

## ABSTRACT

**Background:** Integrated vector management (IVM) is a rational decision-making process to optimize the use of resources for vector control. IVM uses a management-styled approach that aims to improve the efficacy, cost effectiveness, feasibility and ecological soundness of vector control interventions with the available resources and provided tools. The key elements of IVM are social mobilization, environmental management, epidemiological and entomological surveillance, and chemical and biological control. Mosquito-borne diseases are diseases spread by mosquitoes and caused by bacteria, viruses, or parasites. Dengue fever is a mosquito-borne viral infection that has spread quickly through all WHO regions in recent years.

**Aim:** To study the challenges and progresses made in the implementation of Integrated Vector Management for the management of dengue

**Method:** Database was obtained from PubMed and Google Scholar, based on relevant articles, journals and books that fulfil the inclusion criteria. Inclusion criteria for the articles to be included were articles on dengue vector management, articles written in English and articles from the year 2000-2020.

**Results:** There was a total of 42 studies that were assessed, and 21 studies were excluded and 21 studies were included. Out of the 21 studies have been included in the analysis, with 13 studies centered in South-East Asia, 5 systematic reviews and 3 studies centered in Africa and other regions. Advocacy, social mobilization and legislation and integrated vector approach is the most vital of IVM principles in order to ensure sustainability and long term capabilities of IVM. The most prominent challenges IVM has faced in its implementation is community engagement, mobilization and information sharing together with funding constraints in order to build proper facilities.

**Conclusion:** The implementation of IVM in the management of dengue has brought about many progresses not only in the reduction of cases but also in other aspects as well. It has to be accepted as a major game changer in vector control. The challenges that IVM faces such as community engagement and funding constraints must be overcome in order for it to be more efficient

**Keywords:** Integrated vector management, mosquito-borne disease. dengue, vector, progress, challenge