

8. OPERATIONAL RESEARCH

New, practical, inexpensive, and easily applied methods and combinations of methods of control need to be developed. Moreover, many old methods that still are being used in combination with other measures that may mask their effect, need to be re-evaluated individually.

The following are some suggested topics for operational research:

- For each geographic area, determine which container types produce the most adult *A. aegypti*, their abundance and seasonal variations, and the duration of their presence.
- Identify people at high risk of dengue infection and develop methods to protect them.
- Conduct biological studies of the relationship between larval density and adult production and longevity.

- Evaluate methods for achieving greater social participation in dengue prevention.
- Evaluate the community's potential role for rapid response to an epidemic alert through source reduction.
- Develop insect-proof water drums and other containers or covers that are easily constructed and used and that are appropriate for local conditions.
- Determine the optimal dosages, droplet spectrum, and modes of application of aerosol insecticides.
- Study the effect of insecticide applications on the predators of adult *A. aegypti*.
- Develop a long-lasting, non-sedimentary formulation of the *Bacillus thuringiensis* H-14 for use in potable water.
- Study the use of native desiccation-resistant cyclopoid copepods for the biological control of *A. aegypti*.

