

# 20th Conference on Countermeasures to Combat Infectious Diseases in Asia (CCIDA)

## Taipei City' s Dengue Fever Epidemic: Crisis Management and Action Strategies

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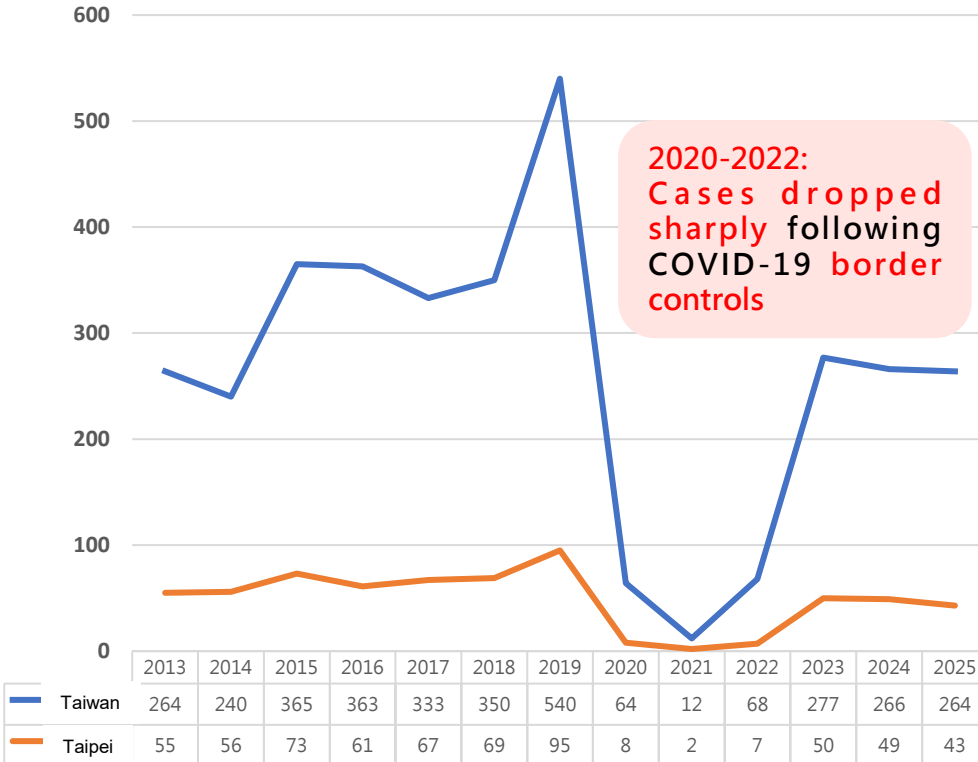


Department of Health, Taipei City Government



# Dengue Fever in Taiwan and Taipei City: Imported Case Trends

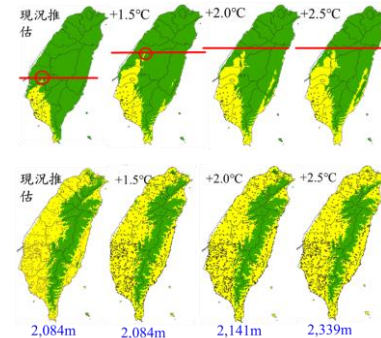
Confirmed Cases



2020-2022:  
Cases dropped sharply following COVID-19 border controls

## Taiwan and Taipei City face dengue fever threats

1. Climate change-driven warming is **expanding the range of vector mosquitoes**.
2. Frequent international travels and activities **accelerate virus transmission**.
3. Taiwan's **long-term risk of imported dengue remains high**, driven by its geography, travel exchanges, and outbreaks in neighboring countries.



Potential distribution of *Aedes aegypti*  
Yellow: potential distribution

Potential distribution of *Aedes albopictus*  
Yellow: potential distribution

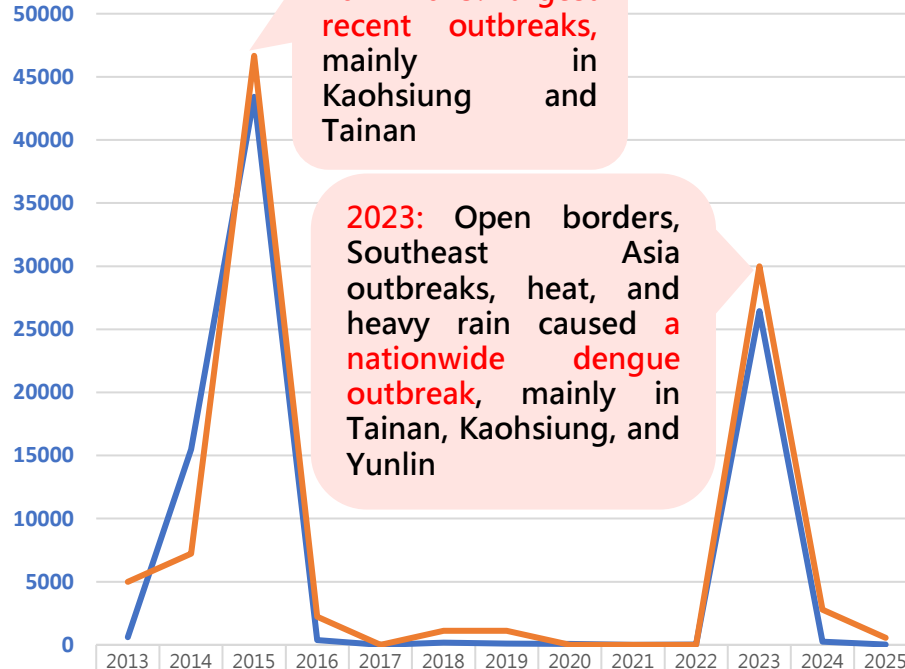
Source: Centers for Disease Control, Ministry of Health and Welfare

# Dengue Fever in Taiwan and Taipei City: Local Case Trends

Taiwan  
Confirmed Cases

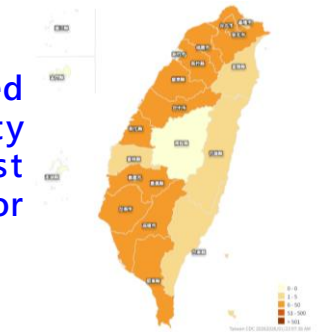
Taipei City  
Confirmed Cases

## Urbanization Brings Multiple Challenges



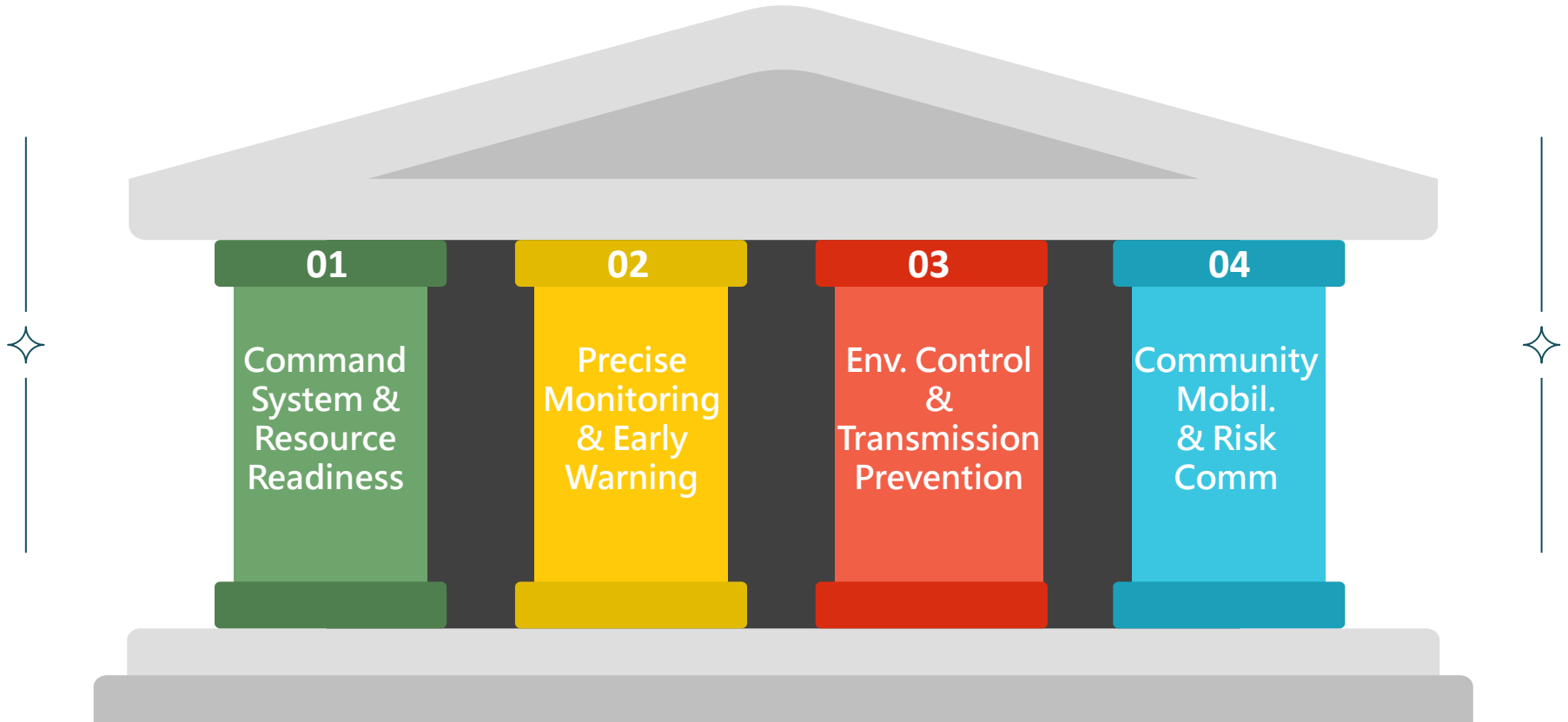
1. Local outbreaks in Taiwan are mainly driven by imported cases, with virus strains matching Southeast Asia each year.
2. Taipei's dense population, hilly terrain, some mountainous districts, poor drainage, and mixed green spaces make vector control challenging in both urban and semi-natural areas.

★Imported confirmed cases in Taipei City remain the highest among the six major cities in Taiwan★



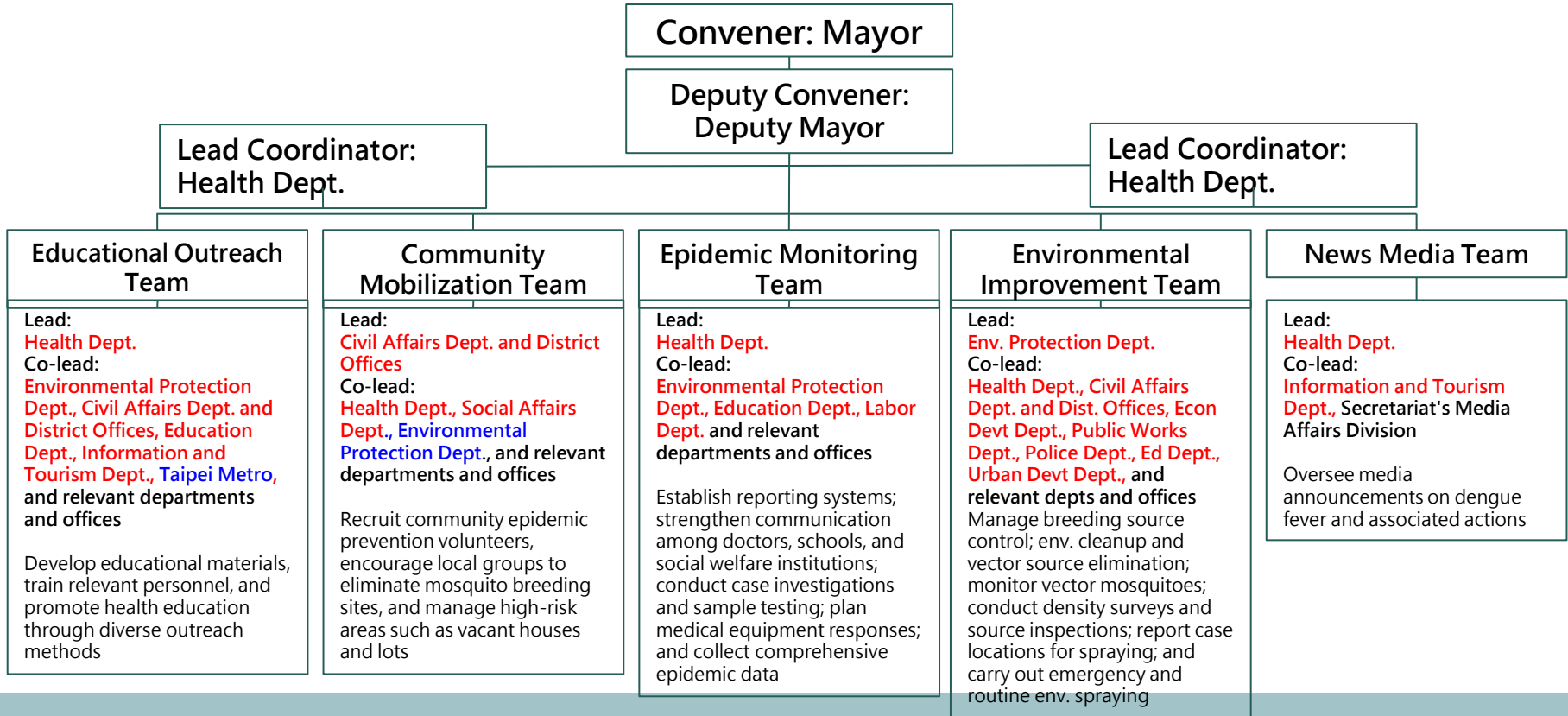
Source: Centers for Disease Control, Ministry of Health and Welfare

# Taipei City's 4 Action Strategies Against Dengue Fever



# Action Strategy 1: Command System & Resource Readiness

## Taipei City Dengue Fever Prevention: Structure and Role Division



# Action Strategy 1: Command System & Resource Readiness

## Taipei City District-level Response Task Force

- Task Force Activation: Once the central government **confirms a new local dengue case in Taipei City**, a District-level Response Task Force is established in the affected district to **coordinate resources and mobilize the community for prevention and control**.

- Includes:

|                     |  |
|---------------------|--|
| Commander           | District Chief   |
| Deputy<br>Commander | Health Service Center Director   |
| Members             | Dist. Office, Health Service Center, Cleaning Teams, Police Precincts, Village Offices, Household Regist. Office, Land Office, Animal Protection Office, Park and Street Lights Office, etc. Members may be adjusted as needed (e.g., inviting Market Admin Office and Ed. Dept. to participate if areas for cleaning and spraying include markets and schools). |

- Meeting Frequency and Disbanding: Meetings are held based on epidemic development and continue until 31 days after the onset date of the last confirmed local dengue fever case in that administrative district, provided no further local cases are reported during that period.

# Action Strategy 1: Command System & Resource Readiness

## Taipei City Cross-District Support Team Assignment

- If a Health Service Center's capacity is exceeded, Cross-district Support Teams can be activated to support epidemic prevention efforts

| Team | 1 <sup>st</sup> Support Center | 2 <sup>nd</sup> Support Center | 3 <sup>rd</sup> Support Center | 4 <sup>th</sup> Support Center |
|------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| 1    | Songshan, Nangang,<br>Neihu    | Xinyi, Daan,<br>Zhongzheng     | Shilin, Beitou, Datong         | Wenshan, Zhongshan,<br>Wanhua  |
| 2    | Xinyi, Daan,<br>Zhongzheng     | Shilin, Beitou, Datong         | Wenshan, Zhongshan,<br>Wanhua  | Songshan, Nangang,<br>Neihu    |
| 3    | Shilin, Beitou, Datong         | Wenshan, Zhongshan,<br>Wanhua  | Songshan, Nangang,<br>Neihu    | Xinyi, Daan,<br>Zhongzheng     |
| 4    | Wenshan, Zhongshan,<br>Wanhua  | Songshan, Nangang,<br>Neihu    | Xinyi, Daan,<br>Zhongzheng     | Shilin, Beitou, Datong         |

# Action Strategy 1: Command System & Resource Readiness

## Inventory of Dengue Fever Prevention and Control Supplies

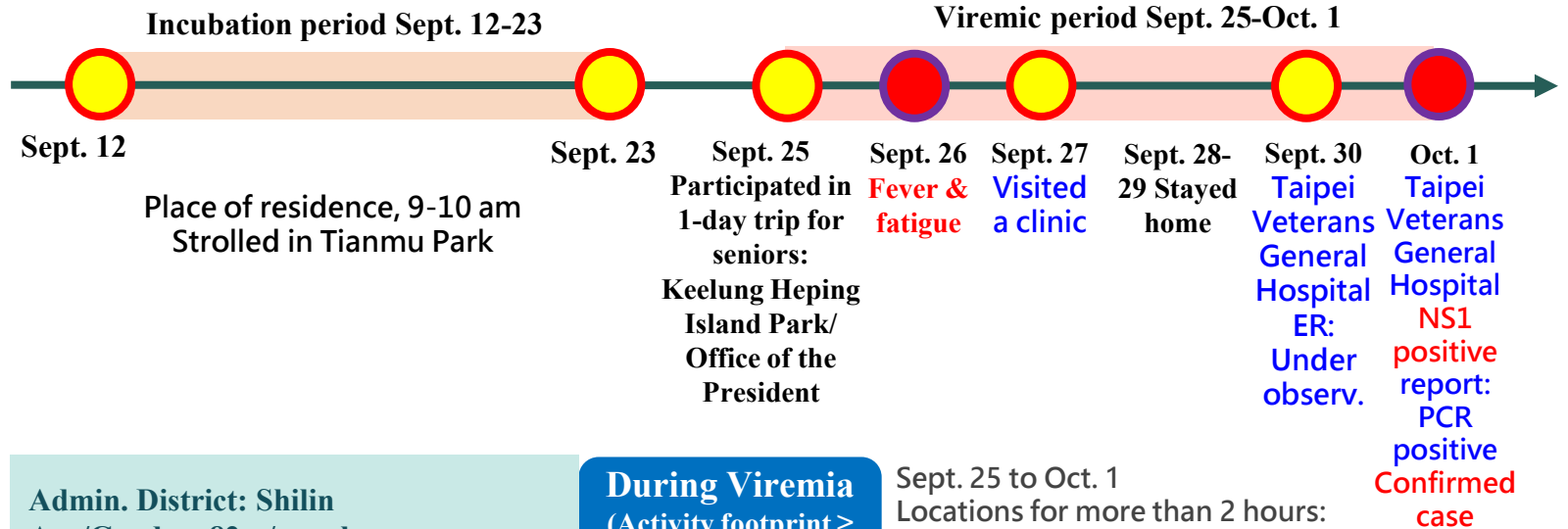
| Item     | NS1 rapid test | Bacillus thuringiensis (Bt) (granules) | Entolarva (Pyriproxyfen) | Insecticide spray can | Mosquito repellent |
|----------|----------------|--|--------------------------|-----------------------|--------------------|
| Quantity | 75             | 17.1                                   | 53                       | 4,601                 | 5,037              |
| Unit     | Kit            | Kg                                     | Kg                       | Can                   | Bottle             |

Note: As of January 23, 2026



# 2025 Shilin District Dengue Case: Analysis and Prevention Measures

## Activity History and Onset Timeline



## Case Data

**Admin. District:** Shilin  
**Age/Gender:** 82-y/o male  
**Occupation:** None, retired  
**Medical History:** Hypertension  
**Contacts:** 2 cohabitants w/o symptoms  
**Same travel group:** 109 people

**During Viremia**  
 (Activity footprint  $\geq$  2 hr)

**Monitoring and Prevention**

Sept. 25 to Oct. 1  
 Locations for more than 2 hours:  
 home and Tianmu Park (Shilin District)

Oct. 1 Epid. invest., contact tracing, breeding site clearing, and estab. of dist.-level response center

Oct. 2 First application of spraying, contact tracing, and breeding site clearing

Oct. 2 Expanded community contact tracing and breeding site clearing

Monitoring ends: Oct. 27 (onset date + 31 days)

# Action Strategy 2: Precise Monitoring & Early Warning

## Building a Case Monitoring Mechanism

Taipei City conducts dengue monitoring through **medical institution** reporting, **school** infectious disease reporting, hotel reporting, public voluntary reporting, **community pharmacy** reporting, **migrant worker and employer** reporting, and collaboration with the National Health Research Institutes on community mosquito-borne virus monitoring.

### Infectious Disease Reporting System



### School Infectious Disease Reporting System



## Real-time monitoring of suspected cases



- Reporting
- Epidemic investigation
- Health ed promotion

# Action Strategy 3: Environ. Control & Transmission Prevention

## Prevention – Environ. Health Management

- Taipei City departments and district units supervise their subordinates in breeding source elimination.
- Management of **vacant houses and lots, school campuses, farms and gardens, parks, and riverside parks.**
- Diversify health education and expand outreach channels to strengthen dengue prevention awareness among communities, medical institutions, and schools at all levels.
- Health Service Centers conduct **monthly routine inspections in villages** based on historical epidemic trends.



## Confirmed Case - Rapid Response to Block Transmission

Within  
48 hrs

- Complete **contact tracing** and **breeding source elimination**
- Environmental Protection Dept. is **notified of confirmed cases** to assist with **surrounding area spraying**

# Action Strategy 4: Community Mobilization & Risk Communication

## Community Mobilization

- **Epidemic Prevention Work Teams:** Each of Taipei City' s 12 districts has one team. In 2025, 333 community volunteers were recruited, steadily strengthening prevention capacity.
- **Community Cleaning Day:** Taipei City' s 12 district offices, together with village and neighborhood chiefs, volunteers, and district cleaning teams, organize cleaning days. They also coordinate with health service centers for joint inspections at high-risk sites to strengthen environmental hygiene and maintenance.



## Risk Communication

- **Public Outreach:** Promote through multiple channels, including the city government' s LINE account, Humans of Taipei Facebook page, Taipei Broadcasting Station programs, and press releases.

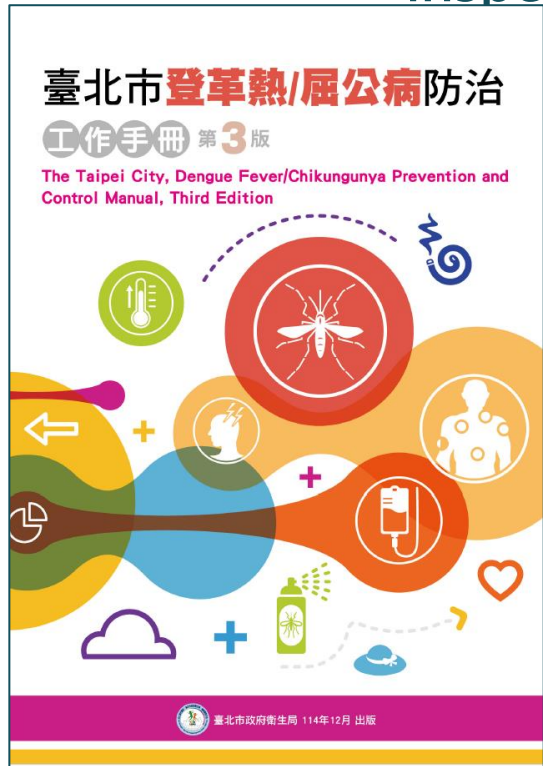


- **Medical Institutions:** Strengthen TOCC (travel, occupation, contact, and cluster) inquiry, increase symptom awareness, and utilize NS1 rapid antigen tests to aid diagnosis.



# Taipei's Unique Initiatives in 2026

## Update the Prevention and Control Manual, and conduct systematic inspections of high-risk areas



### 12 District Health Service Centers

#### Systematic Inspection

Conduct **at least one mosquito vector density survey** in all high-risk areas, including farms, gardens, schools (all levels), markets, mountainous areas, vacant houses, and empty lots.

### Department of Health

Conduct effectiveness evaluation  
Oversee the execution of contact tracing across all areas

Complete inspections and comprehensive assessments for **riverside parks, high-risk vegetable gardens, schools (all levels), and residences or activity sites** of confirmed cases.





# Break the Cycle: No Breeding Sites, No Mosquitoes, No Dengue



*Thank You for Listening!  
Any Questions?*