



PACMOSSI

Pacific Mosquito Surveillance
Strengthening for Impact

Operations research

Research into interventions, tools and processes that enhance the quality, effectiveness or performance of the health system or programmes

PacMOSSI Strategic Planning Online Workshop for Vector Control and Surveillance in the Pacific

26-28th April 2022

Maxine Whittaker

What is Operations research (OR)?



Addresses practical, context-specific questions



Uses the results of the investigation to directly inform better practice

Why do OR?



- Answers program implementation related questions
- Improves efficiency
- Improves population health
- Increases knowledge
- Improves practice



Why? Operations)
research is needed in
vector control
programmes to:

Operational research involves research into strategies, interventions, tools, or knowledge that can enhance the quality coverage, effectiveness or performance of the health system or its programs.

Like any research activity, operational research is methodical and requires careful planning.

Assess the **effectiveness** of interventions and **optimize** programmatic delivery of vector control in an environmentally safe and sustainable manner.

Vector control must be evidence-based to ensure **local appropriateness** and justify continued investment in implementation.

Innovation is also needed to advance the development and evidence-base for new vector control and monitoring tools, technologies and approaches.

Operational research seeks **to find answers to questions related to practical every day operational challenges.**

Operations research plan ...



- A clearly defined national research agenda will help avoid overlap and gaps in the work conducted in-country, and will assist in identifying additional external resources to support priority work.
- Coordination of research activities within and between countries will maximize the benefits of research and avoid unnecessary replication

And should

- be defined by the national vector-borne disease control programme in consultation with national and international experts in the relevant field.
- outline a prioritized list of strategic focus areas required to inform vector control in the country,
- serve to guide research and academic institutions to align the focus of their work.

Common research needed to improve the quality, effectiveness and delivery of vector control.

- Assessment of health-system resilience
- Research should assess the capacity, strengths and weaknesses of the present health system in order to optimize processes and methods for vector control delivery.
- Community engagement and mobilization outcomes evaluation
- Case studies of good practice should be identified for different eco-epidemiological settings
- Trial/test field suitability of new tools, technologies, approaches in your eco-environmental, cultural and health system contexts
- Improving inter- and intra-sectoral collaboration should also be undertaken to document good practices.
- Identifying effective approaches for community engagement and mobilization underpin programme acceptance and sustainability.
- Research for behavioural change is imperative to ensure acceptability, participation and appropriate use of vector control tools
- Economic evaluations of vector control systems will also support cost-effectiveness evaluations and support selection of the most appropriate and efficient vector control interventions.



Questions to help in your planning for applied research



- Has an agenda for basic and applied research been established/reviewed? When was this done?
- What are the procedures for reviewing and updating the basic and applied research agenda?
- What basic and applied research studies have been conducted in the previous 5 years (including entomological, epidemiological, economic and social science research)? Describe these.
 - Study; Topic; Date; Institutions involved; Reference/ Name of report
 - Recommendations made and any actions taken? [Implications for this plan?](#)
- List research institutions in-country/regionally and internationally with which the programme collaborates. Indicate the type and extent of collaboration.
 - Are there institutions in-country/regionally with which the programme does not collaborate but where collaboration would be beneficial? [Implications for this plan?](#)
 - Are there formal institutional agreements in place between the programme and collaborating institutions? [Implications for this plan?](#) Are research findings reviewed by the programme, and are results applied to the programme?
 - How is this done? [Implications for this plan?](#)
- Are new vector control tools recommended by WHO piloted in-country before large-scale roll-out?
 - How is this done? [Implications for this plan?](#)
- **What have you identified that needs to be introduced/changed in vector control that may benefit from applied research/piloting?**
 - [Try and identify this as you go through each component of the strategy](#)



References

SPC 2020 Manual For Surveillance And Control Of Aedes Vectors In The Pacific Suva: SPC

WHO 2016 An R & D blueprint for action to prevent epidemics. Geneva: World Health Organization

WHO 2017 Global Vector Control response 2017-2030 Geneva: World Health Organization

PacMOSSI Training Course

Beek K. and Craig, A Addressing operational research questions to improve mosquito-borne disease prevention and control Presentation at PacMOSSI Inception workshop 23rd March 2022