

Public acceptance of a large-scale deployment of a *Wolbachia* strategy in Ponce, Puerto Rico

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ABSTRACT

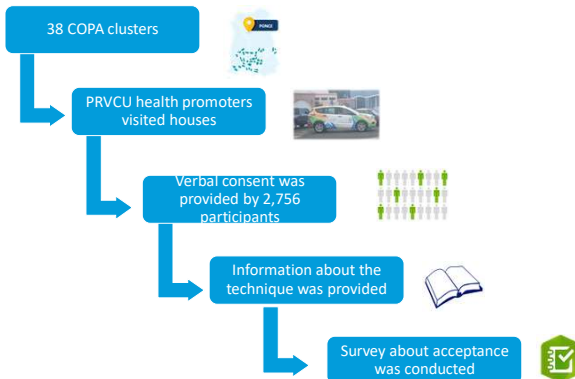
Communities Organized to Prevent Arbovirus (COPA) is a collaborative project to prevent arboviruses in Ponce, Puerto Rico. *Wolbachia* suppression is the current intervention being used in this project to control *Aedes aegypti*. Part of the work with this intervention was to explore the *Wolbachia* suppression method's acceptance by residents living within the 38 COPA clusters. A pre-release survey of over 2,700 households found overwhelming support for releasing *Wolbachia*-infected male mosquitoes within their communities. This poster details the level of that support.

INTRODUCTION



- The *Wolbachia* suppression method, though well-known, is new to Puerto Rico for the control of *Aedes aegypti*¹, the most serious disease vector on the island.
- Prior to beginning releases, we were concerned that residents could perceive the method as unsafe or ineffective and this perception may jeopardize the project if there was insufficient community acceptance².
- Community acceptance is recognized as a necessary precondition to the use of *Wolbachia* in *Ae. aegypti* control^{3,4}.
- To our knowledge, there is no published study about the acceptability of the *Wolbachia* suppression method.
- A mixed-method study was performed to evaluate *Wolbachia* suppression acceptance in COPA residents living in the 38 COPA clusters in Ponce, PR.

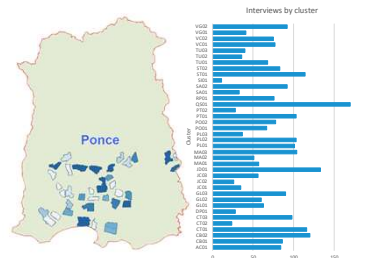
METHODS



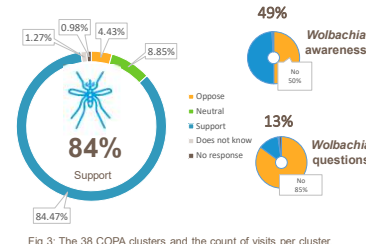
Questionnaire

- Interviewer provided information about *Wolbachia*.
- Before this talk, have you ever heard of male mosquitoes with *Wolbachia*?
- After providing this information, do you have any questions about the use of male mosquito with *Wolbachia*?
- Before this visit, did you know that it is planned to use male mosquitoes with *Wolbachia* in PR?
- If yes- Where did you receive the information that it is planned to use male mosquitoes with *Wolbachia* PR?
- Do you support the release of male mosquitoes with *Wolbachia* in your community?

RESULTS



The house-to-house visits started in 6/18/2020 and finished on 9/4/2020. We visited 7,535 houses from all the 38 COPA clusters. From the visited houses 2,756 of the residents accepted to participate in the survey. The with-cluster interviews ranged between 11 and 170 (cf. Figure 2).

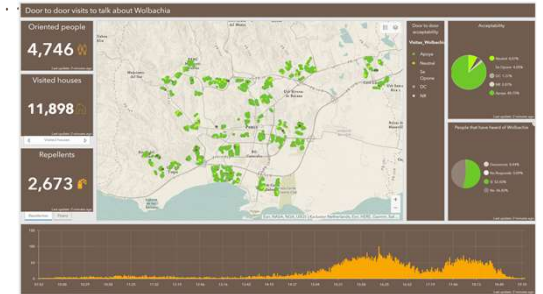


After asking the residents if they support the release of *Wolbachia*-infected male mosquitoes within their communities, 2,328 (84.47%) interviewees supported and 122 (4.43%) were opposed the idea. A total of 49% of the residents knew about the use of these mosquitoes, 13% had questions or requested more information.

Of the residents that had heard about the use of this technique, 468 identified Facebook as their initial information source.



From 353 residents with questions, 114 (32.29%) have questions classified under the use of the technique in Puerto Rico.



ArcGIS dashboard with results of educational visits for *Wolbachia* suppression among COPA cluster resident was develop to communicate acceptability data to diverse stakeholders.

CONCLUSION

- Wolbachia* suppression was a new method for Puerto Rico and after less than five months of community outreach, an acceptance of 84% was reached.
- This acceptance percentage is similar to results reported by the World Mosquito Project for sites in Australia⁵.
- Variability was found among clusters, therefore focus groups should be conducted in the clusters with lower acceptance to understand their concerns.
- Since the sample was not chosen at random but by convenient sampling, results need to be taken carefully given the reduced external validity.
- The survey was during the first months of COVID-19 in PR and strict social distance measures were effective to prevent infections in the interviewers.
- Future work will compare the results of this study with an evaluation being conducted by the COPA project months after the releases started.

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References

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