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## Introduction

In Colombia *Aedes aegypti* is distributed in 73% of the localities. Currently, prevention and control actions are based on PAHO recommendations, which include strengthening entomological surveillance and vector control systems. These are mainly focused on the control of mature states, so it is important to implement tools for the control and surveillance of adult mosquito states.

## Objective

Evaluate the use of AGO (Autocidal Gravid Ovitrap) sticky traps in three regions of Colombia with support from CDC-INS.

## Material & Methods

The study was carried out in three municipalities of three natural bioregions of Colombia (figure 1), where the use of AGO traps was evaluated. Among others, the selection criteria of the areas were: high hyperendemicity for dengue and presenting a history of high entomological indicators.



Figure 1. Geographic location of study areas and work teams

In each of the municipalities, neighborhoods with the highest and lowest dengue transmission were selected for the installation of traps in dwellings (figure 2), in which *Digitaria eriantha* (Pangola hay) was used as an attractant. The specimens were collected weekly as a surveillance method.



Figure 2. Installation of AGO traps in dwellings

A descriptive and correlation analysis was carried out, differences were established between neighborhoods and municipalities using the Mann Whitney U test, and surveys were conducted to measure community satisfaction and level of trust.

## Results

8,999 mosquitoes were collected; 6215 in Valledupar, 1,716 in Palmira and 1,068 in San José del Guaviare. The species collected were *Ae. aegypti* in the three study areas and *Ae. albopictus* in Palmira, statistical differences were found between neighborhoods in San José del Guaviare (P = 0.0003) and Palmira (P <0.0001) (figure 3).

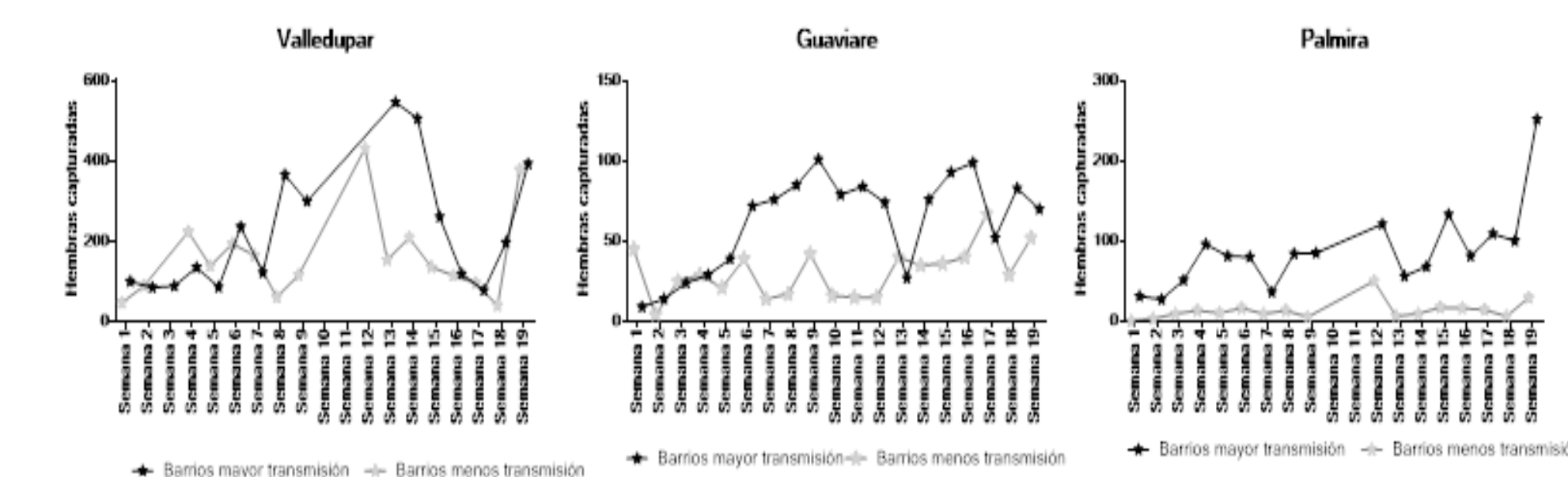


Figure 3. Female mosquitoes collected by study area

There was a negative correlation with respect to precipitation and the number of mosquitoes in Guaviare (r = -54.4).

For the three municipalities, an increase was observed in the amount of mosquitoes collected between the months of January and February (2017), this behavior may be related to the increase in temperature in the three cities, although no statistical differences were found (figure 4).



Figure 4. Captured mosquitoes vs precipitation and maximum temperature

The community of the Valledupar and Palmira neighborhoods rated that the intervention improved the situation in their neighborhood by a percentage ≥ 50%, while in San José del Guaviare they rated that it improved by 38% (figure 5). The percentage of satisfaction of the traps by the community was higher than 75% (figure 6).

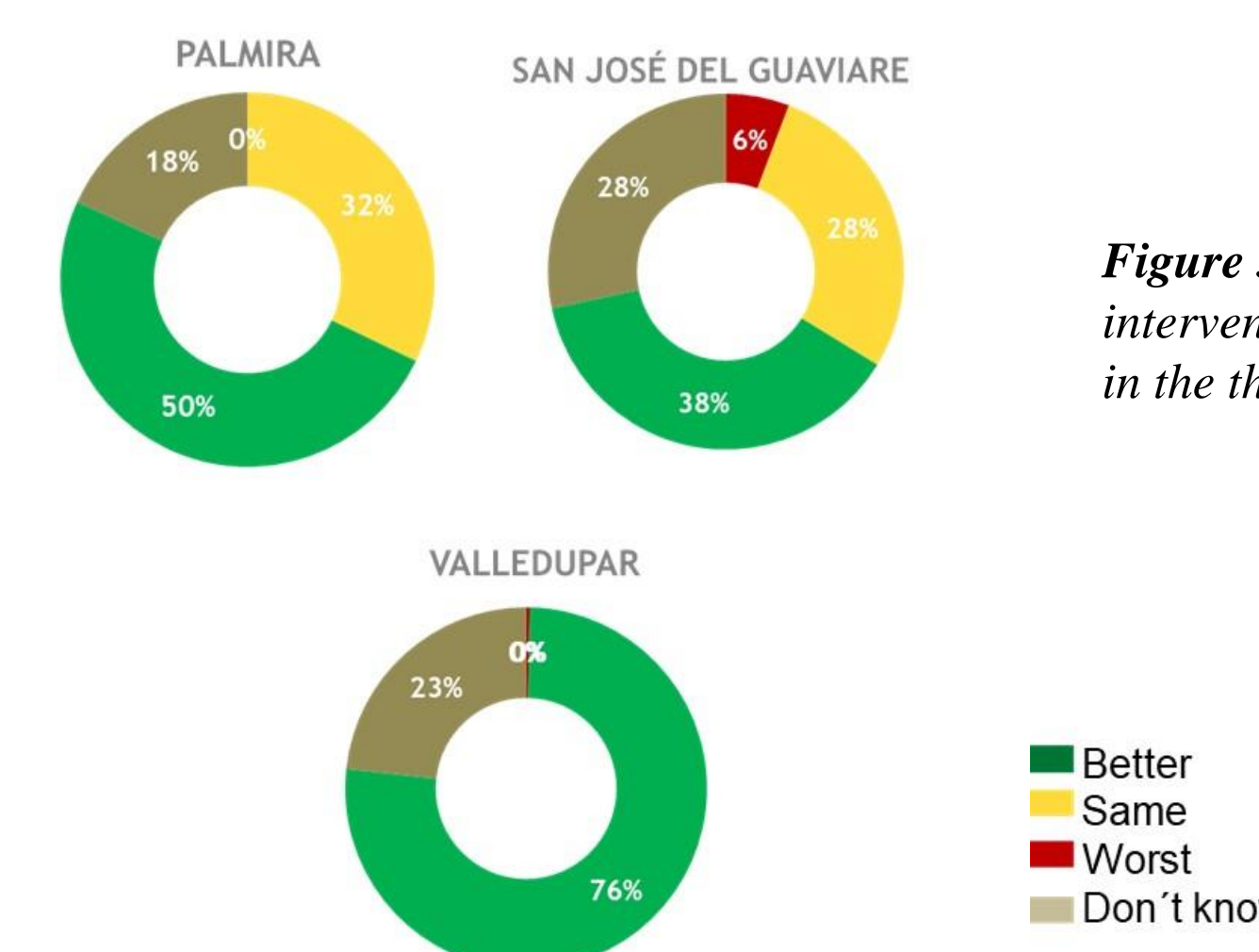


Figure 5. Impact of the intervention in the community in the three study areas.

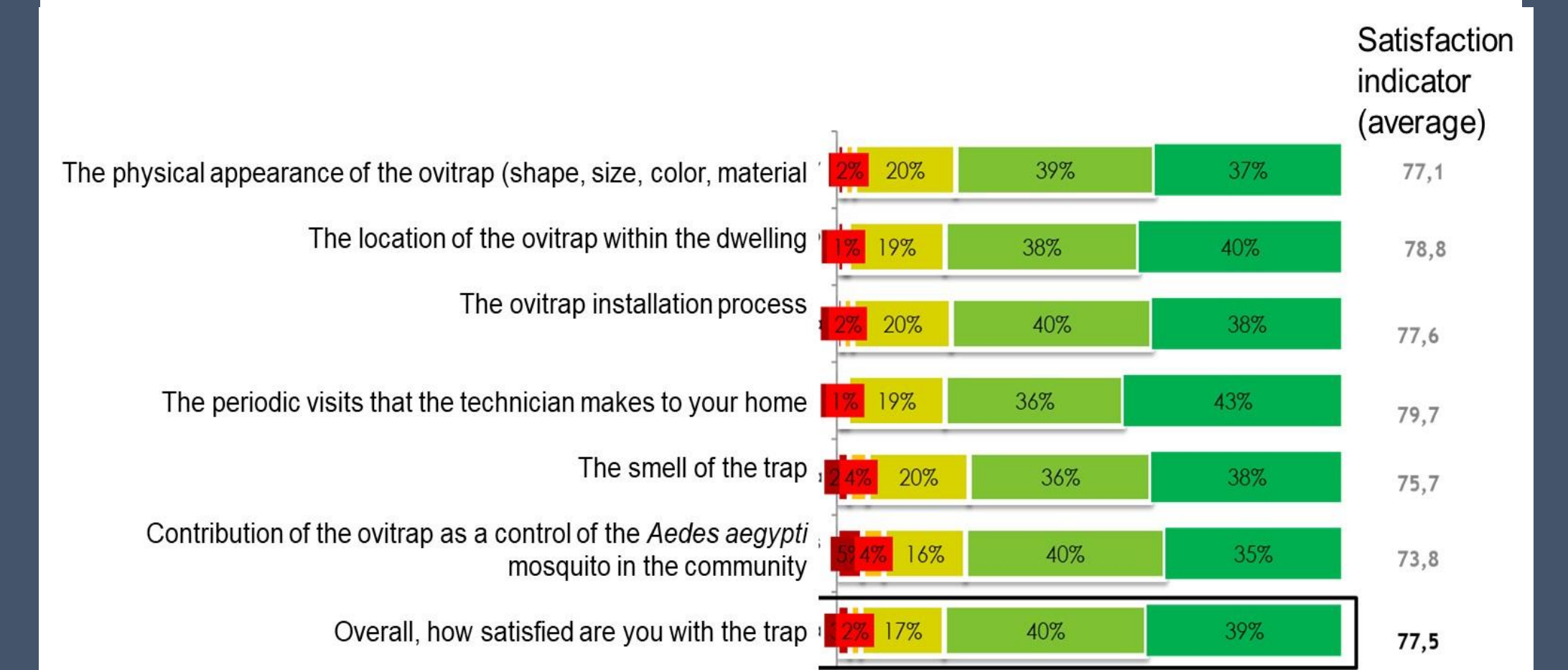


Figure 6. Satisfaction indicators in the study area

## Conclusion

The use of AGO traps allowed the capture and monitoring of *Ae. aegypti* in localities with greater and lesser transmission of dengue in regions of Colombia, with different characteristics, which confirms its usefulness in entomological surveillance for adult forms, being a methodology with acceptance and low cost.

## Acknowledgment

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