MoH and WHO Representative's Office in Iraq

Weekly Situation Report on Influenza Like Illness (ILI) Diarrhoea and Cholera in Iraq

Sitrep no. 111 for international week 42 ending 19 October 2009

1. SUMMARY:

- **Influenza like Illness (ILI)** surveillance has been included in the list of the MoH – WHO weekly report as of week 42 .
- 10 Influenza like Illness cases were reported this week
- All 19 DoHs were able to report. (Basra, Duhok, Muthana, Ninewa, Baghdad Kerkh ,Najaf, Missan, Wasit, Sulymania and Salahaldin DOHs). However, the Directorates of Health in (Baghdad Rosafa, Erbil, Babylon, Kirkuk, Anbar, Kerbala, Diwanyia, Thiqar and Diyala) failed to report this week.

- **Cholera:** 6 cholera cases were reported from Iraq since the beginning of 2009. 3 out of the 6 were reported from Babel, 2 from Muthana and one from Basra.
- During week 42, all 19 DOHs reported on a timely basis, 1100 surveillance sites out of 1117 sent the weekly Diarrhoea disease report on time i.e. 98% completeness and timeliness.
- 22083 Diarrhoea cases were reported this week; 11495 (52%) stool samples were cultured for cholera organism, however none were found to be positive.
- Out of 11495 stool specimens cultured, none (one) were positive for cholera organism.
- **2223** water samples were tested for bacteriological contamination, 351 (16%) of them were contaminated.

2. Table (1) Reported ILI by Directorate of Health, Iraq, week 42

Directorate of Health	Number of cases
BAGHDAD-KARKH	**116**
BASRAH	**213**
DAHUK	**175**
MISSAN	**17**
MUTHANNA	**102**
NAJAF	**979**
NINEWA	**34**
SALAH AL-DIN	**7**
SULAYMANIYAH	**477**
WASSIT	**236**
Total	**2356**

3. TABLE (1) NUMBER OF DIARRHOEA CASES REPORTED, STOOL SAMPLES TESTED AND % OF DIARRHOEA SPECIMENS CULTURED FOR CHOLERA BY INTERNATIONAL WEEK

International Week	Total Diarrhoea cases	Stool samples tested for cholera	% of Diarrhoea cultured for VC
Total for the first 36 weeks	512070	294099	**57%**
Week 37 ending 14/09/09	15835	8634	55%

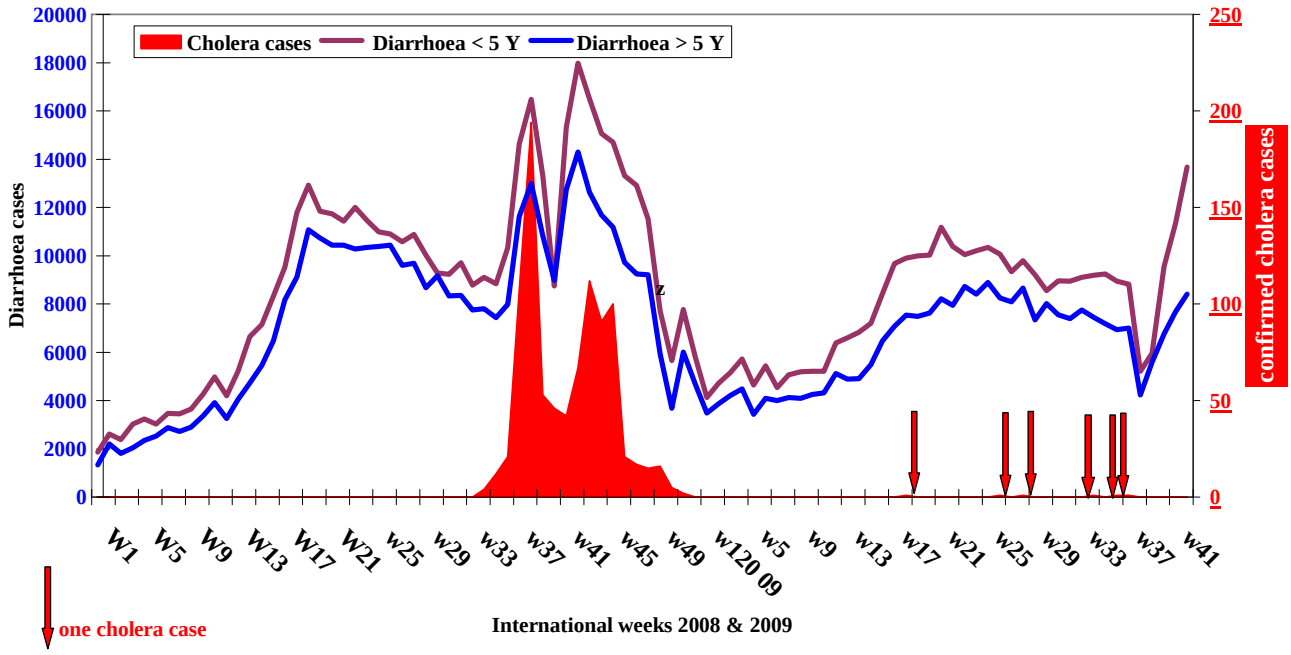
Week 38 ending 21/09/09	9438	4701	50%
Week 39 ending 28/09/09	11547	4613	40%
Week 40 ending 05/10/09	16288	8485	52%
Week 41 ending 12/10/09	19026	9709	51%
Week 42 ending 19/10/09	**22083**	11495	52%
Total 2009	**606287**	**341736**	**56%**

4. DIARRHOEA BY WEEKS AND CONFIRMED CHOLERA:

Fig 1 Shows, Diarrhoea seems to have peaked in week 19(2008) and then started a very slow and gradual down trend up to week 33, the reason for this slow down trend is not clear (may be reporting fatigue), however, coinciding with the reporting of the first suspect cholera case in Missan, the number of reported Diarrhoea started shooting up. This sudden increase in diarrhoea that came in 2 waves peaking in weeks 38 and 42 coincided perfectly with the cholera epidemic curve. In week 44 a steep drop in the number of reported Diarrhoea and cholera is noted which may be due to drop in atmospheric temperature and improvement of power and water supplies. Cholera cases started being reported in week 33 and increased to reach the first peak of 96 cases in week 38 this was followed by slight drop in week 39. Another wave of cases mainly from Diwanyia resulted in another peak (161 cases) in week 42. The last cholera cases were reported in week 51. In 2009 only six sporadic cholera cases were reported up to now; at the rate of one case; in weeks 18, 26, 28, 34, 36 and 37 of the year 2009. Since the beginning of 2009 the weekly reported Diarrhoea cases among below 5 and above 5 populations returned to the weekly average reported during the first week 24 weeks of 2008.

The weekly reported Diarrhoea cases seems to be a sensitive indicator of cholera out breaks which have proved valuable in detecting sporadic cholera cases. Since week 7 there is a continuous but gradual increase in the number of Diarrhoea cases in all age group, the increase seems to follow the rise in atmospheric temperature. In the weeks 37-39 a sudden drop in Diarrhoea cases is noted. No plausible explanation can be found; this drop may be reporting fatigue or reporting relaxation, since the cholera season seems to be over. However in the last 3 weeks Diarrhoea reporting approached the usual average for the season.

Fig (1) Diarrhoea and laboratory confirmed cholera by international week, 2008, and up to week 42, 2009, Iraq

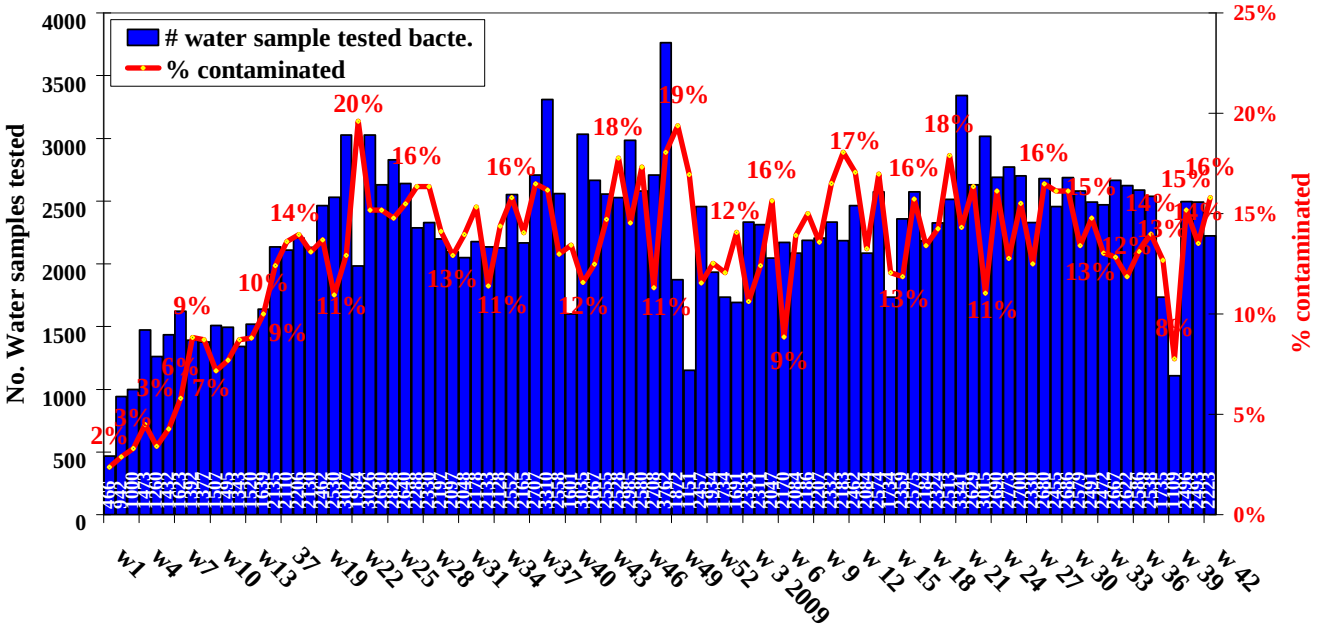


5. CUMULATIVE SITUATION FOR THE YEAR 2009:

- 19 Directorates of Health reported 606,287 cases of Diarrhoea during the first 42 weeks of this year. Only 6 cholera cases were isolated and tested from 341,736stool samples tested.

- 100312 water samples have been tested for the presence of faecal contaminants, 14394 water samples (14%) were found to be contaminated with coliform bacteria.
- As shown in fig. (2) The percentage of contaminated water samples during the first 42 weeks of 2009 is still alarming and ranges between 8 to 18%. The methods for water collection and testing needs to be standardized and a system for laboratory quality control should be established within MoH and between other line ministries.

Fig. 2 Number of water samples tested for fecal coliforms, % that failed the test, Iraq, 2008 and first 42 weeks of 2009



6. WATER CONTAMINATION

Fig (3) shows the percentage of water samples contaminated by coliform bacteria during the first 42 weeks of 2009. It is clear that the contamination is above average in the provinces of, Dahuk, Anbar, Ninewa, Salahadin Erbil, Kirkuk, and Basra, and Thi-Qar. The water contamination by coliform bacteria in Diyala may not reflect the reality, thus CPHL and NRI should immediately review the situation to understand the reason for this under estimation of water contamination. As mentioned earlier the method for water collection and testing needs to be standardized and a system for laboratory quality control in laboratories needs to be established within MoH and between other line ministries

Fig (3) % water samples contaminated by coliform bacteria, Iraq, by province, first 42 weeks of 2009

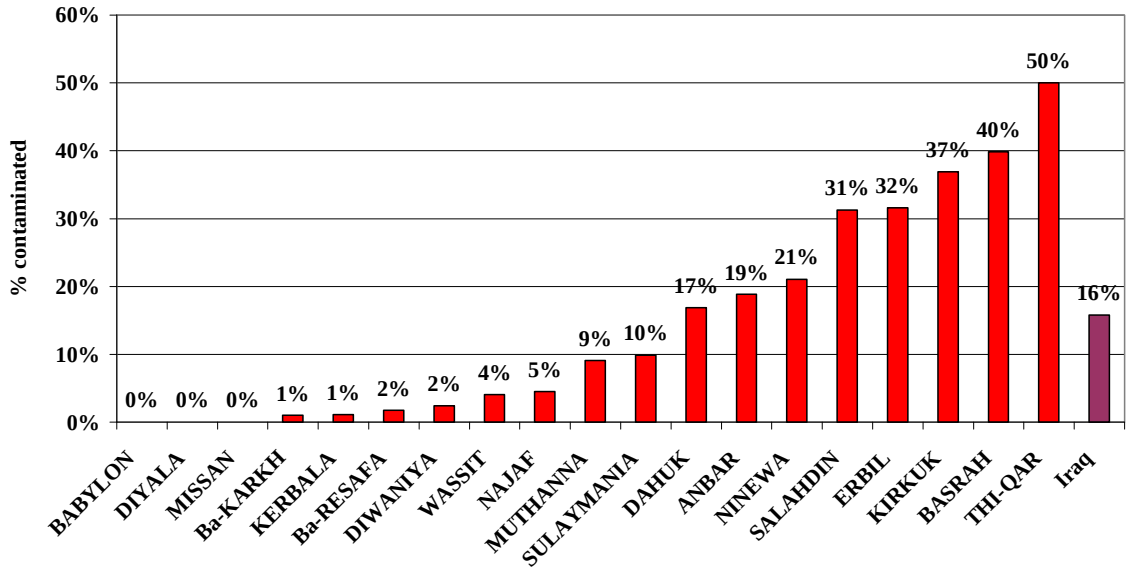


chart 4 Reported Diarrhoea cases, first 42 weeks, Iraq, 2008 & 2009

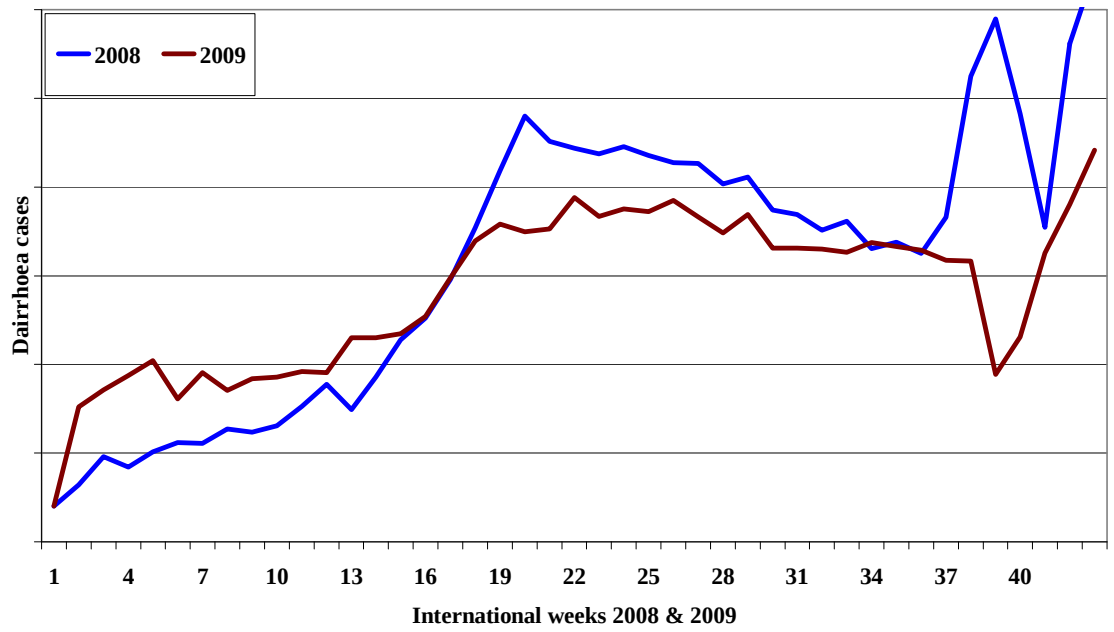


Fig 4 indicates clearly better reporting of Diarrhoea during 2009 compared to 2008, however as of week 14 Diarrhoea cases for 2008, started to rise sharply and crossed over 2009 line; this steep increase may reflect and increase in Diarrhoea due to cholera cases that were missed. Weeks 36-39 show a sudden sharp increase in Diarrhoea cases for 2008 and a sudden and sharp decrease in Diarrhoea cases for the same period in 2009. The sharp increase in 2008 coincide with the first peak of cholera shown in fig (1). But the sudden sharp drop in Diarrhoea cases in weeks 36-39 needs a more careful look but may reflect reporting fatigue or Diarrhoea surveillance relaxation following what seems to be the end of the cholera season. In the last 3 weeks reported Diarrhoea cases approached the average for the season.