## 4.1.3. Supplementary interventions

### Clinical Question/ PICO

**Population:** Adults and children living in areas with ongoing malaria transmission
**Intervention:** Larviciding
**Comparator:** no larviciding

### Summary

**Larviciding versus no larviciding:**
Four studies were included in the systematic review, of which only one was an RCT; the remaining three studies were non-randomized. Studies were undertaken in Gambia, Kenya, Sri Lanka and United Republic of Tanzania.

**Larviciding applied to mosquito aquatic habitats exceeding 1km$^2$ in area:**
It is unknown whether larviciding has an effect on malaria incidence compared to no larviciding
(Odds Ratio: 1.97; 95% CI (1.39–2.81); one study; very low certainty evidence)
It is unknown whether larviciding has an effect on parasite prevalence compared to no larviciding
(Odds Ratio: 1.49; 95% CI (0.45–4.93); one study; very low certainty evidence)

**Larviciding applied to mosquito aquatic habitats less than 1km$^2$ in area:**
Larviciding probably reduces malaria incidence compared to no larviciding
(Rate Ratio: 0.20; 95% CI (0.16–0.25); one study; moderate certainty evidence)
Larviciding may reduce parasite prevalence compared to no larviciding
(Odds Ratio: 0.72; 95% CI (0.58–0.89); two studies; low certainty evidence)

| **Outcome** Timeframe | **Study results and measurements** | **Comparator** no larviciding | **Intervention** Larviciding | **Certainty of the Evidence** (Quality of evidence) | **Plain language summary** |
|---|---|---|---|---|---|
| Malaria incidence of habitats >1km2 | Odds Ratio 1.97 (CI 95% 1.39 — 2.81) Based on data from 1,793 patients in 1 studies. (Observational (non-randomized)) | 230 per 1000 Difference: | 370 per 1000 **140 more per 1000** ( CI 95% 70 more — 230 more ) | Very low Due to serious inconsistency, Due to serious imprecision [1] | We are uncertain of the effects on malaria incidence in area where mosquito aquatic habitats are more than 1 km². |
| Parasite prevalence of habitats >1km2 | Odds Ratio 1.49 (CI 95% 0.45 — 4.93) Based on data from 3,574 patients in 1 studies. (Observational (non-randomized)) | 140 per 1000 Difference: | 190 per 1000 **50 more per 1000** ( CI 95% 70 fewer — 300 more ) | Very low Due to serious inconsistency, Due to very serious imprecision [2] | We are uncertain of the effects on parasite prevalence in area where mosquito aquatic habitats are more than 1 km². |
| Malaria incidence of habitats <1km2 | Relative risk 0.2 (CI 95% 0.16 — 0.25) Based on data from 4,649 patients in 1 studies. (Randomized controlled) | 230 per 1000 Difference: | 50 per 1000 **180 fewer per 1000** ( CI 95% 190 fewer — 170 fewer ) | Moderate Due to serious imprecision [3] | Larviciding probably decreases malaria incidence compared to no larviciding in area where mosquito aquatic habitats are less than 1 km². |

| **Outcome** Timeframe | **Study results and measurements** | **Comparator** no larviciding | **Intervention** Larviciding | **Certainty of the Evidence** (Quality of evidence) | **Plain language summary** |
|---|---|---|---|---|---|
| **Parasite prevalence of habitats <1km2** | Odds Ratio 0.72 (CI 95% 0.58 — 0.89) (Observational (non-randomized)) | 120 per 1000 Difference: | 90 per 1000 **30 fewer per 1000** ( CI 95% 50 fewer — 10 fewer ) | **Low** | Larviciding may decrease parasite prevalence compared to no larviciding in area where mosquito aquatic habitats are less than 1 km² |

1. **Inconsistency: serious. Imprecision: serious.**
2. **Inconsistency: serious. Imprecision: very serious.**
3. **Imprecision: serious.**


## References

59. Choi L, Majambere S, Wilson AL : Larviciding to prevent malaria transmission. Cochrane Database of Systematic Reviews 2019;(8): Pubmed Journal Website


## Clinical Question/ PICO

**Population:** Adults and children living in areas with ongoing malaria transmission
**Intervention:** Larval habitat manipulation (water management using spillways across streams)
**Comparator:** No larval habitat manipulation

| **Outcome** Timeframe | **Study results and measurements** | **Comparator** No larval habitat manipulation | **Intervention** Larval habitat manipulation | **Certainty of the Evidence** (Quality of evidence) | **Plain language summary** |
|---|---|---|---|---|---|
| **Malaria parasite prevalence in children aged 2 -10 years** | Relative risk 0.01 (CI 95% 0 — 0.16) Based on data from 866 patients in 1 studies. (Observational (non-randomized)) | 86 per 1000 Difference: | 0 per 1000 **86 fewer per 1000** ( CI 95% 86 fewer — 72 fewer ) | **Very low** Due to very serious risk of bias, due to very serious imprecision [1] | We are uncertain whether using spillways as a habitat manipulation water management approach compared to no intervention across streams reduces malaria parasite prevalence |

1. **Risk of Bias: very serious. Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious. Publication bias: no serious.**

## Clinical Question/ PICO

**Population:** Adults and children living in areas with ongoing malaria transmission
**Intervention:** Larval habitat manipulation (water management using floodgates on a dam across a stream) and annual IRS

**Comparator:** Annual IRS

| **Outcome** Timeframe | **Study results and measurements** | **Comparator** IRS | **Intervention** Larval habitat manipulation and IRS | **Certainty of the Evidence** (Quality of evidence) | **Plain language summary** |
|---|---|---|---|---|---|
| Clinical malaria incidence | Based on data from: patients in 1 studies. (Observational (non-randomized)) | The study did not report the number of participants in either arm. At baseline, the mean annual incidence rates were 1304 cases per 1000 children in control villages versus 786 per 1000 children in intervention villages. Following dam construction, a decline in malaria incidence was seen each year in the intervention villages (1000, 636.4, 181.8 and 181.8 per 1000 children), compared to increases in malaria incidence during the corresponding periods in the control villages. | | Very low Due to serious risk of bias, due to very serious imprecision [1] | We are uncertain whether using floodgates on a dam as a habitat manipulation water management across streams approach compared to no habitat manipulation in areas with IRS reduced clinical malaria incidence |
| Malaria parasite prevalence (all ages) | Based on data from: patients in 1 studies. (Observational (non-randomized)) | At baseline there were 271 participants in the intervention group and 299 in the comparator group. The parasite prevalence in intervention villages and control villages during the pre-construction year were 17.6% and 18.9%, respectively. However, in subsequent years after construction of the dam, there was gradual and significant decline in parasite rate ($P < 0.01$) in intervention villages. (Data on numbers of participants at follow-up not provided) | | Very low Due to serious risk of bias, due to very serious imprecision [2] | We are uncertain whether flushing of dams through sluice gates in areas with IRS has an effect on malaria parasite prevalence compared to no flushing |

1. **Risk of Bias: serious. Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious. Publication bias: no serious.**
2. **Risk of Bias: serious. Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious. Publication bias: no serious.**

## Clinical Question/ PICO

**Population:** Adults and children living in areas with ongoing malaria transmission
**Intervention:** Larvivorous fish
**Comparator:** no larvivorous fish

### Summary

**Larvivorous fish versus no larvivorous fish:**
Fifteen studies were included in the systematic review. Studies were undertaken in Comoros, Ethiopia, India (three studies), Indonesia, Kenya, Republic of Korea (two studies), Sri Lanka (two studies), Sudan, and Tajikistan (two studies).
Treated aquatic habitats included wells, domestic water containers, fishponds and pools (seven studies); river bed pools below dams (two studies); rice field plots (four studies); and canals (two studies).
No studies reported on clinical malaria, EIR or adult vector densities; 12 studies reported on density of immature stages; and five studies reported on the number of aquatic habitats positive for immature stages of the vector species.

The studies were not suitable for a pooled analysis. It is unknown whether larvivorous fish reduce the

| | |
|---|---|
| density of immature vector stages compared to no larvivorous fish<br>(unpooled data; 12 studies; very low certainty evidence)<br>Larvivorous fish may reduce the number of larval sites | positive for immature vector stages compared to no larvivorous fish<br>(unpooled data; five studies; low certainty evidence) |

| **Outcome**<br>Timeframe | **Study results and measurements** | **Comparator**<br>no larvivorous fish | **Intervention**<br>Larvivorous fish | **Certainty of the Evidence**<br>(Quality of evidence) | **Plain language summary** |
|---|---|---|---|---|---|
| **Clinical malaria (incidence)** | | | | | No studies |
| **Entomological inoculation rate** | | | | | No studies |
| **Density of adult malaria vectors** | | | | | No studies |
| **Density of immature stages of vectors in aquatic habitats (Quasi-experimental studies)** | Based on data from: patients in 12 studies. (Observational (non-randomized)) | Not pooled. Variable effects reported. | | **Very low**<br>Due to serious inconsistency [1] | No clear evidence whether or not larvivorous fish reduce the density of immature anopheline mosquitoes in water bodies. |
| **Larval sites positive for immature stages of the vectors (Quasi-experimental studies)** | Based on data from: patients in 5 studies. (Observational (non-randomized)) | Not pooled. Positive effects reported | | **Very low** | Larvivorous fish may reduce the number of larval sites positive for immature anopheline mosquitoes. |

1. **Inconsistency: serious.**

## References

61. Walshe DP, Garner P, Adeel AA, Pyke GH, Burkot TR : Larvivorous fish for preventing malaria transmission. Cochrane Database of Systematic Reviews 2017;(12): Pubmed Journal Website


## Clinical Question/ PICO

**Population:** Adults and children living in areas with ongoing malaria transmission

**Intervention:** Topical repellent

**Comparator:** placebo or no topical repellent


## Summary

**Topical repellent versus placebo or no topical repellent:**
A total of six RCTs were included in the review. Studies were conducted among residents in Plurinational State of Bolivia, Cambodia, Lao People's Democratic Republic and United Republic of Tanzania, and in specific populations in Pakistan (refugees) and Thailand (pregnant women).
It is unknown whether topical repellents have an effect on clinical malaria caused by *P. falciparum*
(Risk Ratio: 0.65; 95% CI (0.40–1.07); three studies; very low certainty evidence)
Topical repellents may or may not have a protective effect against *P. falciparum* parasitaemia
(Risk Ratio: 0.84; 95% CI (0.64–1.12); four studies; low certainty evidence)
Topical repellents may increase the number of clinical cases caused by *P. vivax*
(Risk Ratio: 1.32; 95% CI (0.99–1.76); two studies; low certainty evidence)
Topical repellents may or may not have a protective effect against *P. vivax* parasitaemia
(Risk Ratio: 1.07; 95% CI (0.80–1.41); three studies; low certainty evidence)


| **Outcome** Timeframe | **Study results and measurements** | **Comparator** placebo or no topical repellent | **Intervention** Topical repellent | **Certainty of the Evidence** (Quality of evidence) | **Plain language summary** |
|---|---|---|---|---|---|
| **Clinical malaria (P. falciparum)** | Relative risk 0.65 (CI 95% 0.4 — 1.07) Based on data from 4,450 patients in 3 studies. | 39 per 1000 Difference: | 25 per 1000 **14 fewer per 1000** ( CI 95% 24 fewer — 2 more ) | **Very low** Due to serious risk of bias, Due to serious imprecision, Due to serious inconsistency [1] | We do not know if topical repellents have an effect on malaria cases caused by P. falciparum. We have very little confidence in the effect estimate. The true effect is likely to be substantially different from the estimate of effect. |
| **Parasitaemia (P. falciparum)** | Relative risk 0.84 (CI 95% 0.64 — 1.12) Based on data from 13,310 patients in 4 studies. | 15 per 1000 Difference: | 12 per 1000 **3 fewer per 1000** ( CI 95% 6 fewer — 2 more ) | **Low** Due to serious risk of bias, Due to serious imprecision [2] | Topical repellents may or may not have a protective effect against P. falciparum parasitaemia. Our confidence in the effect estimate is limited. The true effect may be substantially different from the estimation of the effect. |

| **Outcome** Timeframe | **Study results and measurements** | **Comparator** placebo or no topical repellent | **Intervention** Topical repellent | **Certainty of the Evidence** (Quality of evidence) | **Plain language summary** |
|---|---|---|---|---|---|
| **Clinical malaria (P. vivax)** | Relative risk 1.32 (CI 95% 0.99 — 1.76) Based on data from 3,996 patients in 2 studies. | 36 per 1000 Difference: | 48 per 1000 **12 more per 1000** ( CI 95% 0 more — 28 more ) | **Low** Due to serious risk of bias, Due to serious imprecision [3] | Topical repellents may increase the number of clinical cases caused by P. vivax. Our confidence in the effect estimate is limited. The true effect may be substantially different from the estimation of the effect. |
| **Parasitaemia (P. vivax)** | Relative risk 1.07 (CI 95% 0.8 — 1.41) Based on data from 9,434 patients in 3 studies. | 18 per 1000 Difference: | 19 per 1000 **1 more per 1000** ( CI 95% 4 fewer — 7 more ) | **Low** Due to serious risk of bias, Due to serious imprecision [4] | Topical repellents may or may not have a protective effect against P. vivax parasitaemia Our confidence in the effect estimation is limited. The true effect may be substantially different from the estimation of the effect. |

1. **Risk of Bias: serious. Inconsistency: serious. Imprecision: serious.**
2. **Risk of Bias: serious. Imprecision: serious.**
3. **Risk of Bias: serious. Imprecision: serious.**
4. **Risk of Bias: serious. Imprecision: serious.**

### References

62. Maia MF, Kliner M, Richardson M, Lengeler C, Moore SJ : Mosquito repellents for malaria prevention. Cochrane Database of Systematic Reviews 2018;(2): Pubmed Journal Website

## Clinical Question/ PICO

**Population:** Adults and children living in areas with ongoing malaria transmission
**Intervention:** Insecticide-treated clothing
**Comparator:** placebo or untreated clothing

### Summary

**Insecticide-treated clothing versus placebo or untreated clothing**:
Two RCTs were included in the systematic review.
Studies were conducted in specific populations in Colombia (military personnel) and Pakistan (Afghan refugees).
Insecticide-treated clothing may have a protective effect against clinical malaria caused by *P. falciparum*
(Risk Ratio: 0.49; 95% CI (0.29–0.83); two studies; low certainty evidence)
Insecticide-treated clothing may have a protective effect against clinical malaria caused by *P. vivax*
(Risk Ratio: 0.64; 95% CI (0.40–1.01); two studies; low certainty evidence)

| **Outcome** Timeframe | **Study results and measurements** | **Comparator** placebo or untreated clothing | **Intervention** Insecticide-treated clothing | **Certainty of the Evidence** (Quality of evidence) | **Plain language summary** |
|---|---|---|---|---|---|
| **Clinical malaria (P. falciparum)** | Relative risk 0.49 (CI 95% 0.29 — 0.83) Based on data from 997 patients in 2 studies. | 35 per 1000 Difference: | 17 per 1000 **18 fewer per 1000** ( CI 95% 25 fewer — 6 fewer ) | **Low** Due to serious risk of bias, Due to serious imprecision [1] | Insecticide-treating clothing may have a protective effect against malaria caused by P. falciparum. Our confidence in the effect estimate is limited. The true effect may be substantially different from the estimate of the effect. |
| **Clinical malaria (P. vivax)** | Relative risk 0.64 (CI 95% 0.4 — 1.01) Based on data from 997 patients in 2 studies. | 116 per 1000 Difference: | 74 per 1000 **42 fewer per 1000** ( CI 95% 69 fewer — 1 more ) | **Low** Due to serious risk of bias, Due to serious imprecision [2] | Insecticide-treated clothing may have a protective effect against malaria caused by P. vivax. Our confidence in the effect estimate is limited. The true effect may be substantially different from the estimate of the effect. |

1. **Risk of Bias: serious. Imprecision: serious.**
2. **Risk of Bias: serious. Imprecision: serious.**

## References

62. Maia MF, Kliner M, Richardson M, Lengeler C, Moore SJ : Mosquito repellents for malaria prevention. Cochrane Database of Systematic Reviews 2018;(2): Pubmed Journal Website

## Clinical Question/ PICO

**Population:** Adults and children living in areas with ongoing malaria transmission
**Intervention:** Spatial/airborne repellents
**Comparator:** placebo or no malaria prevention intervention

## Summary

**Spatial/airborne repellents versus placebo or no malaria prevention intervention:**
Two RCTs were included in the systematic review.
Studies were conducted in China and Indonesia.

It is unknown whether spatial repellents protect against malaria parasitaemia
(Risk Ratio: 0.24; 95% CI (0.03–1.72); two studies; very low certainty evidence)

| **Outcome** Timeframe | **Study results and measurements** | **Comparator** placebo or no malaria prevention intervention | **Intervention** Spatial/ airborne repellents | **Certainty of the Evidence** (Quality of evidence) | **Plain language summary** |
|---|---|---|---|---|---|
| **Parasitaemia (all species)** | Relative risk 0.24 (CI 95% 0.03 — 1.72) Based on data from 6,683 patients in 2 studies. | **10** per 1000 Difference: | **2** per 1000 **8 fewer per 1000** ( CI 95% 10 fewer — 8 more ) | **Very low** Due to serious risk of bias, Due to serious imprecision, Due to serious inconsistency [1] | We do not know if spatial repellents protect against malaria. We have very little confidence in the effect estimate. The true effect is likely to be substantially different from the estimate of effect. |

1. **Risk of Bias: serious. Inconsistency: serious. Imprecision: serious.**

## References

62. Maia MF, Kliner M, Richardson M, Lengeler C, Moore SJ : Mosquito repellents for malaria prevention. Cochrane Database of Systematic Reviews 2018;(2): Pubmed Journal Website

## Clinical Question/ PICO

**Population:** Adults and children living in areas with ongoing malaria transmission
**Intervention:** Space spraying
**Comparator:** no space spraying

## Summary

**Summary of evidence from systematic review**
After searching for relevant trials up to 18 April 2018, we identified four studies conducted between 1972 and 2000. Across the four studies, a range of insecticide delivery methods were used, including handheld, vehicle-mounted, and aircraft-mounted spraying equipment. A variety of different insecticides, doses, and spraying times were also used to suit the local environment and the behaviour of the targeted mosquito species.

In three studies, the evidence was considered to be unsuitable for reliably assessing the impact of space spraying on the number of cases of malaria. The remaining study, which took place in a single state in India and covered a combined population of 18,460 people, reported the number of malaria cases in the years preceding and following the introduction of space spraying. The evidence suggested that space spraying led to a decrease in the number of cases of malaria, but as the trial was conducted over 30 years ago and within one state in India, we cannot be certain that these findings are applicable in other areas where malaria occurs. Reliable research in a variety of settings will help to establish whether and when this intervention may be worthwhile.

Across the included studies, the incidence of malaria was the only outcome reported with a valid comparator that could be used to estimate the impact of space spraying. One study reported the monthly incidence of malaria over a four-year period, with at least one year prior and at least two years post-intervention reported (Tewari 1990). The findings of the study suggest that space spraying had an effect on the incidence of malaria. However, the certainty of the evidence is very low, and we cannot be certain that the evidence provided is indicative of the true impact of space spraying on malaria incidence. We do not know if space spraying causes a step change in malaria incidence (1.00, 95% CI 0.51 to 1.92, 1 study, very low-certainty evidence). In addition, we do not know if space spraying causes a change in the slope of malaria incidence over time (RR 0.85, 95% CI 0.79 to 0.91, 1 study, very low-certainty evidence).

| Outcome<br>Timeframe | Study results and measurements | Comparator<br>no space spraying | Intervention<br>Space spraying | Certainty of the Evidence<br>(Quality of evidence) | Plain language summary |
|---|---|---|---|---|---|
| Malaria cases per month (Instant effect) | Relative risk 1<br>(CI 95% 0.51 — 1.92)<br>Based on data from patients in 1 studies.<br>(Observational (non-randomized)) | 6<br>per 1000<br><br>Difference: | 6<br>per 1000<br><br>**0 more per 1000**<br>( CI 95% 3 fewer — 6 more ) | Very low<br>Due to serious risk of bias, Due to serious indirectness, Due to serious imprecision [1] | We do not know if space spraying causes an immediate shift in the trend of malaria incidence. |
| Malaria cases per month (Effect after 12 months follow-up) | Relative risk 0.85<br>(CI 95% 0.79 — 0.91)<br>Based on data from patients in 1 studies.<br>(Observational (non-randomized)) | 6<br>per 1000<br><br>Difference: | 1<br>per 1000<br><br>**5 fewer per 1000**<br>( CI 95% 6 fewer — 4 fewer ) | Very low<br>Due to serious risk of bias, Due to serious indirectness, Due to serious imprecision [2] | We do not know if space spraying causes a change in the slope of malaria incidence over time. |

1. **Risk of Bias: serious. Indirectness: serious. Imprecision: serious.**
2. **Risk of Bias: serious. Indirectness: serious. Imprecision: serious.**

## References

63. Pryce J, Choi L, Richardson M, Malone D : Insecticide space spraying for preventing malaria transmission. Cochrane Database of Systematic Reviews 2018;(11): Pubmed Journal Website

## Clinical Question/ PICO

**Population:** Adults and children living in areas with ongoing malaria transmission
**Intervention:** Screening of windows, ceilings, doors and eaves with untreated material
**Comparator:** No house screening

## Summary

**House screening versus no house screening in areas with risk of malaria:**
Six cRCTs met the inclusion criteria, all conducted in sub-Saharan Africa; three randomized by household, two by village, and one by communities. At the time of publishing the review (January 2021), two of the six trials had published results, both of which compared screened houses (without insecticide) to unscreened houses. One trial in Ethiopia assessed screening of windows and doors. Another trial in The Gambia assessed full screening (screening of eaves, doors and windows), as well as screening of ceilings only.

Screening may reduce clinical malaria incidence caused by *Plasmodium falciparum* (rate ratio 0.38, 95% CI 0.18 to 0.82; 1 trial, 184 participants, 219.3 person-years; low-certainty evidence; Ethiopian study). For malaria parasite prevalence, the point estimate, derived from The Gambia study, was smaller (RR 0.84, 95% CI 0.60 to 1.17; 713 participants, 1 trial; low-certainty evidence), and showed an effect on anaemia (RR 0.61, 95% CI 0.42, 0.89; 705 participants; 1 trial, moderate-certainty evidence).

Screening may reduce the entomological inoculation rate (EIR): both trials showed lower estimates in the intervention arm. In the Gambian trial, there was a mean difference in EIR between the control houses and treatment houses ranging from 0.45 to 1.50 (CIs ranged from -0.46 to 2.41; low-certainty evidence), depending on the study year and treatment arm. The Ethiopian trial reported a mean difference in EIR of 4.57, favouring screening (95% CI 3.81 to 5.33; low-certainty evidence).

Pooled analysis of the trials showed that individuals living in fully screened houses were slightly less likely to sleep under a bed net (RR 0.84, 95% CI 0.65 to 1.09; 2

trials, 203 participants). In one trial, bed net usage was also lower in individuals living in houses with screened ceilings (RR 0.69, 95% CI 0.50 to 0.95; 1 trial, 135 participants).

| **Outcome** Timeframe | **Study results and measurements** | **Comparator** No screening | **Intervention** Screening | **Certainty of the Evidence** (Quality of evidence) | **Plain language summary** |
|---|---|---|---|---|---|
| Clinical malaria incidence caused by P. falciparum | Relative risk 0.38 (CI 95% 0.18 — 0.82) Based on data from patients in 1 studies. (Randomized controlled) Follow up: 6 months. | 91 per 1000 Difference: | 35 per 1000 **56 fewer per 1000** ( CI 95% 75 fewer — 21 fewer ) | Low Due to serious risk of bias, Due to serious imprecision [1] | Screening may reduce clinical P falciparum malaria. |
| Malaria parasite prevalence | Relative risk 0.84 (CI 95% 0.6 — 1.17) Based on data from 713 patients in 1 studies. [2] (Randomized controlled) Follow up: 1 year. | 234 per 1000 Difference: | 197 per 1000 **37 fewer per 1000** ( CI 95% 94 fewer — 40 more ) | Low Due to serious imprecision [3] | Screening may have a small effect on malaria parasite prevalence. |
| Anaemia (haemoglobin conc <80g/L) prevalence | Relative risk 0.61 (CI 95% 0.42 — 0.89) Based on data from 705 patients in 1 studies. [4] (Randomized controlled) Follow up: 1 year. | 211 per 1000 Difference: | 128 per 1000 **82 fewer per 1000** ( CI 95% 122 fewer — 23 fewer ) | Moderate Due to serious imprecision [5] | Screening probably reduces anaemia prevalence. |
| Entomological Inoculation Rate (EIR) | Based on data from: patients in 2 studies. (Randomized controlled) Follow up: range 6 months to 2 years. | In one study, the mean difference in EIR between the control houses and treatment houses ranged from 0.45 to 1.50 (CIs ranged from -0.46 to 2.41), depending on the study year and treatment arm; in a second study, there was a mean difference in EIR of 4.57 (95% CI 3.81 to 5.33). | | Low Due to very serious imprecision [6] | Screening may reduce EIR. |

1. **Risk of Bias: serious. Imprecision: serious.**
2. Systematic reviewwith included studies: Kirby 2009. **Baseline/comparator:** Control arm of reference used for intervention.
3. **Imprecision: serious.**
4. Systematic reviewwith included studies: Kirby 2009. **Baseline/comparator:** Control arm of reference used for intervention.
5. **Imprecision: serious.**
6. **Imprecision: very serious.** the CIs around the mean estimates are very wide..