

# PUBLIC HEALTH LABORATORY

## FLUVIEW

### Monthly Influenza surveillance report: “August 2009”

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

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#### Synopsis

The proportion of influenza-like illness (ILI) visiting hospital (sentinel sites) for the month of August ranged from 0.6% - 5.4%. The positive detection rate by rapid test was 4.075% and RT-PCR 36% (cumulative). The most common influenza virus circulating in the Bhutanese population influenza A/H3 followed by influenza type B and A/H1. No outbreak has been reported in the month of August.

#### 1. Surveillance components

Table No. 1: Selected surveillance components

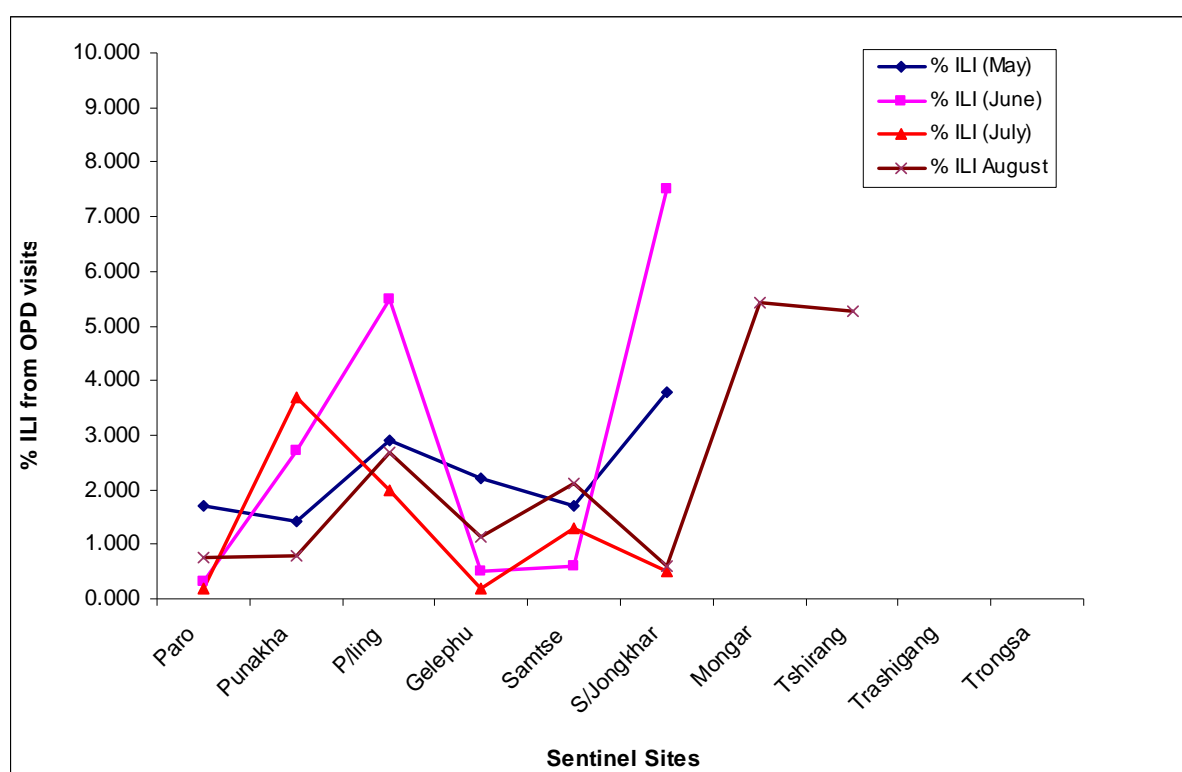
Region	Sites	Outpatient ILI (%)	% positive for Flu (rapid test)	Influenza subtype (PCR)					Death (I & P)
				A(H1 )	A(H3)	A (H1N1)	A un- subty ped	B	
West	Paro hospital	0.76	00	+	+	-		+	0
	Punakha hospital	0.79	5.9	+	+	-		+	0
	Phuentsholing hospital	2.68	0.04	-	+	-		+	0
	Samtse hospital	2.11	0.15	ND	ND	-		ND	0
	JDWNRH	-	0.66	+	+	+	+	+	0
Central	Gelephu R R hospital	1.12	1.8	+	+	-	+	+	0
	Tserang hospital	5.3	1.5						
	Trongsa hospital	NR	NR						

East	Mongar R R hospital	5.42	4.2						
	Trashigang hospital	NR	NR						
	S/Jongkhar hospital	0.6	00	ND	ND	-		ND	0

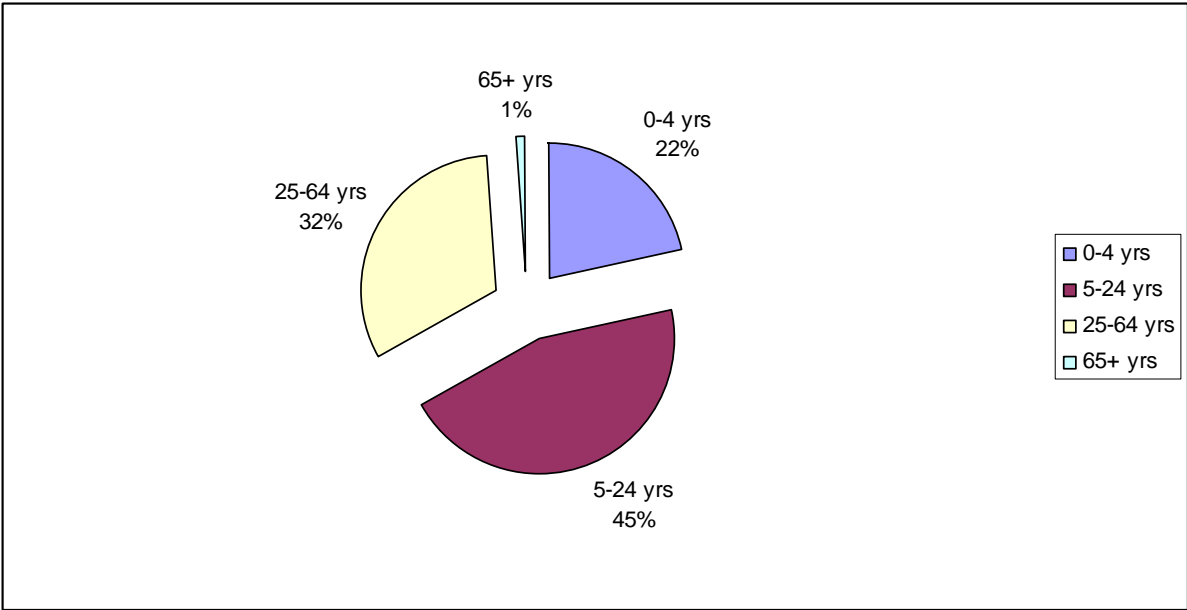
(+: Positive, - : Negative, ND: Not done, NR: report not received)

## 2.1 Outpatient ILI surveillance

The rate of ILI patients visiting hospitals (sites) for the month of August was 2.34%. Mongar hospital has reported high ILI rate (5.42%) compared to other sites for the month of August (Figure 1). The most affected age group by seasonal influenza virus is between 5-24 years (Figure 2).



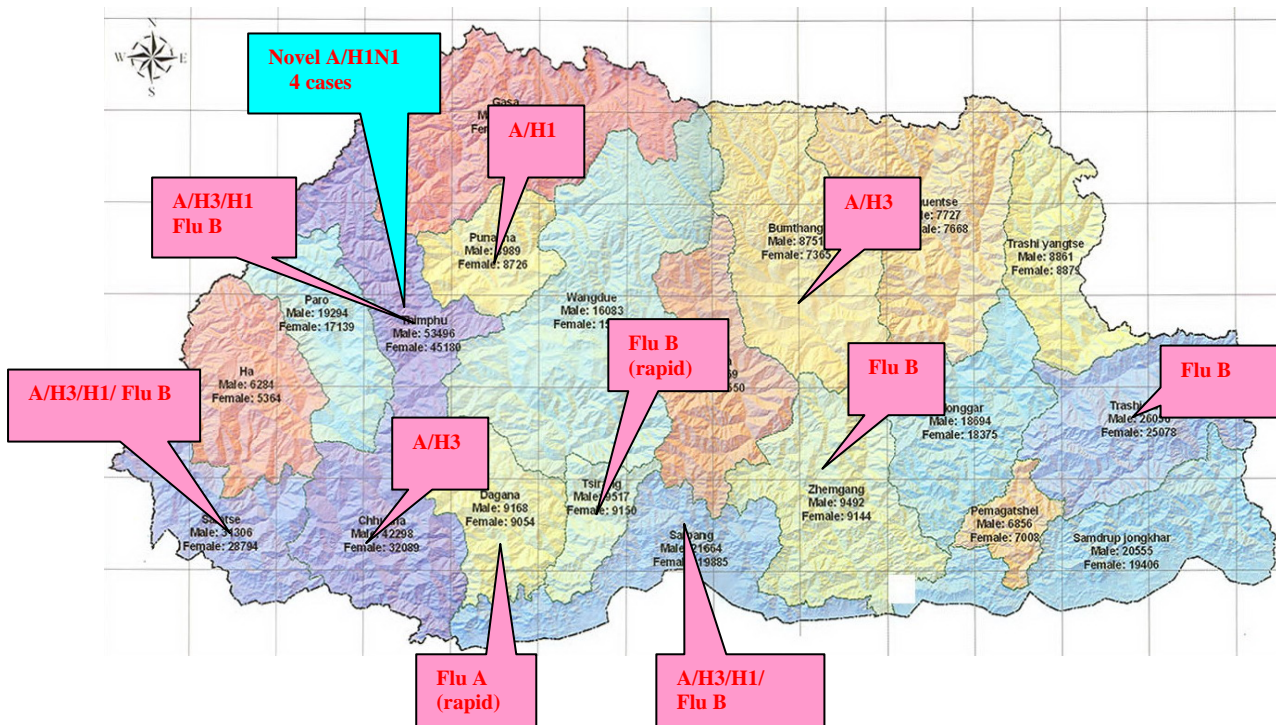
**Figure 1:** Percentage of OPD visits by patient suffering from Influenza-like Illness (ILI) in each site.



**Figure 2:** Age distribution among ILI cases

**2.2 Virology surveillance**

Rapid test kit result showed presence of both influenza A & B virus type circulating in the population. The overall positive rate detected by rapid test for the month of August was 2.6 % from which 1.5 % was influenza A, 1 % was influenza B, 0.1% was influenza AB and rest were negative (the positive rate of each site is given in Table # 2). The RT-PCR showed influenza A/H3 as most common circulating influenza virus followed by influenza type B and A/H1 (the positive rate of each site is given in Table # 3). RT-PCR data shown in the table is the cumulative data available till date).



**Figure 3:** Geographical distribution of influenza virus and subtypes by RT-PCR till date

**Table No. 2: Influenza virus type**

Hospital	Total sample collected and tested	Rapid Result			
		Flu A	Flu B	Flu A B	% POSITIVE
Paro	60	00	00	00	00
Punakha	37	2	0	0	5.4
Phuntsholing	NR				
Samtse	67	4	00	00	5.9
JDWNRH	414	02	01	01	0.97
Gelephu	53	04	0	00	40.00
Tserang	40	0	6	00	0.15
Trongsa	3	0	00	00	0
Mongar R R	48	2			4.2
Trashigang	NR				
Samdrupjongkhar	00	00	00	00	00

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

Hospital	Total sample collected and tested	Influenza Subtype (%)				
		A(H1)	A(H3)	A(H1N1)	A(unsubtyped)	B
Paro	60	7.6% (4)	28.8% (15)	0	0	3.8% (2)
Punakha	37	48% (12)	24% (6)	0	0	8% (2)
P/ling	NR	0	50% (6)	0	0	0
Samtse	Not possible to ship samples to PHL due to transportation problem at the moment					
JDWNRH	263	3.7% (13)	15% (53)	1.14% (4)	1.14% (4)	6.3% (22)
Gelephu R R	53	6.7% (11)	25% (41)	0	0	26% (43)
Tserang	5					
Trongsa	4					
Mongar R R	48					
Trashigang	13					
Samdrup Jongkhar	Not possible to ship samples to PHL due to transportation problem at the moment					

(Note: Samples last sent to AFRIMS on 26<sup>th</sup> August, 2009)

### 2.3 Influenza and Pneumonia deaths

No deaths reported for the month of August

### 2.4. Influenza Outbreaks

No outbreaks were reported in the month of August.

### References

1. CDC flu surveillance report