL MALARIA TREND IN THE E8 REGION

Figure 1 – A and B present charts of total annual malaria cases for both front-line countries (A), Botswana, Eswatini, Namibia and South Africa and second line countries (B), Angola, Mozambique, Zambia and Zimbabwe, for the period 2015-2020. These bar charts are annual totals of all malaria cases across the two sets of countries, where frontline countries are known to report low malaria transmission while second line countries record high malaria transmission. For frontline countries, 2017 presented with the highest number of cases since 2015 (99,653 cases) with an observed decline in 2018 which has since stalled in 2020, having record of 23,602 malaria cases. Second line countries continue to report constant increases of malaria cases year on year, with the over 25 million cases reported by the four countries in 2020.

Figure 2 – A and B present total malaria cases in E8 border districts (86 districts) for both front line and second line countries. Border districts of Botswana and Eswatini record very low malaria cases year on year while South Africa and Namibia showed a steady decline from the 2017 outbreaks going into 2020. Among the front line border district data for 2020, Namibia border districts are the only ones showing a resurgence of malaria. Given that frontline countries classify malaria cases between local and imported, it is worth noting that the proportion of local cases is higher than imported cases among border districts of front line countries.
Annual malaria variations were measured using the relative percentage change in malaria incidence between 2020 and 2019 among the E8 border districts. Out of the 86 E8 border districts, 42 districts presented with over 50% increase in malaria incidence in 2020 when compared to 2019. A majority of these districts were seen in Zimbabwe, Zambia and Botswana. A total of 15 districts showed 20-49% increase over the two time periods, while only one district in Mozambique showed a 11-20% increase. A slight increase of 1-10% was observed in the districts of Curoca (Angola), Zimba (Zambia), Mbire (Zimbabwe) and Cabora-bassa (Mozambique). A total of 27 E8 border districts recorded a reduction in malaria incidence in 2020 when compared to 2019. In general, a majority of E8 border districts experienced an increase in malaria incidence in 2020, with Botswana, Zambia, Zimbabwe and Mozambique having more districts with over 50% increase in incidence over the comparison periods.
SEASONAL VARIATIONS; MALARIA INCIDENCE AND RAINFALLS

Figure 4 shows quarterly percentage changes in malaria incidence between 2020 and 2019 alongside seasonal precipitation anomalies of the same quarter. Similarly, to Figure 3, changes in malaria incidence are expressed as a percentage difference/variation between 2020 and 2019. Seasonal precipitation anomalies were extracted from the IRI Climate and Society Map Room; https://iridl.ldeo.columbia.edu/maproom/Global.

Quarter 1 and 2 of 2020, presented with increases in malaria incidence when compared to 2019. Precipitation anomalies also showed above normal rainfall in quarter 1 in a majority of second line countries, especially in Angola. The precipitation data shows Angola and northern Mozambique experiencing above normal precipitation in quarter 1. Precipitation data also showed a substantial reduction in quarter 2 while malaria transmission was maintained over the same period.

Quarter 3 percentage variations showed a reduction in malaria in 2020 compared to 2019. This is most likely resultant from the drier season which began in quarter two and went into quarter 3. However, districts in south east Zambia did not experience this reduction in malaria as they reported over 50% increases in quarter 3 of 2020. A gradual increase in malaria was experienced in quarter 4 which coincided with above normal precipitation anomalies across the region in the same quarter.

Figure 4; Percent change in malaria incidence and seasonal anomalies in quarter 1, 2, 3 and 4 of 2020 and 2019
Regional Situation Room

THE E8 REGIONAL SITUATION ROOM 2020 SUCCESSES

The E8 uses 2 platforms to engage countries on malaria surveillance and EPR. An online platform was developed to report each country EPR status, i.e. action/outbreak, alert, normal and non-receptive and is populated by country data managers every month. In addition to the online platform, the E8 convenes bi-weekly meetings where countries present their malaria situation, commodity status and also submit requests for support in addressing malaria programming challenges. In 2020 the E8 Situation Room managed to support Namibia which had reported a stockout of first line antimalarial drugs (ACTs) while they were experiencing malaria outbreaks in Kavango East and West, Ohangwena and Zambezi regions. It was reported that many facilities had shortage of ACTs which led to the E8 situation room to coordinate an emergency procurement of ACTs from neighboring South Africa, which were delivered within 3 weeks.

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- International Research Institute for Climate and Society (RI)
- Applied Center for Climate & Earth System Science (Access)

E8 Situation Room Partners: