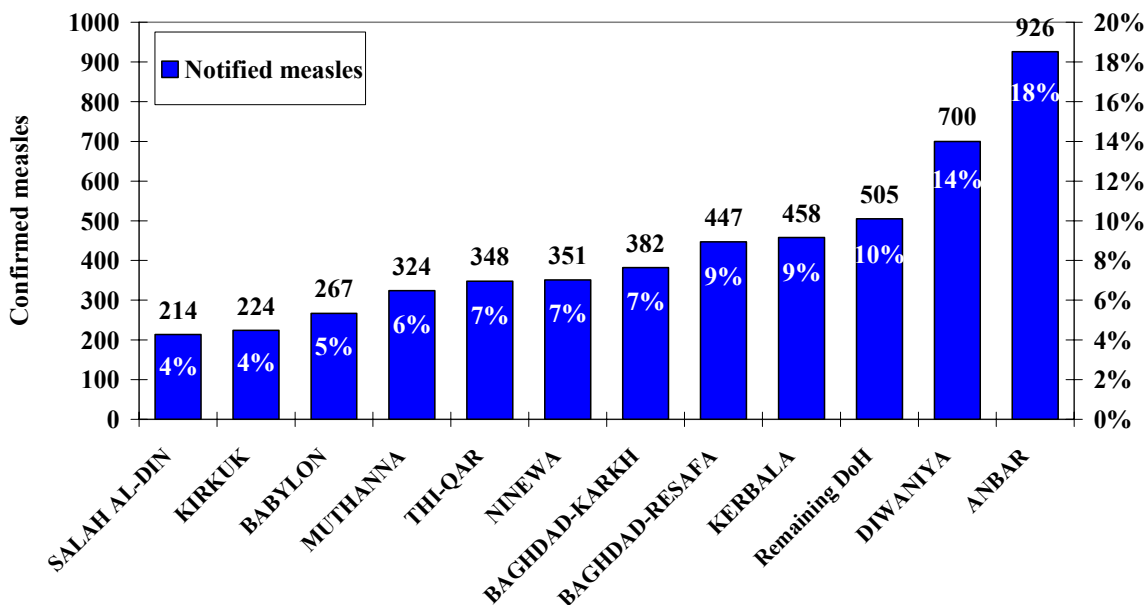


Weekly feed back on measles in Iraq

1. Confirmed Measles cases by province:

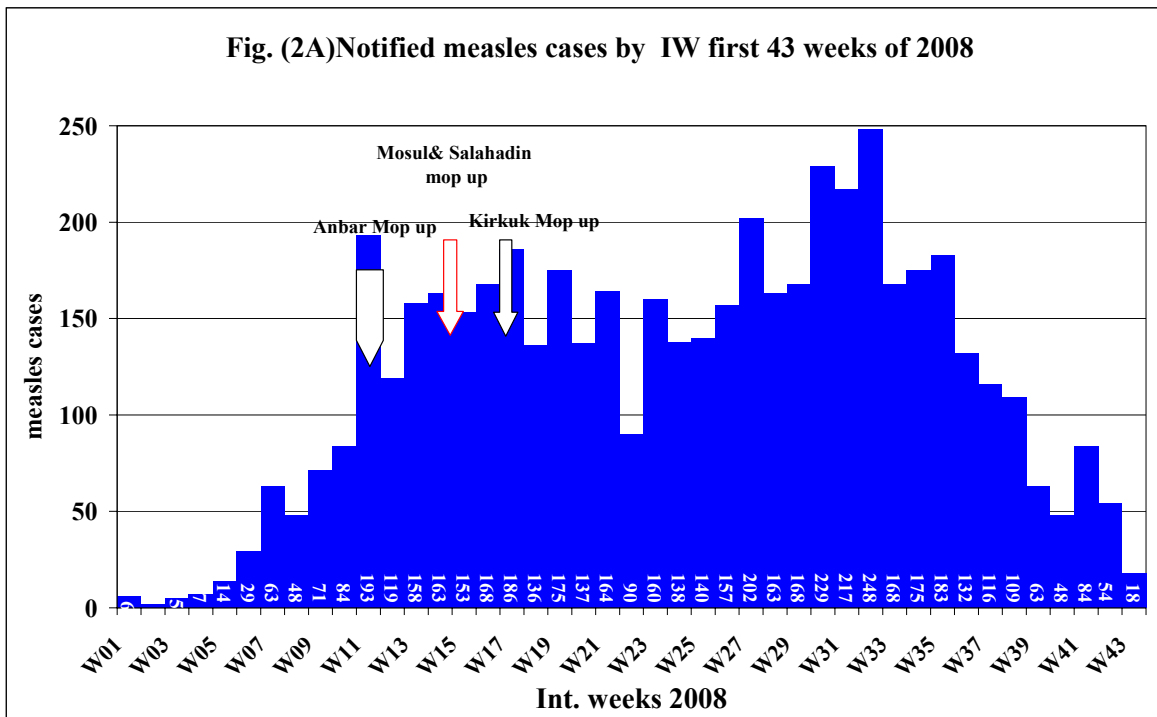
During the first 43 weeks of 2008, out of 5146 measles cases reported in Iraq, 926 (18%) were from Anbar, 700 (14%) from in Diwaniya, 458 (9%) from Kerbala, 447 (9%) from B-Resafa, 382 from B-Karekh, 351 (7%) in Nineveh, 348 (7%) in Thi-Qar; 324 (6%) in Muthana, 267 (5%) in Babil, 224 (5%) in Kirkuk, 214 (4%) in Salahadin and all remaining DoHs reported 505 (10%) of suspect cases. It is quite clear that the outbreak was controlled in DoHs where measles Mop Up operations were implemented and the bulk of the new cases were reported from remaining DoHs.

Fig. 1) Notified Measles by DoH, Iraq, First 43 weeks, 2008



2. Notified Measles cases by international week:

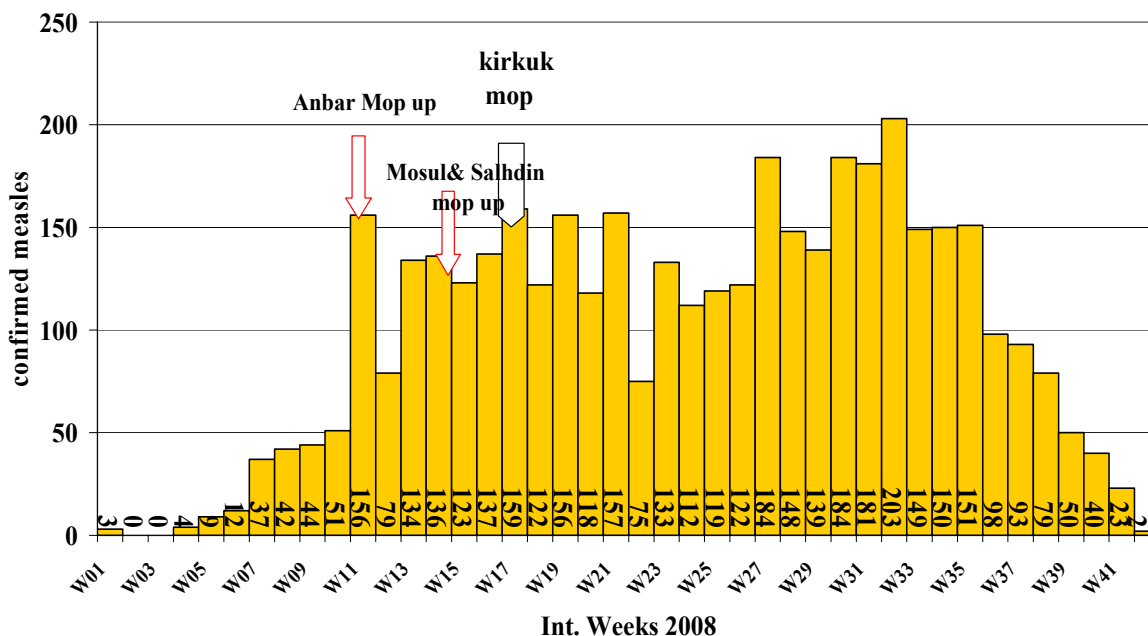
Fig. 2A illustrates notified measles cases in Iraq by week of onset, during the first 43 weeks of 2008, it is apparent that suspect measles cases were notified at an average of 5 cases per week during 2007 and the first 4 weeks of 2008. As of week 5 notified measles cases started to build up to reach the peak of 193 cases in week 11. The cases went down to reach 90 cases in week 23. Another wave of cases seems to have occurred during weeks 23 to 32, reaching a second peak of 248 cases in week 32 then started another gradual decrease in weeks 33-43



3. Confirmed Measles cases by international week:

Figures 2A and 2B illustrate that the measles outbreak in Iraq built up slowly, peaked in week 11 then plateaued over weeks 13 to 22, however another wave seems to have occurred as of week 23 to peak in week 32. During weeks 33-32 Measles cases appeared to decrease

Fig. (2B) Confirmed measles cases by International Weeks, First 43 weeks of 2008

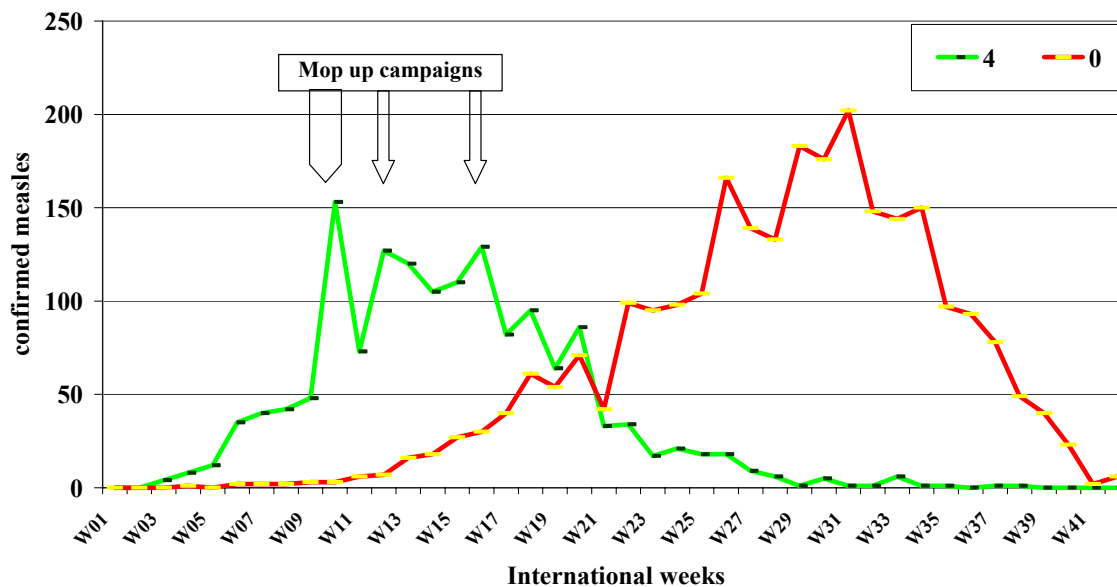


4. Confirmed measles cases according to the implementation of Mop Up campaigns.

The first measles outbreaks were reported from the Anbar and Salah al-Din provinces, followed by districts plagued by lack of security in the Ninewa and Kirkuk provinces. Routine measles vaccination coverage in these areas was generally far below the average for

the country. WHO and UNICEF supported MoH in conducting house to house Mop Up campaigns targeting all children (1-5 years of age) in the Anbar and Salah al-Din provinces and in selected districts and sub-districts in Ninewa and Kirkuk. The graph below shows that the Mop Up campaigns succeeded in controlling the outbreak, however, as of week 12, other outbreaks started in some areas where similar campaigns were not conducted, such as Baghdad, Diwanyia, Babil, Karbala and Diala.

Fig (2C) Confirmed measles cases by international weeks in provinces where Mop up operations were conducted and not conducted, Iraq first 43 weeks 2008



The chart above (2C) show that Mop Up campaigns can succeed in controlling measles outbreaks in areas affected by lack of security and where less than 70% of infants are vaccinated by MCV, even if containment measures were conducted late (5-6 weeks following the confirmation of the outbreak), and in limited areas if the target age group and districts are well guided by the measles immunity profile moreover there is a good epidemiological description of the first few laboratory confirmed cases.

It is clear that this huge outbreak (5000 reported cases) could have been avoided if a nation wide campaign have been implemented instead of fragmented SIAs. If the surveillance system was able to capture 25% of all measles cases, then the cost of prevention of one case of measles will be USD 112 only.

5. Confirmed measles cases according to the size of Mop Up campaigns.

Fig (2D) Notified measles by total or selective mop up, using MCV for 1-5 year old children, according to week of onset, first 43 weeks, 2008

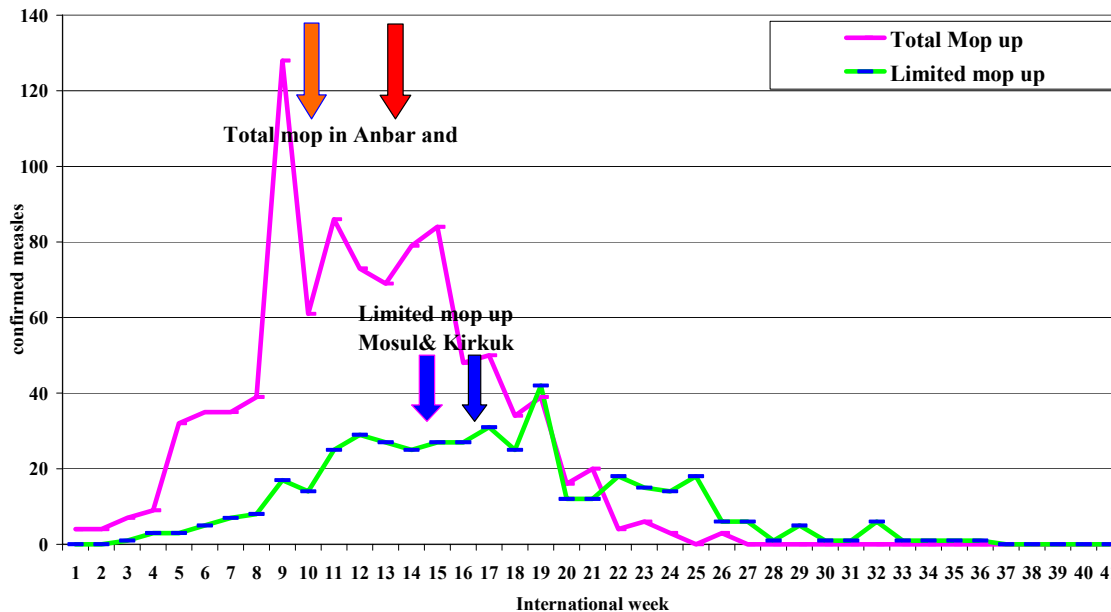
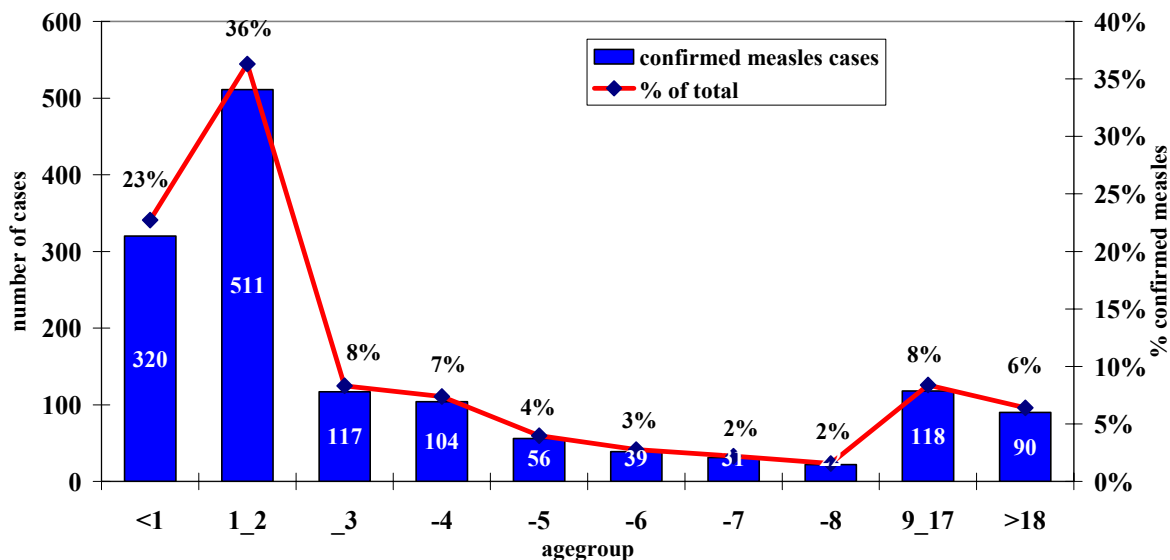


Fig. 2D; show that both total and limited Mop Up campaigns succeeded in the control of the measles outbreaks, however, as expected total Mop Up gave better results in terms of number of cases, and more swift and sustained control.

6. Age distribution:

Fig 3 shows that 75% of the confirmed measles cases in the provinces of Baghdad, Babil, Diala, Diwanyia and Karbala were reported among children below 5 years of age, a clear indication of serious problems in routine and SIAs coverage figures in the last 5 years. Due to lack of funding WHO could not support the requested support to conduct SIAs.

Fig. 3 Number and percentage of confirmed measles cases by age group, Out break provinces*, first 39 weeks of 2008

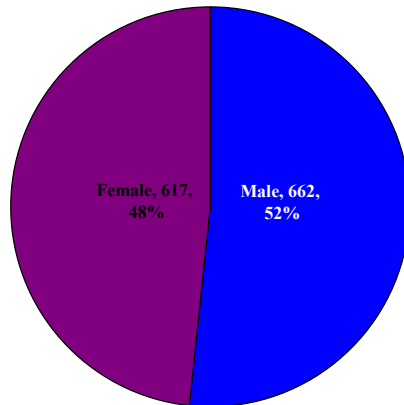


*Out break provinces are Baghdad, Babil, Diwaniyah, Diala and Karbala

7. Sex distribution:

Confirmed measles cases are distributed almost evenly between males and females.

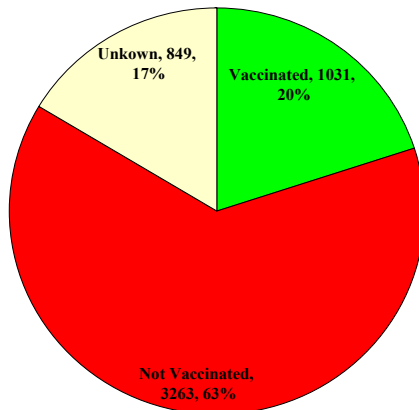
Fig (4) Confirmed measles cases by sex, Baghdad, babil, Diala, Diwaniya and Kerbala, Frst 38 weeks of 2008



8. Immunization status of notified measles cases in Iraq:

20% immunized, 63% not immunized and 17% unknown vaccination status.

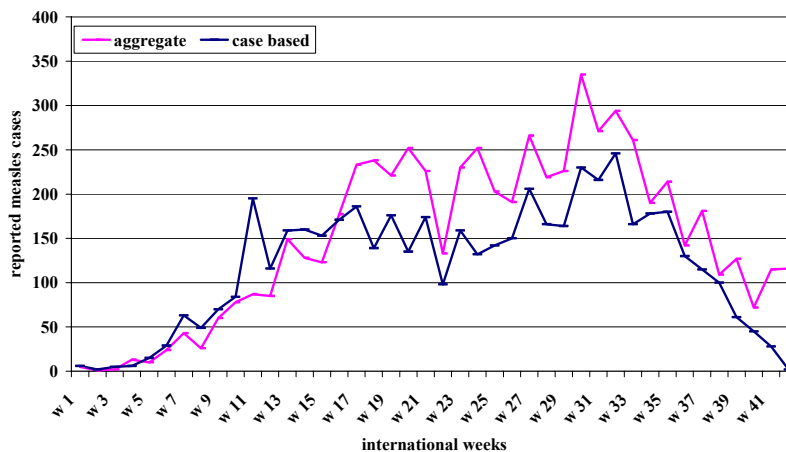
Fig. 5 Notified measles cases by vaccination status, Iraq, 2008



9. Discrepancy between cases based surveillance and aggregate data:

Fig 7 below show that case based surveillance worked better than aggregate data when the number of weekly reported suspect cases was less than 200 cases per week once this limit was surpassed and the outbreak status was confirmed the aggregate reporting system worked better.

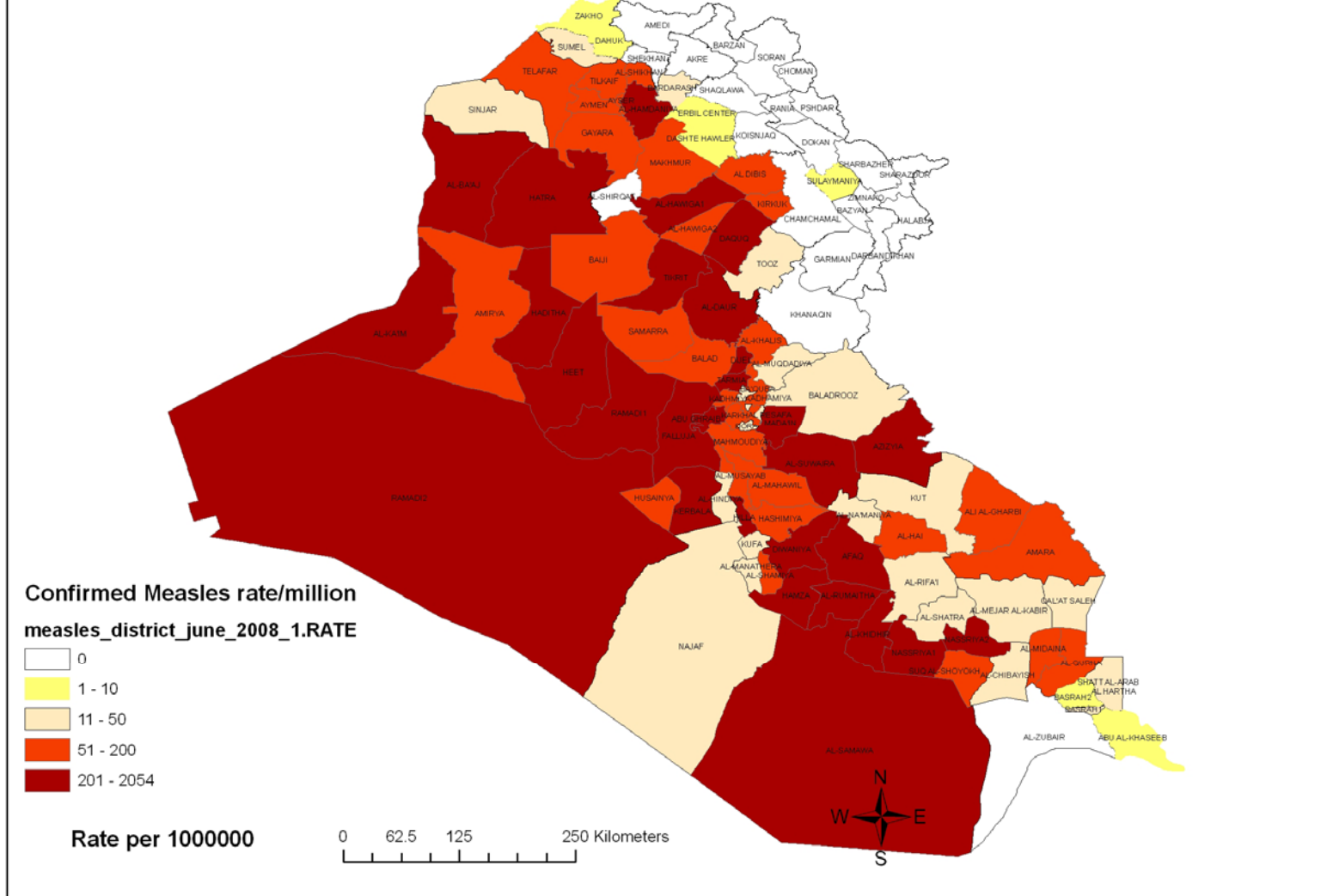
Fig 6 Reported measles cases according to case base and aggregate surveillance data by international weeks, Iraq, 2008



Measles Bulletin, WHO Iraq, Cumulative measles and rubella results for the period 01/01/2008 - 26/10/2008

Province	Measles case finding report							Rubella case finding report				Confirmed measles /1000,000	Suspect measles 100,000	Indicator: target ≥ 80				
	Tot suspect Measles	No specimen tested for measles	Measles confirmed lab	Measles linked EPI	Clinical measles	Total measles	Measles discarded case	No. tested for rubella IgM	Rubella confirmed lab	Rubella EPI linked	Discarded as rubella			Suspect tested for measles	Case with complete investigation	Specimens received at the lab within 7 days	Adequate specimens	Specimens reported to EPI within 7 days
ANBAR	929	658	538	319	0	857	71	658	15	0	639	708	5.9	100	55	85	71	100
BABYLON	266	263	217	21	3	241	22	263	3	0	255	179	1.7	99	69	22	98	100
B-KARKI	358	340	262	39	6	307	51	340	6	0	332	121	1.9	98	72	73	94	100
B-RESAFA	459	435	309	30	12	351	107	435	7	0	424	110	3.5	97	63	74	94	100
BASRAH	70	69	47	0	1	48	22	69	1	0	68	25	1.2	99	87	71	99	100
DAHUK	31	30	4	0	1	5	24	30	0	0	30	5	3.1	97	65	17	94	100
DIWANIYA	680	662	487	38	0	525	152	662	7	0	652	638	18.4	100	80	72	97	100
DIYALA	75	72	69	3	2	74	1	72	0	0	72	60	0.1	97	67	36	96	100
ERBIL	16	16	4	0	0	4	12	16	0	0	15	3	1.0	100	69	75	100	100
KERBALA	418	396	339	33	5	377	39	396	9	0	386	483	4.9	99	83	87	95	100
KIRKUK	223	206	154	17	13	184	39	206	0	0	204	214	4.9	94	61	97	91	100
MISSAN	71	28	21	40	4	65	6	28	0	0	28	91	0.9	87	30	93	39	100
MUTHANNA	286	277	217	6	4	227	55	277	4	0	267	478	11.7	99	69	64	97	100
NAJAF	58	58	26	0	0	26	32	58	0	0	57	27	3.3	100	66	100	100	100
NINEWA	357	277	193	115	2	310	47	276	5	0	268	125	1.9	99	54	55	77	100
TIKRIT	213	212	153	7	0	160	53	212	4	0	205	161	5.2	100	75	8	99	100
SULMANIA	10	10	1	0	0	1	9	10	0	0	10	1	0.7	100	60	40	90	100
THI-QAR	327	312	211	21	4	236	89	312	5	0	307	176	6.6	99	56	63	95	100
WASSIT	160	156	111	3	3	117	43	156	2	0	154	138	5.1	98	58	68	97	100
IRAQ	5007	4477	3363	692	60	4115	874	4476	68	0	4373	164	3.5	99	66	68	89	100

Confirmed Measles rate/million pop by District Iraq - up to 26/10/2008



Confirmed measles Cases by District Iraq - up to 26/10

