

A Study of Malaria in Karnataka

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Abstract

The Annual Parasite Incidence (API) of Malaria for Karnataka has been observed to have decreased from 0.12 in 2017 to 0.08 in 2018. Although the state has not reached zero Malaria cases in 2022, it is a good candidate for being among the first few states in the country to be able to achieve near elimination goals.

Keywords: Malaria, Karnataka, API, *Plasmodium vivax*, *Plasmodium falciparum*

Introduction

Karnataka is in the southern part of India. It is bordered by Goa and Maharashtra in the north, Andhra Pradesh in the east, Kerala, and Tamil Nadu in the south and the Arabian Sea in the west.

Material and Methods

The study design included analysis of the annual reports of the Malaria Division of the National Vector Borne Disease Control Programme (NVBDCP) for 2017 and 2018 and a study of the website of the

National Health Mission, Government of Karnataka (under which the NVBDCP functions).

Results

According to the most recent data available on the NVBDCP website (data for 2018), the API for Karnataka was 0.08.² It is seen that the distribution of Malaria was not the same throughout the state. It was uneven as can be seen from the following tables:

So, it is seen that out of the thirty districts,

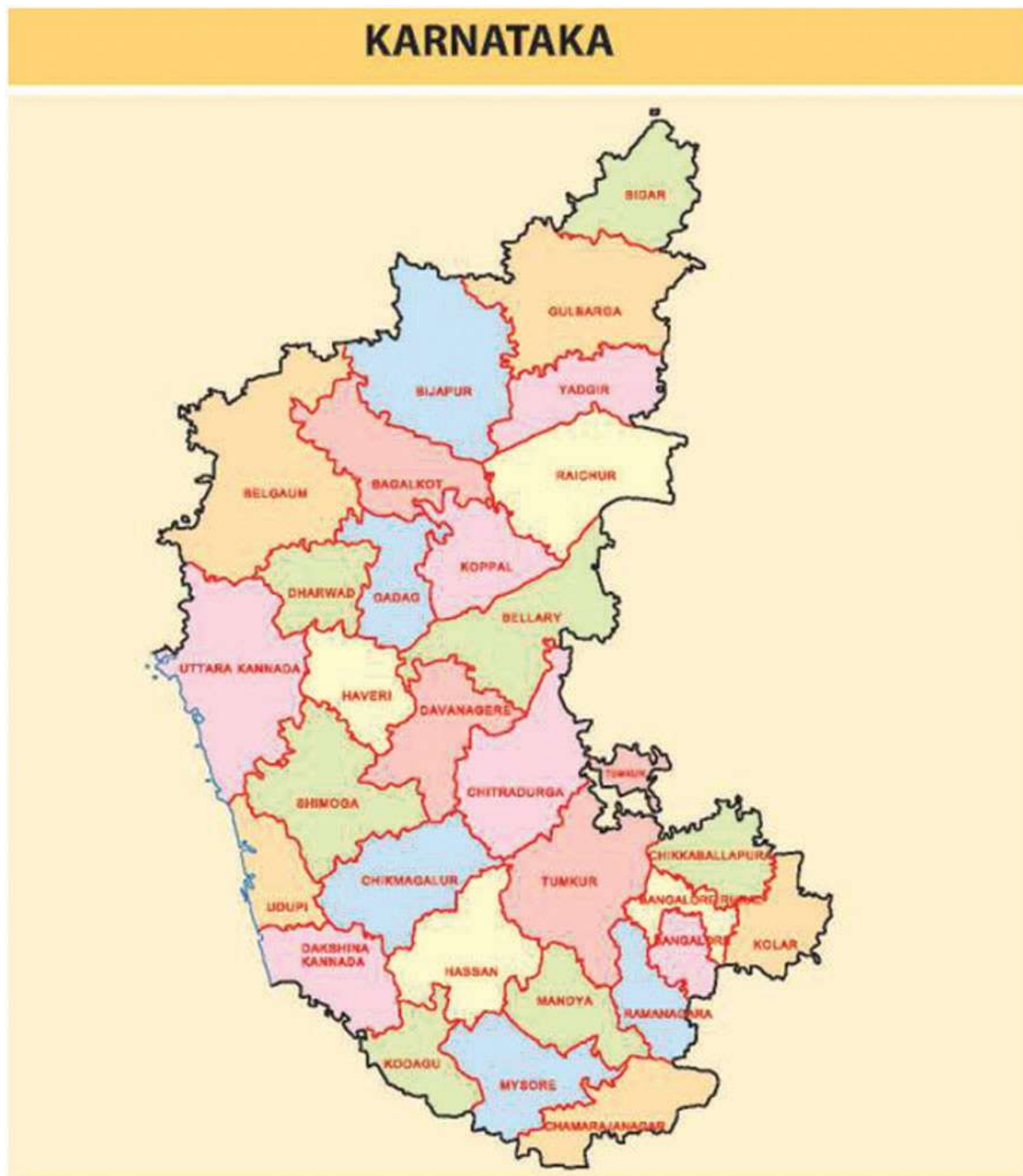


Fig. 1: Map of Karnataka [Source: (1)]

Malaria is present in greater proportion in Dakshina Kannadadistrict.

It may be further useful to study what was the trend of Malaria cases in Karnataka over the years. For this, the website of the National Health Mission (Department of Health, Govt. of Karnataka) was

referred to but only data from 2012 to 2016 were available there.³

A web search was made, and it was found that Karnataka had reported 13 cases of Malaria in February 2022 as against 76 in February 2021. It was also seen that in January 2022, there were 17 cases

Table 2: API of the Districts of North Karnataka, 2018

S. No.	District	API
1	Belagavi	0.00
2	Vijayapura	0.02
3	Bagalkot	0.04
4	Bidar	0.01
5	Bellary	0.01
6	Gulbarga	0.04
7	Yadgir	0.05
8	Raichur	0.05
9	Gadag	0.10
10	Dharwad	0.01
11	Haveri	0.02
12	Koppal	0.03

[Source: (2)]

Table 3: API of the Districts of Coastal Karnataka, 2018

S. No.	District	API
1	Uttara Kannada	0.02
2	Udupi	0.17
3	Dakshina Kannada	1.75

[Source:(2)]

Table 2: API of the Districts of South Karnataka, 2018

S. No.	District	API
1	Bengaluru Urban	0.00
2	Bengaluru Rural	0.00
3	Chikkaballapur	0.01
4	Kolar	0.00
5	Mysuru	0.00
6	Mandya	0.00
7	Kodagu	0.00
8	Hassan	0.01
9	Chikmagalur	0.01
10	Shivamogga	0.02
11	Tumakuru	0.04
12	Chitradurga	0.01
13	Davanagere	0.01
14	Chamarajanagar	0.00
15	Ramanagara	0.01

[Source: (2)]

of Malaria in January 2022 as compared to 123 in January 2021.⁴

Discussion

It is observed that there has been a decrease in the incidence of Malaria in Karnataka over the years between 2018 and 2022.

The Government of India, in 2016, adopted a framework for Malaria Elimination in India covering the period 2016 – 2030.⁵ This was based on WHO's Global Technical Strategy for Malaria, covering the same period, adopted in 2015 and updated in 2021.⁶

The aim is to reach zero Malaria cases by 2027 and then wait for three years before WHO can grant Malaria-free status certification. It is already the middle of 2022 and India is about to reach the halfway mark of this period from 2016 to 2027.

Conclusion

Although Karnataka did not reach zero Malaria cases in 2018, it did reach an API of 0.08 that year. Therefore, it is a good candidate for being among the first few states in the country close to being able to achieve near-elimination goals.

Acknowledgements: Nil

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