



Ind As a means of controlling densities of adult mosquitoes, the localities implemented strategies related to the reduction of sandflies. Photo credit: WHO
oor residual spraying (IRS)

The epidemiological analysis revealed a significant decline in the incidence of cutaneous leishmaniasis among sprayed houses, reaching an incidence level of zero in 12 localities
after the third year of intervention.

Sandfly densities were reduced significantly in 2011 and 2012 in Boukidour locality, while in lumrouj and Ait Chaib localities there were minimal difference throughout the
intervention.

Following IRS, there was a sharp decline in the proportion of gravid and half gravid sandflies.

Bioefficacy tests showed satisfactory residual effectiveness one day after spraying (89.3%); but this decreased progressively reaching 61.45% after three months.

achieved 100% mortality when exposed to lambda-cyhalothrin. \square Ph. sergenti Wild collected

Long-lasting insecticide nets (LLINs)

An increase in the total number of cases was observed in the first year, followed by a decline in the consecutive years.

Marked reduction in sandfly density was observed in Ait Chirbou, Tabia and Soulah localities in 2011 and 2012.

Control

Fluctuations in the total number of cases were observed throughout the intervention period and maybe attributed to improvement in case detection

Sand fly density peaked between May and June in three localities for the three consecutive years while a reduced peak was observed in August and September (2010-2012).[□]

Community leishmaniasis incidence

Incidence by study arm and study year shows between year variations but with a general downward trend in incidence

Incidence in the LLIN and IRS arm of the study was higher than in the control arm during the pre-intervention period, but considerably lower compared to the control following IRS and LLIN distribution

There was a sharp decline in the incidence in the IRS arm compared to the LLINs arm.[□]

Cost-effectiveness

IRS was found to be relatively more cost-effective compared to LLINs and environmental management.

Conclusions

IRS with alphacypermethrin at 30 mg/m² was effective in significantly reducing leishmaniasis transmission, while no significant benefit was identified with the use of LLINs.[□]

Related links

[Report of a meeting of the WHO Expert Committee on the Control of Leishmaniases, Geneva, 22–26 March 2010 \[pdf 2.1Mb\]](#)

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