

## A brief descriptive analysis of Malaria cases reported in NEWARS from Sarpang during the month of October 2024.

### Background:

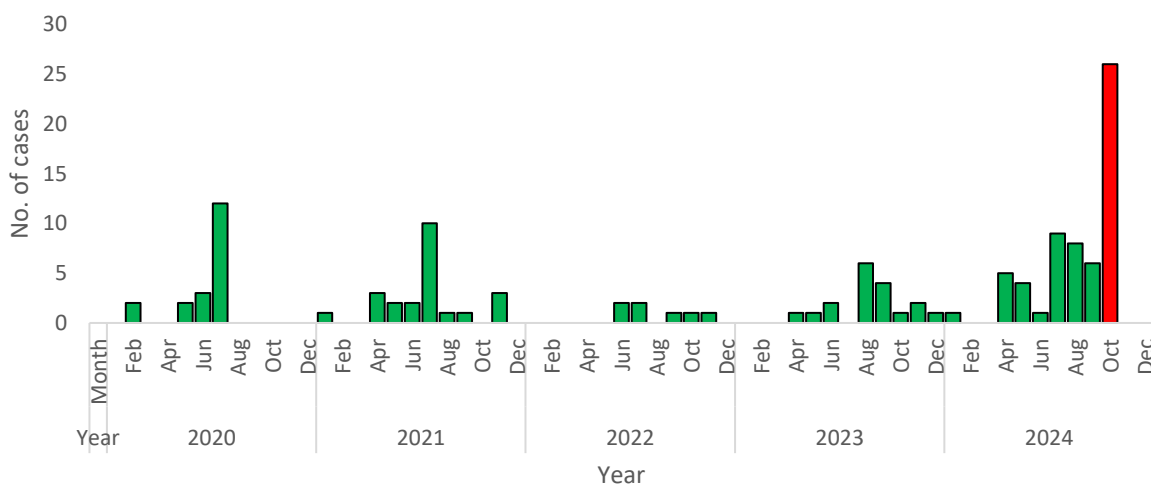
Malaria is classified as an immediately notifiable diseases, requiring that each detected case be reported to the National Early Warning Alert and Response Surveillance (NEWARS) within 12 hours. A recent review of the NEWARS surveillance data indicates a concerning rise in malaria cases reported from the health centers in Sarpang particularly during October 2024. This increase in malaria cases prompts further investigation, to analyze the cases in detail and identify the population at heightened risk.

### Method:

Reviewed the malaria case data reported in NEWARS system and the reports updated in google sheets by VDCP. Conducted retrospective descriptive analysis of the cases, examining patterns by time, location and affected individuals.

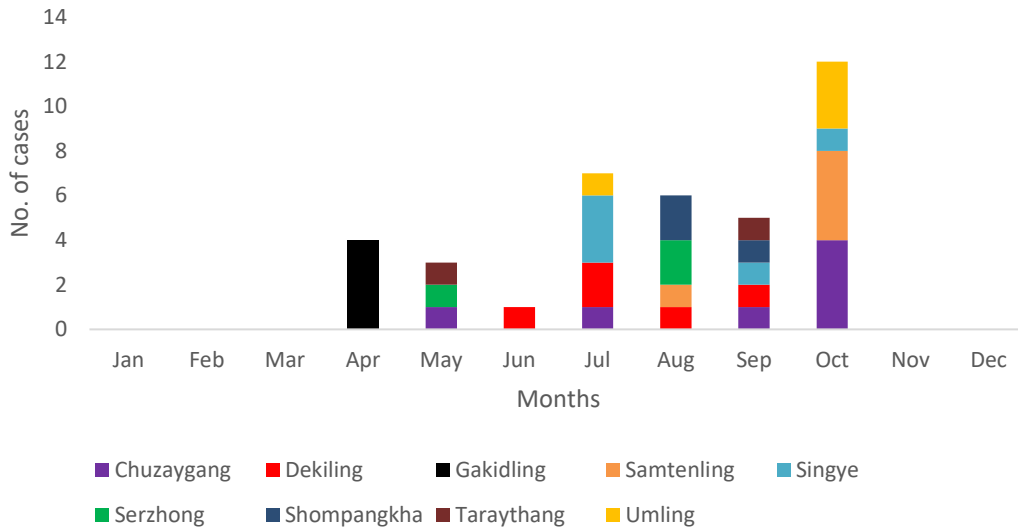
### Finding:

A total of 65 cases were reported in 2024 compared to 18 cases in 2023. When compared to the data from the past 5 years, the number of cases reported in 2024 is concerning. An outbreak of malaria was observed in October 2024 (**Figure 1**).



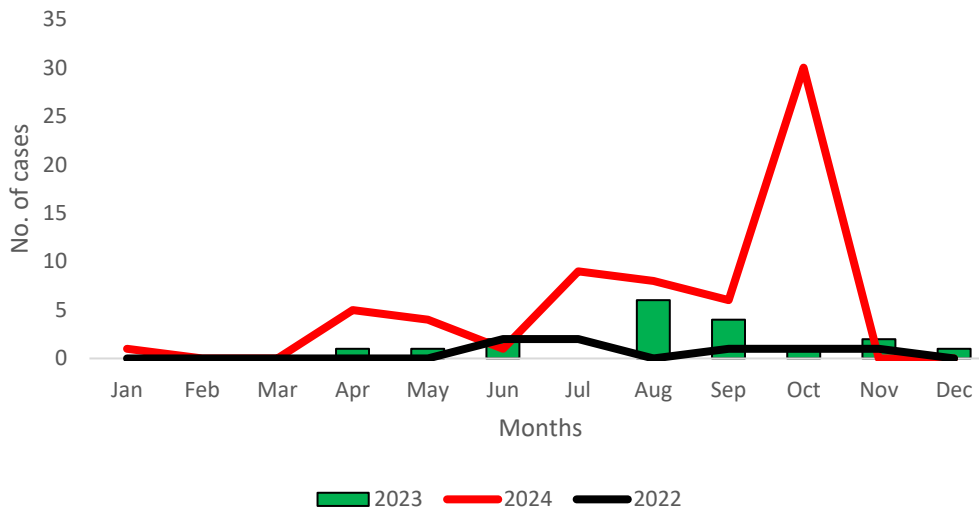
**Figure 1:** Number of Malaria cases by year cases 2020 to 2024

The first cluster of cases (4) was detected in April 2024, from Gakidling geog. Since then, cases have been reported monthly from almost all Geog's, with a majority of cases from Chuzargang, Samteling and Umling Geog's detected in the month of October 2024 (**Figure 2**).



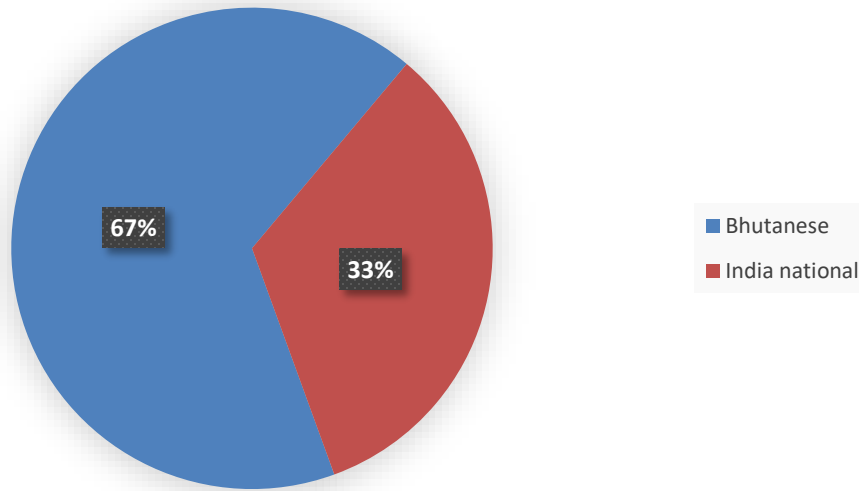
**Figure 2:** Number of Malaria cases detected by geog 2024

A surge of malaria cases was observed in the month of October 2024, with a total of 30 cases reported. This number exceeds the combined total of cases reported in 2023 and 2022 (**Figure 3**).

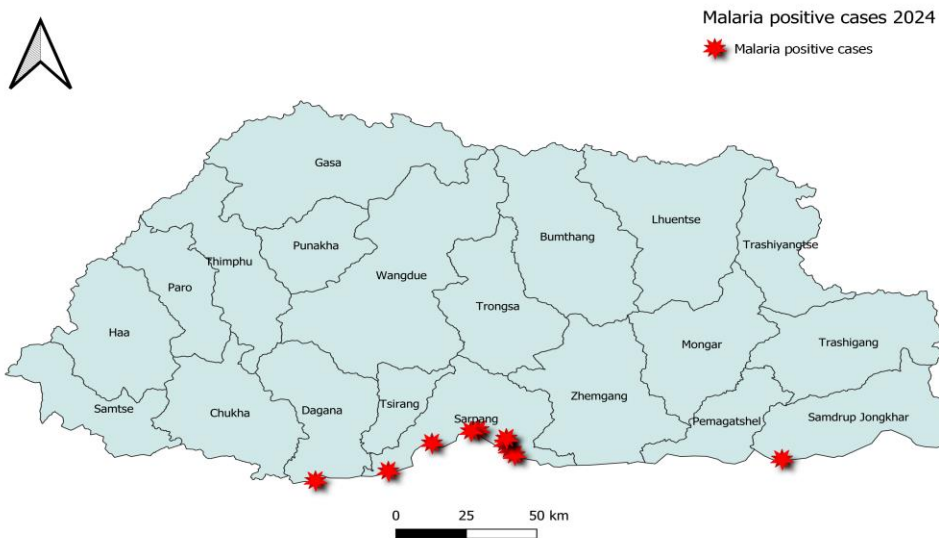


**Figure 3:** Number of Malaria cases 2024 compared with 2023

Out of the 30 cases, 20 were Bhutanese individuals residing in bordering Geogs while 10 cases originated from across the border. Among the Bhutanese cases, the majority-16 (80.0%) were male. Almost all detected cases were adults with median age of 39, ranging from 12 – 81 years. (Figure 4 &5)



**Figure 4:** Proportion of cases by nationality, 2024



**Figure 5:** Distribution of Malaria cases by place 2024

**Conclusion:**

In conclusion, the available data indicates a re-emergence of malaria cases in Sarpang Dzongkhag with an outbreak occurring in the month of October 2024. Upon verification it was confirmed that a case-based investigation was conducted by the Vector-borne Diseases Control Program (VDCP) and the District Health Team.

The rising trend and the spread of cases to multiple geogs indicate a critical need for comprehensive outbreak investigation to better understand the diseases epidemiology and dynamics and to identify the risk factors, risk population, and establish effective preventive and control measures. Despite VBDP's efforts towards the disease prevention to achieve the elimination, factors such as low risk perception, low literacy and limited awareness could be contributing to this unusual events.

To prevent future cases, it is essential to increase public awareness through health education implement routine vector surveillance and strengthen vector control efforts by providing of biological and mechanical control measures before, during, and after the outbreak alongside active community engagement.

**Note:**

RCDC would like to request VDCP to kindly share the detail investigation reports if field epidemiological investigation is conducted