World Health Organization
Regional Office for the Eastern Mediterranean

WHO Representative's Office in Iraq

Weekly Situation Report on Diarrhoea and Cholera in Iraq

Sitrep no. 96 for international week 23 ending 07 June 2009

1. SUMMARY:

- No cholera case reported in week 23.
- The Total Number of cholera confirmed cases for 2009 remains two.
- During week 23, 19 DOHs reported on a timely basis. 1088 surveillance sites out of 1113 sent the weekly Diarrhea disease report on time i.e. 98% completeness and timeliness.
- 18768 diarrhea cases were reported; 10595 (56%) stool samples were cultured for cholera organism. However none were found to be positive.
- Out of 10959 stool specimens cultured, none were positive for cholera organism.
- 3105 water samples were tested for bacteriological contamination, 333 (11%) 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

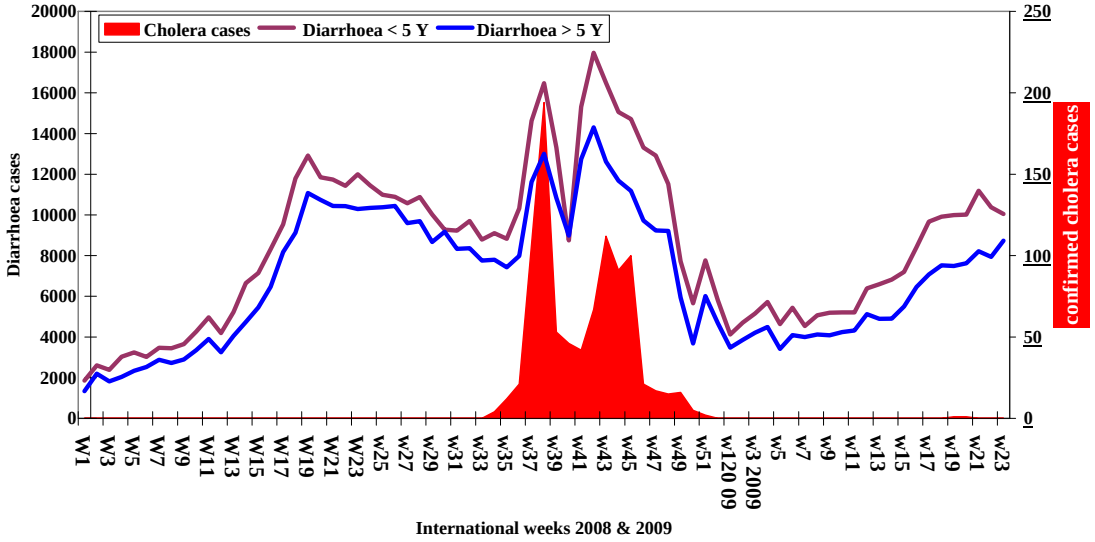
International Week	Total Diarrhea cases	Stool samples tested for cholera	% of Diarrhea cultured for cholera organisms
Week 1 ending 04/01/09	7604	3985	52%
Week 2 ending 11/01/09	8566	4412	52%
Week 3 ending 18/01/09	9375	5051	54%
Week 04 ending 25/01/09	10215	6084	60%
Week 05 ending 04/02/09	8057	4160	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%
Total 2009	288,312	172235	60%

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 32, 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 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. 2 sporadic cholera cases were reported in week 18 and 19 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 23 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 groups. The increase seems to follow the rise in atmospheric temperature.

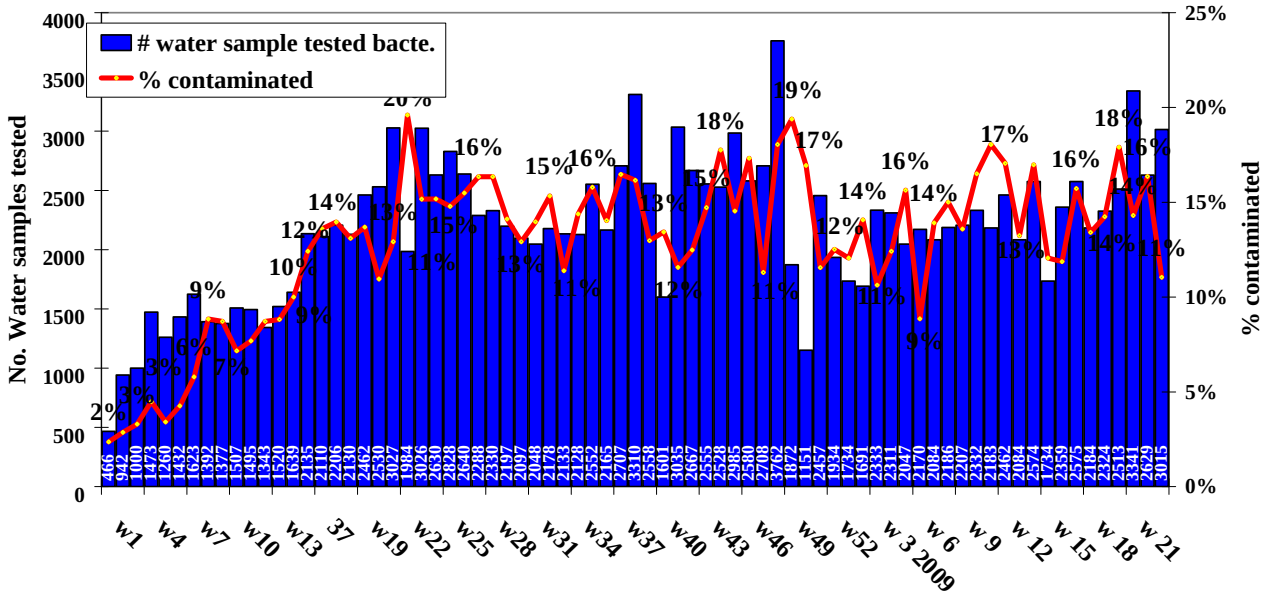
Fig (1) Diarrhoea and laboratory confirmed cholera by international week, 2008, and up to week 23, 2009, Iraq



4. CUMULATIVE SITUATION FOR THE YEAR 2009:

- 19 Directorates of Health reported 288,312 cases of Diarrhoea during the first 23 weeks of this year. Only 2 cholera cases were isolated and tested from 172235 stool samples tested.
- 53987 water samples have been tested for the presence of faecal contaminants and 7869 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 23 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 in laboratory need to 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 23 weeks of 2009



5. WATER CONTAMINATION

Fig (3) shows the percentage of water samples contaminated by coliform bacteria during the first 23 weeks of 2009. It is clear that the contamination is above average in the provinces of Wasit, Erbil; Salahadin, Kirkuk, and Basra, However as mentioned earlier the method for water collection and testing need to be standardized and a system for laboratory quality control need to be established within MoH and between other line ministries

Fig (3) % water samples contaminated by coliform bacteria, Iraq, by province, first 23 weeks of 2009

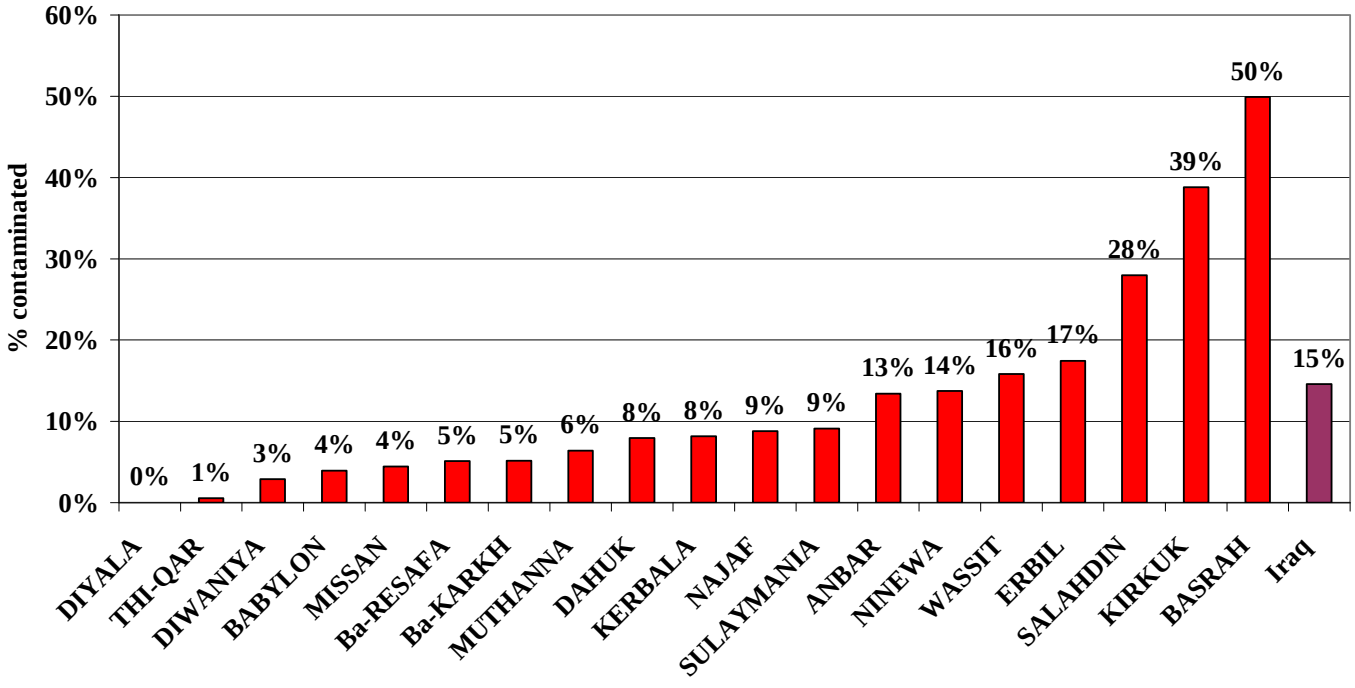


chart 4 Reported Diarrhoea cases, first 23 weeks, Iraq, 2008 & 2009

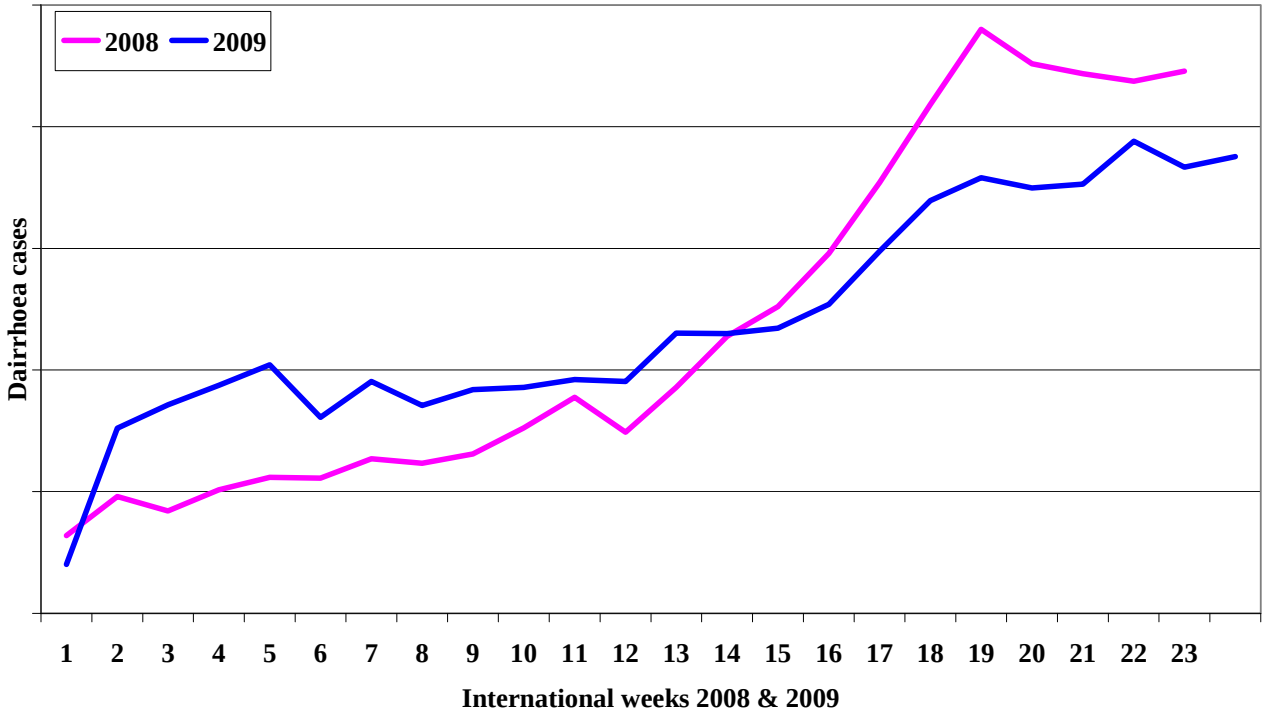


Fig 4 indicates clearly better reporting of diarrhea during 2009 compared to 2008, however as of week 14 diarrhea cases for 2008, started to rise sharply and crossed over 2009 line; this steep increase may reflect and increase in diarrhea due to cholera cases that were missed.