

Conclusion

1. Respondents indicated their own carelessness and inattention, as well as the field of activity (work in agricultural fields) as the main reason for being bitten by snakes.
2. Respondents indicated the Internet and television as the main source of knowledge about awareness of snake bites and first aid.
3. Most people tend to go to the hospital only after developing complications from a snakebite, but 20 % seek allopathic therapy.
4. Based on responders opinion, the public awareness about snakes and snakebites in Sri Lanka and India has to be improved.

LITERATURE

1. "Snakes, Facts and Information." Animals, www.nationalgeographic.com/animals/reptiles/facts/snakes-1.
2. Longbottom J, Shearer FM, Devine M, et al. Vulnerability to snakebite envenoming: a global mapping of hotspots. *Lancet* 2018;392:673-84. doi:10.1016/S0140-6736(18)31224-8 pmid:30017551.
3. Kasturiratne A, Wickremasinghe AR, de Silva N, et al. The global burden of snakebite: a literature analysis and modelling based on regional estimates of envenoming and deaths. *PLoS Med* 2008;5:e218. doi:10.1371/journal.pmed.0050218 pmid:18986210.
4. "Sri Lanka's Fight Against Snake Bites - Roar Media." Roar Media, 16 Aug. 2021, roar.media/english/life/environment-wildlife/sri-lanka-fight-against-snake-bites.
5. Warrell DA, Gutiérrez JM, Calvete JJ, Williams D. New approaches & technologies of venomics to meet the challenge of human envenoming by snakebites in India. *Indian J Med Res* 2013;138:38-59. pmid:24056555.
6. Sri Lanka Medical Association. Epidemiology of snakebite in Sri Lanka. <http://slma.lk/wp-content/uploads/2017/11/2.Epidemiology-of-snakebite.pdf>.

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EPIDEMIOLOGY OF MALARIA IN SRI LANKA: STATISTICS FROM YEARS 2010 TO 2020

Introduction

For centuries, malaria has caused devastating epidemics in Sri Lanka, killing thousands, impoverishing communities and undermining the country's development. Today, this island of about 22 million inhabitants is malaria-free. In Sri Lanka, *Plasmodium vivax* and *Plasmodium falciparum* accounted for most infections while there were a few cases due to *Plasmodium malariae* and *Plasmodium ovale*. The principal vector is *Anopheles culicifacies* species.

People infected with malaria often experience fever, chills and flu-like illness at first. Left untreated, the disease can lead to severe complications and, in some cases, death. Malaria symptoms appear after a period of seven days or longer after an infective mosquito bite [1, 2].

Goal

The main aims of the report highlighted upon the epidemiological status of malaria in Sri Lanka. An evaluation of the effectiveness of the treatments, detection and preventive measures undertaken were analyzed that demonstrate a good example on the prevention of this disease at its maximum.

Materials and Research Methods

The information was acquired using the current statistical reviews on the spread and prevention of malaria in Sri Lanka, with records held by the online publications by the Ministry of Health of Sri Lanka-the health bureau, research sites like PubMed and also the World Health

Organization (WHO). The statistical reviews were obtained by the “WHO World report on Malaria” published in 2022 and also the WHO South Asian report on “Progress towards zero malaria in South East Asia” published in 2020 [3].

Results of the Research and their discussion

Sri Lanka succeeded in eliminating malaria in 2012 [4]. Sri Lanka was certified malaria free in 2016 and remains malaria free. As reported the number of malaria deaths have remained zero from 2010 to 2023. As reported there have been 684; 124; 23 indigenous cases in the years 2010, 2011 and 2012 respectively. From 2013 onwards there have been zero indigenous cases. There has been a total of 6; 3 and 4 *P. falciparum* cases in the years 2010, 2011 and 2012 respectively and from 2013 onwards there have been zero cases of *P. falciparum*.

There has been a total of 668; 119 and 19 *P. vivax* cases in the years 2010, 2011 and 2012 respectively and from 2013 onwards there have been zero cases of *P. vivax*. Mixed or other cases have not been reported in the country since 2010 [3].

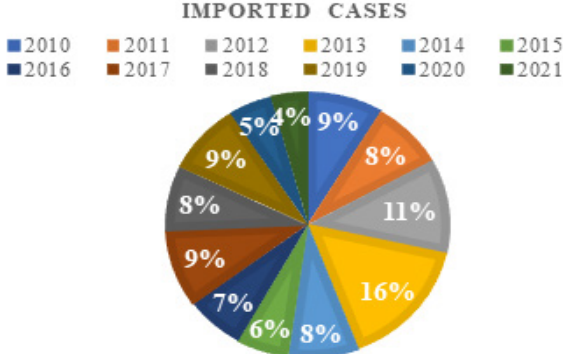


Figure 1 – Diagrammatic representation of the imported cases over the years from 2010 to 2021

As shown in Figure 1, the cases that were imported cases, have been varying with no definite pattern and has shown the highest number of individuals in the year 2013.

Table 1 – The number of suspected and confirmed malaria cases

Cases	Year											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Suspected	1001 107	985 060	957 155	1249 846	1078 884	1157 366	1090 743	1104 333	1149 897	1164 914	820 210	680 386
Confirmed	736	175	93	95	49	36	41	57	52	54	30	26

Table 1 shows that there was only a very little number of confirmed cases no matter how large the sample of suspects was and its displays its highest number of confirmed cases in 2010.

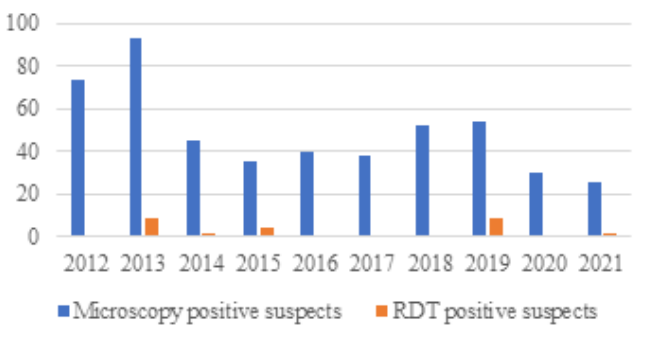


Figure 2 – Comparison of Microscopy and RDT Positive Suspects

Microscopy tests were proved to be more efficient than the RDT tests and Figure 2 displays it clearly displaying how the detection of the diseased individuals were carried out. There were 0 positive cases in the year 2020 and 2021. There have also been three relapsed cases in the year 2018.

Chemoprophylaxis: The Anti Malaria Campaign provided chemoprophylaxis to travelers to malaria endemic countries based on WHO guidelines. AMC headquarters has provided chemoprophylaxis for 1013 persons during the year 2015. Mefloquine (6495 tablets) and Chloroquine (535 tablets) were issued to them depending on the country they visited. Majority of these travelers were males and above 18 years old [5].

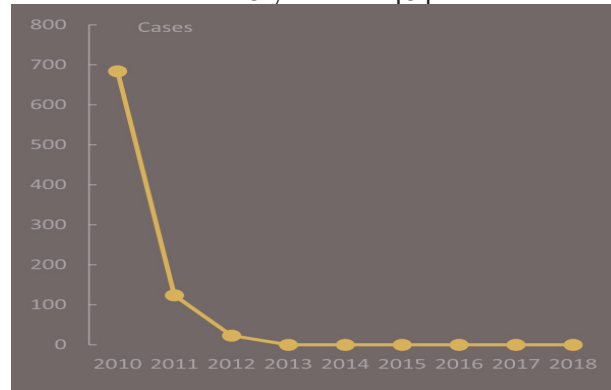


Figure 3 – Diagrammatic representation of the decrease of the number of cases over the years

Over the 2 years, 77 imported malaria infections were diagnosed in 54 Sri Lankans and 23 foreign nationals. A majority of the infections were reported among males (93 %) in the age group of 21–50 years (85.8 %), and all were recent travelers overseas. Only 25 % of patients were diagnosed within 3 days of the onset of symptoms. *Plasmodium falciparum* infections manifested significantly earlier after arrival in Sri Lanka than did *P. vivax* infections [3]. After the prevention, an imported *vivax* malaria case was detected in a foreign migrant followed by a *P.vivax* infection in a Sri Lankan national who visited the residence of the former [6].

Conclusion

Sri Lanka’s malaria experience teaches other nations in the region some vital lessons: *the first* is that Malaria can be eliminated with currently available methods if there is solid national leadership and competence and abilities at the district level to use local data for successful malaria control. *The second* is that the reappearance of malaria in epidemic proportions after near eradication in 1963 serves as a warning of how vulnerable SEA Region nations are to resurgence unless efforts are continued. *The third* is that the single case of malaria introduced in 2018 is a warning that substantial investments in preventing malaria re-establishment will be required in countries post-elimination, at least until the entire Region is malaria-free [2].

LITERATURE

1. The first introduced malaria case reported from Sri Lanka after elimination: implications for preventing the re-introduction of malaria in recently eliminated countries. – Mode of access: Pubmed.gov.org – Date of access: 01.03.2023.
2. Epidemiological profile of imported malaria cases in the prevention of reestablishment phase in Sri Lanka by Priyani Dharmawardena // Malaria Free Sri Lanka: WHO Library Cataloguing-in-Publication data WHO -Mode of access: <https://www.who.int/publications> – Date of access: 28.01.2023.
3. World malaria report 2022 [Electronic resource] – World Health Organization 2022-Annex 4 – H. Reported Malaria cases by method of confirmation, 2010-2021. – Mode of access: <https://www.who.int/publications> – Date of access: 24.01.2023.
4. Datta, R. Role of a dedicated support group in retaining malaria-free status of Sri Lanka. J Vector Borne Dis (2019) 56:66-69. R. Datta, K. Mendis, mentioned in the report PROGRESS TOWARDS 0 MALARIA FREE SOUTH EAST ASIA 2010 TO 2018 BY WHO. – Mode of access: <http://www.jvbd.org/article.asp?issn=0972> – Date of access: 02.02.2023.
5. Annual Report 2015-Anti Malaria Campaign-Ministry of Health- mode of access: <http://www.malariacampaign.gov.lk> – Date of access: 03.03.2023.
6. Guideline for Travelers to malaria endemic countries Anti-Malaria Campaign | Ministry of Health – Sri Lanka – Mode of access: <http://amc.health.gov.lk/en/travelers-guide> – Date of access: 15.03.2023.