

# Influenza-Like Illness Surveillance at Tham Hin Displaced Persons Camp Ratchaburi Province, Thailand

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# Presentation Agenda

- Project Overview
- Tham Hin Background
- Surveillance Protocol and Data Collection
- Initial Findings
- Education and Training
- Lessons Learned



# ILI-Illness Surveillance

## *Goals:*

- To enhance surveillance for influenza-like illnesses (ILI) in Tham Hin Camp
- To obtain baseline data regarding general influenza rates in displaced persons camps
- To enhance clinical and community capacity to identify and respond appropriately to ILI and AI infection in humans



# Partners



IOM provides:

Project coordination, training, data recording, reporting and analysis, procurement and communication among partners.



IRC provides:

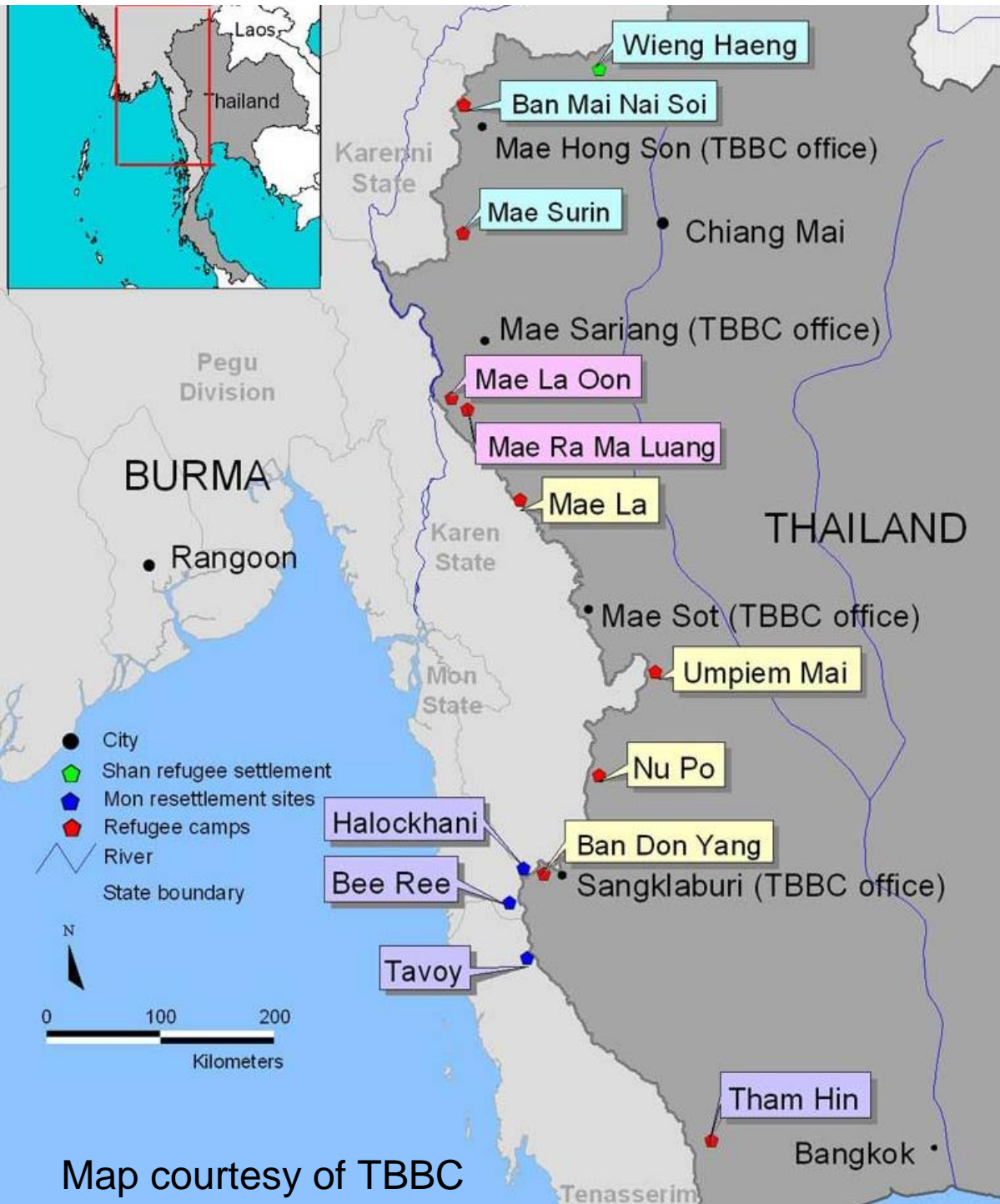
On-site supervision, hiring and support of Surveillance and Data Entry Officers (through USAID funds), communication between camp and offices, data transfer.



CDC provides:

Financial support, technical expertise and project development support, regular monitoring and assessment of project.





Map courtesy of TBBC



IOM - OIM



# Population : 10,431

(March 2006)

<u>Age</u>	Under 5	5-17	18-59	over 60
	16%	37%	43%	4%
<u>Gender</u>	Female	Male		
	49%	51%		
<u>Ethnicity</u>	Karen	Muslim	Other	
	90%	2%	8%	



Data courtesy of TBBC



# Top Causes of Morbidity in Tham Hin Camp

(per 1000/month)

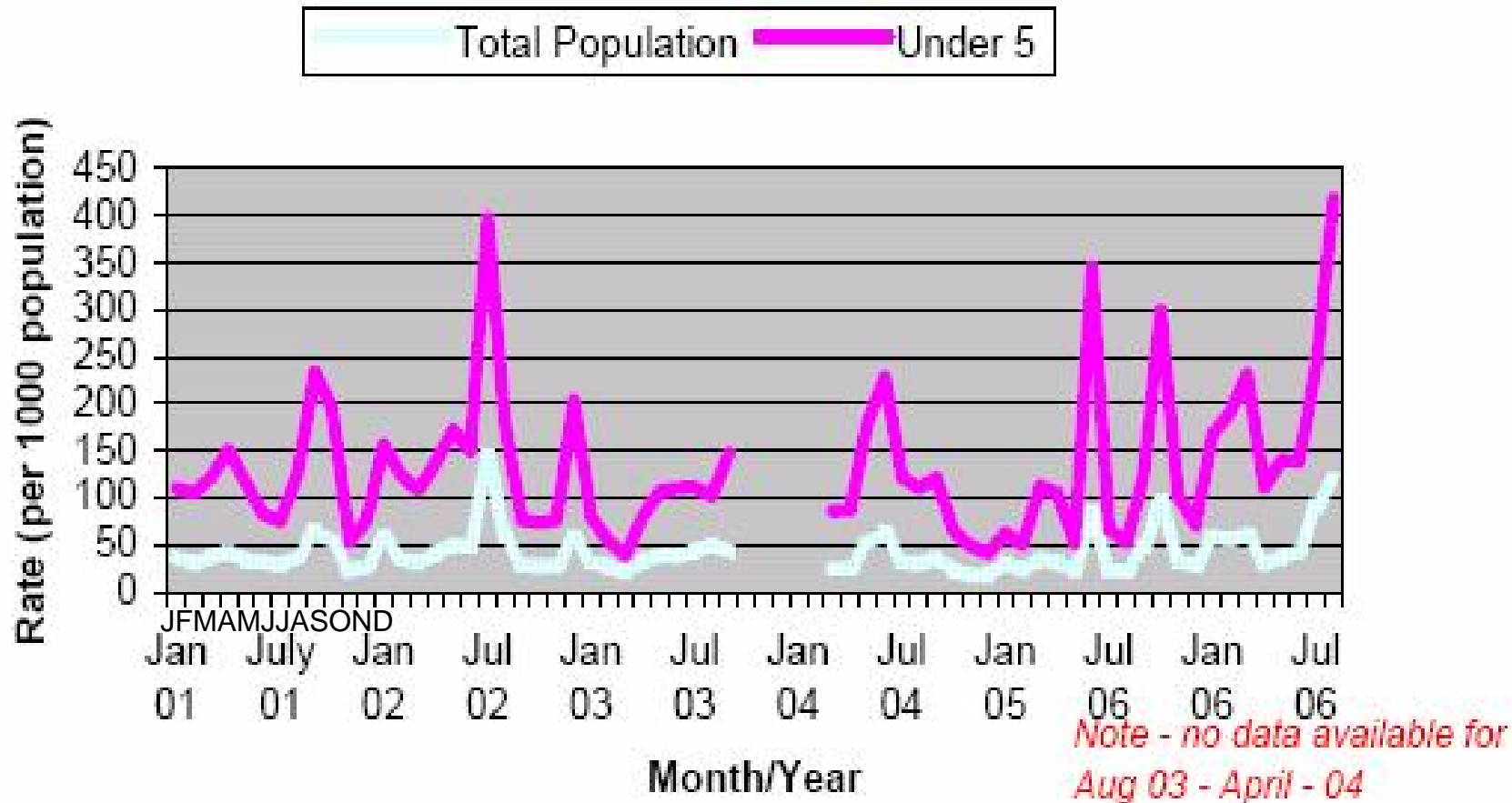
URI	57.24
LRTI	44.49
Skin Diseases	39.91
Watery Diarrhea	19.57
Dengue Fever	11.97
Conjunctivitis	7.59
Beriberi	5.74
Malaria (Lab Confirmed)-total	3.70
Malnutrition	3.21

IRC Data June 2006



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## Tham Hin LRTI Morbidity Trends 2001 - 2006



Data courtesy of CCSDPT



# Protocol

All Patients presenting with:

- Fever or History of Fever ( $>38^{\circ}$ )
- Cough or Runny Nose

Are referred to the surveillance officers for participation in the project.



# Surveillance Data

- **Basic Demographics**  
(Age, Residence, Ethnicity)
- **Symptom Assessment**  
(Symptom Onset, Contacts)
- **Exposure to Poultry**  
(Ownership, Exposure to Sick/Dead Birds)
- **Patient Diagnosis, Treatment and Outcome**





# Influenza Monitoring System

Case Number TH00678

Date of Presentation 6/8/2006

Interviewer EW

Location IPD

Temp in Triage 39.6

## Symptoms

Fever Y Tem

Runny Nose N

Sore Throat Y

Cough Y

Difficulty Breathing N

Muscle Aches N

Rash N

Symptom Onset Date 6/4/2006

Contact with other w similar sxs Y

Contact come to OPD? Y

## Demographics

Birth Date 5/5/1997

Zone 3

Section 3

## Family Members in Household

Total 7

15 yrs and over 2

Under 15 yrs 5

## Ethnicity

Karen  Shan

Burmese  Mon

Karenni  Other

## Travel

Date of Arrival 3/1/1997

Prior Residence

Travel outside camp? N

Location:

## Animal Contact

	# Own	# Died 7 days	Dead Contact
Chickens	0	0	Animal <input type="checkbox"/>
Ducks	0	0	Chicken <input type="checkbox"/>
Geese	0	0	Duck <input type="checkbox"/>
Pigs	0	0	Goose <input checked="" type="checkbox"/>
			Pig <input type="checkbox"/>
			Wild Bird <input type="checkbox"/>

## Follow-Up Data

### Diagnosis

Influenza

URI

Pneumonia

Other

Denoue Fever

Flu Rapid Test FluA

Other Tests -MS

Medication1 Doxycyclins 1bidx7

Medication2 Pcm, 2 PRN

Medication3

Medication4

Disposition IPD

Days in Hospital 0

Causes of Death



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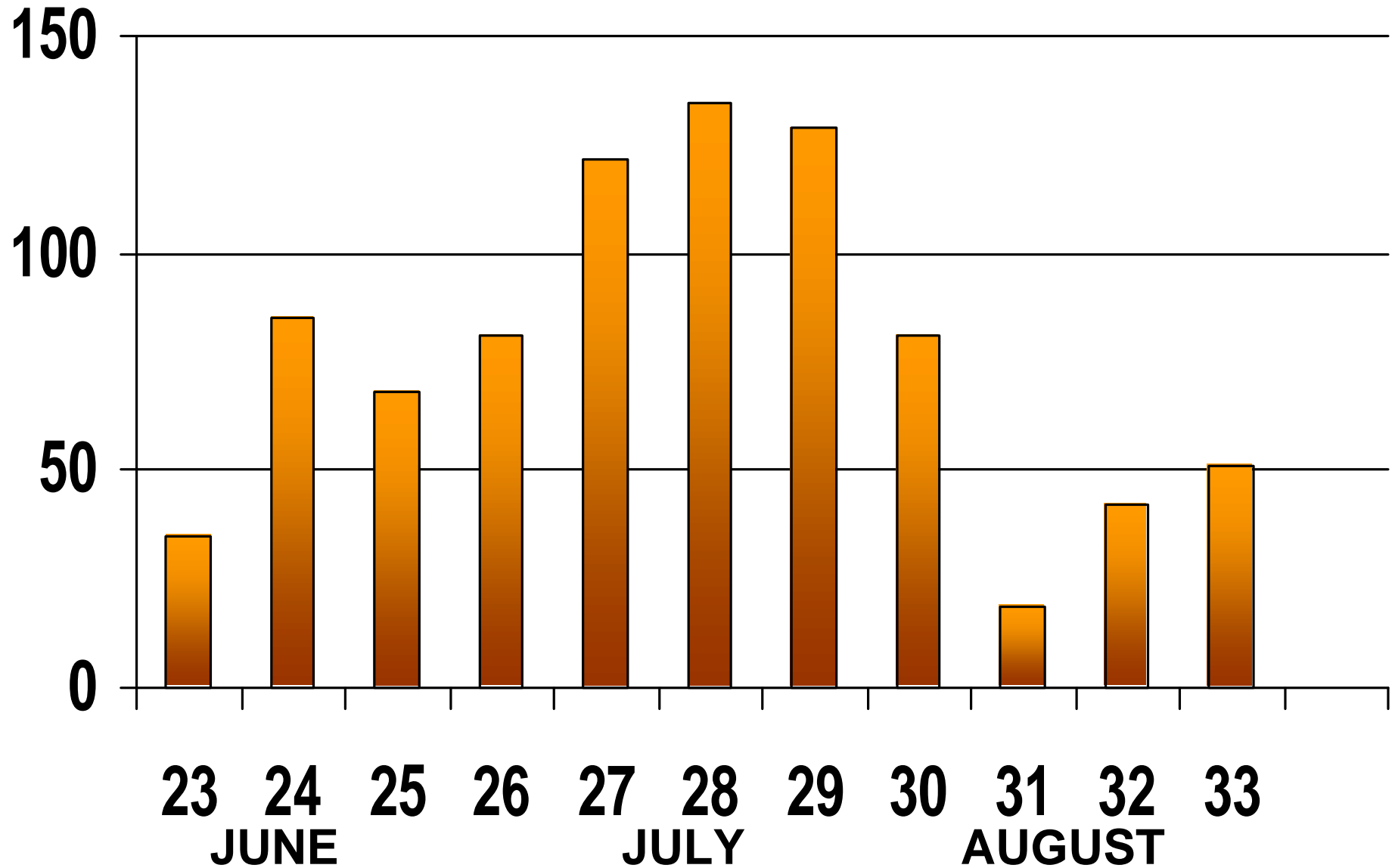


# Ethical Considerations

- Statement of Purpose and Consent Read for all patients
- Informed of option to not or stop participation
- Influenza RapidTest, CLIA-waived
- Anonymous entry into database
- Population-based surveillance IRB-exempt



# ILI Cases Reported by Week



# Symptom Summary

Coryza 83.87%

Cough 89.11%

Dyspnea 36.23%

Fever 98.12%

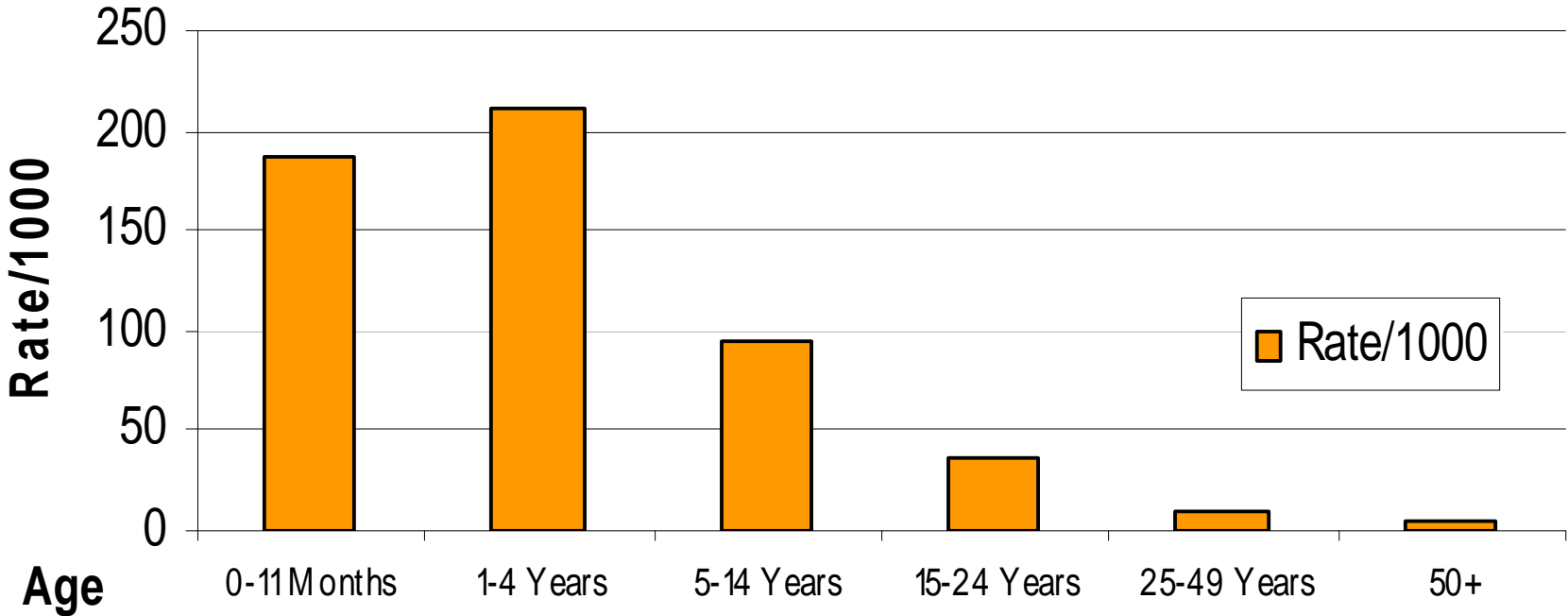
Myalgia 41.57%

Rash 12.15%

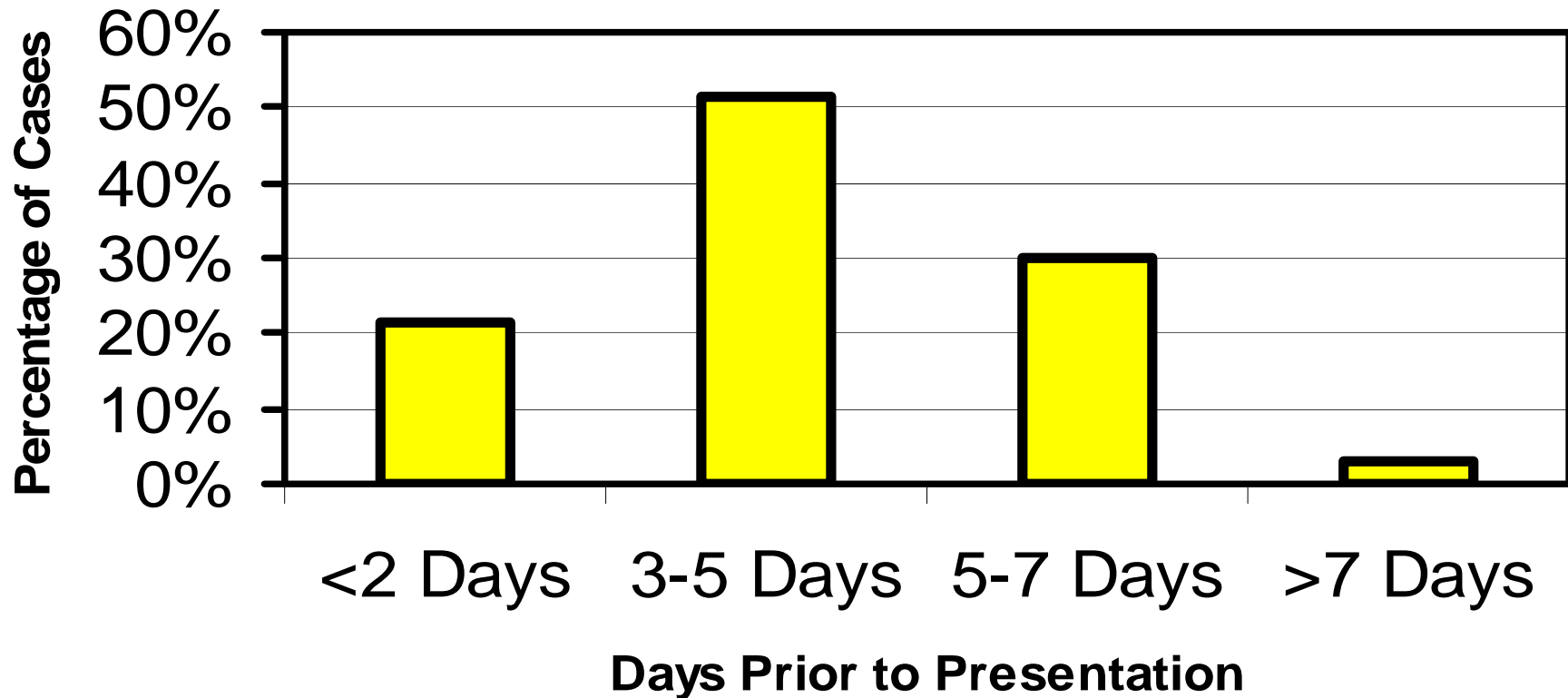
Sore Throat 42.62%



# ILI Rate by Age



# Symptom Onset





## Influenza Rapid Test

Every 10<sup>th</sup> Patient in OPD

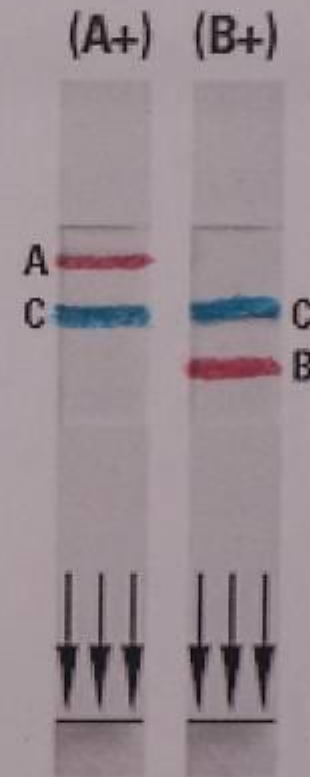
All Patients in IPD



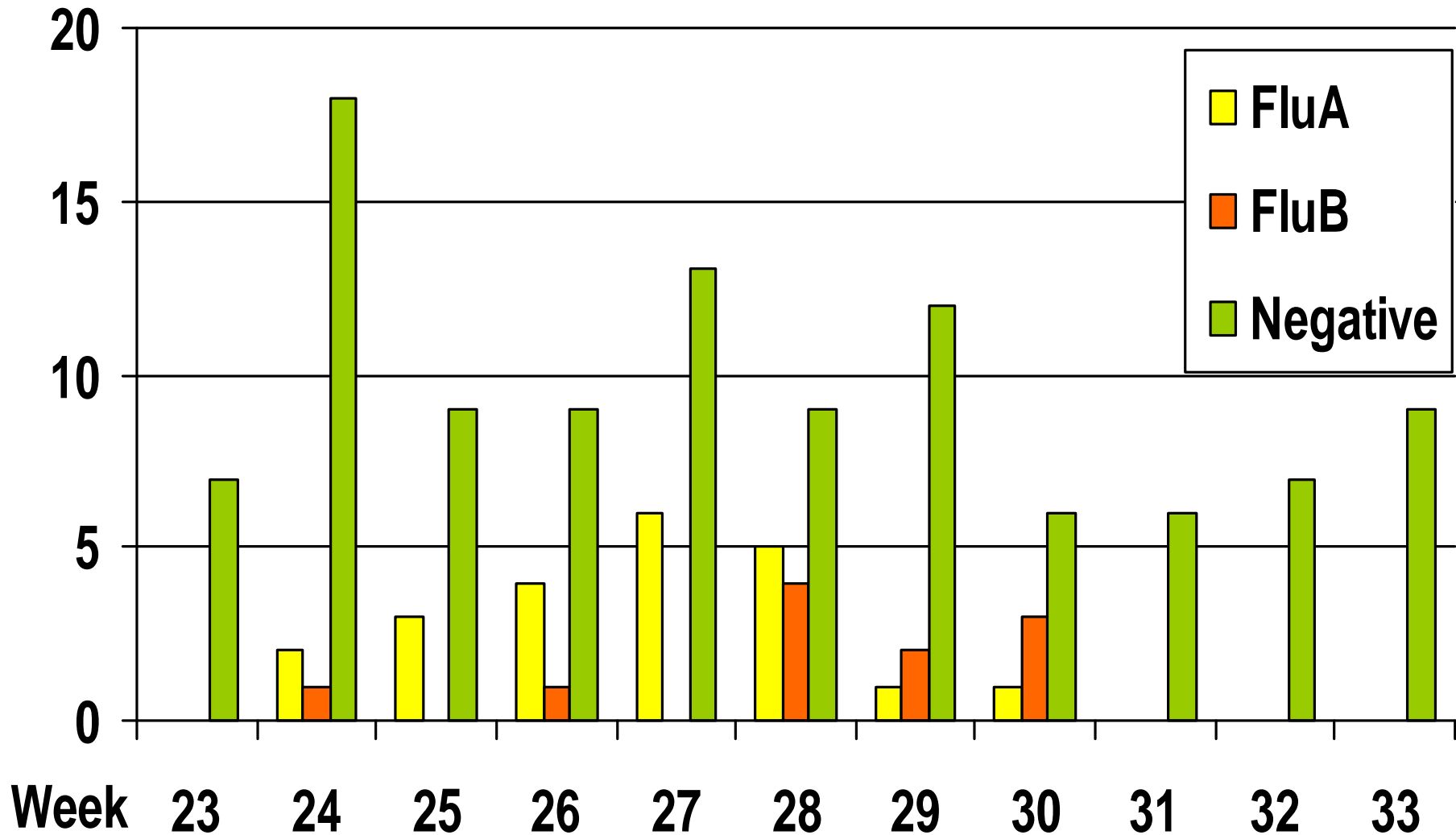
# Interpretation of results

## Positive result

- Hold the test strip with the arrows pointed down
- If the red line is above the Control Line(C),the test results are positive for type A. See image to right (A+).
- If the red line is below the Control Line,the test results are positive for type B. See image to right (B+)

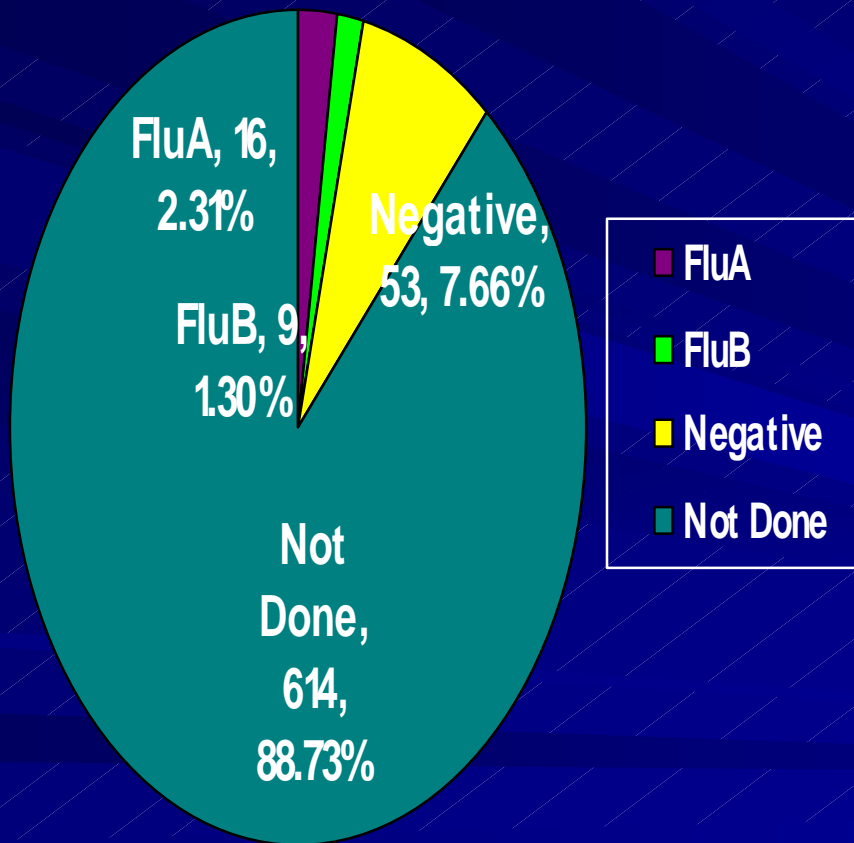


# Influenza Rapid Test Results by Week

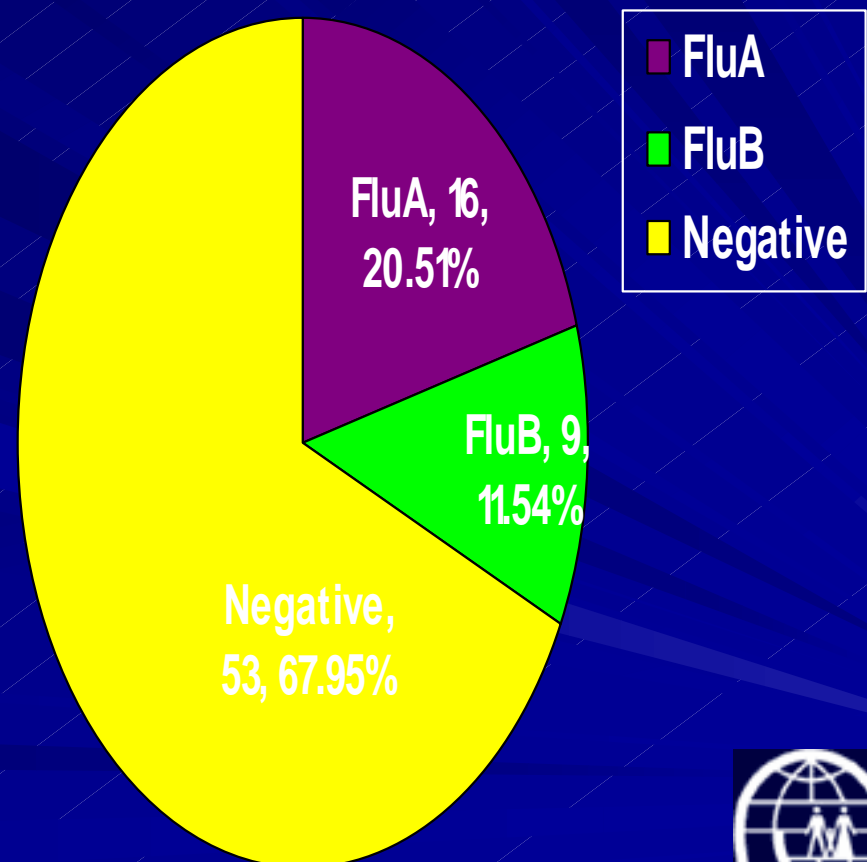


# OPD Test Results

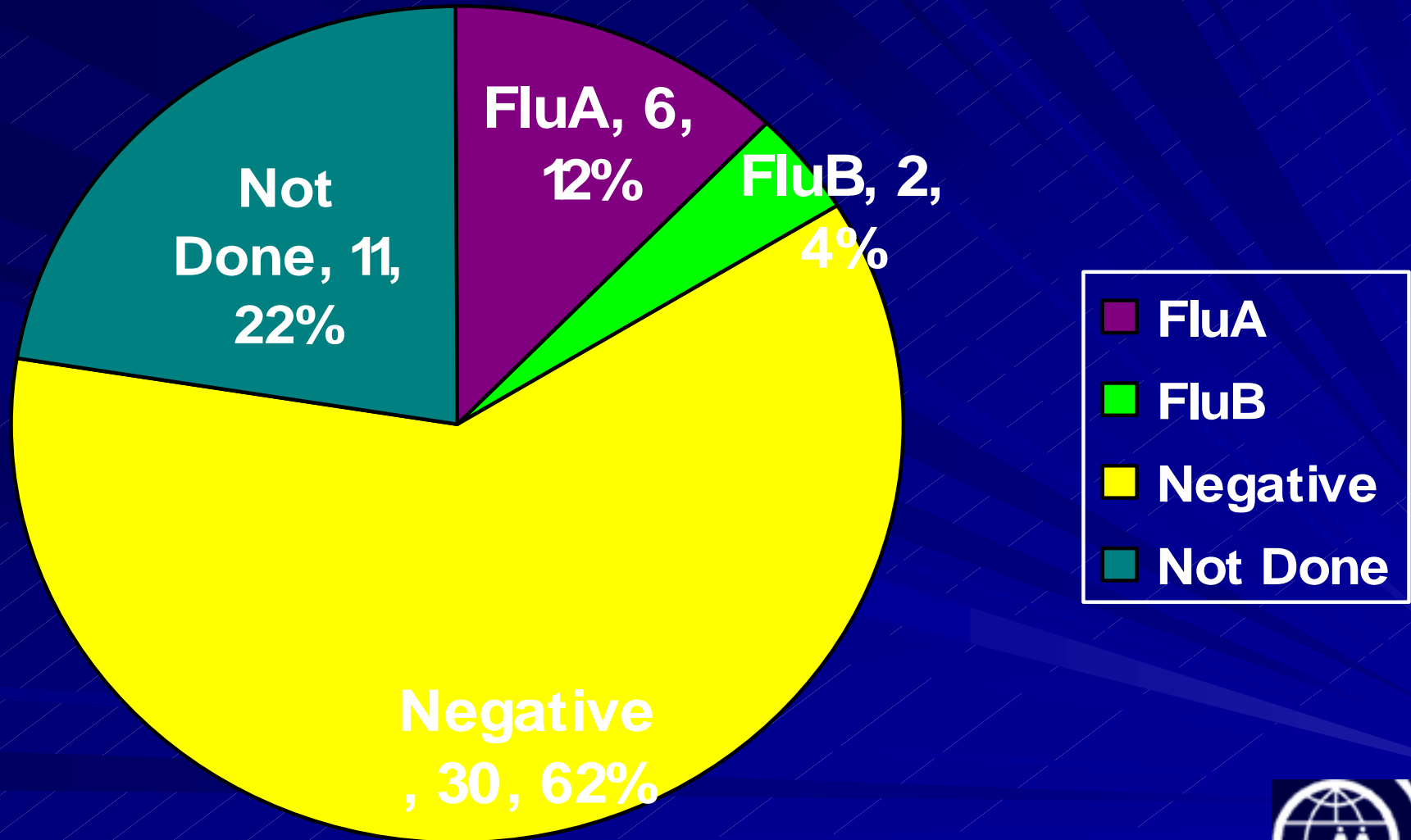
## OPD Rapid Test Results



## OPD Rapid Test Results (Test Only)



# IPD Test Results







## Diagnosis

### Flu Rapid Test

FluA	23	2.41%
FluB	11	1.15%
Negative	134	14.03%
Not Done	787	82.41%

### Diagnosis

Influenza	8	0.84%
URI	305	31.94%
Pnumonia	255	26.70%
Other	457	47.85%

### Diagnosis Other

Dengue Fever	84	8.80%
Viral fever	61	6.39%
LRTI	33	3.46%
Common cold	33	3.46%



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# Community Education

Surveillance Officer and Medic Training on Influenza

Community Information on Influenza Signs/Treatment

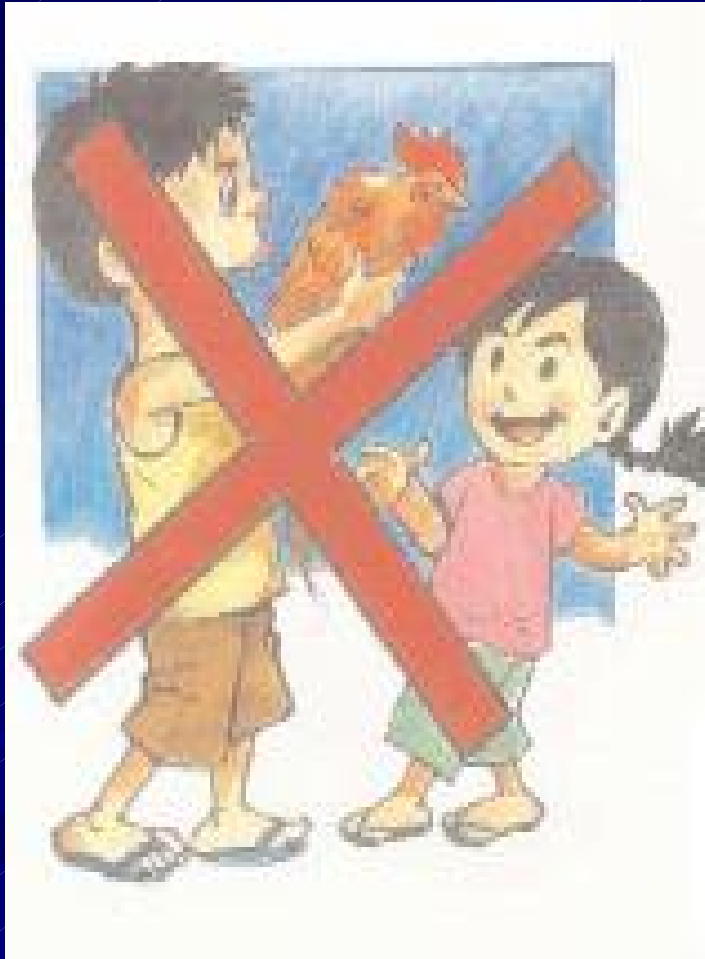
Surveillance Officer and Medic Training on AI Infection

Development of Poster-Based AI IEC Material

Distribution of AI Cartoon Books and DVDs



# Distribution of IEC Materials



Developed Karen Language  
Cartoon Booklet as an  
extension of Migrant Health  
Project

2000 Copies distributed  
throughout camp by  
surveillance officers, IOM and  
IRC staff

Targeted to children





# Lessons Learned

- Surveillance rests on appropriate clinical training regarding ILI to appropriately identify patients
- Incentives must be delivered to maintain participation rates
- Surveillance system must be developed dynamically and in cooperation with all partners



# Contact Details

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*Thank You* ขอบคุณมากครับ