

(E) PUBLIC HEALTH

SGP2012 Target	Current Progress
Increase community ownership to sustain a high standard of public health.	The number of community activities organised and community volunteers increases steadily ¹ .
Become a leading regional centre in epidemiological surveillance and research on vector-borne diseases.	<p>Between 2006 and 2008, 24 research projects² transited into operation. A total of 28 publications in international peer-reviewed journals and talks were delivered in the last 3 years; and 12 international collaborations³ were initiated.</p> <p>NEA plays an active role in promoting regional collaboration on dengue surveillance and capacity building. In Feb 2007, NEA hosted and chaired the first WHO Core Group Meeting on the Asia-Pacific Dengue Partnership to support and mobilize resources for the implementation of regional strategies for the prevention and control of dengue.</p> <p>NEA also works closely with the WHO's Western Pacific and South-East Asia Regional Offices to formulate the Bi-regional Dengue Strategic Plan. NEA together with MFA and WHO co-organised the first Asia-Pacific Dengue Workshop in Singapore in Mar 2009 to build capacity in laboratory and field surveillance during inter-epidemic periods so as to avert or lessen the impact of dengue outbreaks in the region.</p>

¹ The number of environmental activities organised by the community increased from 1,725 in 2006 to over 4,000 in 2008, and the number of community volunteers assisting in environmental programmes and activities increased from 5,228 to 6,326 in the same period.

² Examples of research projects which transited into operation are the surveillance of adult mosquitoes at Chikungunya cluster area which revealed *Aedes albopictus* as the primary vector, and the genetic profiling of Chikungunya virus in outbreak areas which revealed the likely origin of the virus.

³ Examples of international collaborations include EHI's study with University of Kelaniya (Sri Lanka) on Chikungunya and the understanding of Dengue Viruses and Cross-Protection Offered by Different Serotypes with IPK ("Institute for Tropical Medicine" Cuba).

SGP2012 Target	Current Progress
Maintain low incidence of vector-borne and food-borne diseases.	<p>In Singapore, the incidence of dengue follows closely the cyclical trend experienced, which peaks every 5-7 years. The rise in dengue incidence in 2007 compared to 2006⁴ indicates the beginning of a new epidemic cycle. However, we succeeded in bucking the trend in 2008⁵. Cases were reduced by 20% compared to that in the previous year.</p> <p>The number of food outlet related food poisoning outbreaks remains low for the past three years⁶. There is also an increase in the proportion of food shops and stalls graded 'B' and above⁷. Nonetheless, more can be done to further minimise the occurrence of food poisoning outbreaks, given the harm caused by such incidents. NEA will introduce new measures to strengthen the regulatory regime for food hygiene.</p>

Maintaining Low Incidence of Vector-borne Diseases

1 Singapore is situated in a dengue endemic region. It is highly susceptible to imported infections, which can give rise to local transmission readily as the mosquito vectors are present in the country. An integrated, multi-pronged approach is adopted to control dengue. The mainstay of this approach is pre-emptive source reduction, which is recognized by the WHO as the only effective and sustainable mosquito control measure, supported by active virological and entomological surveillance. An inter-agency dengue taskforce is also formed to coordinate the dengue control efforts in both the public and private sectors.

2 Apart from source reduction, it is also important for the community to assume ownership in preventing the breeding of mosquito in their immediate environment. A two-pronged communication strategy is adopted for dengue prevention outreach. First, the national level programmes engage the general

⁴ Dengue incidence in 2006 and 2007 were 63.4, and 180.6 per 100,000 population respectively.

⁵ Dengue incidence in 2008 was 131.8 per 100,000 population

⁶ In 2006, 2007 and 2008, there were 2.5, 2.5 and 3.45 incidents of food poisoning outbreaks per 1,000 food outlets respectively.

⁷ The proportion of food establishments graded 'B' and above has increased from 77.3% in 2006 to 84.6% in 2008.

public through the local media. Second, target-group specific programmes are used to engage different segments of the population e.g. school children and homeowners.

Regional Centre in Epidemiological Surveillance

3 Singapore continues to build up its expertise in dengue surveillance, control and research through collaborative partnership with regional countries, which also helps to equip these countries to tackle the challenge of dengue.

4 NEA contributed to WHO's efforts in formulating the Asia-Pacific dengue strategic plan. The plan is used as a blueprint for regional countries to develop the necessary capability and capacity to keep dengue at bay, as well facilitate the better exchange of knowledge and information on the disease. In March 2009, Singapore hosted the first Asia-Pacific Dengue Workshop to equip government officials from the Asia-Pacific countries with the knowledge and skills to develop more effective national dengue control programmes in their countries.

5 Beyond the region, NEA entered into an MOU with Cuba's Instituto de Medicina Tropical "Pedro Kouri" in 2007 to strengthen collaboration in dengue surveillance, control and research. Through these collaborations Singapore can also further its own understanding of the disease and improve our own dengue control efforts.

Singapore Litter-Free Programme

6 The Singapore Litter-Free campaign involves NEA's partnership with stakeholders, including event organizers, service providers and premises owners/managers. They would reach out to their respective target groups such as school children, event participants and patrons of the premises.

7 Event organisers and premises owners and managers play their part to engage the public to take ownership of their litter and the cleanliness of the environment. Examples of litter-free public outdoor events include National Day Parade, World of Music, Arts and Drama (WOMAD) festival, Singapore Marathon, and examples of premises that participated in the Litter-Free Premise Programme include parks, bus-interchanges, coffeeshops and hawker centres. Private companies also adopted some public parks and beaches.

8 NEA works with schools from pre-school level onwards to implement various programmes to raise environmental awareness in our youth. Environmental messages are weaved into the school's formal curriculum in subjects like Science, Geography and Social Studies, as well as in special programmes such as the Public Health Badge scheme and Litter-free Ambassadors.

9 Apart from maintaining an efficient programme for cleaning public places and an effective enforcement programme to deter littering, NEA will also sustain its efforts in educating the public on the importance of keeping the country clean.

Maintaining Low Incidence of Food Borne Diseases

10 NEA conducts regular inspection of food outlets, enforces against infringement of regulations as well as educates all food handlers on basic knowledge of food hygiene before they can operate. In 1997, we introduced the grading scheme for food establishments, which incentivises operators to improve their hygiene standards. This has served us well. The proportion of food outlets graded “Excellent” and “Good” in their hygiene standards increased from 77.3% in 2006 to 84.6% in 2008. Notwithstanding this, food poisoning incidents have occurred when there are lapses in personal hygiene.

11 Although the number of food poisoning cases in Singapore is low, we need to step up efforts to minimise the occurrence of food poisoning outbreaks, given the harm caused by such incidents. NEA will introduce new measures to strengthen the regulatory regime for food hygiene. These include more frequent inspection of our food establishments, stiffer penalties for food hygiene offences and greater self-regulation by the industry.