

A Study of Malaria in Bhutan

Arvind Nath

INTRODUCTION

Bhutan is in South-east Asia. It is bordered on the north and west by China and on the south and east by India.

MATERIALS AND METHODS

The study design included an online search of all data pertaining to Malaria in Bhutan from the year 2018 onwards.

RESULTS

According to one study, there were 54 cases of Malaria in Bhutan during 2018. Of these, 6 were indigenous, 14 were introduced and 34 were imported.² The definitions of indigenous, introduced and imported Malaria cases are given below:³

1. **Imported Case:** A Malaria case in which the infection was acquired outside the area in which it was diagnosed.
2. **Indigenous Case:** A Malaria case contracted locally with no evidence of being imported or being directly linked to transmission from an imported case.
3. **Introduced Case:** A Malaria case contracted locally with strong epidemiological evidence

linking it directly to a known imported case (first generation from an imported case i.e., the mosquito was infected from a case classified as imported).

The article mentions that Bhutan plans to eliminate Malaria by 2025 under the "Bhutan Malaria Elimination Strategy". It also mentions that the country has 20 districts out of which Malaria is found only in 2 districts which border Assam and West Bengal. These two states have more intense cross border activity as compared to Arunachal Pradesh and Sikkim and most cases are found in the areas bordering Assam.

The spurt in the number of indigenous Malaria cases during 2020 was due to the COVID-19 epidemic in which health staff were diverted for COVID related activities resulting in lesser attention being paid to Malaria control.³

DISCUSSION

In 2021, the number of Malaria cases in Bhutan fell to 21 which was considerably lower than the previous three years. However, unlike in the previous three years where the imported and introduced cases outnumbered indigenous cases, in 2021 the number of indigenous cases was more.

CONCLUSION

Movement of people across the Indo-Bhutan border cannot be prevented. However, if anti-Malaria measures are improved in the districts of Assam and West Bengal bordering Bhutan, then the number of imported cases of Malaria from India to Bhutan would decrease.

Author Affiliation: Scientist 'E', ICMR-National Institute of Malaria Research, Dwarka, New Delhi 110077, India.

Corresponding Author: Arvind Nath, Scientist 'E', ICMR-National Institute of Malaria Research, Dwarka, New Delhi 110077, India.

E-mail: natha.hq@icmr.gov.in

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Table 1: Number of Malaria Cases in Bhutan, 2018 - 2021

| Year | Indigenous | Introduced | Imported | Total |
|------|------------|------------|----------|-------|
| 2018 | 6 | 14 | 34 | 54 |
| 2019 | 2 | 10 | 30 | 42 |
| 2020 | 22 | 21 | 9 | 52 |
| 2021 | 11 | 4 | 6 | 21 |

[Source: (2), (4)]



Fig. 1: Map of Bhutan (Source: <https://www.un.org/geospatial/content/bhutan-0>)

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