

PUBLIC HEALTH LABORATORY

FLUVIEW

Monthly Influenza surveillance report: "March, 2010"

(All data are preliminary and may change as more reports are received)

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Synopsis

The rate of influenza-like-illness (ILI) in the identified sentinel sites for the month of March, 2010 was lower by 0.98 % than that of the previous month. Patients with ILI visiting OPD of these sites ranged from 0 to 5.35 % of the total OPD cases. The positive detection rate (flu A and B) by rapid test was 4.00 %. Cases of death due to pneumonia/ ILI were reported from Samtse, Gelephu and Phuntsholing. Although there was an outbreak of highly pathogenic avian influenza (HPAI) in Rinchending and Pasakha, no cases of human infection were reported.

1. Surveillance components

Figure 1. Weekly summary report of ILI surveillance for March, 2010.

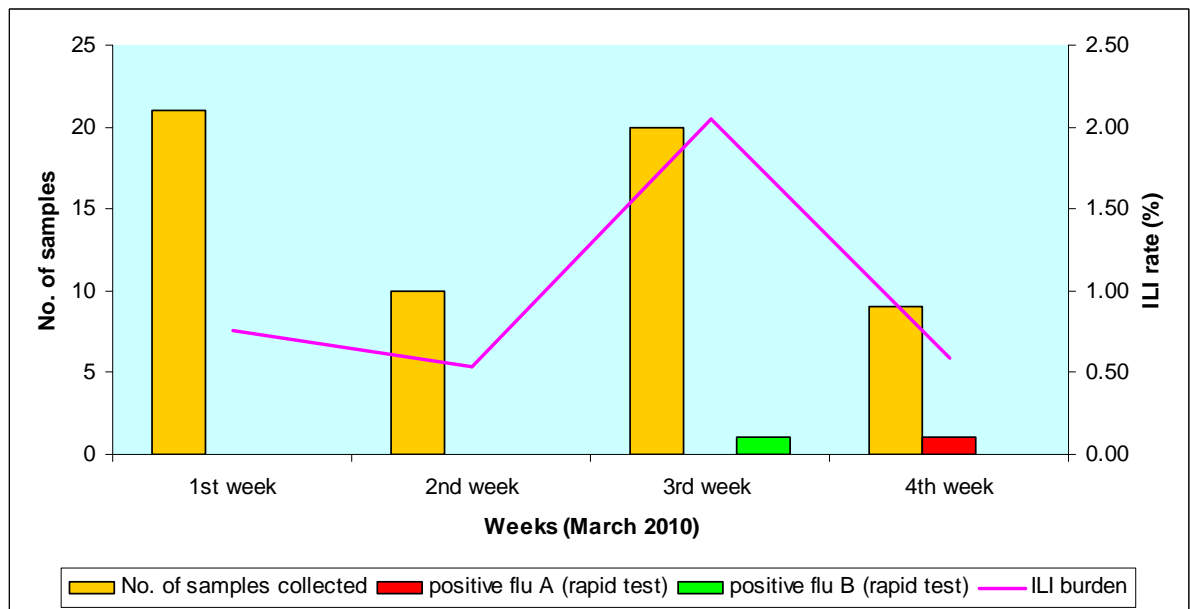


Table No. 1: Selected surveillance components

Region	Sites	Outpatient ILI (%)	% positive for Flu (rapid test)	Influenza subtype (PCR)					Death (I & P)
				A(H1)	A(H3)	A (SW H1N1)	A un-subtyped	B	
West	Paro hospital	0.00	NR	+	+	+	-	+	0
	Punakha hospital	NR	NR	+	+	+	-	+	NR
	Phuentsholing hospital	5.35	0.00	+	+	-	-	+	2
	Samtse hospital	0.13	NR	ND	ND	ND	ND	ND	1
	JDWNRH	0.37	0.00	+	+	+	+	+	0
Central	Gelephu R R hospital	0.02	50	+	+	+	+	+	1
	Damphu hospital	3.72	0.00	-	-	+	-	+	0
	Trongsa hospital	NR	0.00	-	-	+	-	+	NR
East	Mongar R R hospital	1.81	4.35	+	-	+	-	-	0
	Trashigang hospital	1.14	0.00	-	-	+	-	+	0
	S/Jongkhar hospital	1.49	NR	ND	ND	ND	ND	ND	0

(+: Positive, -: Negative, ND: Not done, NR: Not reported)

Data source: Weekly and monthly reports received from the sites.

2.1 Outpatient ILI surveillance

The rate of patients with ILI visiting hospitals (sites) for the month of March, 2010 was 1.52 % of the total OPD patients. **Figure 1** shows the % of patients with ILI visiting OPD of each sentinel site in 2010. There was a decrease in the overall rate of ILI in March compared to the previous month by 0.98 %. Phuntsholing hospital recorded the highest ILI rate (5.35%). The mean rate of ILI of all the sites over a period of time (May, 2009 to March, 2010) is given in **Figure 2**. The age group most affected by seasonal influenza in the month of March was 5-24 years (**Figure 3**).

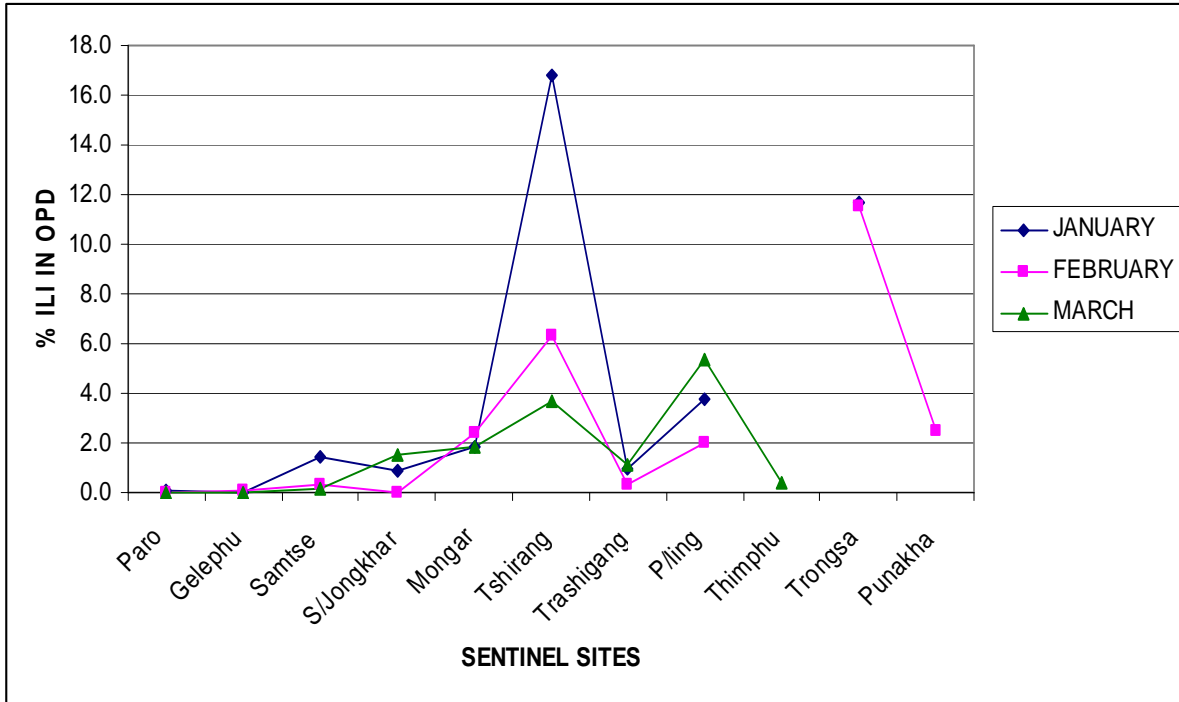


Figure 1: % of ILI in each site in 2010.

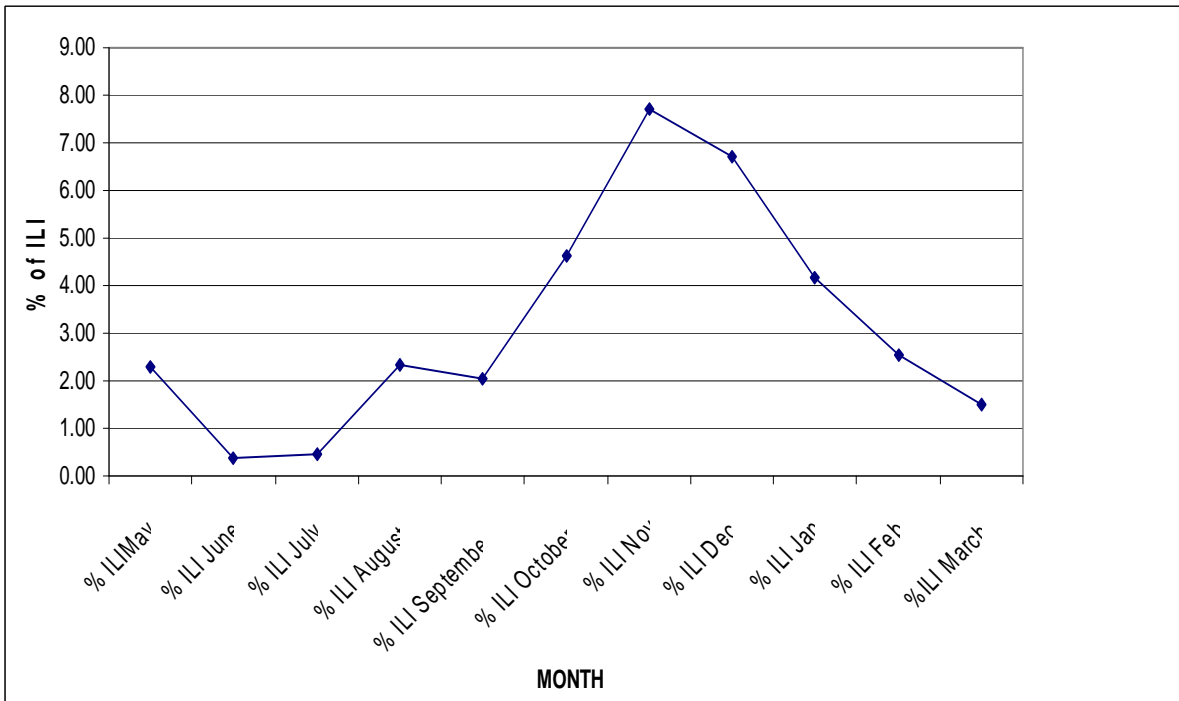


Figure 2: Mean % of ILI from May, 2009 to March, 2010.

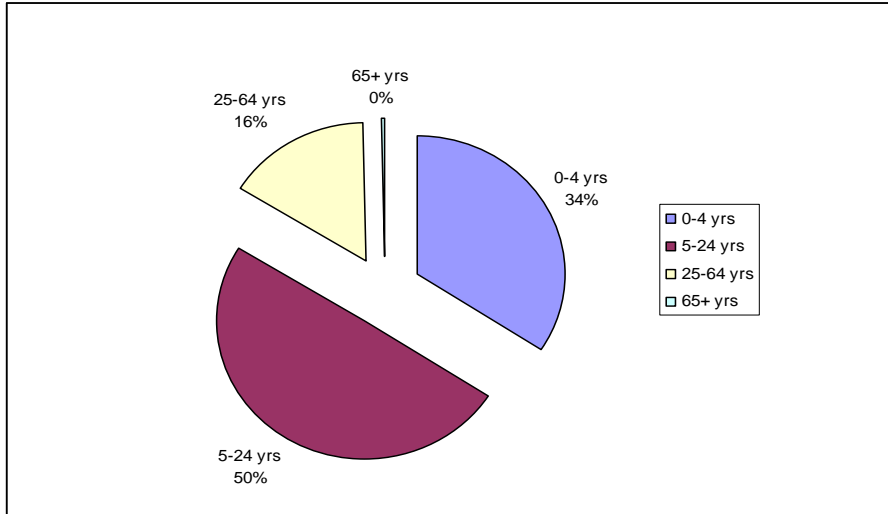


Figure 3: Age distribution among ILI cases

2.2 Virology surveillance

The positive rate detected by rapid test kit for March was 4.00 % of the total rapid test done.

The positive rate of each site detected by rapid test is given in **table # 2**.

Subtyping done by RT-PCR testing shows presence of A/H1, A/H3, novel A/ H1N1, A/unsubtyped and subtype B strains in the country. An update of influenza virus subtyping by RT-PCR is given in **table # 3**.

Table No. 2: Positive rate by rapid test kit

Hospital	Total sample collected and tested	Rapid Result			
		Flu A	Flu B	Flu A B	% POSITIVE
Paro	NR	NR	NR	NR	NR
Punakha	NR	NR	NR	NR	NR
Phuntsholing	NR	NR	NR	NR	NR
Samtse	NR	NR	NR	NR	NR
JDWNRH	23	0	0	0	0
Gelephu	3	0	0	0	0
Tsirang	0	0	0	0	0
Trongsa	4	0	0	0	0
Mongar R R	23	0	1	0	4.34
Trashigang	6	0	0	0	0
Samdrupjongkhar	NR	NR	NR	NR	NR

(NR – Not Reported)

Table No. 3: Influenza virus subtyping by RT-PCR

Hospital	Total sample collected and tested	Influenza Subtype (%)				
		A(H1)	A(H3)	A(H1N1)	A(unsu typed)	B
Paro	129	3.88% (5)	12.60% (16)	2.36% (3)	0	2.33% (3)
Punakha	76	18.42% (14)	14.47% (11)	6.58% (5)	0	2.63% (2)
P/ling	77	5.19% (4)	9.09% (7)	0	0	0
JDWNRH	933	1.50% (14)	8.57% (80)	6.97% (65)	0.54% (5)	5.68% (53)
Gelephu R R	289	5.54% (16)	16.96% (49)	3.81% (11)	0	20.42% (59)
Tshirang	25	0	0	40% (10)	0	8% (2)
Trongsa	76	0	0	51.32% (39)	0	0
Mongar R R	86	3.49% (3)	0	8.14% (7)	0	0
Trashigang	73	0	0	34.25% (25)	0	6.85% (5)

Data source: RT-PCR results received from AFRIMS, Thailand

2.3 Death due to Influenza & Pneumonia

Cases of death due to pneumonia were reported from Phuntsholing, Gelephu and Samtse. There were 2 deaths from Phuntsholing and 1 death from Gelephu of age group 0-4 years, and 1 death from Samtse of age group 25- 64 years.

2.4 Influenza Outbreaks

Although there was an outbreak of avian influenza (H5N1) in Rinchending and Pasakha under Chukha Dzongkhag, samples collected from people in close contact with birds and from those with symptoms of ILI in the affected areas showed that there was no evidence of human infection.

References

1. CDC flu surveillance report