

## Dengue Prevention and Control in Kaohsiung City

**Authors :** Chiu-Wen Chang, I-Yun Chang, Wei-Ting Chen, Hui-Ping Ho, Ruei-Hun Chang, Joh-Jong Huang

**Abstract :** Kaohsiung City is located in the tropical region where has *Aedes aegypti* and *Aedes albopictus* distributed; once the virus invades, it's can easily trigger local epidemic. Besides, Kaohsiung City has a world-class airport and harbor, trade and tourism are close and frequently with every country, especially with the Southeast Asian countries which also suffer from dengue. Therefore, Kaohsiung City faces the difficult challenge of dengue every year. The objectives of this study was to enhance dengue clinical care, border management and vector surveillance in Kaohsiung City by establishing an larger scale, innovatively and more coordinated dengue prevention and control strategies in 2016, including (1) Integrated medical programs: facilitated 657 contract medical institutions, widely set up NS1 rapid test in clinics, enhanced triage and referrals system, dengue case daily-monitoring management (2) Border quarantine: comprehensive NS1 screening for foreign workers and fisheries when immigration, hospitalization and isolation for suspected cases, health education for high risk groups (foreign students, other tourists) (3) Mosquito control: Widely use Gravitrap to monitor mosquito density in environment, use NS1 rapid screening test to detect community dengue virus (4) Health education: create a dengue app for people to immediately inquire the risk map and nearby medical resources, routine health education to all districts to strengthen public's dengue knowledge, neighborhood cleaning awards program. The results showed that after new integration of dengue prevention and control strategies fully implemented in Kaohsiung City, the number of confirmed cases in 2016 declined to 342 cases, the majority of these cases are the continuation epidemic in 2015; in fact, only two cases confirmed after the 2016 summer. Besides, the dengue mortality rate successfully decreased to 0% in 2016. Moreover, according to the reporting rate from medical institutions in 2014 and 2016, it dropped from 27.07% to 19.45% from medical center, and it decreased from 36.55% to 29.79% from regional hospital; however, the reporting rate of district hospital increased from 11.88% to 15.87% and also increased from 24.51% to 34.89% in general practice clinics. Obviously, it showed that under the action of strengthening medical management, it reduced the medical center's notification ratio and improved the notification ratio of general clinics which achieved the great effect of dengue clinical management and dengue control.

**Keywords :** dengue control, integrated control strategies, clinical management, NS1

**Conference Title :** ICTID 2017 : International Conference on Tropical Infectious Diseases

**Conference Location :** Bangkok, Thailand

**Conference Dates :** December 18-19, 2017