

PUBLIC HEALTH LABORATORY

FLUVIEW

Monthly Influenza surveillance report: “June 2010”

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

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Synopsis

The average rate of influenza-like-illness (ILI) of the total OPD cases in the identified sentinel sites was 1.35% for the month of June, 2010. The most common influenza virus subtype circulating in the month of June was the 2009 influenza virus novel strain influenza A/SW H1 followed by influenza B. Two cases of death due to pneumonia/ ILI were reported from Gelephu in June. There were seven ARI/ILI outbreaks reported in the month of June from three districts.

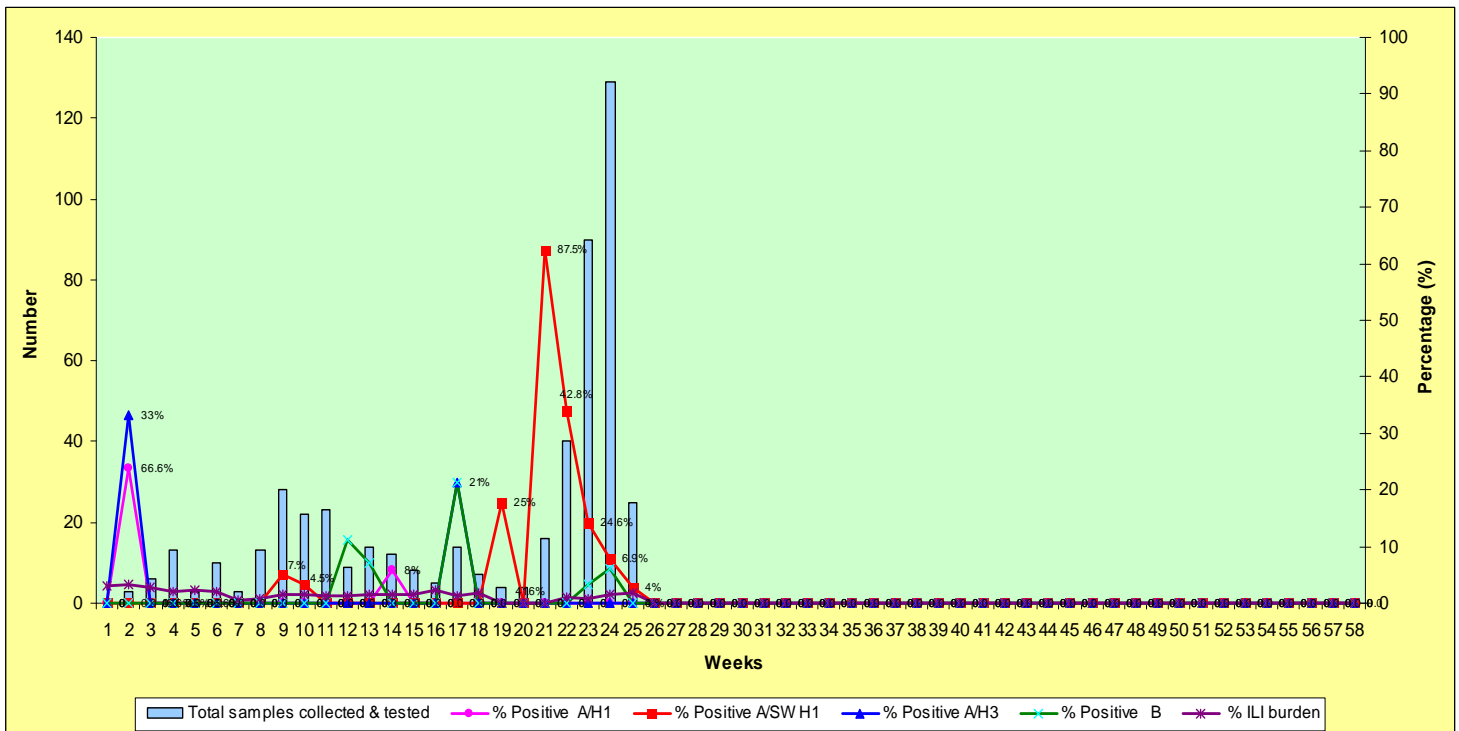


Figure 1: Influenza surveillance report by RT-PCR in Bhutan (Jan -June 2010)

1. Outpatient ILI surveillance

The average rate of patients with ILI visiting hospitals (sites) for the month of June was 1.35 % of the total OPD patients. The ILI rate ranges from 0 – 3.7% among the OPD patients of sentinel sites for the month (**Table 1**). SamdrupJongkhar hospital recorded the highest ILI rate (3.7 %) and ILI burden of all the sites are given in **Figure 2**. The age group most affected by influenza virus in June, 2010 was 5-24 years (**Figure 3**).

Table No. 1: Selected ILI surveillance report for the month of June 2010 (**Data source:** Weekly report received from surveillance sites)

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	0.4	NR	-	-	-	-	-	0
	Punakha hospital	0.00	NR	-	-	+	-	-	0
	Phuentsholing hospital	1.1	NR	-	-	-	-	-	0
	Samtse hospital	1.1	NR	-	-	+	-	-	0
	JDWNRH		7.1	-	-	+	-	-	0
Central	Gelephu R R hospital	0.83	32.9	-	-	+	-	+	2
	Damphu hospital	1.3	NR	-	-	-	-	-	0
	Trongsa hospital	0.00	0.00	-	-	-	-	-	0
East	Mongar R R hospital	2.0	0.00	-	-	-	-	-	0
	Trashigang hospital	0.49	NR	-	-	+	-	-	0
	S/Jongkhar hospital	3.7	NR	-	-	-	-	-	0

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

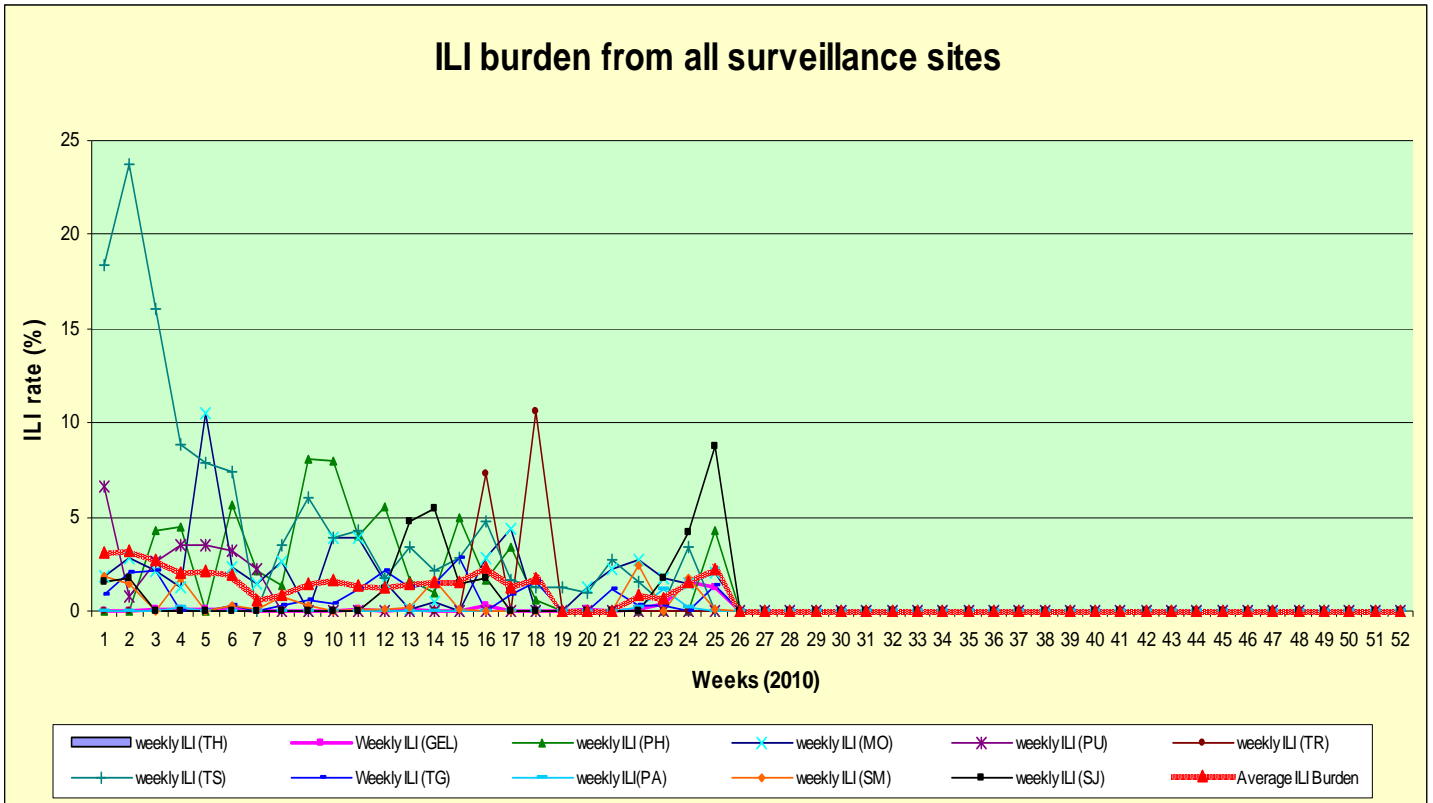


Figure 2: Weekly summary report of ILI burden (Jan – June 2010)

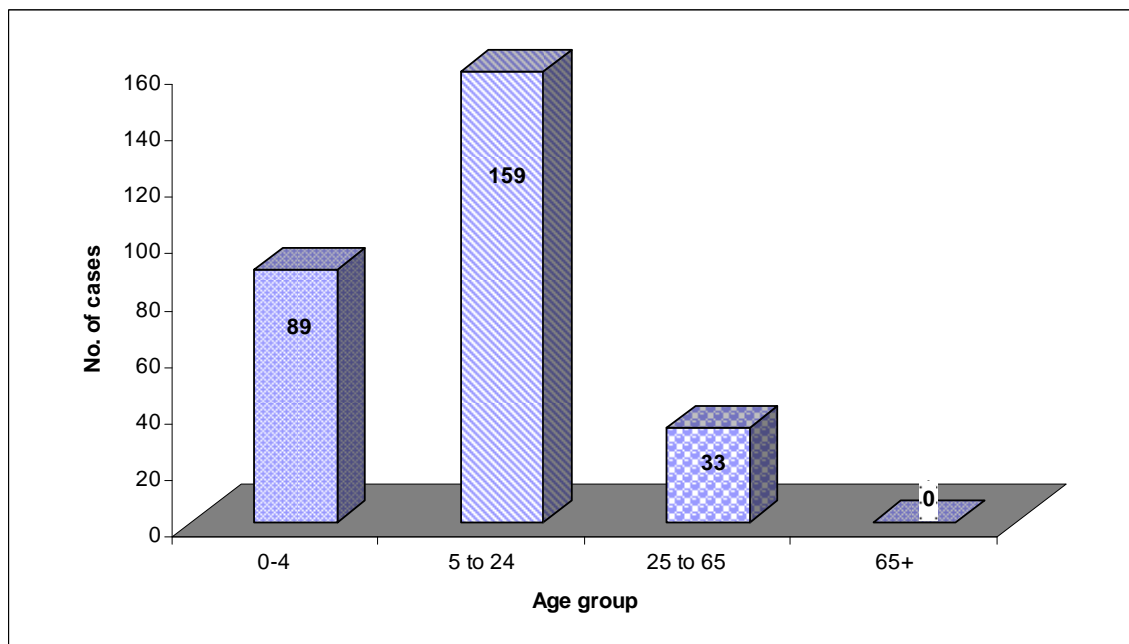


Figure 3: Age distribution among ILI cases for the month of June

2. Virology surveillance

The positive detection rate by rapid test kit for June was 6.9% of the total rapid tests performed; Influenza A- 4.8 %, and B - 2.1 % respectively (**Table # 2**). Subtyping done by RT-PCR showed novel influenza strain A/ SW H1N1 and influenza B as common subtype circulating in the month of June (**Table # 3**).

Table No. 2: Rapid test positive rate for the month of June 2010 (Data source: Monthly rapid test report received from sites)

Hospital	Total sample collected and tested	Rapid Result (%)			
		Flu A	Flu B	Flu A & B	POSITIVE
Paro	NR				
Punakha	NR				
Phuntsholing	NR				
Samtse	NR				
JDWNRH	480	15	19	0	7.1
Gelephu	82	14	13	0	32.9
Tsirang	NR				
Trongsa	14	0	0	0	0
Mongar R R	26	0	0	0	0
Trashigang	NR				
Samdrupjongkhar	NR				

Table No. 3: Influenza virus subtyping by RT-PCR for month (Data source: RT-PCR results from PHL)

Hospital	Total sample collected	Influenza Subtype (%)				
		A(H1)	A(H3)	A/SW H1	A(un-subtyped)	B
Paro	0	0	0	0	0	0
Punakha	09	0	0	55.6	0	0
P/ling	59	0	0	0	0	3.4
JDWNRH	105	0	0	17.1	0	6.7
Gelephu R R	48	0	0	2.1	0	6.25
Tsirang	14	0	0	0	0	0
Trongsa	0	0	0	0	0	0
Mongar R R	11	0	0	0	0	9
Trashigang	09	0	0	20.1	0	0

3. Death due to Influenza & Pneumonia

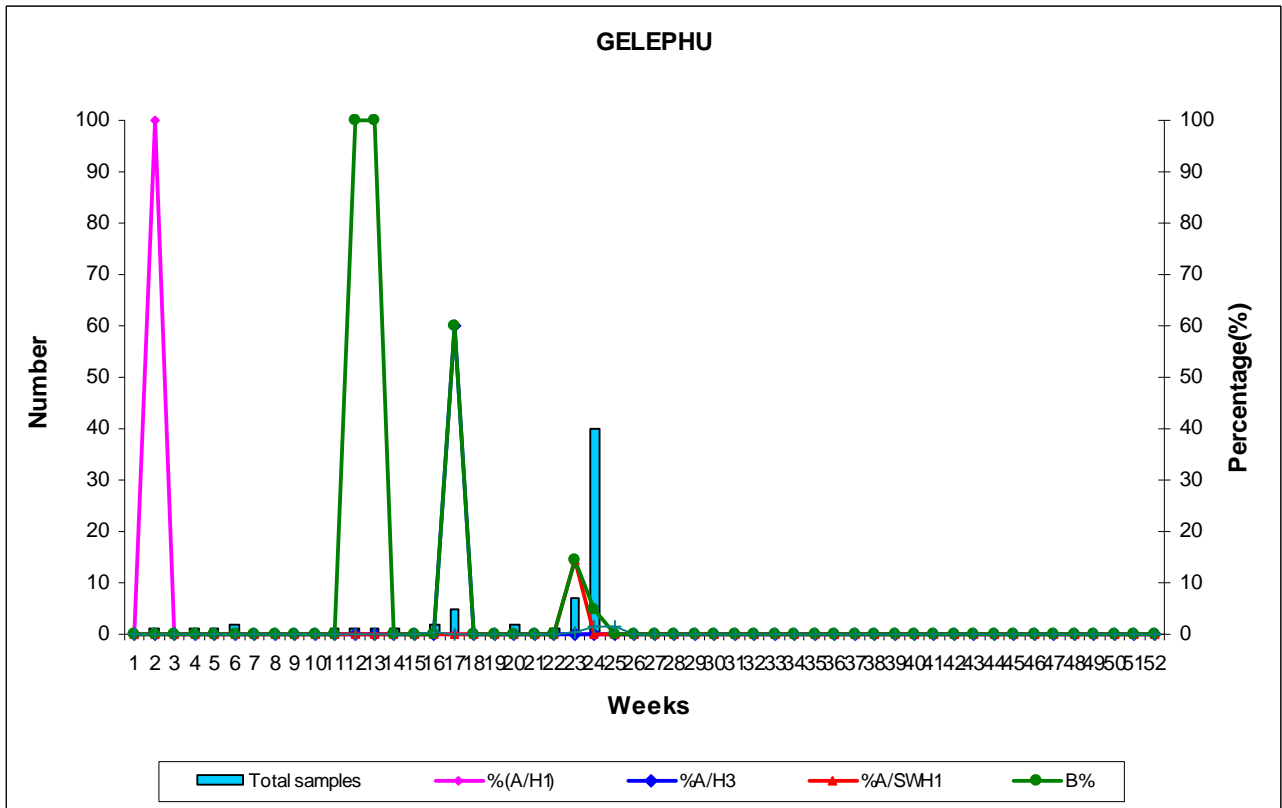
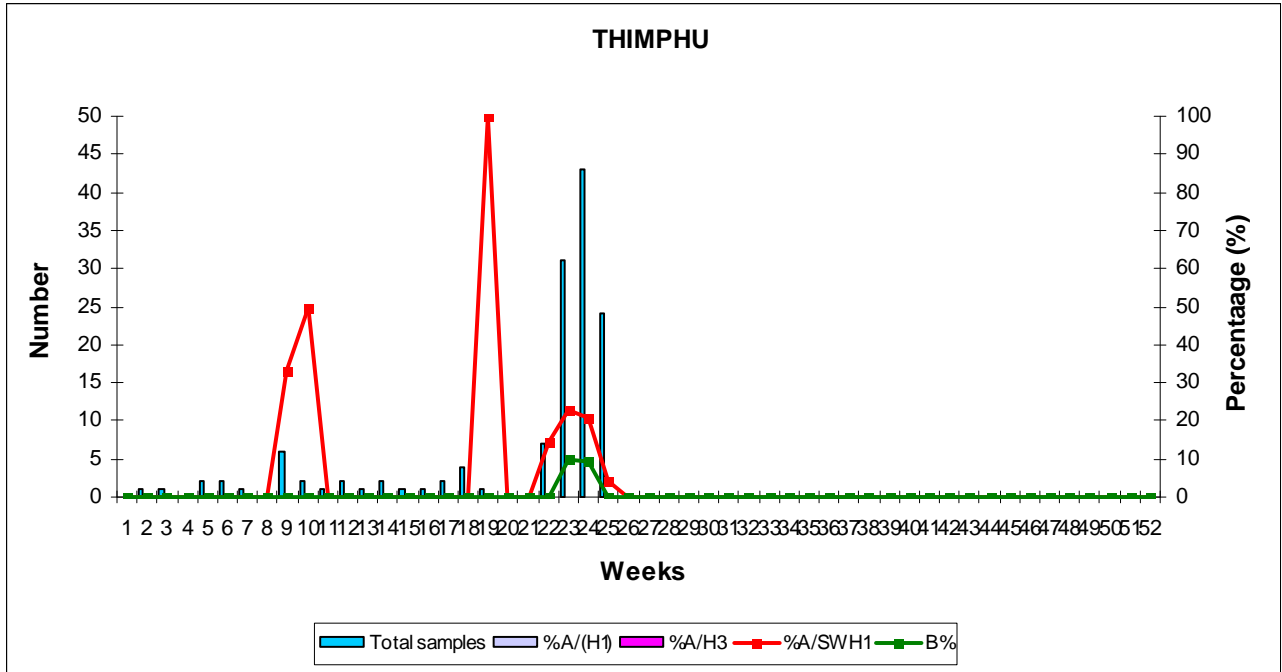
Two cases of death due to influenza and pneumonia have been reported from Gelephu in the month of June. Both death cases were age group 0-4 years. No samples were collected for influenza testing.

4. Influenza Outbreaks

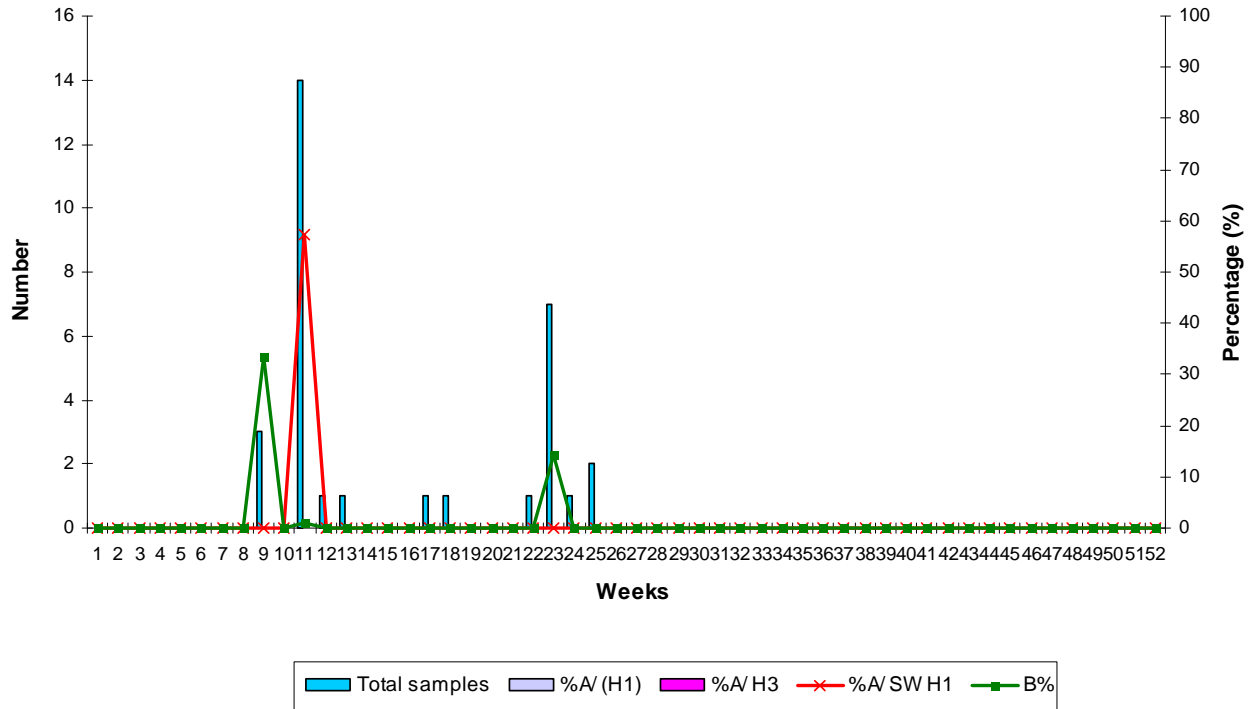
Total seven ARI/ILI outbreaks have been reported from three districts in various places in the month of June. Five outbreaks were caused by influenza virus novel strain A/SW H1, and one by influenza B (**Table 4**).

Sl. No	Name of the site	Date	No. of samples tested	RT-PCR Result
1	Riserboo, Trashigang	27.05.2010	13	Flu A/ SW H1 (novel H1N1)
2	Dorokha, Samtse	04.06.2010	06	Flu A/ SW H1 (novel H1N1)
3	Chengmari, Samtse	--	05	Flu A/ SW H1 (novel H1N1)
4	Sipsoo, Samtse	16.06.2010	07	Flu A/ SW H1 (novel H1N1)
5	Tashiding School, Punakha	10.06.2010	08	Flu A/ SW H1 (novel H1N1)
6	Lokchina School, Phuntsholing	16.06.2010	07	Negative
7	Gedu, Chukha	--	05	Flu B

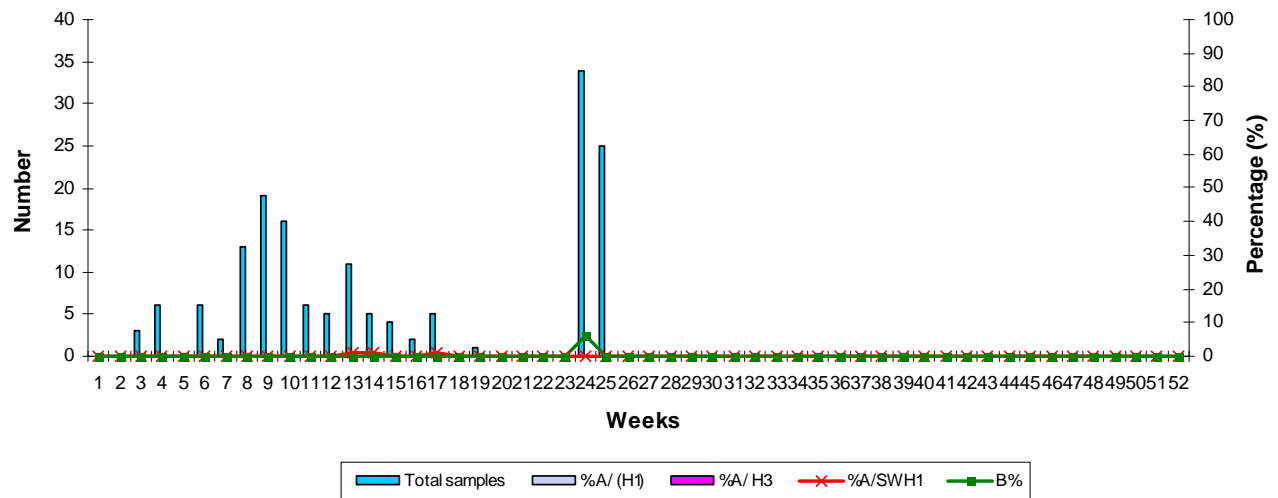
Influenza surveillance report by RT-PCR in individual sites (Jan -June 2010)

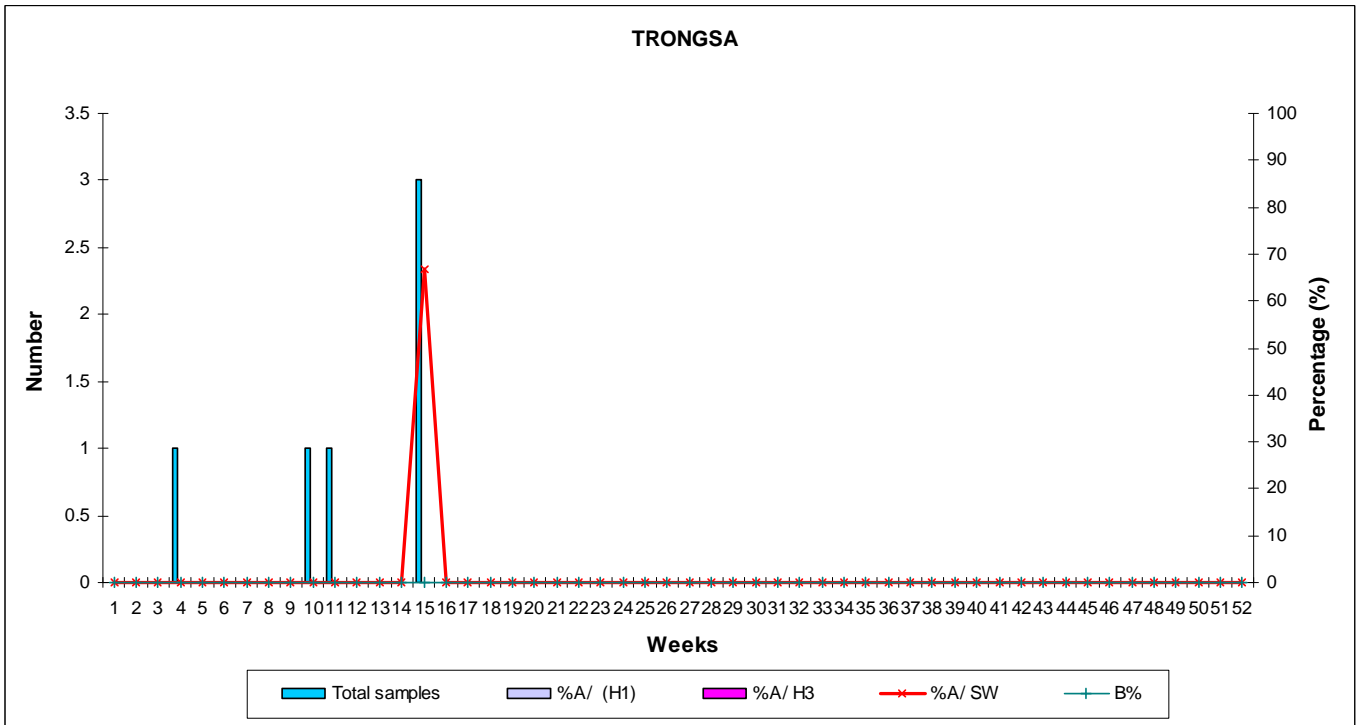
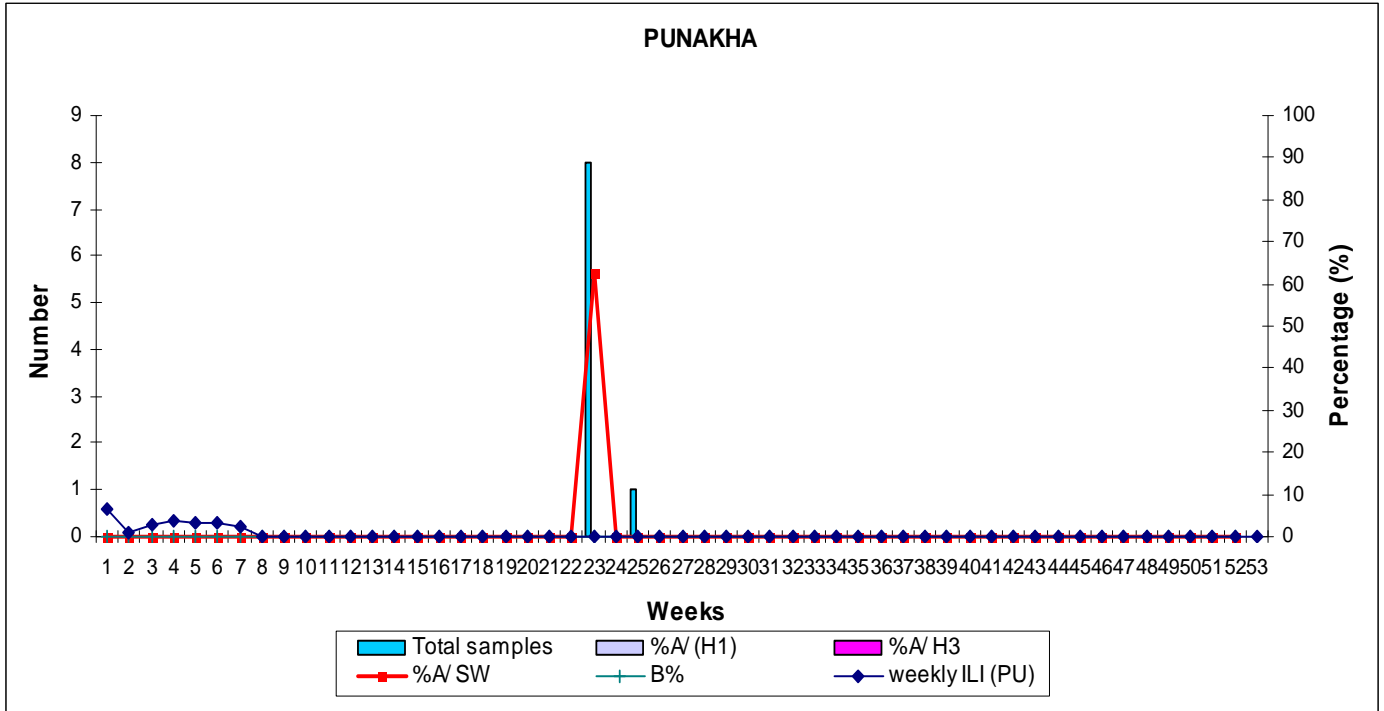


MONGAR

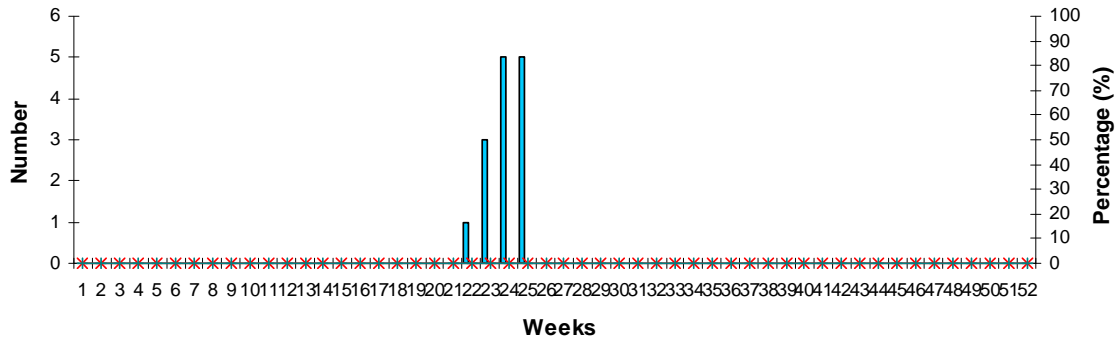


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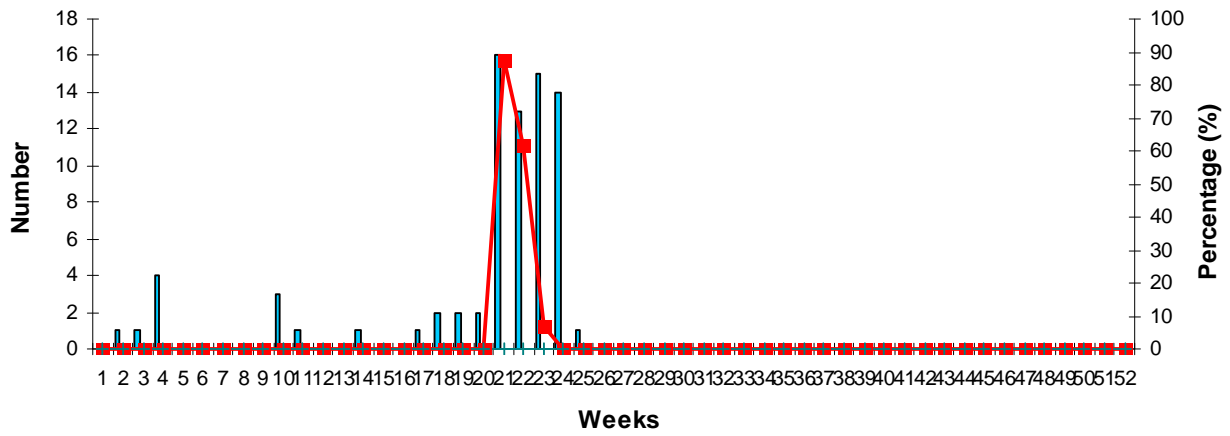


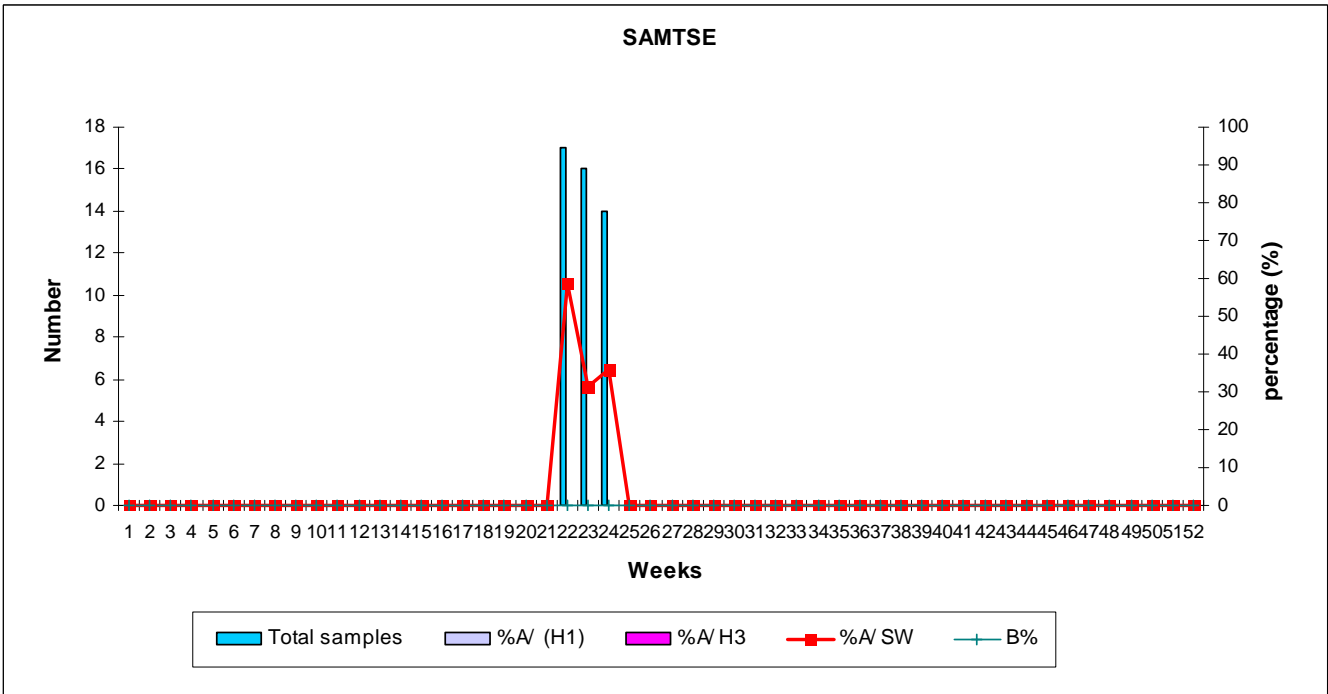
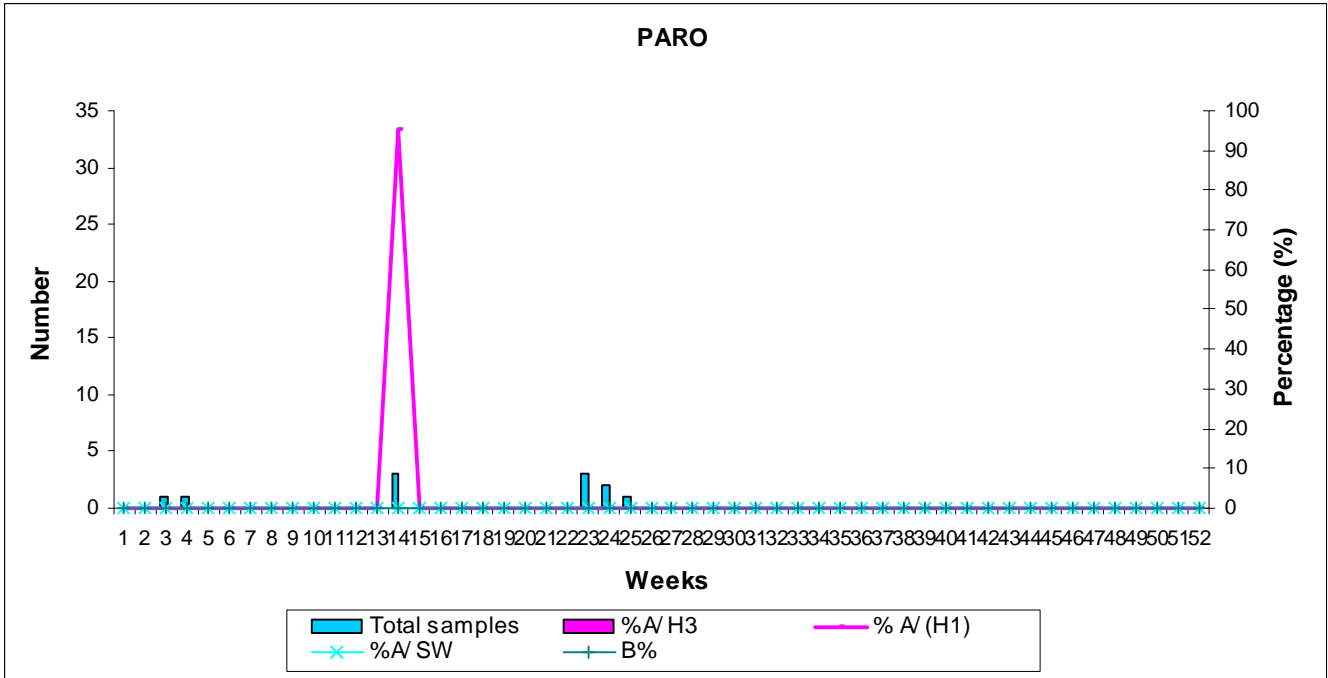


TSIRANG



TRASHIGANG





S/JONGKHAR

