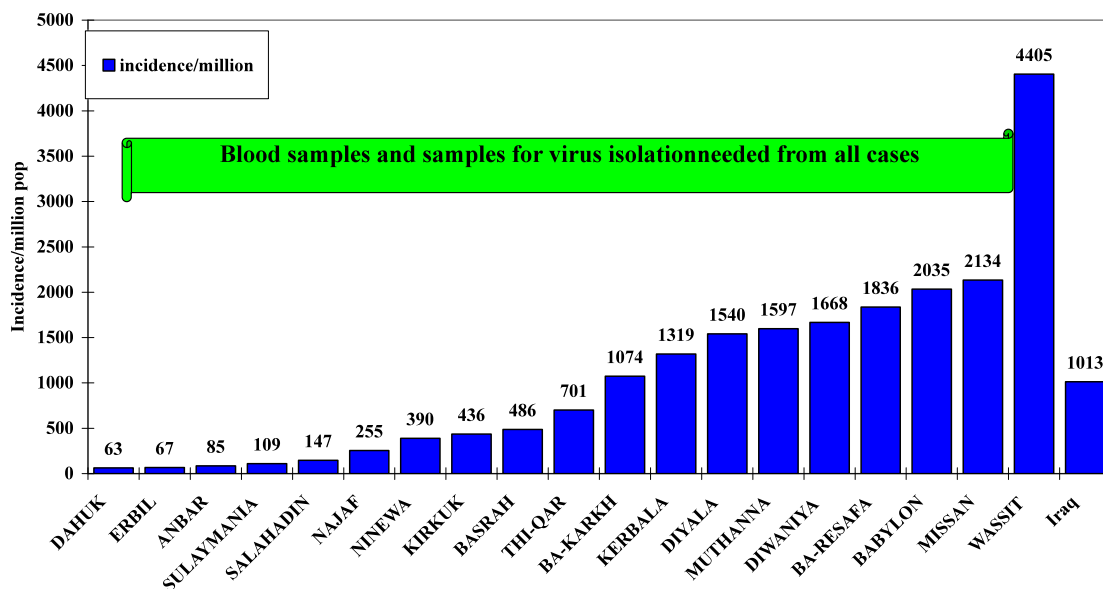


Weekly feed back on measles in Iraq
Report no. 78 international week 52 ending 27/12/2009

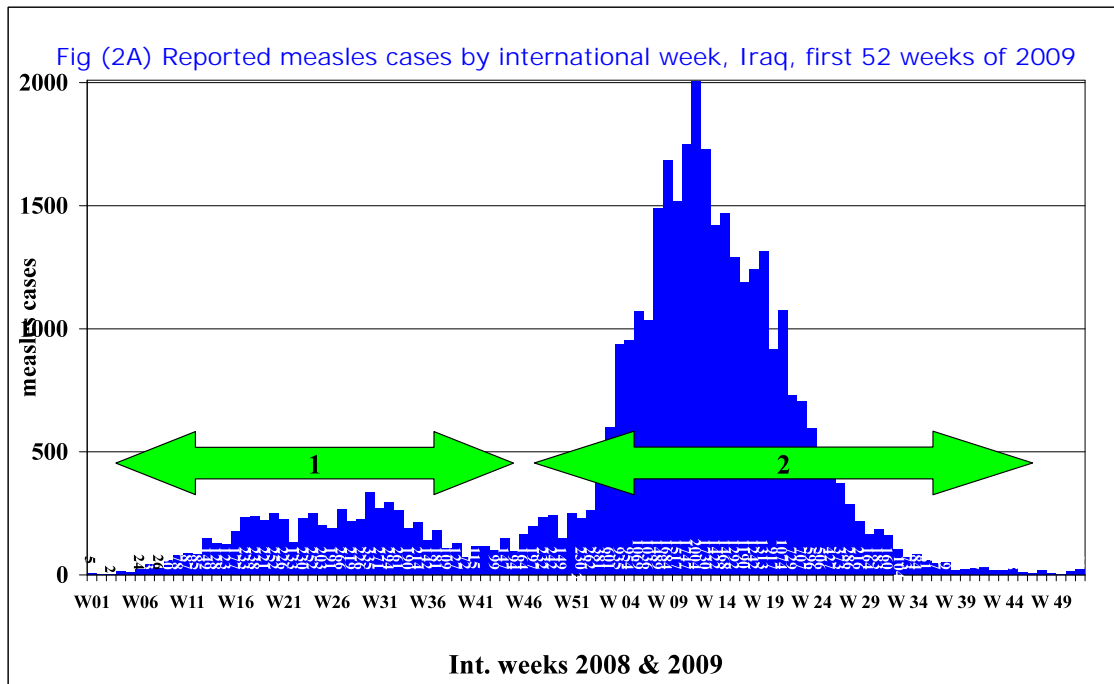
1. Confirmed Measles cases by province: 30328 suspected measles cases were reported in Iraq during the first 52 weeks of 2009. The 3 northern governorates and Najaf reported 634 cases (2%) only 7 cases reported in the last 25 weeks, this a clear evidence of the positive impact of the measles campaign. The provinces where containment immunization were implemented reported 1877 (6%) cases; the majority of cases in the containment group 1118 or (60%) were reported from Mosul where only selective SIAs have been implemented. The 4 Southern provinces of Basra, Missan, Thiqr and Muthana reported 5043 (17%) of the total cases. The remaining 8 provinces in central Iraq reported the remaining (22774) 75% of cases. It is clear that the outbreak is mainly concentrated in the central part of Iraq and from where it has spread to South and North. We are now in the tail of the outbreak and number of reported cases weekly is around one case/province/week. It is of vital importance to collect blood samples as well as carefully complete the case investigation form for every case.

Fig (1) measles incidence/million population by DoH, Iraq, First 52 weeks of 2009



Notified Measles cases by international week:

Fig. 2A illustrates the number of notified measles cases by week of onset, during 2008 and in the first 52 weeks of 2009. In 2008 (8134) measles cases were reported in comparison to 30328 in the first 52 weeks of 2009. It is clear that the outbreak is on the down trend during the last 39 weeks. During this year almost 584 measles cases are reported every week compared to 150 cases per week during the same period in 2008. It is apparent that the measles outbreak occurred in 2 waves; each wave took about 52 weeks and was concentrated in a particular group of DoHs. The current outbreak seems to be the most severe and is now on the down trend.

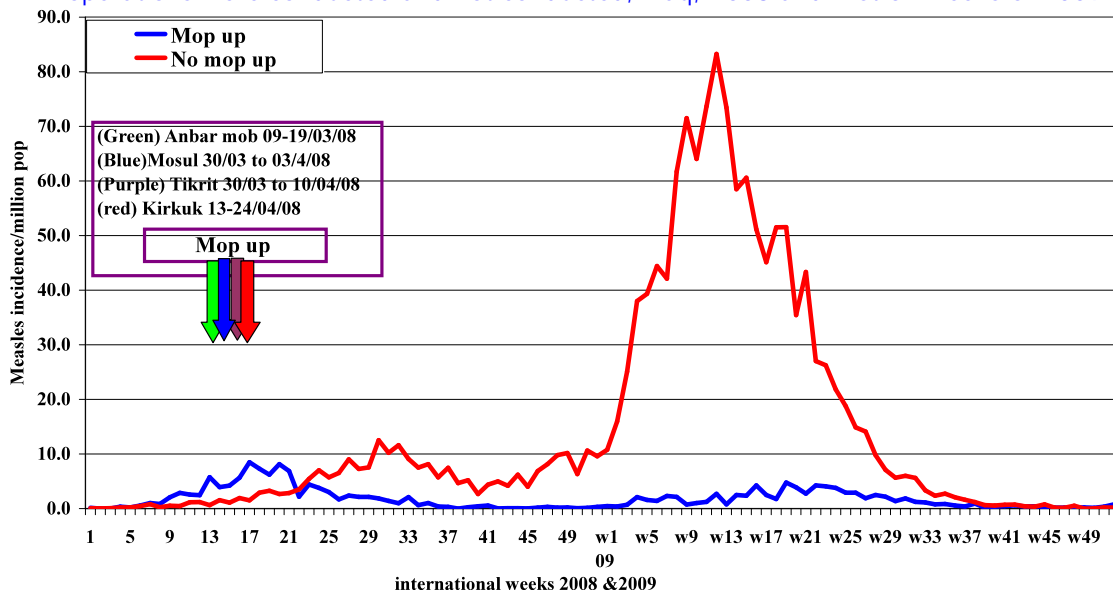


On 24 May, WHO and UNICEF supported the 3 northern governorates and Najaf DoH to conduct a 10 days house to house campaign to prevent the spread of measles outbreak to Kurdistan Region in Iraq. By the 10th day of the campaign, 93% of the target children aged 9-59 months were reached and vaccinated by measles Mono-valent vaccine; the Iraq Red Crescent Society and medical and nursing schools contracted to monitor the campaign and CERF funds supported the campaign financially. Another measles house to house campaign using measles monovalent vaccine was conducted during the period 11-28 October 2009, in the remaining 15 DoHs. 3853685 out of the 3921679 (98%) children 6-59 months of age were reached and vaccinated.

2. Measles cases according to the implementation of Mop Up campaigns.

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

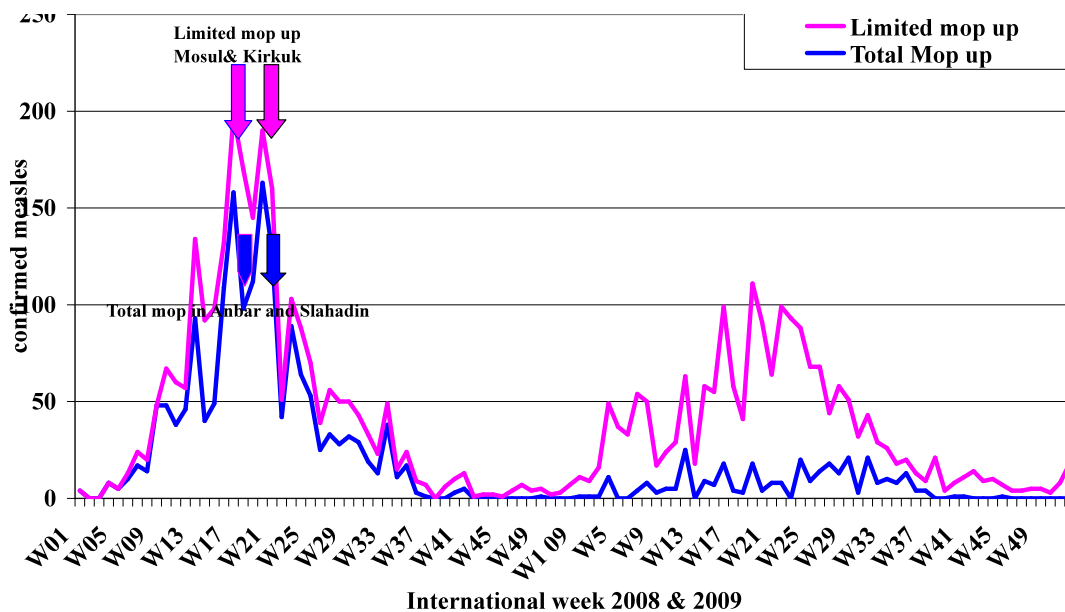
Fig (2B) Measles Incidence/Million population by international weeks in DoHs Where Mop up operations were conducted and not conducted, Iraq, 2008 and first 52 weeks of 2009



WHO and UNICEF supported MoH's efforts in conducting total 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 13, other outbreaks started in some areas where similar campaigns were not conducted, such as Baghdad, Diwanya, Babil, Karbala and Diala. The above chart (2B) show that Mop Up campaigns can succeed in controlling measles outbreaks in areas affected by a lack of security and where less than 70% of infants were vaccinated by MCV. Even if containment measures are conducted late (7-20 weeks following the confirmation of the outbreak), and in limited areas to be successful, the target age group and districts need to be well guided by the measles immunity profile and there is a good epidemiological description of the first few laboratory confirmed cases. It is clear that this huge outbreak (38440) reported cases in 2008 & first 52 weeks of 2009) could have been avoided if a nationwide campaign had been implemented instead of fragmented SIAs

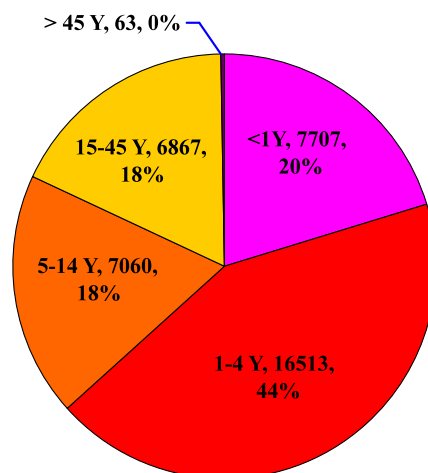
(2C) Measles incidence/million population by total or selective mop up, according to week of onset, 2008 and first 52 weeks, 2009



3. Measles cases according to the size of Mop Up campaigns. Fig. (2C) shows that, both total and limited Mop Up campaigns; succeeded in the control of the measles outbreaks. As expected; total Mop Up gave better results in measles cases is seen in provinces where limited SIAs up were done mainly in Mosul.

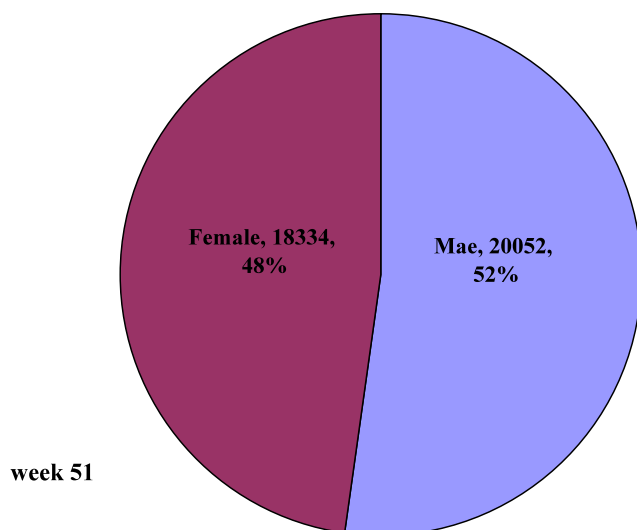
4. Age distribution: Fig 3 shows that 64% of measles cases reported in the first 52 weeks of 2009 were among children <5years of age, a clear indication of serious problems in routine coverage in the last 4 years. Due to lack of funding WHO could not support the requested support to conduct SIAs.

Fig. 3 measles cases by age group, Iraq, 2008 and first 52 weeks of 2009



5. Sex distribution:
 Confirmed measles cases are distributed almost evenly between males and females.
 Fig. 4 Confirmed measles by sex, Iraq 2008 & first 48 weeks of 2008&2009

Reported measles by sex, Iraq, 2008 & 2009*



6. Immunization status of notified measles cases in Iraq:
 17% immunized, 69% not immunized and 14% unknown vaccination status.

Fig. 5 confirmed measles cases among children 1-5 years of age by vaccination status, Iraq, 2008

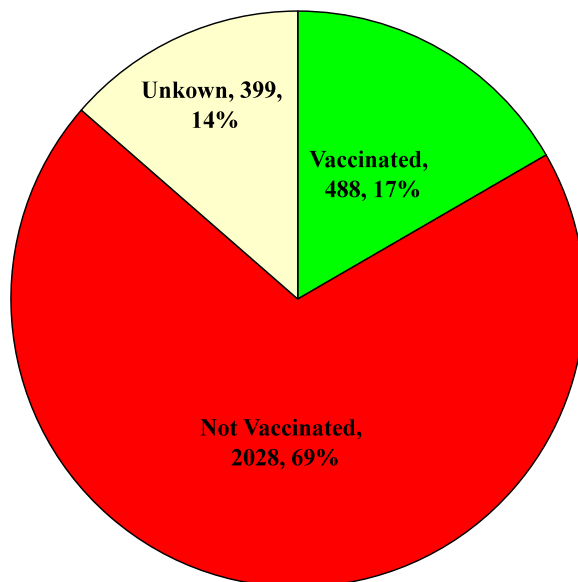
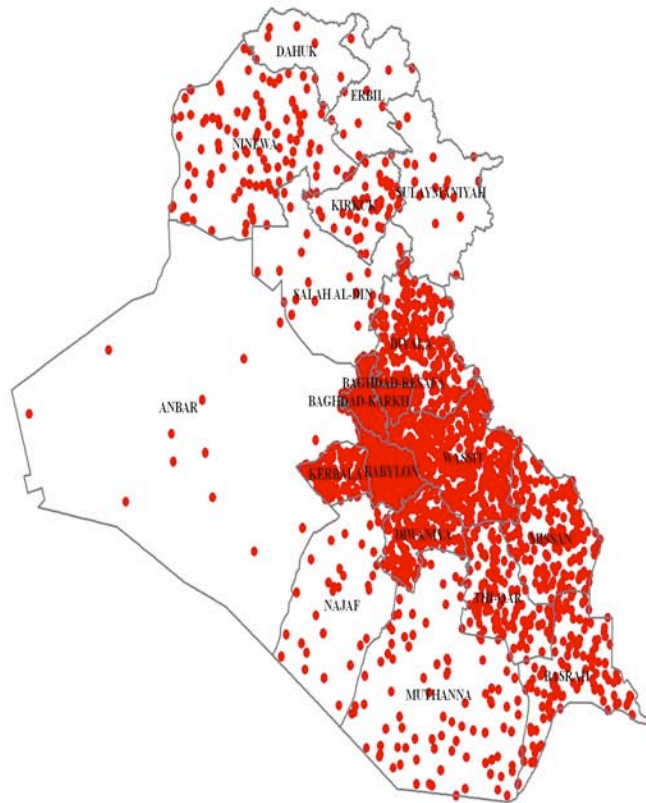


Table (1) Measles Bulletin, WHO Iraq, Cumulative measles results for all 2008 and the first 52 weeks of 2009

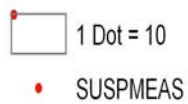
Province	Total pop	No. of cases	Incidence per million population
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		2009	Total 2008	total	% of cases	2009	Total 2008
DAHUK	942268	59	28	87	0%	63	30
ERBIL	1482958	99	7	106	0%	67	5
ANBAR	1483280	126	1056	1182	0%	85	712
SULAYMANIA	1547072	169	30	199	1%	109	19
SALAHADIN	1254303	185	637	822	1%	147	508
NAJAF	1206264	307	68	375	1%	255	56
NINEWA	1027800	1118	364	1482	4%	390	127
KIRKUK	2864705	448	344	792	1%	436	335
BASRAH	2426607	1180	113	1293	4%	486	47
THI-QAR	1640193	1149	482	1631	4%	701	294
BA-KARKH	2937300	3154	789	3943	10%	1074	269
KERBALA	930509	1227	711	1938	4%	1319	764
DIYALA	1486547	2290	80	2370	8%	1540	54
MUTHANNA	583511	932	402	1334	3%	1597	689
DIWANIYA	1025253	1710	1076	2786	6%	1668	1049
BA-RESAFA	3650383	6701	663	7364	22%	1836	182
BABYLON	1625434	3308	843	4151	11%	2035	519
MISSAN	834977	1782	173	1955	6%	2134	207
WASSIT	995296	4384	268	4652	14%	4405	269
Iraq	29944660	30328	8134	38462	100%	1013	272

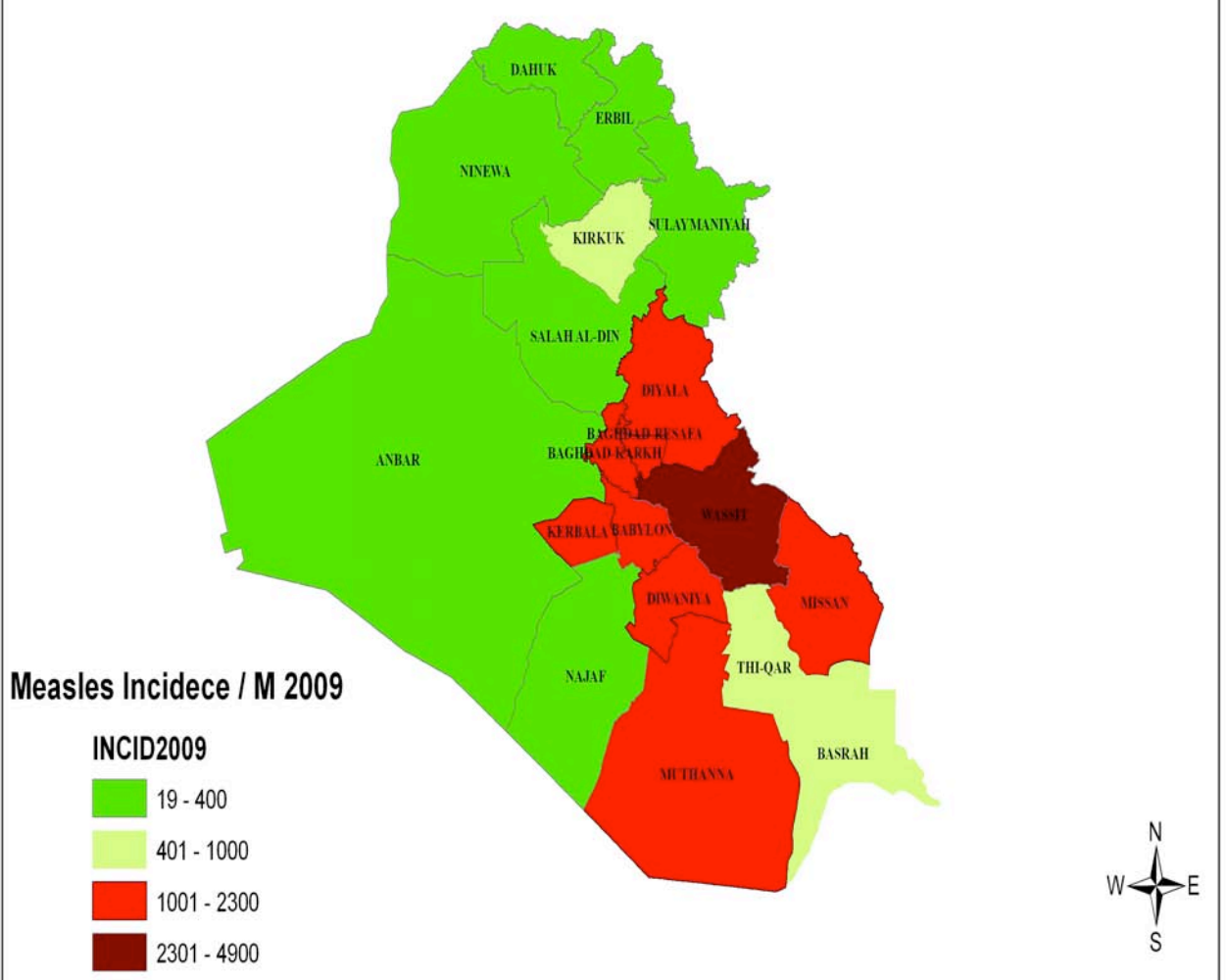
Measles cases by Province, Iraq , first 52 weeks, 2009



Suspect Measles Cases 2009



Measles Incidence per Million Population by Province Iraq - first 52 weeks 2009



Measles incidence by province, 2008

