



Weekly Epidemiological Bulletin

Disease early warning system and response in Pakistan

Volume 5, Issue 18, Wednesday 7 May 2014

Highlights

Epidemiological week no. 18
(27 Apr - 3 May 2014)

- **Dengue fever:** During this week, no Dengue fever lab confirmed cases have been reported from any province.
- In this week, **73** out of 87 districts and 2,386 out of 2,700 health facilities have reported to Disease Early Warning System (DEWS), compared to 73 districts with 2,420 health facilities shared weekly data in week 17, 2014 to the DEWS.
- Total **768,709** patients consultations reported in week 18, 2014 as compared to **966,882** consultations in week 17, 2014.
- In this week, a total of 42 alerts generated and timely responded. Altogether 24 alerts were for Measles; 8 for Leishmaniasis; 4 for AWD; 2 for NNT; while 1 each for Bloody diarrhoea, CCHF, Dengue fever and Typhoid fever.
- 4 outbreaks were also identified and timely responded.

Figure-1: 73 out of 87 districts reported to DEWS in week 18, 2014



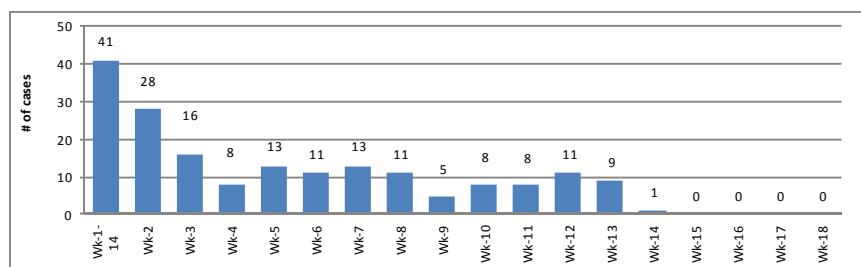
Priority diseases under surveillance in DEWS

- 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 18, 2014 (29 Dec 2013 to 3 May 2014)

Disease	# of Cases	Percentage
ARI	3,589,768	21.99%
Bloody diarrhoea	15,723	<1.00%
Acute diarrhoea	847,010	5.19%
S. Malaria	459,827	2.82%
Skin Diseases	480,716	2.94%
Unexplained fever	427,824	2.62%
Total (All consultations)	16,325,759	100%

Figure-2: Number of Dengue fever positive cases in Pakistan, Week 1 to week 18-2014

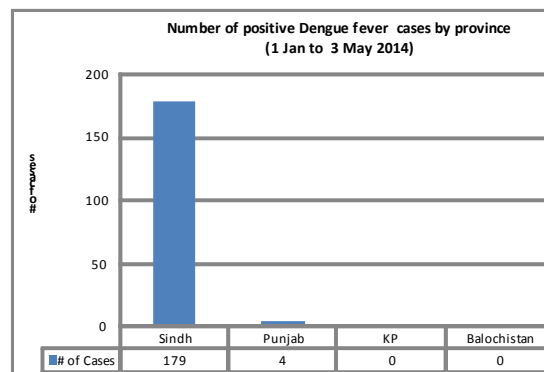


Major health events reported during the Epi-week - 18 (26 Apr to 3 May 2014)

Disease	# of Cases	Percentage
ARI	135,495	17.63%
Bloody diarrhoea	813	<1.00%
Acute diarrhoea	57,418	7.47%
S. Malaria	19,964	2.60%
Skin Diseases	22,268	2.90%
Unexplained fever	18,743	2.44%
Total (All consultations)	768,709	100%

From 1st January to 3 May 2014, a total of 183 lab confirmed Dengue fever cases were reported, out of them 179 positive cases were from Sindh province; while 4 positive cases were 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-18/2014):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
30-Apr	AWD	Balochistan	Las Bela	(RHC Lakhra), Goth Raza Mohammad, UC Uthal, Tehsil Uthal	0	4	0	5	9 AWD cases were reported from RHC Lakhra. Symptomatic treatment was given at HF level and treated according to plan A, B and C. Health and hygiene session conducted with the families. Aqua tabs and ORS were distributed in the community. 2 stool and 3 water samples were collected and sent to NIH for laboratory confirmation. All information shared with DHO.
28-Apr	Measles	Khyber Pakhtunkhwa	Mardan	Village Bara Banda & Misri Banda, Nowshera	2	0	3	0	An alert for 5 suspected Measles cases was reported from MMC Hospital Mardan. Cases were from Sherin Kotto area of Nowshera District. All cases were found partially vaccinated for routine vaccination. Vitamin-A dose was given to all the suspected cases. Information shared with DoH.
29-Apr	Leishmaniasis	Punjab	Rahim Yar Khan	Timber Market, Multan	0	7	0	0	7 new cases of Cutaneous Leishmaniasis were reported from Rangers Medical Centre. All the cases were diagnosed clinically and were of zoonotic origin. and referred from district Kashmore. The cases were advised to cover the lesions with ointment to avoid any further spread. Information shared with DoH.
1-May	Measles	Sindh	Hyderabad	Mir Fateh Colony Bilal Masjid Street Giddu chowk UC Hussain abad	4	1	1	0	One death was reported during active surveillance from Mir Fateh Colony, Giddu chowk, UC Hussain abad. Case aged 9 month died due to suspected measles. During active surveillance 5 more suspected Measles cases were found, age were from 5 to 18 months. All the cases were found not vaccinated for measles. Two doses of Vitamin-A were given to all the suspected cases. Health awareness sessions conducted in the community. 1 blood sample collected and sent to NIH for laboratory confirmation. Information shared with DoH.

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

Disease	2013		Current week 18, 2014		2014	
	A	O	A	O	A	O
Acute watery diarrhoea	142	40	4	1	21	3
Acute jaundice syndrome	49	6	0	0	9	1
Bloody diarrhoea	45	3	1	0	15	0
CCHF	90	47	1	0	8	0
Dengue fever	300	66	1	0	5	0
Diphtheria	84	19	0	0	23	3
Measles	3357	281	24	2	534	22
Pertussis	46	10	0	0	19	2
NNT + tetanus	349	0	2	0	125	0
Malaria	25	6	0	0	0	0
Cutaneous Leishmaniasis	621	51	8	1	242	12
Others	520	5	1	0	194	5
Total	5628	534	42	4	1195	48

Figure-3: Number of alerts received and responded, week 15 to 18 2014

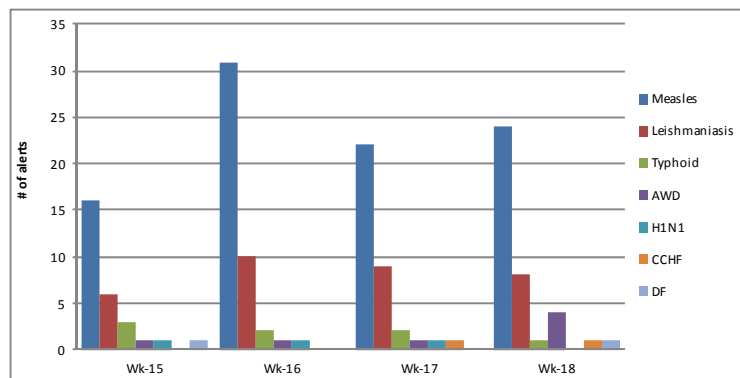
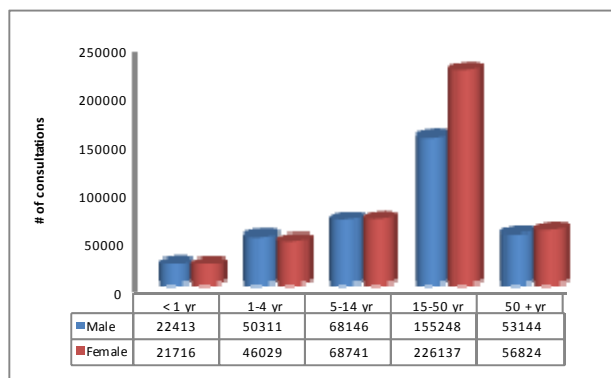
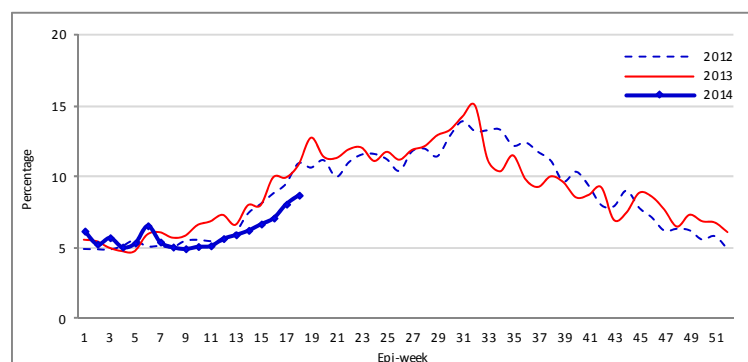


Figure-4: Number of consultations by age and gender, week 18, 2014



Province Khyber Pakhtunkhwa:

Figure-5: Weekly trend of Acute diarrhoea, province Khyber Pakhtunkhwa



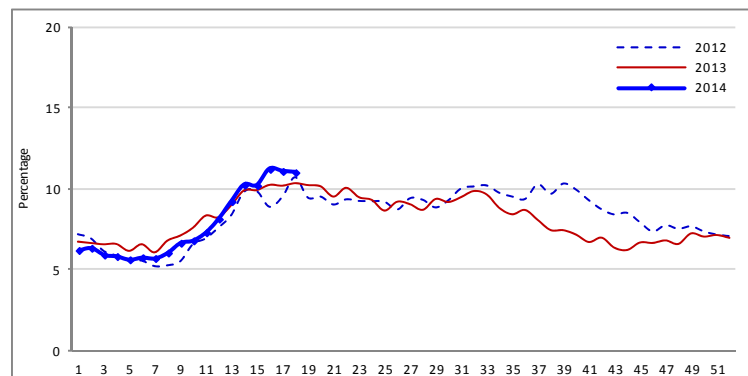
89 health facilities from 7 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 20,024 patients consultations reported in week 18, 2014.

A total of 3 Measles alerts were reported and appropriate measures were taken.

Figure-5 shows the weekly trend of AD (showing increase) as compared with last week.

Province Sindh:

Figure-6: Weekly trend of Acute diarrhoea, province Sindh

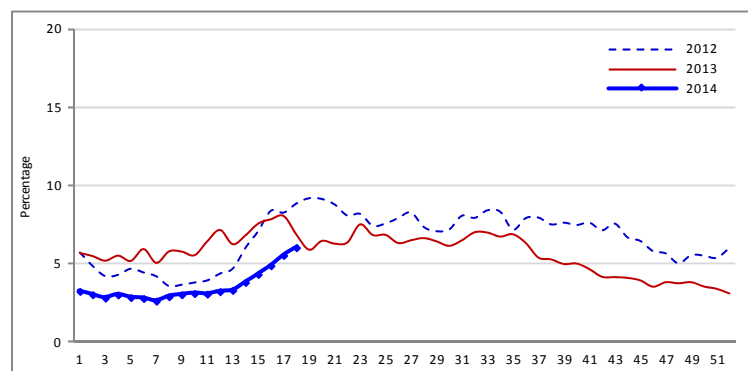


765 health facilities from 23 districts in Sindh province reported to DEWS with a total of 174,782 patient consultations in week 18, 2014.

A total of 9 alerts were received and appropriate measures were taken. Altogether 4 alerts were for Measles; 3 for Leishmaniasis; while 1 each for AWD and NNT. The proportion of AD for the province is showing minor decrease as compared with last week, but higher from the same time period last year.

Province Punjab:

Figure-7: Trend of Acute diarrhoea, province Punjab



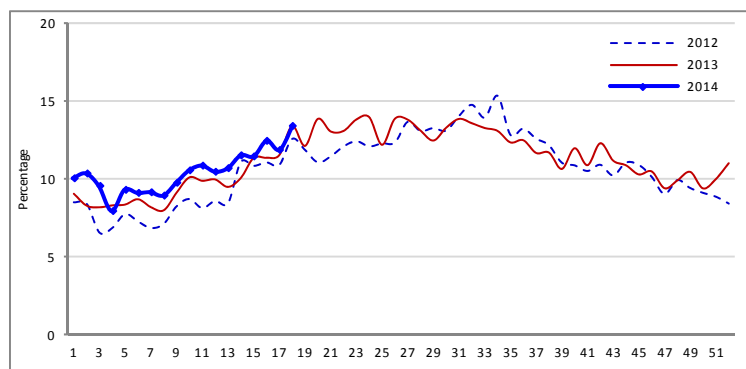
1,236 health facilities from 26 districts in Punjab province reported to DEWS with a total of 530,483 patients consultations in week 18, 2014.

Total 14 alerts were received and appropriate measures were taken. Altogether 8 alerts were for Measles; while 1 each for Bloody diarrhoea, CCHF, Dengue fever, Leishmaniasis, Typhoid and NNT were responded in Punjab province.

The weekly trend of AD in Punjab showing increase as compared with last few weeks.

Province Balochistan:

Figure-8: Weekly trend of Acute diarrhoea, province Balochistan



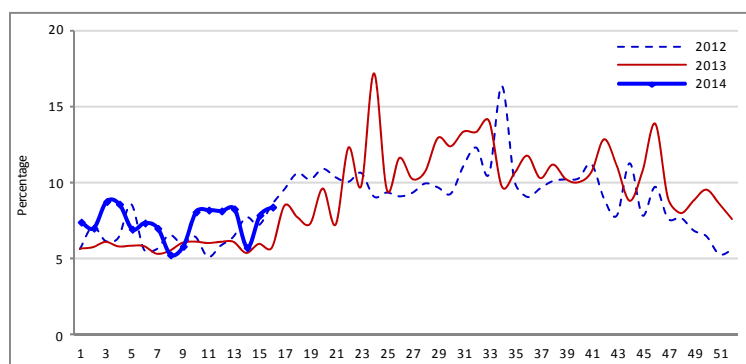
218 health facilities from 8 districts in Balochistan province reported to DEWS with a total of 31,758 patients consultations in week 18, 2014.

11 alerts were reported and appropriate measures were taken. Altogether 5 alerts were for Measles; while 3 each for AWD and Leishmaniasis.

In this week the weekly proportion of AD showing increase as compared with last week and high from the same time period last year.

FATA:

Figure-9: Weekly trend of Acute diarrhoea, FATA



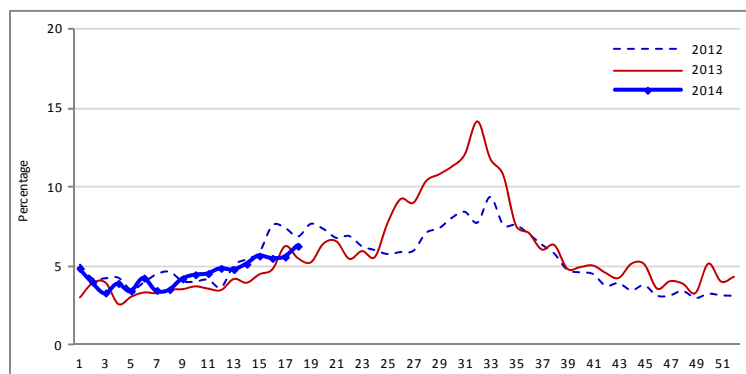
19 health facilities from 2 agencies in FATA reported to DEWS with a total of 4,793 patients consultations in week 16, 2014.

4 alerts were received and responded in FATA in week 16, 2014. Altogether 2 alerts were for Leishmaniasis; while 1 each for Measles and NNT.

The proportion of ARI showing increase, while Pneumonia also shows increase as compared with last week.

State of Azad Jammu and Kashmir:

Figure-10: Weekly trend of Acute diarrhoea, AJ&K



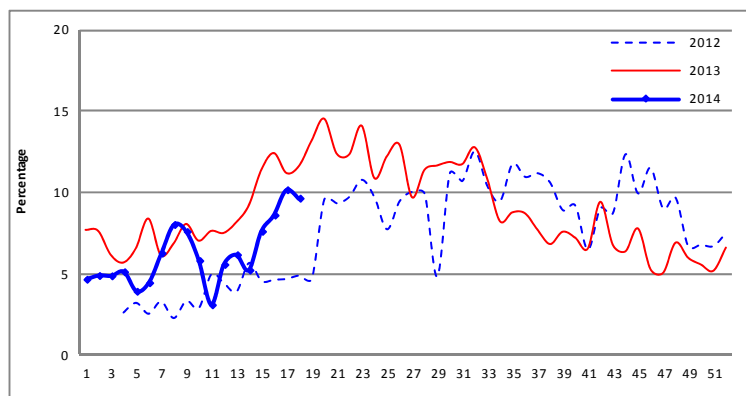
75 health facilities from 8 districts in AJ&K reported to DEWS with a total of 11,103 patients consultations in week 18, 2013.

5 alerts were reported from AJ&K and appropriate measures were taken in week 18 2014. Altogether 4 alerts were for Measles; while 1 for Leishmaniasis.

Weekly trend of AD showing increase as compared with last week and higher from same time period last year; Vigilant monitoring of the situation is required.

Islamabad:

Figure-11: Weekly trend of Acute diarrhoea, Islamabad



3 health facilities reported to DEWS on time with a total of 559 patients consultations in week 18, 2014.

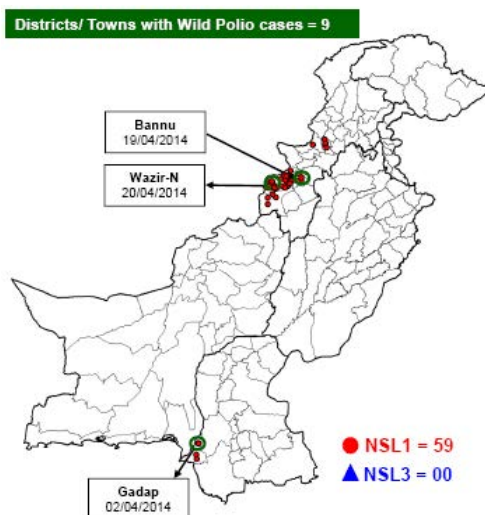
No alert for any disease was reported from Islamabad in week 18, 2014.

Weekly trend of AD showing decrease as compared with last week; but high from same time period last year. Vigilant monitoring of the situation is required.

Distribution of Wild Polio Virus cases in Pakistan 2013 and 2014

In this week 18 (27 Apr to 3 May 2014), five new type-1 wild polio cases have been reported in the country, four from Federally Administered Tribal Areas (North Waziristan agency) and one from Khyber Pakhtunkhwa (Bannu district). This brings the total number of polio cases in 2014 to 59 (compared to 9 in 2013 till this time) from 9 districts/towns/tribal agencies/FR areas (compared to 8 in 2013 till this time).

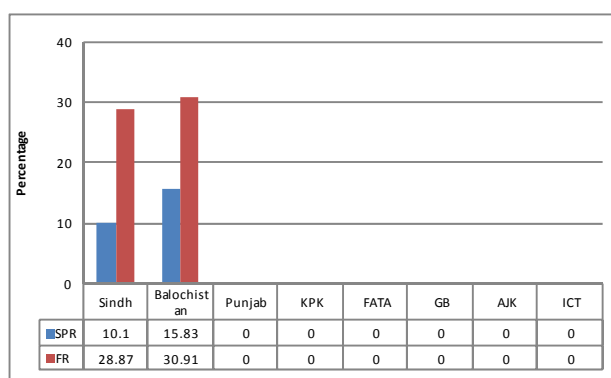
Province	2013			2014		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	7	-	-	-	-	-
Sindh	10	-	-	4	-	-
Khyber Pakhtunkhwa	11	-	-	9	-	-
FATA	65	-	-	46	-	-
Balochistan	-	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	-	-	-	-	-	-
Islamabad	-	-	-	-	-	-
Total	93	-	-	59	-	-



Malaria:

The Table and chart given below shows the Malaria slide positivity and Falciparum ratio in week 18, 2014. Total number of Malaria cases tested in this week is 2,962 out of which 359 were found positive; 252 for P. Vivax; 64 for P. Falciparum; while 43 for Mixed (SPR = 12.12%; F.R = 29.81%).

Malaria tests \ Province	Sindh	Balochistan	KPK	Punjab	GB	FATA	AJK	ICT
P. Vivax	138	114	0	0	0	0	0	0
P. Falciparum	18	46	0	0	0	0	0	0
Mixed	38	5	0	0	0	0	0	0
# tested	1920	1042	0	0	0	0	0	0
SPR	10.1	15.83	0	0	0	0	0	0
FR	28.87	30.91	0	0	0	0	0	0



Focus on: Influenza A (H1N1)

H1N1 influenza virus is the subtype of influenza A virus that was the most common cause of human influenza 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. 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 is now considered as a seasonal virus and endemic, continuing to circulate with other seasonal viruses with new nomenclature A(H1N1)pdm09 is currently used now.

H1N1 is contagious virus, and it spreads in the same way as the seasonal Influenza. 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.

H1N1 may also lead to fatal consequences during 3rd trimester in pregnant women, adults and children who have chronic lung, liver, blood, nervous system, neuromuscular, or metabolic problems, diabetes or asthma, or people who have suppressed immune systems (including those who take medications to suppress their immune systems or who have HIV). Throat or nasal swab would be required for the lab confirmation of the H1N1.

Current situation of H1N1 in Pakistan:

From 1st January to 26th April 2014, a total of 72 suspected cases of H1N1 and SARI were reported in the country, while an increase in the number of Influenza cases have been noted in southern parts of the Punjab province.

Contd. : Influenza A (H1N1):

There are reports of critical illnesses and deaths in young and middle aged adults. So far, 58 suspected cases have been reported from Punjab where majority (32) of the cases reported from Multan whereas 17 cases from Lahore, while 2 each from Rawalpindi and Islamabad. One case from district Loralai (Balochistan province) was also reported from Nishter hospital Multan, which did not survive and died on the date of admission. Out of these 58 suspected cases, 27 cases were laboratory confirmed for H1N1. 18 out of all the lab confirmed cases died due to the severity of the disease (CFR= 66.66%).

From Khyber Pakhtunkhwa province this year 14 suspected cases have been reported and 4 of these are found positive for H1N1. There is much that the public, patients, clinicians, and public health community can do to reduce the influenza impact.

Precautionary measures:

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

- Infected persons are more contagious during the first 3 to 4 days of illness, and infectiousness declines with fever resolution. Avoid close contact, when possible, with anyone who shows symptoms of illness (coughing and sneezing)
- Cover mouth and nose while 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
- Hospitalized patients with influenza should be isolated or, if necessary, grouped together in the same room (cohorted) and standard & droplet precautions should be implemented.

Treatment:

Home Care:

- Influenza patients staying at home away from contacts; take plenty of fluids, covering coughs and sneezes (do not spit) and washing hands frequently may help to reduce the spread. If soap and water are not available, use a hand sanitizer.
- 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 antiviral 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 18, 2014

