



Weekly Situation Report on Diarrhoea and Cholera in Iraq
Sitrep no. 107 for international week 35 ending 30 August 2009

1. SUMMARY:

- 4 cholera cases were reported from Iraq since the beginning of 2009.
- In 2008, 21 cholera cases were reported in week 35 signaling the start of last year's cholera outbreak in Iraq.
- During week 35, all 19 DOHs reported cases on a timely basis. 1,104 surveillance sites out of 1,113 sent the weekly diarrhea disease report on time i.e. 99% completeness and timeliness.
- 16,430 diarrhea cases were reported this week. 9,213 (56%) stool samples were cultured for cholera organism, however none were found to be positive.
- Out of 9,213 stool specimens cultured, none was positive for cholera organism.
- 2622 water samples were tested for bacteriological contamination, 311 (12%) 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

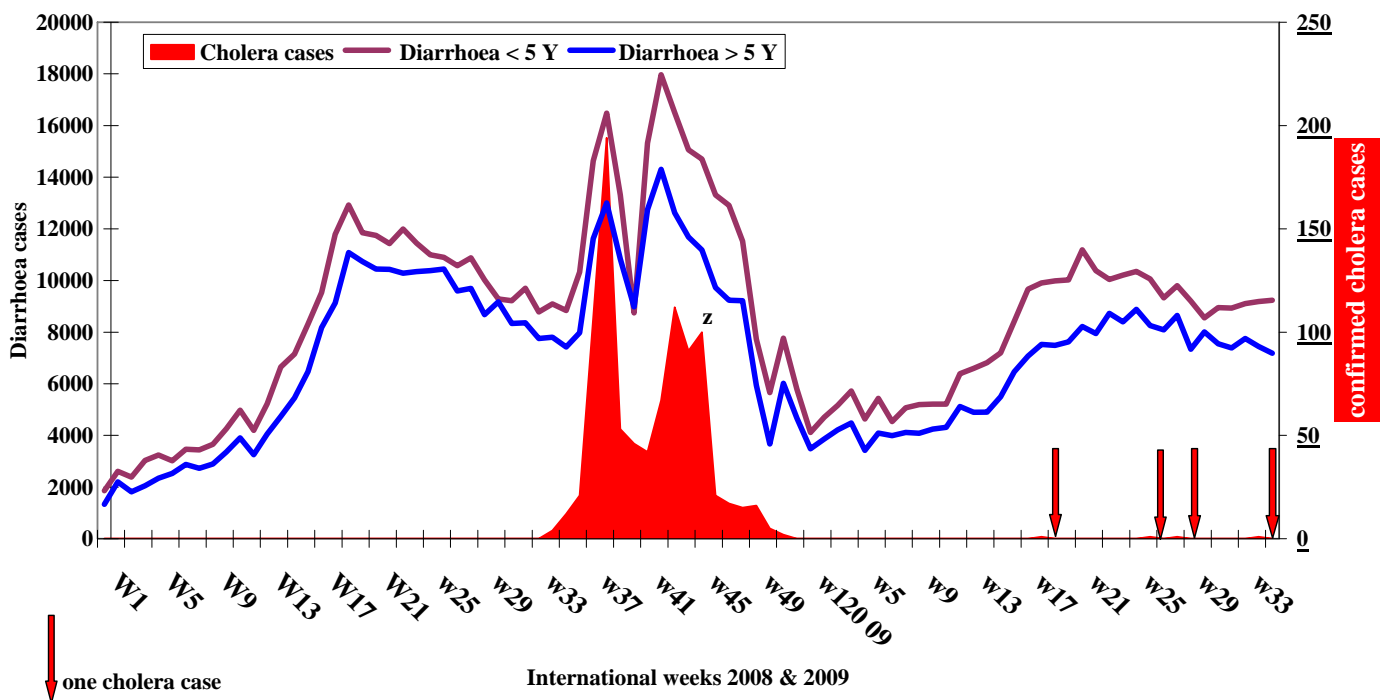
International Week	Total Diarrhea cases	Stool samples tested for cholera	% of Diarrhea cultured for VC
Week 1 ending 04/01/09	7604	3985	52%
Week 2 ending 11/01/09	8566	4412	52%
Week 3 ending 18/01/09	9375	5051	54%
Week 04 ending 25/01/09	10215	6084	60%
Week 05 ending 04/02/09	8057	4160	52%
Week 06 ending 11/02/09	9532	4910	52%
Week 07 ending 18/02/09	8537	4893	57%
Week 08 ending 25/02/09	9190	5375	58%
Week 09 ending 01/03/09	9282	6261	67%
Week 10 ending 08/03/09	9609	5586	58%
Week 11 ending 15/03/09	9528	5488	58%
Week 12 ending 22/03/09	11513	6742	59%
Week 13 ending 29/03/09	11498	6751	59%
Week 14 ending 05/04/09	11725	6992	60%
Week 15 ending 12/04/09	12701	8394	66%
Week 16 ending 19/04/09	14885	10451	70%
Week 17 ending 26/04/09	16961	11085	66%
Week 18 ending 03/05/09	17901	11051	63%
Week 19 ending 10/05/09	17479	10635	61%
Week 20 ending 17/05/09	17641	11572	66%
Week 21 ending 24/05/09	19406	10763	55%
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%
Total 2009	496110	284717	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 Diwanya resulted in another peak (161 cases) in week 42. The last cholera cases were reported in week 51. 3 sporadic cholera cases were reported in week 18 and 19 2009. Since the beginning 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 outbreaks 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 groups. 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 35, 2009, Iraq

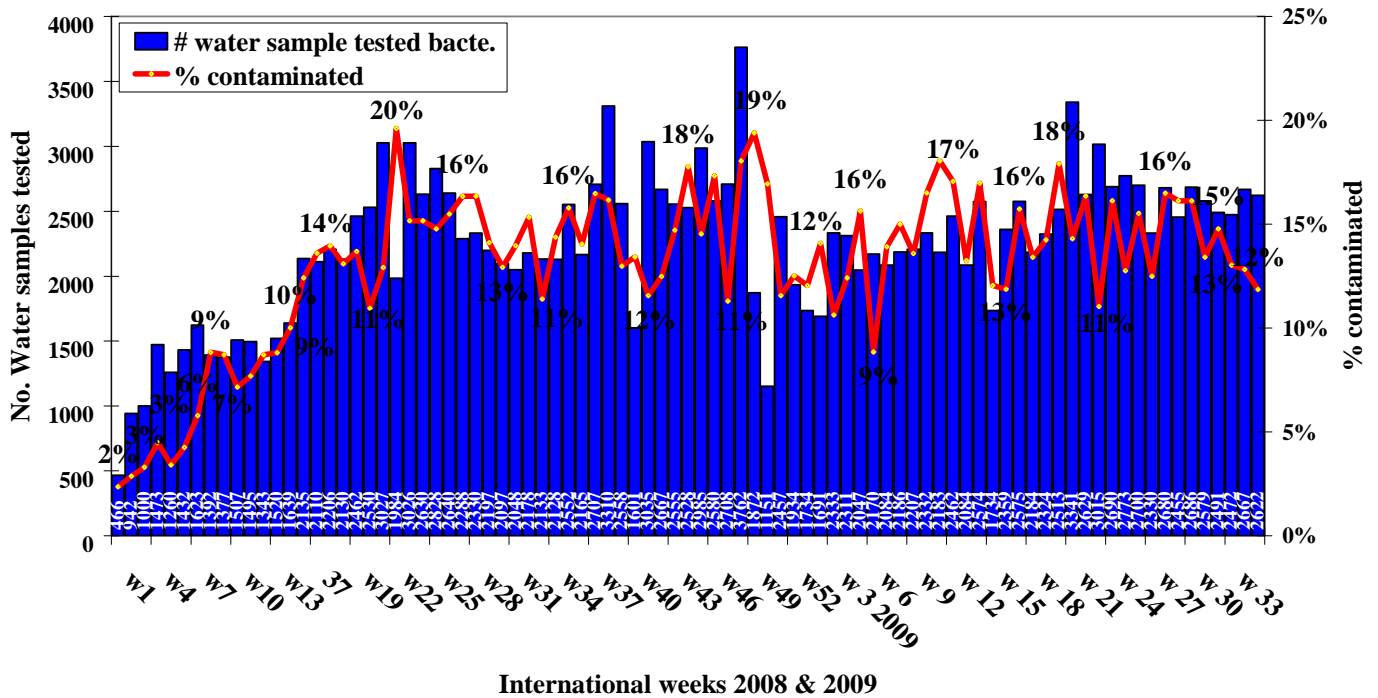


4. CUMULATIVE SITUATION FOR THE YEAR 2009:

- 19 Directorates of Health reported 496110 cases of Diarrhoea during the first 35 weeks of this year. Only 4 cholera cases were isolated and tested from 28,4717 stool samples.
- 85132 water samples have been tested for the presence of faecal contaminants and 12,327 water samples (15%) were found to be contaminated with coliform bacteria.

- As shown in fig. (2) The percentage of contaminated water samples during the first 35 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 35 weeks of 2009



5. WATER CONTAMINATION

Fig (3) shows the percentage of water samples contaminated by coliform bacteria during the first 35 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 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 35 weeks of 2009

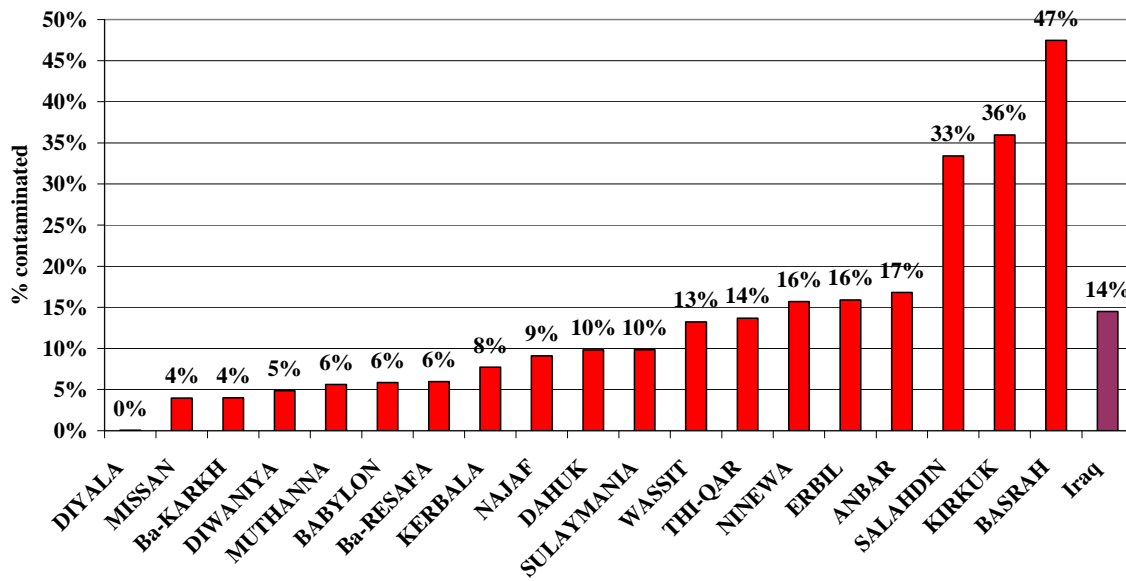


chart 4 Reported Diarrhoea cases, first 35 weeks, Iraq, 2008 & 2009

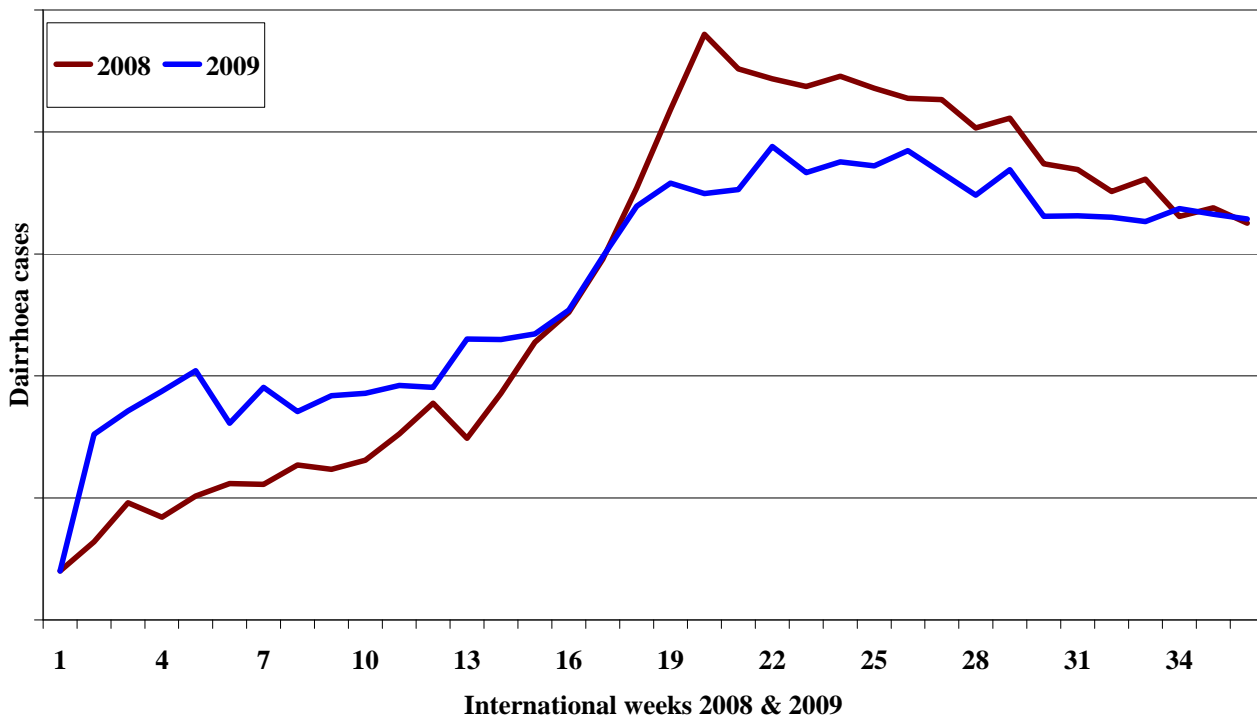


Fig 4 indicates clearly better reporting of diarrhoea during 2009 compared to 2008, however as of week 14 diarrhoea cases for 2008, started to rise sharply and crossed over 2009 line; this steep increase may reflect an increase in diarrhoea due to cholera cases that were missed.