Ministry of Health Iraq and the
WHO Representative's Office Iraq

Weekly Situation Report on Diarrhoea and Cholera in Iraq

Sitrep no. 108 for international week 36 ending 07 September 2009

1. SUMMARY:

- 4 cholera cases were reported from Iraq since the beginning of 2009. In 2008, during week 36 alone 34 cholera cases were reported from Iraq.
- During week 36, 19 DOHs reported cases on timely basis. 1,084 surveillance sites out of 1,113 sent the weekly diarrhea disease report on time i.e. 97% completeness and timeliness.
- 15,872 diarrhea cases were reported this week, 9,056 (75%) stool samples were cultured for cholera organism, However none were found to be positive.
- Out of 9,056 stool specimens cultured, none was positive for cholera organism.
- 2,586 water samples were tested for bacteriological contamination, 339 (13%) of them were contaminated.

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

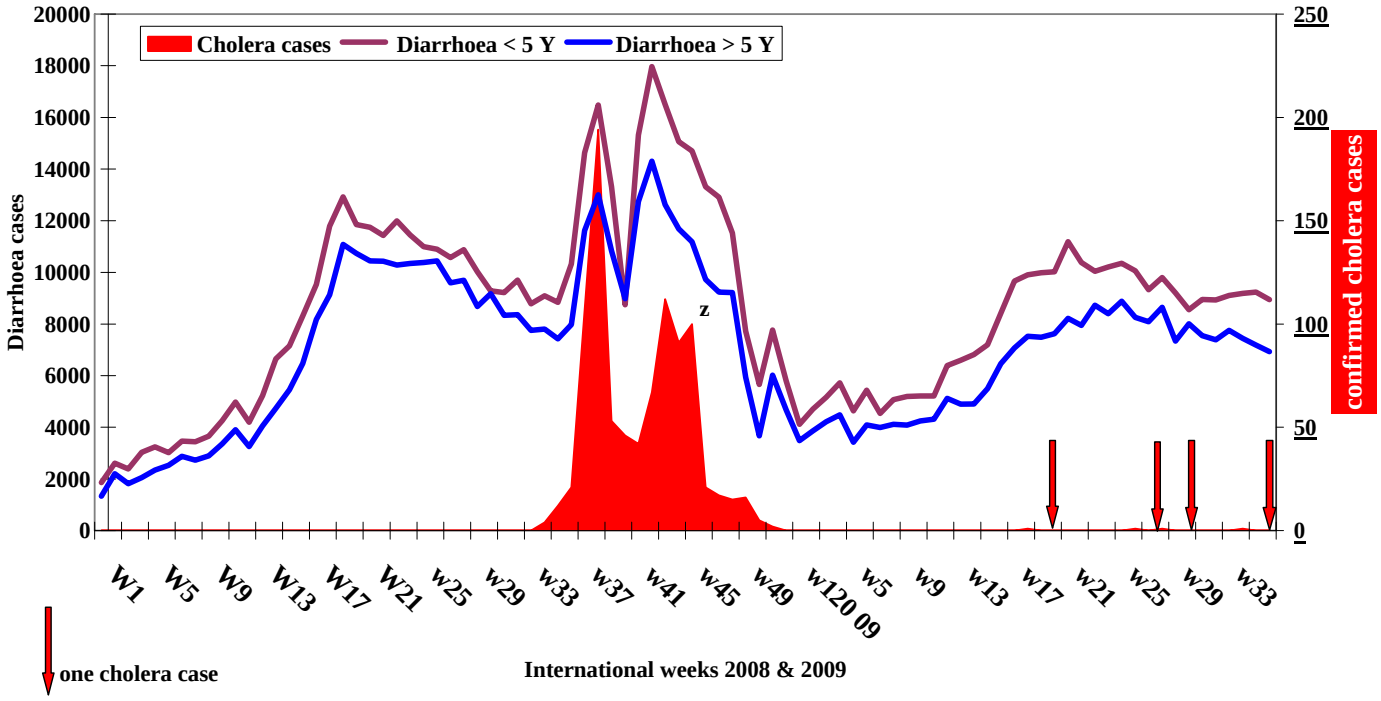
International Week	Total Diarrhea cases	Stool samples tested for cholera	% of Diarrhea cultured for VC
Total for the first 21weeks	**251205**	**150641**	**59.97%**
Week 22 ending 31/05/09	18339	10999	60%
Week 23 ending 07/06/09	18768	10595	56%
Week 24 ending 14/06/09	18614	10707	58%
Week 25 ending 21/06/09	19234	10299	57%
Week 26 ending 28/06/09	18316	9392	51%
Week 27 ending 05/07/09	17415	8988	52%
Week 28 ending 12/07/09	18454	8955	49%
Week 29 ending 19/07/09	16543	8884	54%
Week 30 ending 26/07/09	16561	9639	58%
Week 31 ending 02/08/09	16503	9142	55%
Week 32 ending 09/08/09	16329	8665	53%
Week 33 ending 16/08/09	16858	9336	55%
Week 34 ending 23/08/09	16631	9262	56%
Week 35 ending 30/08/09	16340	9213	56%
Week 36 ending 07/09/09	15872	9056	55%
Total 2009	512070	294099	57.%

3. DIARRHOEA BY AGE GROUP AND CONFIRMED CHOLERA:

Fig 1 Shows, Diarrhea 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 DIARRHEA 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 diarrhea 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. four sporadic cholera cases were reported in weeks 18, 19, 29 and 32 of the year 2009. Since the begging of 2009 the weekly reported diarrhea 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 diarrhea 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 diarrhea cases in all age group. The increase seems to follow the rise in atmospheric temperature.

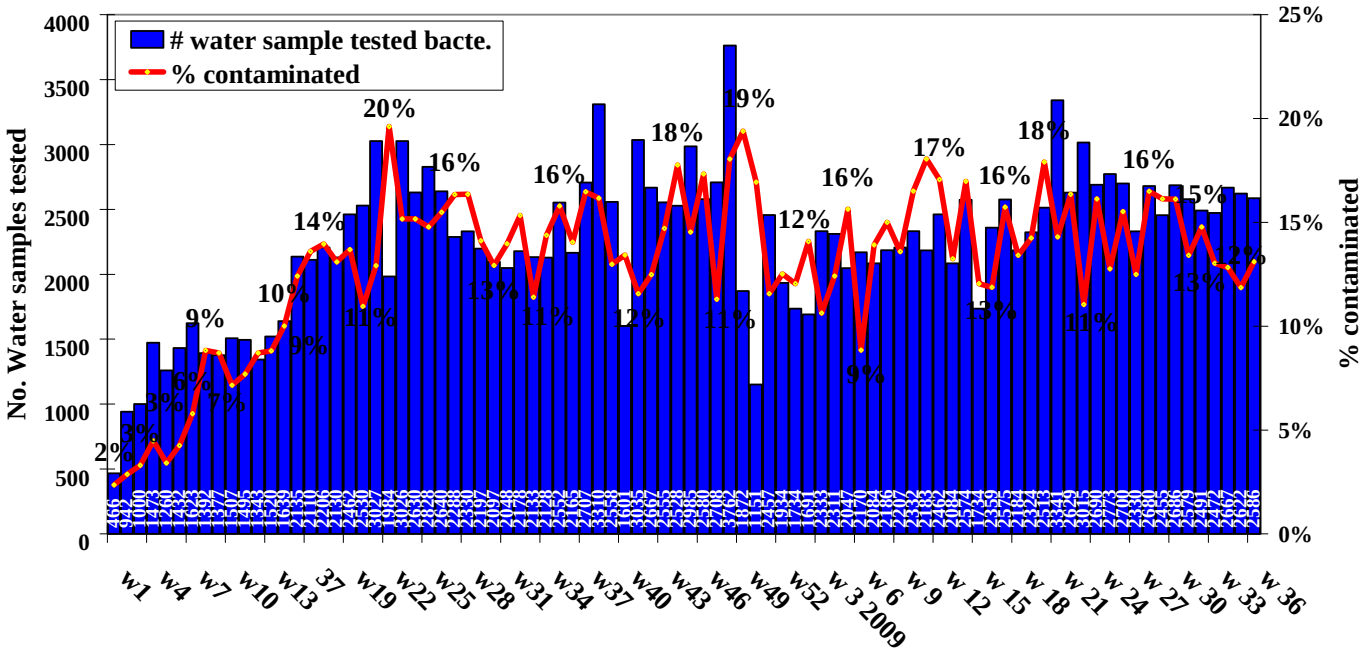
Fig (1) Diarrhoea and laboratory confirmed cholera by international week, 2008, and up to week 36, 2009, Iraq



4. CUMULATIVE SITUATION FOR THE YEAR 2009:

- 19 Directorates of Health reported 512070 cases of Diarrhoea during the first 36 weeks of this year. Only 4 cholera cases were isolated and tested from 294099 stool samples tested.
- 87,718 water samples have been tested for the presence of faecal contaminants and 12,666 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 36 weeks of 2009 is still alarming and ranges between 9 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 36 weeks of 2009



5. WATER CONTAMINATION

Fig (3) shows the percentage of water samples contaminated by coliform bacteria during the first 36 weeks of 2009. It is clear that the contamination is above average in the provinces of, Ninewa, Erbil, Anbar, Salahadin, Kirkuk, and Basra. 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 growth under estimation of water contamination. As mentioned earlier the method for water collection and testing need 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 36 weeks of 2009

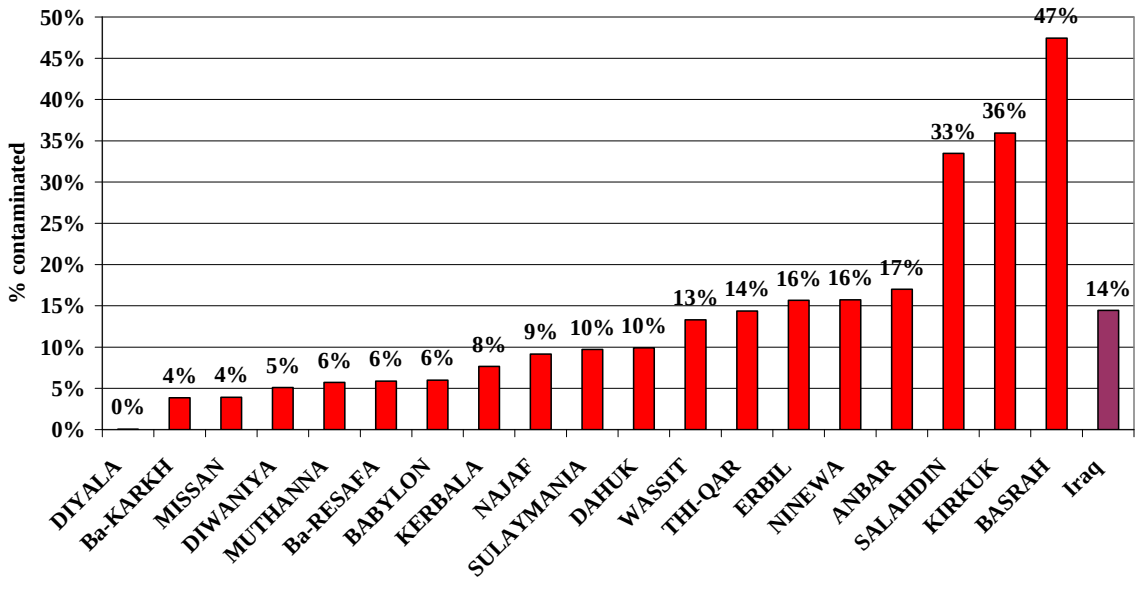


chart 4 Reported Diarrhoea cases, first 36 weeks, Iraq, 2008 & 2009

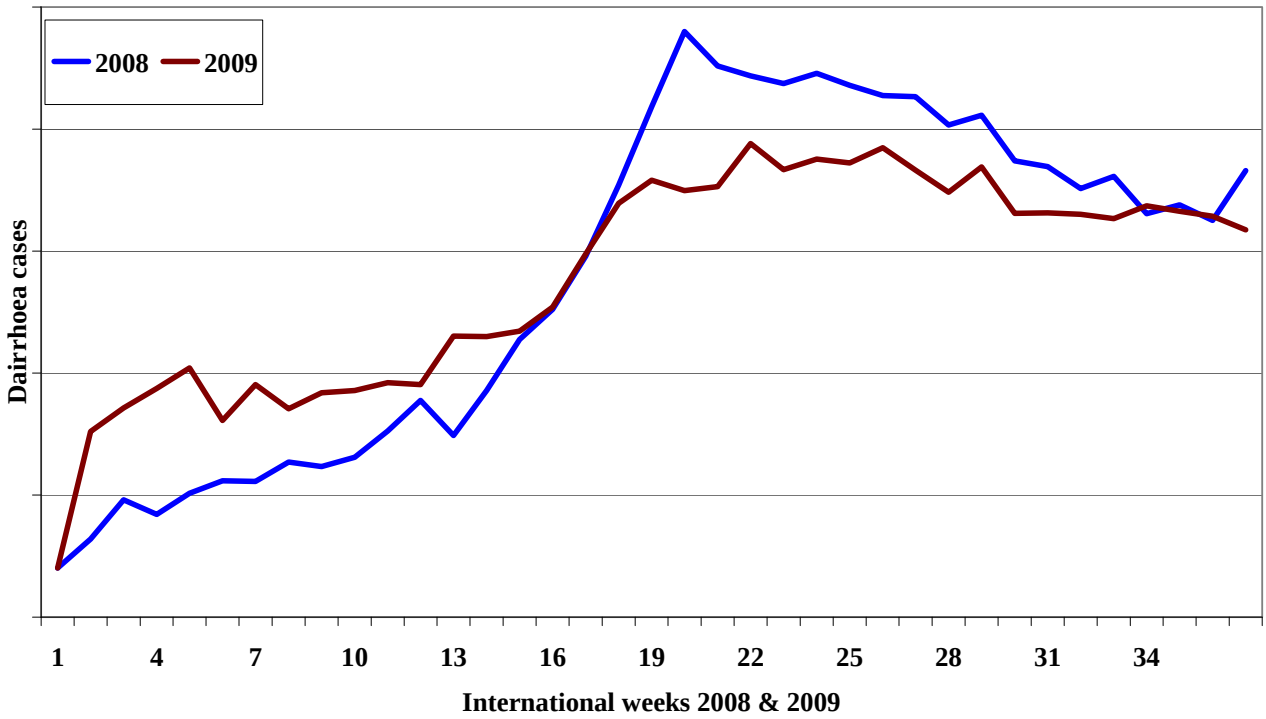


Fig 4 indicates clearly better reporting of diarrhea during 2009 compared to 2008, however as of week 14 diarrhea cases for 2008, started to rise sharply and crossed over 2009 line; this steep increase may reflect and increase in diarrhea due to cholera cases that were missed.