

National Stakeholders Meeting  
Sofitel Hotel, Phnom Penh  
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# Vector Control Intervention in Schools to Measurably Reduce Transmission of DENV in the Community

Investigators:

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**ECOMORE II**



**WP CAMBODIA**

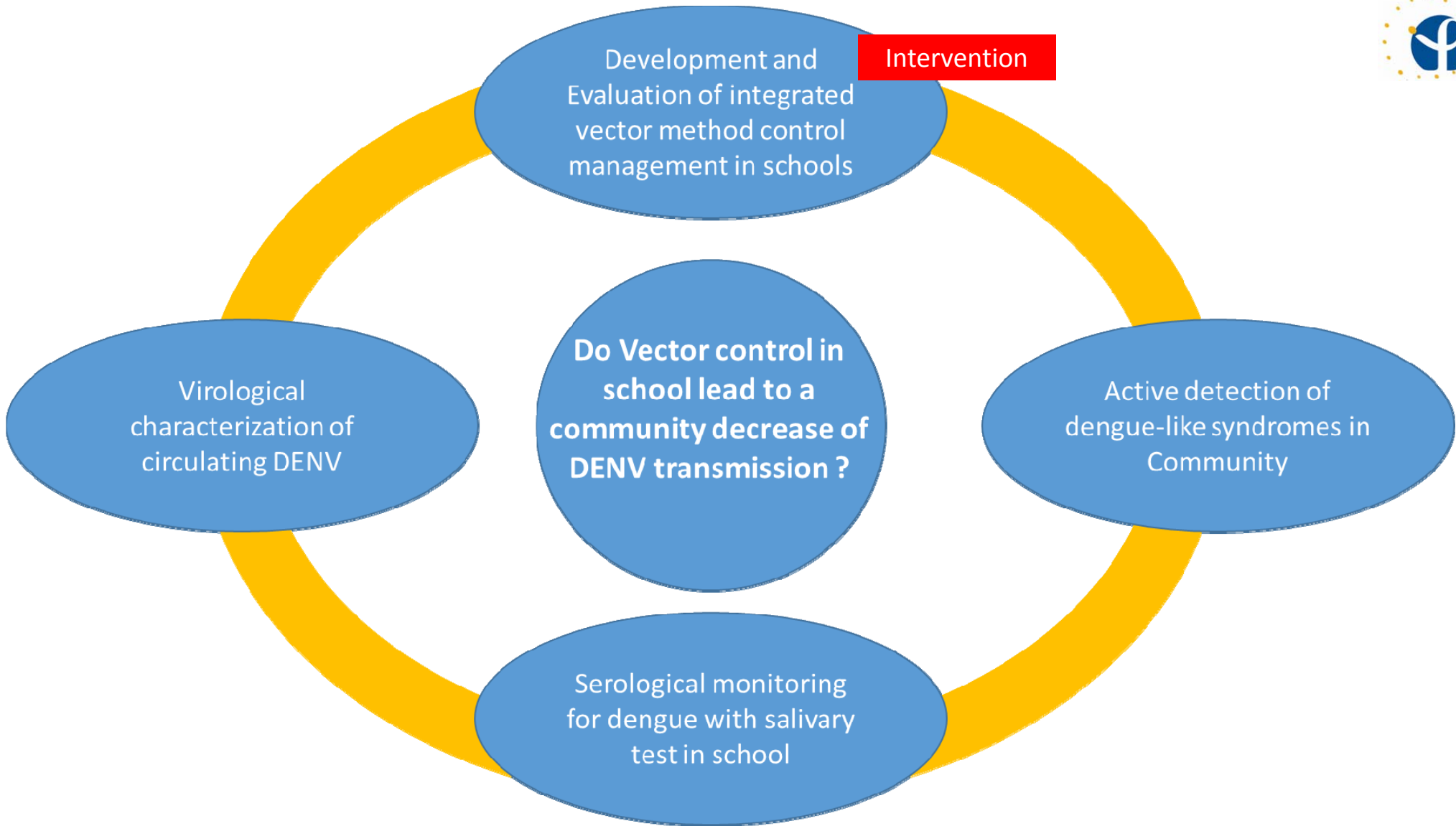


## ECOMORE-2, WP Cambodia

Schools could be hot spots for transmission of dengue among children in Cambodia



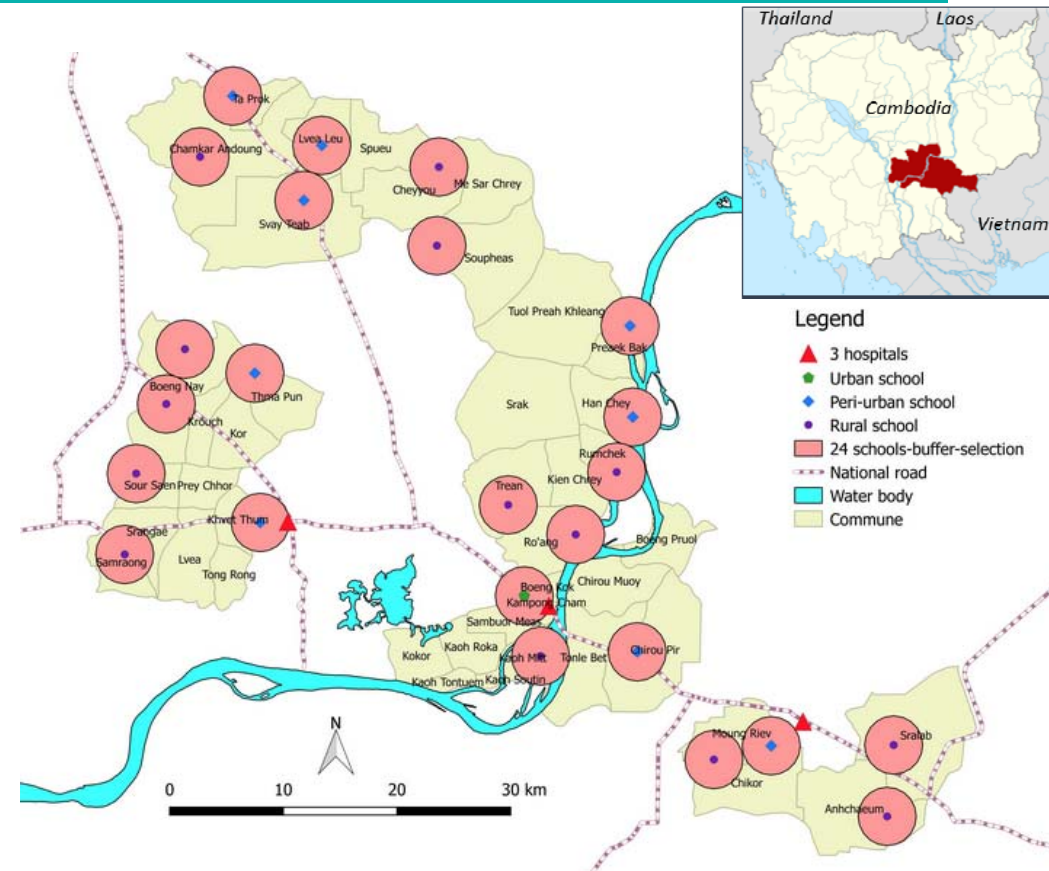
**Do Vector control in school  
lead to a community  
decrease of DENV  
transmission ?**



# Cluster Randomized Controlled Trial Study Kampong Cham & Tbong Khmum Provinces

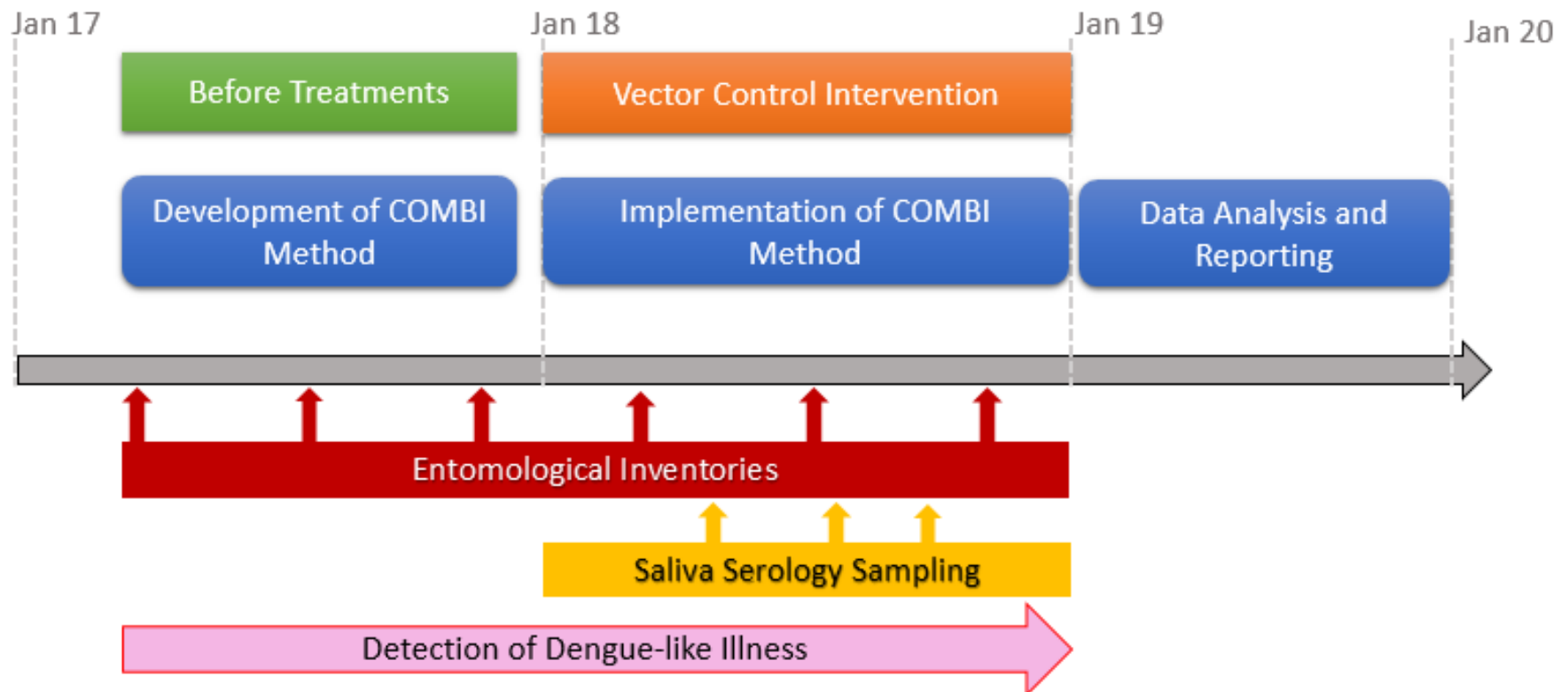


- 24 clusters in 5 districts
  - 71 villages (26 in urban/peri-urban)
  - 78,741 population
  - ~15,000 children aged 5-15 years old
- A cluster
  - One SCHOOL with primary grade
  - Several VILLAGES (800+ children aged 5-15 y.o.) surrounding and depending on that school
- Intervention arm (12 clusters)
  - Integrated vector control strategy





# Project Timeline



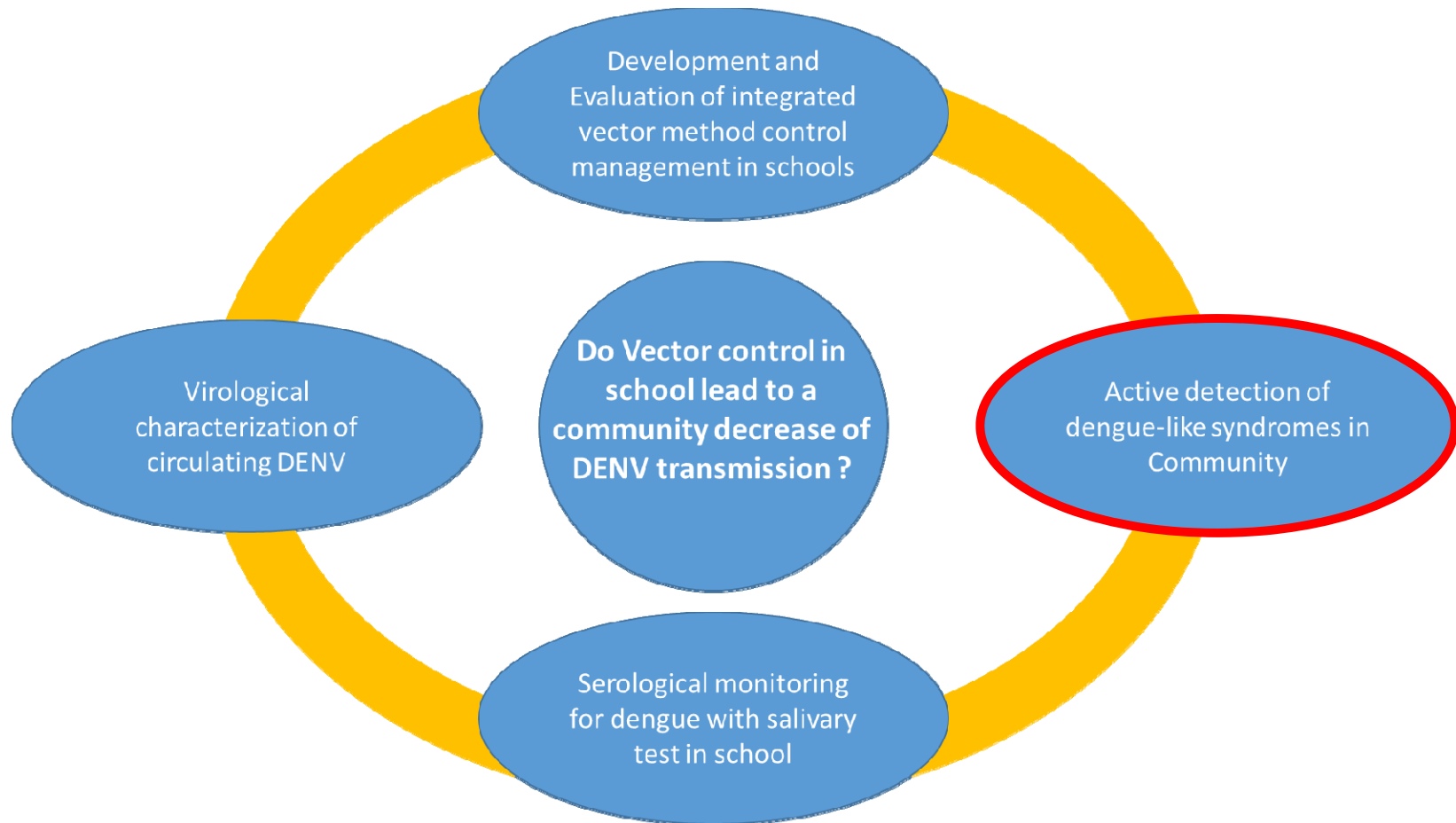


## ECOMORE-2, WP Cambodia

- Involvement of Authorities
  - National Dengue Control Program, Ministry of Health
  - Ministry of Education, Youth and Sports
- Experts who have participated in the design of the study
  - Entomology
  - Virology
  - Epidemiology
  - Modeling



# Active Surveillance of Dengue-like Illness in Communities





# Active Surveillance of Dengue-like Illness in Communities In Children Aged 5-15 Years Old



Epi Team at IPC (5 pple)



Nurses from  
Health Centers  
(42 pple)



Village Health Volunteers (90 pple)



Local Monitors  
Kg Cham (4 pple)







# Suspicion of Dengue-like Illness by Village Health Volunteers (VHV)

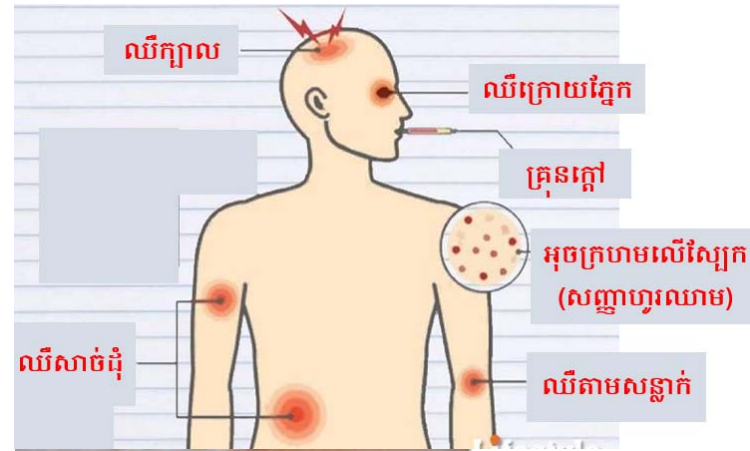


**Acute fever ( $T^\circ = \text{or} > 37.5^\circ\text{C}$ )**  
with at least 2 other signs below:

- Headache
- Retro orbital pain
- Muscle pain
- Joint pain
- Skin rash
- Bleeding sign at eyes
- Bleeding sign at nose
- Bleeding sign at gum
- Hematemesis
- Melena



Blood sampling for testing at IPC  
(acute and convalescence samples)



## រោគសញ្ញាហូរឈាម



- ក្អួតមានឈាមលាយឈាមក្រហម
- ផ្ទះមានឈាមលាយឈាមក្រហម ឬ ឈាមកខ្មៅ (ហូរឈាមក្នុងពោះវៀន)

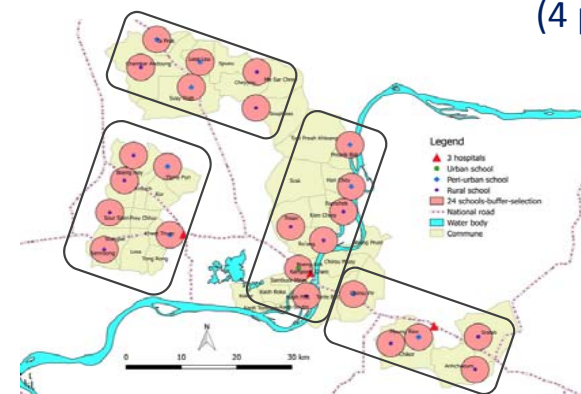


## Monitoring Activities for Activities Surveillance of DLI in Community

- Weekly monitoring of VHV's work
- Collect samples from health centers and send to IPC
- Onsite coordination and logistics



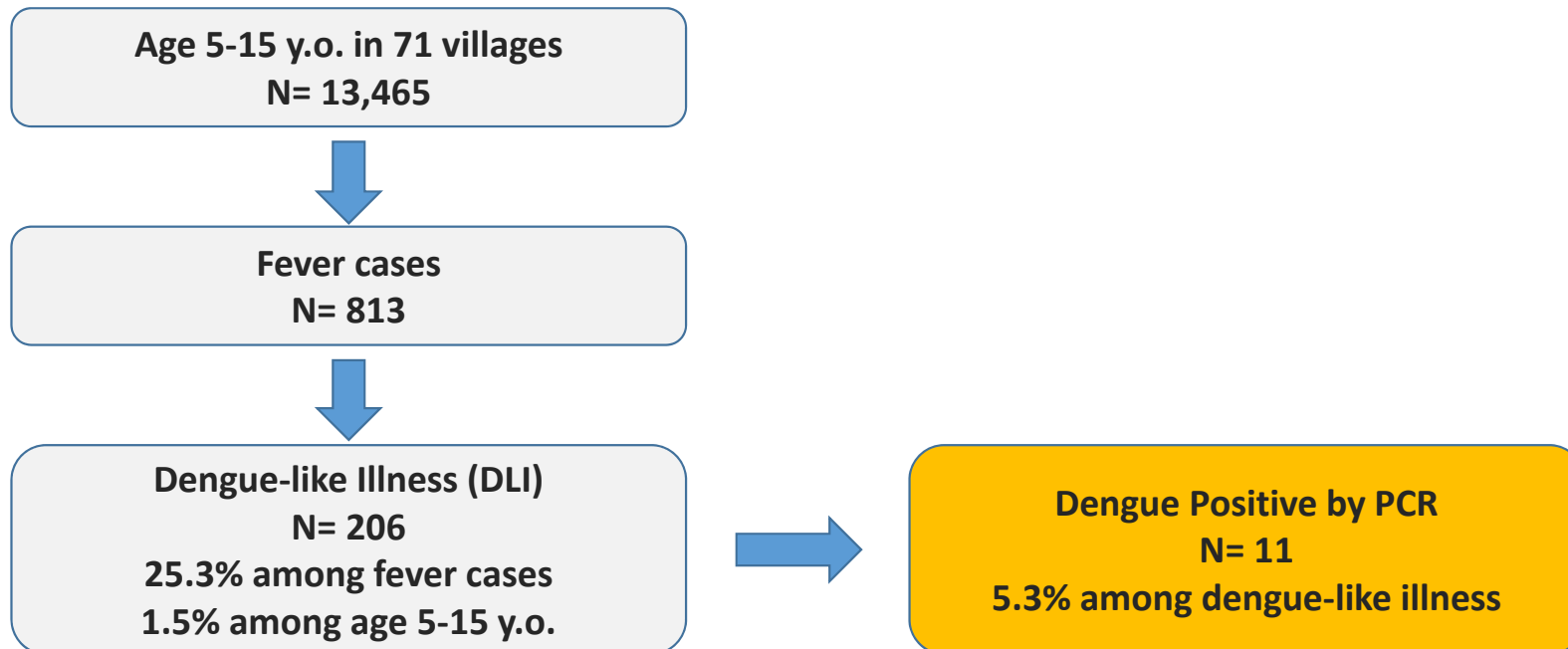
(4 people)





# Preliminary Results (June - October 2017)

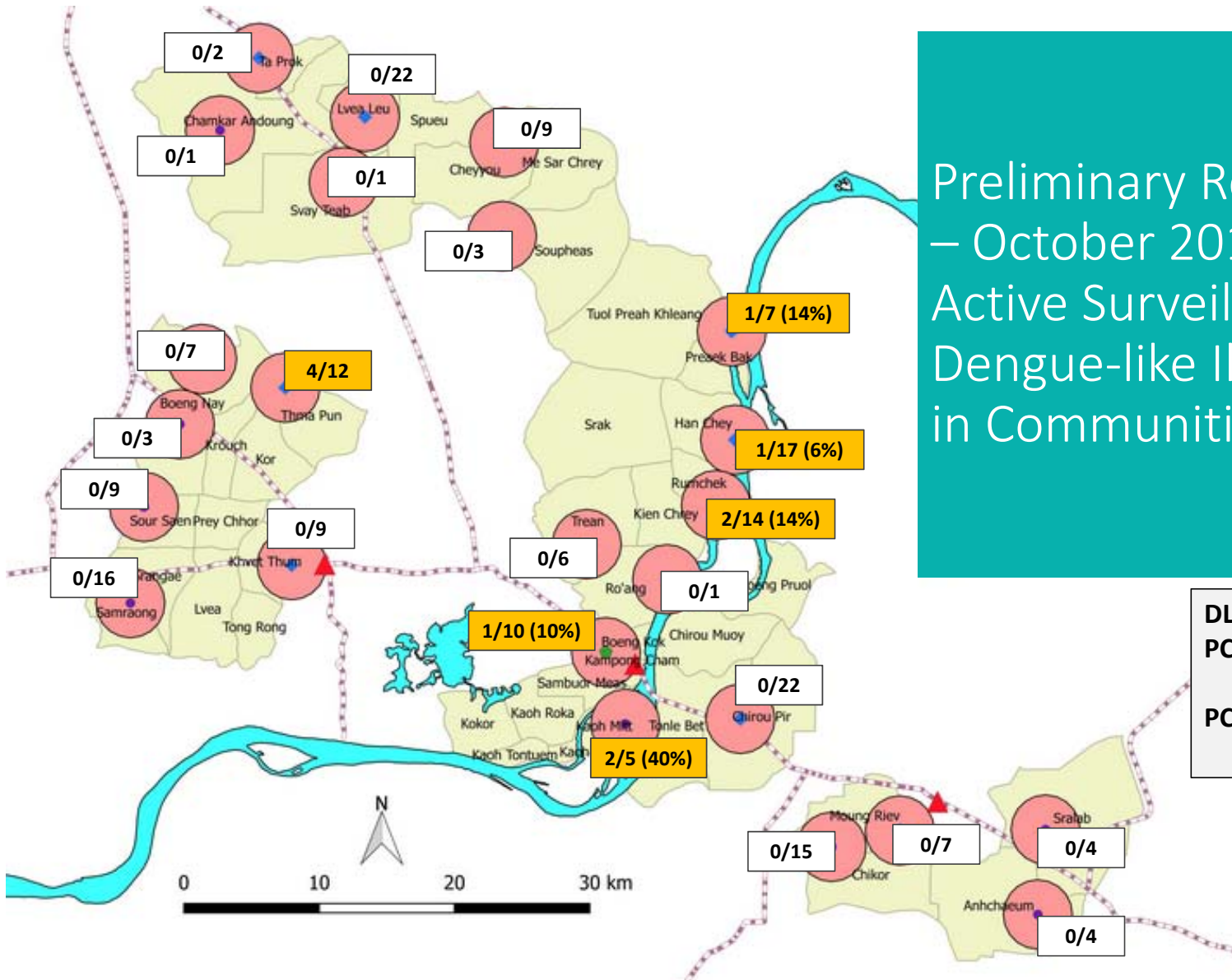
## Active Surveillance of Dengue-like Illness in Community







## Preliminary Results (June – October 2017) Active Surveillance of Dengue-like Illness (DLI) in Communities



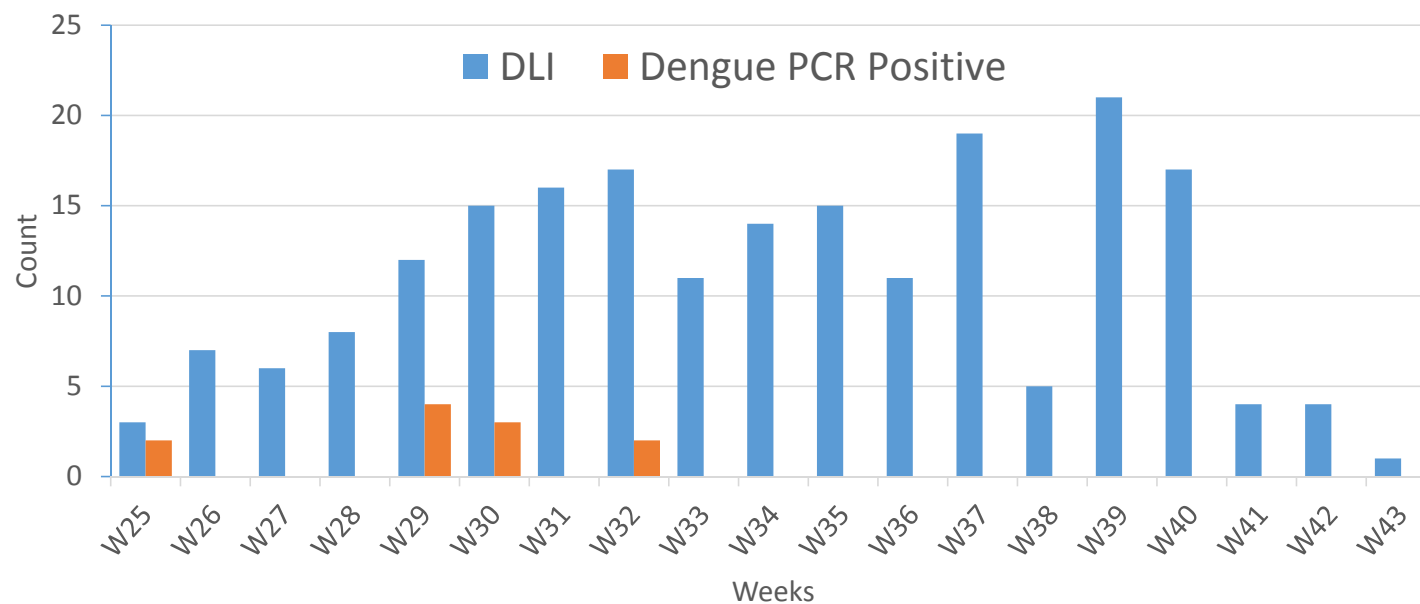
**DLI = 206**  
**PCR Pos = 11 (5.3%)**  
**PCR Positive/DLI (%)**

# Preliminary Results (June-October 2017)

## Active Surveillance of Dengue-like Illness (DLI) in Communities



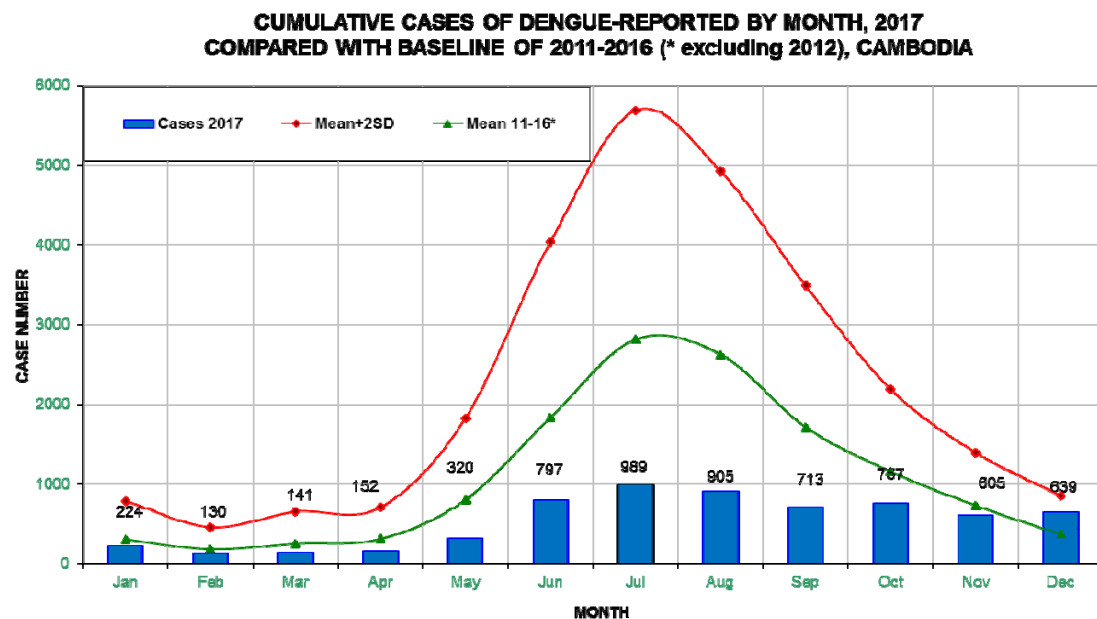
**DLI = 206**  
**PCR Pos = 11 (5.3%)**



# Preliminary Results (June-October 2017) Active Surveillance of Dengue-like Illness (DLI) in Communities



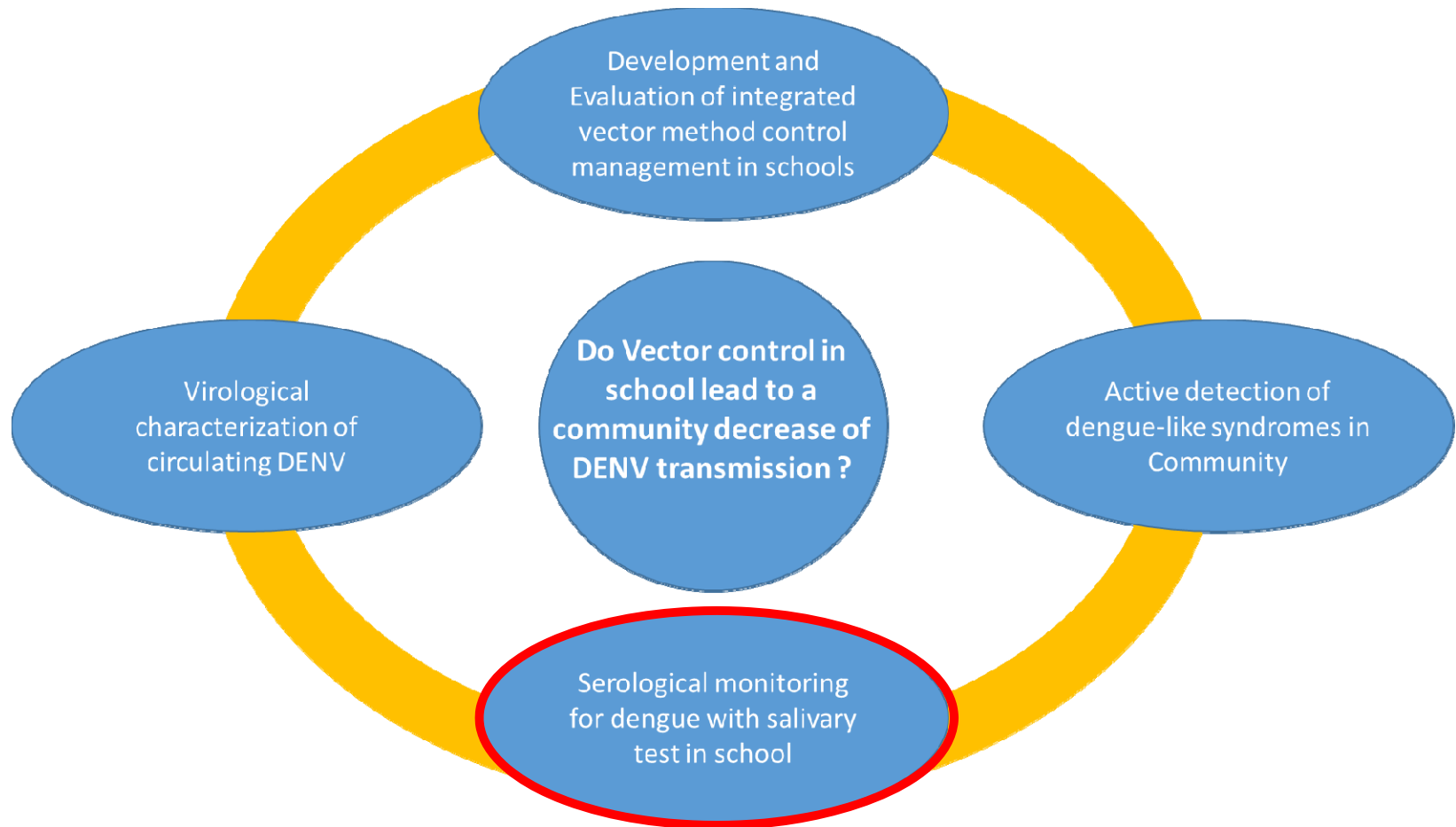
- The study surveillance
  - Low detection of Dengue-like Illness and Dengue Confirmed Cases in Community
- Data of Syndromic Hospital Surveillance, National Dengue Control Program
  - Low circulation of Dengue in 2017



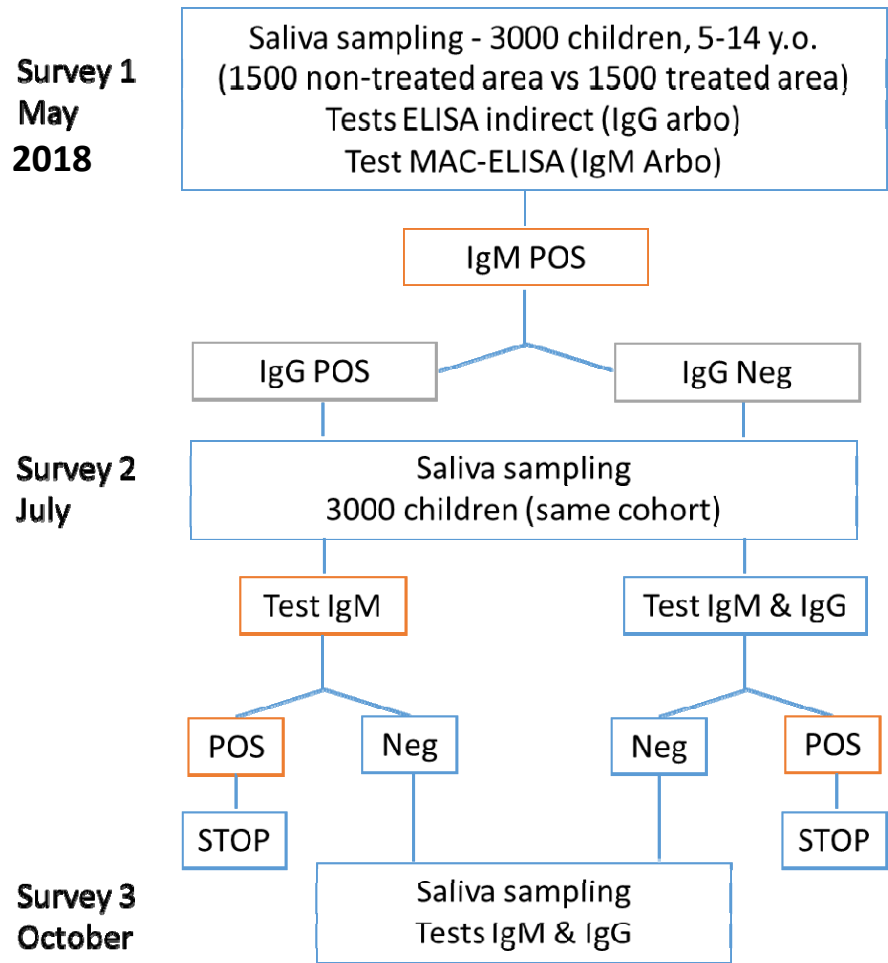
(Syndromic Hospital Surveillance, National Dengue Control Program)



# Serological Monitoring for Dengue with Salivary Test in School Children



# Serological Monitoring for Dengue with Salivary Test in School Children



# THANK YOU FOR YOUR ATTENTION!



Investigators:

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