

**Master's Degree Program of Environment Health
Post Graduate Program of Diponegoro University
Semarang, May 2008**

ABSTRACT

SUJARI

Risk Factors relating to the incidence of Malaria at a Tin Mining Region in Central Bangka Regency of Bangka Belitung Province.

102 pages, 33 tables, 7 figures, 10 appendixes

Indonesia is a tropical Country which is appropriate of the mosquito vector, particularly *Anopheles*, bath Java and Bali Islands where malaria is endemic. Malaria in Central Bangka Regency in 2007 was reported in the Annual Malaria Incidence (AMI) at 38,07 ‰. Especially in Koba (Sub-District) is still high, and is depicted from Annual Malaria Incidence (AMI) at 48,1 ‰. While Annual Parasite Incidence (API) was 30,52 ‰. Hence, Central Bangka Regency was still above the target level of the National Annual Malaria Incidence (AMI) which is < 30 ‰.

An observational retrospective research by Case Control Study Design method was done to measure the risk factor of independent variable of indoor, out door and having an effect on dependent variable of malaria incidence. The case group was people with malaria while the control group was negative blood specimen owner. The number of patients and control groups were bath 76. Data was analyzed by using simple regression invariant, bivariate, and multivariate method.

Anopheles collcting showed, that malaria vector was consisted of : *Anopheles sundaicus*, *Anopheles letifer* and *Anopheles nigerrimus*. The dominant species was *Anopheles letifer* because the population vector was more than the others.

The analysis result of bivariate was demonstrated from sex risk factors related to malaria incidence. Six factors were analyzed by multivariate house wall-density (OR=2,357;95% CI=1,019 – 5,452), the gauze wiring on ventilation (OR = 5,063; 95% CI = 1,925 – 13,312), the existence of water pond (OR = 4,407; 95% CI=1,542-12,591), the brush wood existence(OR = 2,693; 95% CI = 1,466 – 5,985), the usage of mosquito potion (lubricated, roasted, or sprayed) (OR = 7,169; 95% CI = 2,912 – 17,650). While other risk factors such as (1) In door illumination ,(2) the existence stagnant pools of water, and (3) staying out of the house at night shown **no significant relation**.

Keywords : Endemic Area, Malaria, Risk Factor, Tin Mining Area.

Bibliography : 50 (1974-2006)

**Program Magister Kesehatan Lingkungan
Program Pascasarjana Universitas Diponegoro
Semarang, Mei 2008**

Abstrak

SUJARI

“Faktor-Faktor Risiko Kejadian Malaria Pada Wilayah Penambangan Timah Di Kabupaten Bangka Tengah Provinsi Kepulauan Bangka Belitung”

102 halaman, 33 tabel, 7 gambar, 10 lampiran

Indonesia adalah negara tropis yang sangat cocok untuk berkembang biaknya vektor nyamuk terutama nyamuk *Anopheles*, bahkan di luar Pulau Jawa dan Bali dinyatakan daerah endemis malaria. Malaria di Kabupaten Bangka Tengah pada tahun 2007 tergambar dari *Annual Malaria Incidence (AMI)* (38,07 ‰) terutama di Kecamatan Koba masih tinggi, hal ini tergambar dari *Annual Malaria Incidence (AMI)* (48,1 ‰) sedangkan *Annual Parasite Incidence (API)* 30,52 ‰ jadi Kabupaten Bangka Tengah masih diatas target *Annual Malaria Incidence (AMI)* nasional < 30 ‰.

Penelitian retrospektif observasional dengan desain *Case Control Study* dilakukan untuk mengukur besar risiko variable bebas meliputi lingkungan dalam rumah, lingkungan luar rumah dan faktor kebiasaan berpengaruh terhadap variable terikat kejadian malaria. Kelompok kasus adalah penderita malaria sedangkan kelompok kontrol adalah pemilik spesimen darah negatif. Jumlah penderita yang dijadikan sampel adalah 76 orang dan kelompok kontrol juga 76 orang. Data dianalisa dengan univariat, bivariat dan multivariate regresi sederhana.

Dalam penangkapan spesies *Anopheles* yang diduga sebagai vektor malaria hanya ada tiga yaitu *Anopheles sundaicus*, *Anopheles letifer* dan *Anopheles nigerrimus*. Spesies yang dominan adalah *Anopheles letifer* karena populasinya paling banyak dibanding vektor lainnya.

Hasil analisis *bivariat* menunjukkan bahwa dari sepuluh faktor risiko yang ada hubungan bermakna terhadap kejadian malaria pada responden ada enam faktor. Keenam faktor tersebut di analisis multivariat yaitu kerapatan dinding rumah (OR = 2,357; 95 % CI = 1,019 – 5,452), pemasangan kawat kasa pada ventilasi (OR = 5,063; 95 % CI = 1,925 – 13,312), keberadaan genangan air (OR = 4,407; 95 % CI = 1,542 – 12,591), keberadaan semak-semak (OR = 2,963, 95 % CI = 1,466 – 5,985), penggunaan obat nyamuk (oles, bakar, semprot) (OR = 3,580; 95 % CI = 1,788 – 7,170) dan penggunaan kelambu pada malam hari (OR = 7,169, 95 % CI = 2,912 – 17,650). Sedangkan faktor risiko pencahayaan di dalam rumah, keberadaan kolong/ lagon disekitar rumah, keberadaan rawa-rawa di sekitar rumah dan kebiasaan keluar rumah pada malam hari menunjukkan hubungan yang tidak bermakna (tidak signifikan).

Kata kunci : Daerah endemis, Malaria, faktor risiko, wilayah penambangan timah.
Kepustakaan : 50 (1974-2006).