



Variation in Types of Malaria in the Andaman and Nicobar Islands of India

Arvind Nath ^{a#*}

^a ICMR – National Institute of Malaria Research, Sector 8 Dwarka, New Delhi – 110077, India.

Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

Short Communication

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ABSTRACT

Objectives: To find out the status of Malaria in the Andaman and Nicobar Islands of India.

Materials and Methods: By analyzing the data available on the websites of the Directorate of Health Services (DHS), Andaman and Nicobar Islands and the National Center for Vector Borne Diseases Control (NCVBDC).

Results: The Malaria problem is maximum in the Nicobar District and least in the North and Middle Andaman District.

Conclusions: Vivax type of Malaria is the commonest type found in the Andaman & Nicobar Islands.

Keywords: Malaria; Andaman; Nicobar.

1. INTRODUCTION

The Andaman and Nicobar Islands are located east to the mainland of India in the Bay of Bengal. The Andaman Sea separates the Andaman Islands from the Nicobar Islands (Fig. 1).

2. METHODS

The study design included an analysis of the "Year & District Wise Epidemiological Situation of

Malaria up to May 2021 in Andaman & Nicobar" table available on the DHS website, Andaman & Nicobar Islands [2]. Also, a web-search was made of the NCVBDC records pertaining to the Annual Parasite Incidence (API) for 2017 [3] and 2018 [4].

Annual Parasite Incidence (API): Annual Parasite Incidence (API) is given by the formula:

$$API = \frac{\text{Confirmed cases for one year}}{\text{Population under surveillance}} \times 1000$$

Scientist 'E';

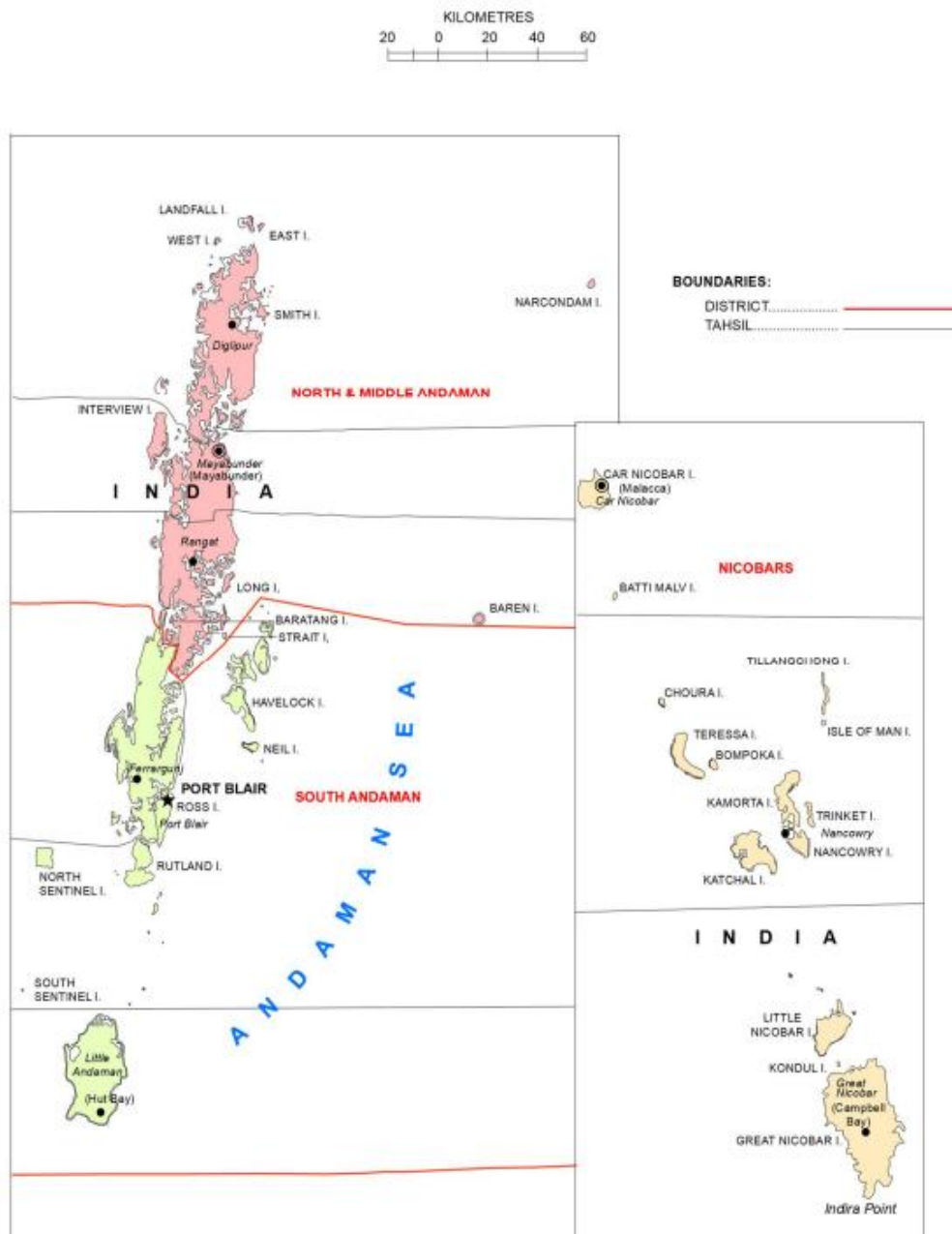
*Corresponding author: Email: natha.hq@icmr.gov.in;

3. RESULTS

The most recent values of API that were available for Andaman & Nicobar Islands were for the years 2017 and 2018. Their values were as follows: The API for 2017 was 1.09 and the API for 2018 was 0.56. However, these values only give us an overall picture for the islands and makes it appear that the Malaria problem is

small. However, to probe deeper, further data is needed.

According to the “Year & District Wise Epidemiological Situation of Malaria up to May 2021 in Andaman & Nicobar” table available on the website of the DHS, Andaman & Nicobar Islands, the data on Malaria cases for the years 2017 to 2021 are given as follows in Table 1.



Co-ordinates: The islands extend from 6° to 14° North latitudes and from 92° to 94° East longitudes

Fig. 1. Map of Andaman and Nicobar Islands
(Source: [1])

Table 1. No. & type of malaria cases in Andaman & Nicobar Islands, 2017 to 2021

Year	South Andaman District	North & Middle Andaman District	Nicobar District	TOTAL
2017	72 (68 Pv + 4Pf)	9 (8 Pv + 1Pf)	424(288 Pv + 136 Pf)	505 (364 Pv + 141 Pf)
2018	39 (36 Pv + 3Pf)	2 (2 Pv)	218(192 Pv + 26 Pf)	259 (230 Pv + 29 Pf)
2019	14 (13 Pv + 1Pf)	2 (1Pv + 1Pf)	185 (138 Pv + 47 Pf)	201 (152 Pv + 49 Pf)
2020	8 (5 Pv + 3Pf)	3 (3 Pv)	74 (52 Pv + 22 Pf)	85 (60 Pv + 25 Pf)
2021 (Up to May)	2 (2 Pv)	0	6 (4 Pv + 2 Pf)	8 (6 Pv + 2 Pf)

[Source: (2)] Key: Pv – Plasmodium vivax, Pf – Plasmodium falciparum

4. DISCUSSION

From the above table, it is seen that the Malaria problem is maximum in the Nicobar District, followed by the South Andaman District and least in the North and Middle Andaman District. Another finding is that, over the last five years, the Malaria problem has been decreasing in each of the districts.

A study had been carried out during 2016-2018 in the Nicobar District of A & N Islands where *P. knowlesi* was found in the Malaria vector *Anopheles sundaicus* mosquito [5].

After the tsunami in 2004, the incidence of Malaria in the islands greatly altered between 2005 to 2010 [6].

Persons travelling from Malaria-endemic to non-endemic parts of the islands pose a risk of transmitting the disease [7].

A large number of Anopheline vectors have been observed in the island of Car Nicobar where the incidence of Malaria is very low [8].

5. CONCLUSIONS

Vivax type of Malaria is the predominant type found in the Andaman & Nicobar Islands.

CONSENT AND ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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