



Weekly Epidemiological Bulletin

Disease early warning system and response in Pakistan

Volume 5, Issue 8, Wednesday 26 February 2014

Highlights

Figure-1: 80 districts reported to DEWS in week 8, 2014

Epidemiological week no. 8 (16 to 22 Feb 2014)

- **Dengue fever:** During this week, 11 Dengue fever lab confirmed cases have been reported from Sindh province.
- In this week, **80** districts and 2,519 health facilities have reported to Disease Early Warning System (DEWS), compared to 79 districts with 2,378 health facilities shared weekly data in week 7, 2014 to the DEWS.
- Total **994,040** patients consultations reported in week 8, 2014 compare to **911,475** consultations in week 7, 2014.
- In this week, a total of 81 alerts identified and timely responded. Altogether 31 alerts were for Measles; 14 for Leishmaniasis; 9 Typhoid fever; 8 for NNT; 7 for ARI; 4 for Diphtheria; 2 each for Pertussis and Scabies; while 1 each for AWD, Bloody diarrhoea, CCHF and Rubella.



Priority diseases under surveillance in DEWS

- Pneumonia
- Acute Watery Diarrhoea
- Bloody diarrhoea
- Acute Diarrhoea
- Suspected Enteric/Typhoid Fever
- Suspected Malaria
- Suspected Meningitis
- Suspected Dengue fever
- Suspected Viral Hemorrhagic Fever
- Suspected Measles
- Suspected Diphtheria
- Suspected Pertussis
- Suspected Acute Viral Hepatitis
- Neonatal Tetanus
- Acute Flaccid Paralysis
- Scabies
- Cutaneous Leishmaniasis

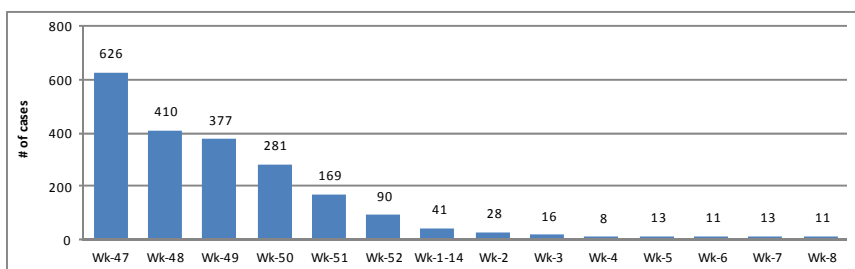
Cumulative number of selected health events reported in Epi-week 1 to 8, 2014 (29 Dec 2013 to 22 Feb 2014)

Disease	# of Cases	Percentage
ARI	1,570,710	23.35%
Bloody diarrhoea	6,324	<1.00%
Acute diarrhoea	291,107	4.33%
S. Malaria	178,785	2.66%
Skin Diseases	202,603	3.01%
Unexplained fever	184,346	2.74%
Total (All consultations)	6,726,125	

Major health events reported during the Epi-week - 8 (16 to 22 Feb 2014)

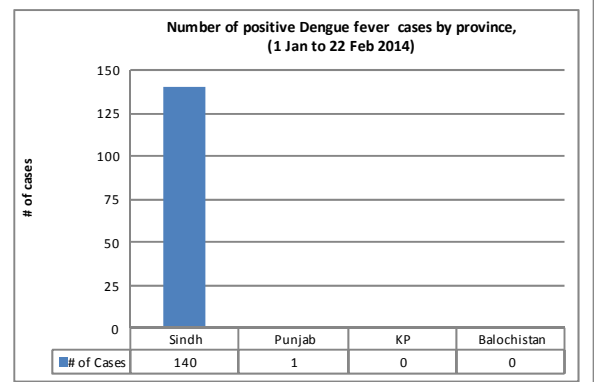
Disease	# of Cases	Percentage
ARI	239,795	24.12%
Bloody diarrhoea	858	<1.00%
Acute diarrhoea	42,214	4.25%
S. Malaria	28,624	2.88%
Skin Diseases	30,299	3.05%
Unexplained fever	26,365	2.65%
Total (All consultations)	994,040	

Figure-2: Number of Dengue fever positive cases in Pakistan, Week 47-2013 to week 8-2014



From 1st January to 22nd February 2014, a total of 141 lab confirmed Dengue fever cases were reported, out of them 140 positive cases from Sindh province; while 1 positive case was reported from Punjab province.

In year 2013 Dengue fever cases were reported from many less endemic areas. A huge outbreak was confronted in district Swat and increasing number of Dengue fever cases were reported from adjacent district also and cases were also reported from Gawadar and Kech districts in Balochistan province and Karachi in Sindh province.



Number of Outbreaks (Wk-8/2013):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
17-Feb	Measles	Balochistan	Chagai	Killi Baz Mohammad, UC Town	1	2	2	2	7 suspected Measles cases were reported from Killi Baz Mohammad, UC Town, district Chagai. During field investigation Vit-A were provided to all the suspected cases. The community was sensitized for routine EPI vaccines and polio drops. Two blood samples were collected and dispatched to NIH for lab investigation. Mop up activity was carried out in the affected area by the collaboration of district health team in which 109 children were vaccinated in surrounding villages.
20-Feb	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village and UC Kohi Bermol, Tehsil Katlang, Mardan	3	5	5	7	An Alert of Cutaneous Leishmaniasis was reported from UC Kohi Bermol. On active surveillance 19 more clinical case was identified in the area and surrounding. Required doses of Inj-Glucantime were placed in nearby health facility for all the registered cases. On job training of health staff was conducted for Intralesional administration of Inj-Glucantime. FPHC Mardan, Relief Intl, PPHI were requested for vector control interventions in the area and surrounding. EDO-H and RBM focal person was informed and requested for vector control measures in the areas.
20-Feb	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village KhaRKi, Kando & Mirali, UC Kharki, Mardan	2	3	3	5	An Alert of Cutaneous Leishmaniasis was reported from UC Baizo Kharki. During active surveillance 12 more clinical case was identified in the area and surrounding. Required doses of Inj-Glucantime were placed in nearby health facility for all the registered cases. On job training of health staff was conducted for Intralesional administration of Inj-Glucantime. FPHC Mardan, Relief Intl, PPHI were requested for vector control interventions in the areas and surrounding. EDO-H and RBM focal person was informed and requested for vector control measures in the areas.
19-Feb	Diphtheria	Punjab	Lahore	Sharif Park, Nishter Stop Feroz Pur Road, UC 141; Kashmir Block Allama Iqbal Town, UC 104 Saman Abad Town Lahore	0	2	0	0	Two probable diphtheria cases from two different location were reported from Children Hospital and Sheikh Zayed hospital, Lahore. Case management were ensured. Patient were admitted in emergency unit. There is no travelling history of patient. 1 sample for Throat Swab was collected and sent to NIH and found positive for Diphtheria. EDO(H) Lahore was also informed. All close contacts were examined and Syrup Erythrosine given to 90 children. Active surveillance was done and no more case was found. DSC, DDOH, SO, DSV, IV, vaccinators and LHS perform field investigation. BCG to 14 Children, OPV zero to 5 Children, Penta 1 to 14 children, Penta 2 to 2 children Penta 3 to 4 children, 104 children under 5 year of age were given additional dose of Penta, Measles 1 to 11 children and TT was given to 11 females. Health Education session conducted in the community with the help of LHS and community leaders. DG health, Director CDC and Director EPI and EDO-H were informed.

Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2013		Current week 8, 2014		2014	
	A	O	A	O	A	O
Acute watery diarrhoea	142	40	1	0	12	1
Acute jaundice syndrome	49	6	0	0	1	0
Bloody diarrhoea	45	3	1	0	6	0
CCHF	90	47	1	0	2	0
Dengue fever	300	66	0	0	1	0
Diphtheria	84	19	4	2	18	3
Measles	3357	281	31	1	279	8
Pertussis	46	10	2	0	8	1
NNT + tetanus	349	0	8	0	73	0
Malaria	25	6	0	0	0	0
Cutaneous Leishmaniasis	621	51	14	0	109	2
Others	520	5	19	0	81	0
Total	5628	534	81	3	590	15

Figure-3: Number of alerts received and responded, week 5 to 8 2014

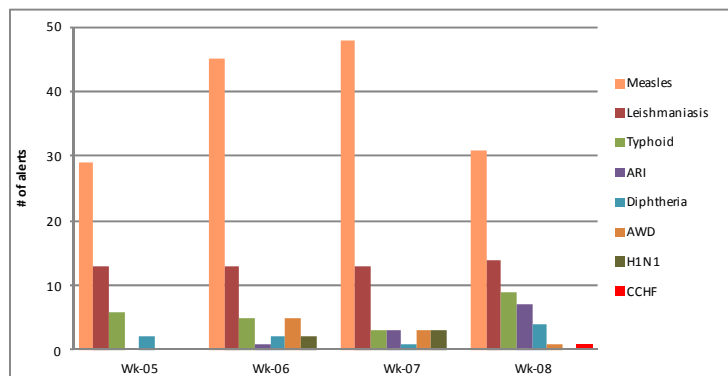
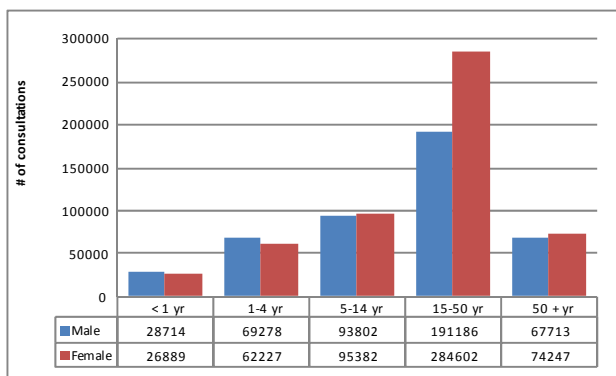
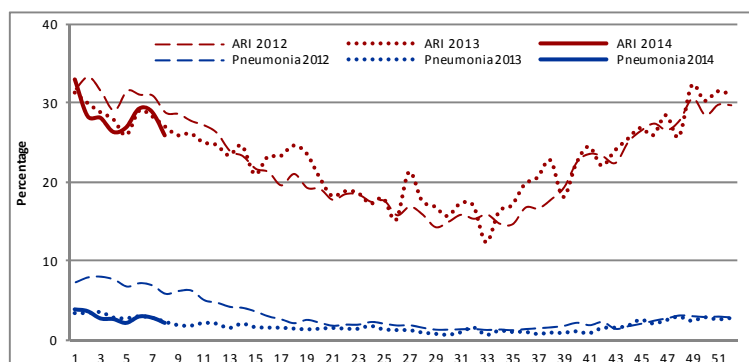


Figure-4: Number of consultations by age and gender, week 8, 2014



Province Khyber Pakhtunkhwa:

Figure-5: Weekly trend of ARI and Pneumonia, province Khyber Pakhtunkhwa



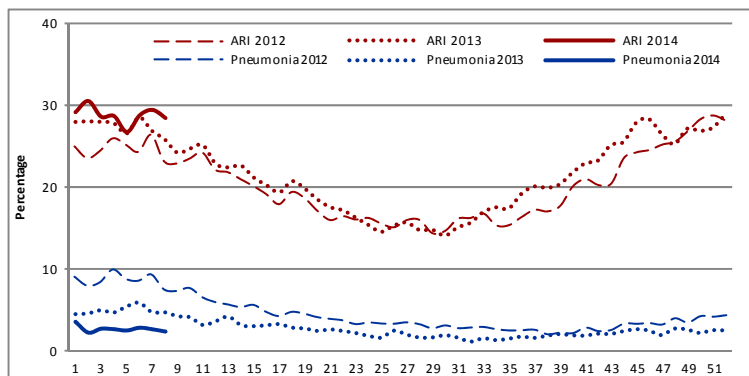
161 health facilities from 9 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 45,535 patients consultations reported in week 8, 2014.

A total of 20 alerts were reported and appropriate measures were taken. Altogether 19 alerts were for Measles; while 1 each for Diphtheria, Rubella and NNT.

Figure-5 shows the weekly trend of ARI and Pneumonia showing decrease as compare with last week.

Province Sindh:

Figure-6: Weekly trend of ARI and Pneumonia, province Sindh



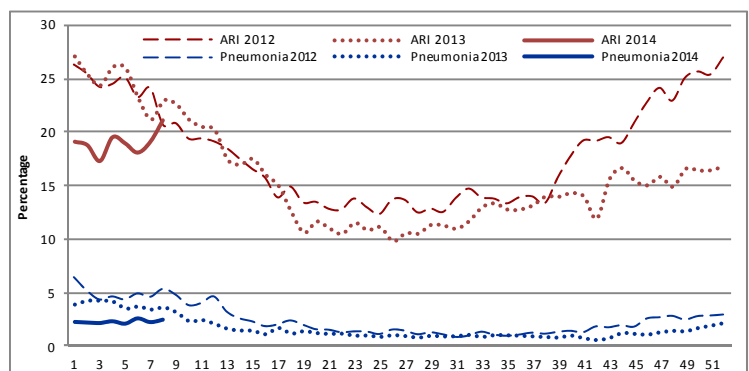
819 health facilities from 23 districts in Sindh province reported to DEWS with a total of 304,984 patient consultations in week 8, 2014.

A total of 19 alerts were received and appropriate measures were taken. Altogether 8 alerts were for Measles; 6 for NNT; 3 for Leishmaniasis; while 1 each for AWD and Pertussis.

The proportion of ARI for the province is showing decrease as compared with last week, but higher from the same time period last year; while Pneumonia shows minor decrease as compare with last week and low from the same time period last year.

Province Punjab:

Figure-7: Trend of ARI and Pneumonia, province Punjab



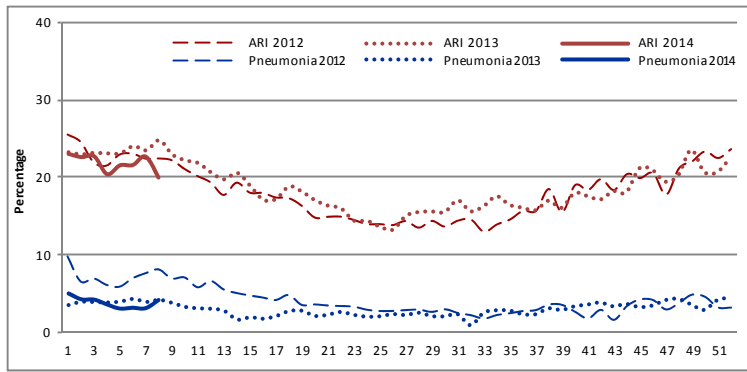
1,150 health facilities from 23 districts in Punjab province reported to DEWS with a total of 574,459 patients consultations in week 8, 2014.

Total 25 alerts were received and appropriate measures were taken. Altogether 9 alerts were for Typhoid; 7 for ARI; 3 for Diphtheria; 2 for Scabies; while 1 each for Bloody diarrhoea, CCHF, Measles and NNT were responded in Punjab province.

The weekly trend of ARI in Punjab showing increase as compared with last week; while Pneumonia trend also showing minor increase as compared with last week.

Province Balochistan:

Figure-8: Weekly trend of ARI and Pneumonia, province Balochistan



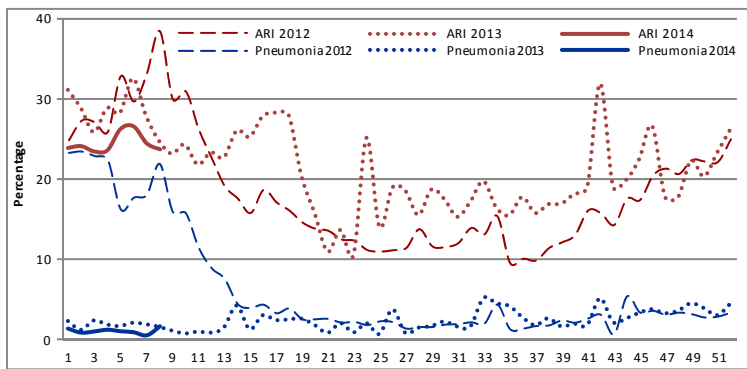
292 health facilities from 14 districts in Balochistan province reported to DEWS with a total of 47,539 patients consultations in week 8, 2014.

12 alerts were reported and appropriate measures were taken. Altogether 8 alerts were for Leishmaniasis; 3 for Measles; while 1 for Pertussis.

In this week the weekly proportion of ARI showing decrease as compared with last week; while Pneumonia showing some increase as compared with last week.

FATA:

Figure-9: Weekly trend of ARI and Pneumonia, FATA



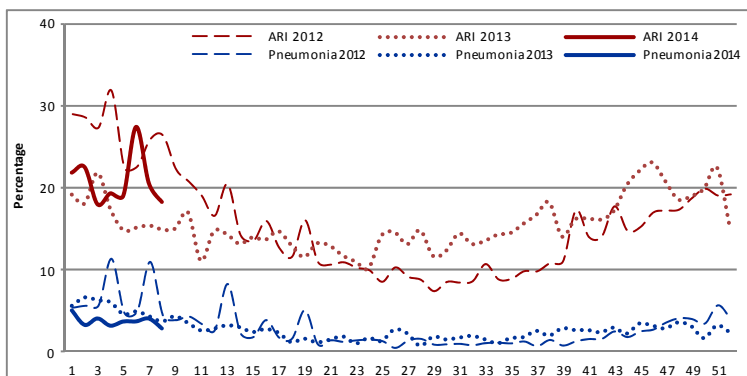
21 health facilities from 2 agencies in FATA reported to DEWS with a total of 6,176 patients consultations in week 8, 2014.

3 alerts for Leishmaniasis were received and responded in FATA in week 8, 2014.

The proportion of ARI showing decrease, while Pneumonia shows some increase as compared with last week in FATA.

State of Azad Jammu and Kashmir:

Figure-10: Weekly trend of ARI and Pneumonia, AJ&K



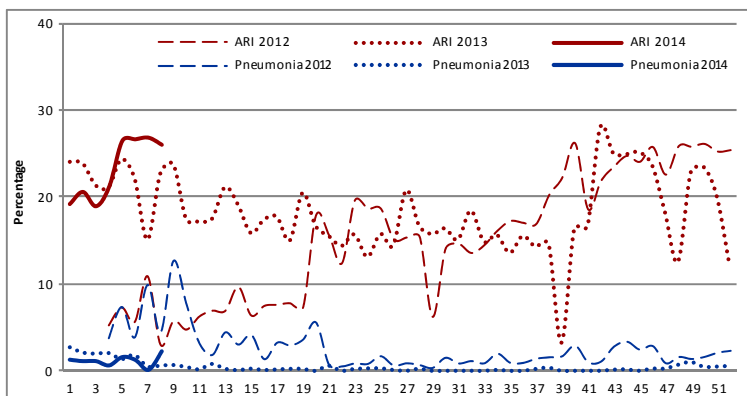
73 health facilities from 8 districts in AJ&K reported to DEWS with a total of 14,663 patients consultations in week 8, 2013.

No alerts for any disease were reported from any area in AJ&K in week 8, 2014.

Weekly trend of ARI and Pneumonia showing decrease as compared with last week; but vigilant monitoring of the situation is required.

Islamabad:

Figure-11: Weekly trend of ARI and Pneumonia, Islamabad



3 health facilities reported to DEWS on time with a total of 684 patients consultations in week 8, 2014.

No alert for any disease reported from any area in Islamabad in week 8, 2014.

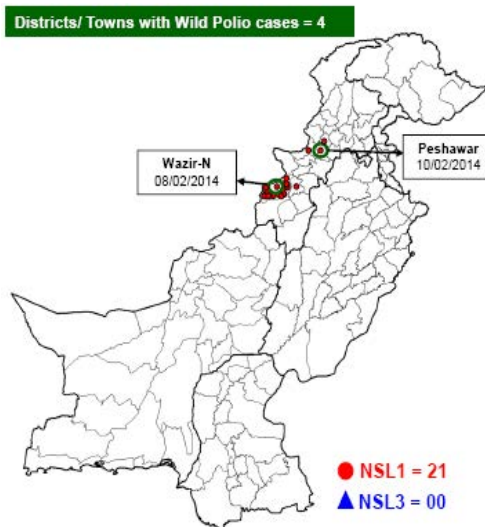
Weekly trend of ARI showing decrease as compared with last week; while Pneumonia showing increase as compare with last week, and vigilant monitoring of the situation is required.

Distribution of Wild Polio Virus cases in Pakistan 2013 and 2014

In this week 8 (16 to 22 Feb 2014), six new wild type-1 polio cases were reported, five from the Federally Administered Tribal Areas (North Waziristan agency) and one from Khyber Pakhtunkhwa (Peshawar district). This brings the total number of polio cases in 2014 to twenty one (compared to 5 in 2013 till this time) from 4 districts/agencies (compared to 5 in 2013 so far).

Second round of National Immunization Days (NIDs) commenced today targeting more than 34 million children. District Swabi and Mardan are conducting the NIDs with a phased approach until 3rd week of March.

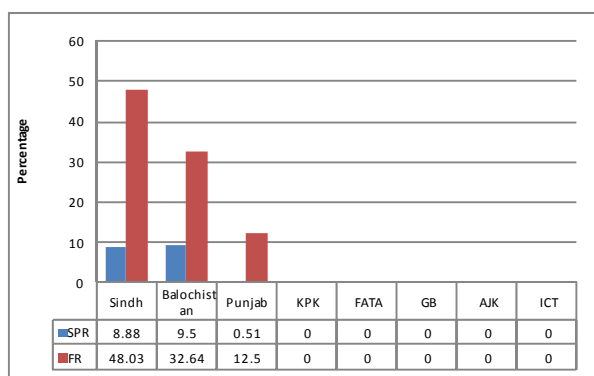
Province	2013			2014		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	7	-	-	-	-	-
Sindh	10	-	-	-	-	-
Khyber Pakhtunkhwa	11	-	-	3	-	-
FATA	65	-	-	18	-	-
Balochistan	-	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	-	-	-	-	-	-
Islamabad	-	-	-	-	-	-
Total	93	-	-	21	-	-



Malaria:

The chart at below shows the Malaria slide positivity and Falciparum ratio in week 8, 2014. Total number of Malaria cases tested in this week is 6,238 out of which 431 were found positive; 249 for P. Vivax; 67 for P. Falciparum; while 115 for Mixed (SPR = 6.91%; F.R = 42.23%).

Malaria tests \ Province	Sindh	Balochistan	Punjab	KPK	FATA	AJK	GB	ICT
P. Vivax	145	97	7	0	0	0	0	0
P. Falciparum	23	44	0	0	0	0	0	0
Mixed	111	3	1	0	0	0	0	0
# tested	3143	1515	1580	0	0	0	0	0
SPR	8.88	9.5	0.51	0	0	0	0	0
FR	48.03	32.64	12.5	0	0	0	0	0



Influenza A (H1N1):

Influenza A (H1N1) virus is the subtype of influenza A virus that was the most common cause of human influenza (flu) in 2009. When the unexpected number of cases with the Novel Influenza virus (H1N1) reported from many countries simultaneously, WHO declared the H1N1 Influenza A Pandemic 2009. The novel virus was found to be having swap genes which came from human, swine and birds influenza viruses which got re-assorted in pig (swine). Since the virus was detected in swine therefore the name swine flu was given initially however later on it was named to Influenza Pandemic H1N1 (2009). In August 2010 WHO declared the end of Pandemic (H1N1) 2009. The pandemic A(H1N1)2009 virus has become a seasonal virus, continuing to circulate with other seasonal viruses since then. In order to standardize the nomenclature of the virus, to minimize confusion, and to differentiate the virus from the old seasonal A(H1N1) viruses circulating in humans before the pandemic (H1N1) 2009 new nomenclature **A(H1N1)pdm09** is used now. This standardization will help to minimize potential confusion among the scientific community as well as the general public.

The world is now in the post-pandemic period. Based on knowledge about past pandemics, the H1N1 (2009) virus is expected to continue to circulate as a seasonal virus for some years to come. While the level of concern is now greatly diminished, vigilance on the part of national health authorities however remains important. Sporadically unusual activities of the virus can be expected in different geographical location.

Contd. : Influenza A (H1N1):

H1N1 is contagious virus, and it spreads in the same way as the seasonal Influenza. Respiratory transmission occurs mainly by droplets disseminated by unprotected coughs and sneezes. Short-distance airborne transmission of influenza viruses may occur, particularly in crowded enclosed spaces. Hand contamination and direct inoculation of virus is another possible source of transmission.

H1N1 virus can cause an acute respiratory infection of varying severity, ranging from asymptomatic infection to fatal disease. Typical influenza symptoms include fever with abrupt onset, chills, sore throat, non-productive cough and, often accompanied by headache, coryza, myalgia and prostration. H1N1 influenza virus can lead to more serious complications, including pneumonia and respiratory failure. And it can make conditions like diabetes or asthma worse. Throat or nasal swab would be required for the lab confirmation of the H1N1.

H1N1 Influenza may lead to complication and fatal consequences especially during 3rd trimester in pregnant women, adults and children who have chronic lung, liver, blood, nervous system, neuromuscular, or metabolic problems, or people who have suppressed immune systems (including those who take medications to suppress their immune systems or who have HIV).

Prevention:

Some general measures that would be prudent and helpful to prevent the acquisition of any respiratory illness are:

- To avoid close contact, when possible, with anyone who shows symptoms of illness (coughing and sneezing)
- Cover mouth and nose (coughs and sneezes; do not spit)
- Maintain good hand hygiene (Wash your hands with soap and water thoroughly and often).
- Practice good health habits including adequate sleep, eating nutritious food, and keeping physically active
- Keep windows and doors open and allow ventilation of the room as much as possible

Treatment:

Home Care:

If you feel unwell, have high fever, cough or sore throat

- Stay at home and keep away from crowds, rest and take plenty of fluids.
- Cover your mouth and nose with disposable tissues when coughing and sneezing, and dispose of the used tissues properly, wash your hands with soap and water often and thoroughly, especially after coughing or sneezing.
- Inform family and friends about your illness and try to avoid contact with people.
- Contact your doctor or healthcare provider and report your symptoms.
- Cover your nose and mouth during travel.

Hospital Care:

WHO's guidelines for use of antiviral medicines, which refer to both seasonal and pandemic influenza, should continue to be followed.

- Treatment with antivirals should be started within 48 hours after onset of illness for better clinical results.
- For hospitalized patients with suspected influenza H1N1, empirical antiviral treatment with oral or enteric Oseltamivir should be started as soon as possible with waiting lab results.
- For outpatients who are at higher risk for complications from influenza, neuraminidase inhibitor as soon as possible is also recommended.
- Patients who have severe or deteriorating influenza and patient who are at higher risk of severe or complicated influenza should be treated as soon as possible with Oseltamivir.

Alerts and outbreaks, week 8, 2014

