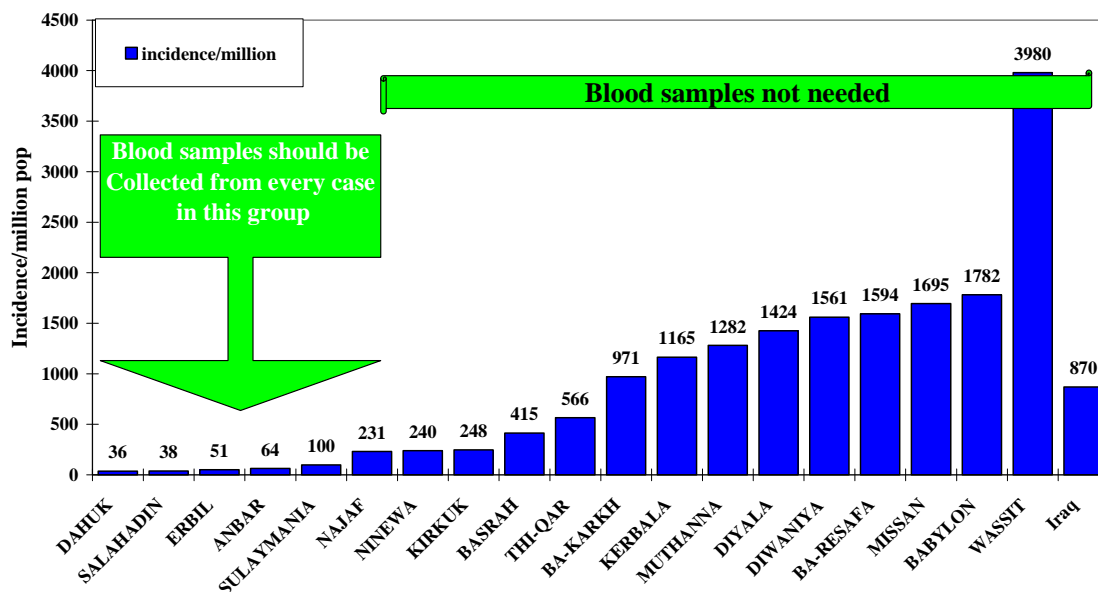




**Weekly feed back on measles in Iraq**  
**Report no. 54 international week 22 ending 31/05/2009**

1. **Confirmed Measles cases by province:** 26056 suspected measles cases were reported in Iraq during the first 22 weeks of 2009. The 3 northern governorates and Najaf reported 542 cases (2%). The provinces of Anbar, Salahadin, Ninewa and Kirkuk where containment operation were done in early 2008 reported 1086 (4%) cases; the majority of cases in the containment group 688 or (63%) were reported from Mosul where only selective SIAs have been implemented . The 4 Southern provinces of Basra, Missan, Thiqr and Muthana reported 4098 (16%) of the total cases. The remaining 8 provinces in central Iraq reported the remaining (20330) 78% of cases. It is clear that the outbreak is mainly concentrated in the central part of Iraq and is starting to spread to South and North. The DoH where the outbreak has been well established and many cases were confirmed by NML there is no need to collect blood samples. However, the case investigation form should be completed carefully for every case. It is also important to collect serum and other specimens from cases reported in children below the age of months..

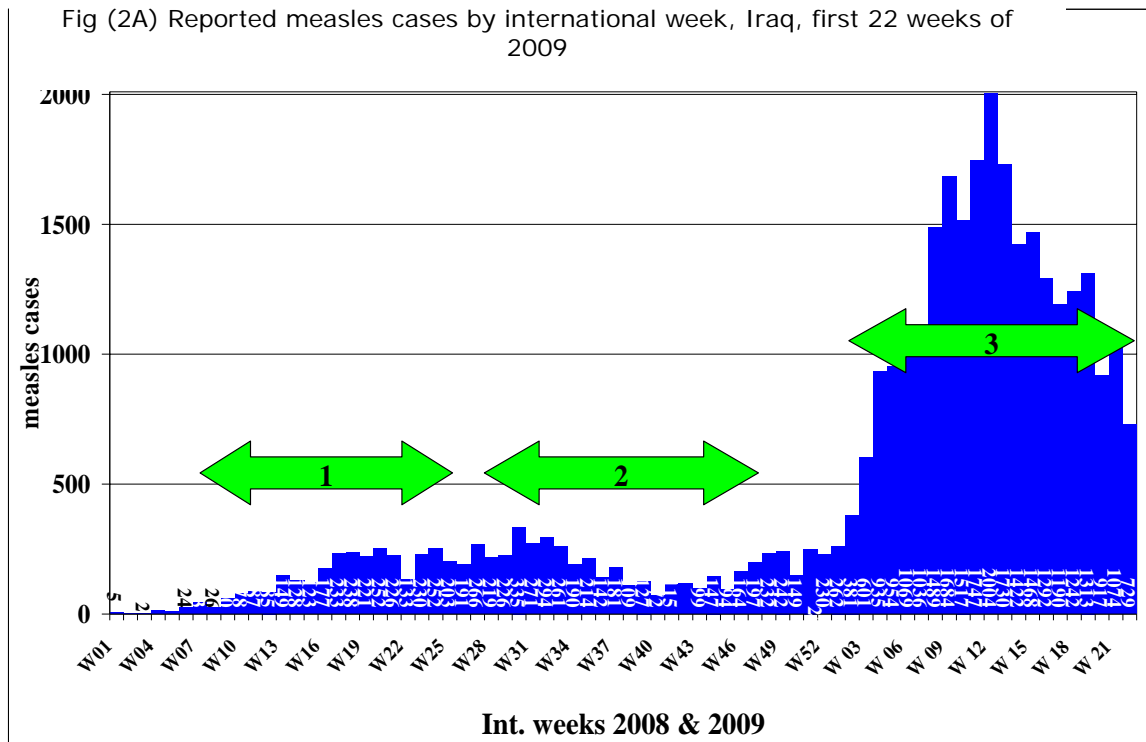
Fig (1) measles incidence/million population by DoH, Iraq, First 22 weeks of 2009



2. **Notified Measles cases by international week:**

Fig. 2A illustrates the number of notified measles case by week of onset, during 2008 and in the first 22 weeks of 2009. In 2008 8134 measles cases were reported in comparison to 26,056 in just the first 22 weeks of 2009. It is clear that the outbreak is on the down trend during the last 9 weeks. During this year almost 1200 measles cases are reported every week compared to less than 50 cases per week during the same period in 2008. It is apparent that the measles outbreak

occurred in 3 waves; each wave took about 20 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.



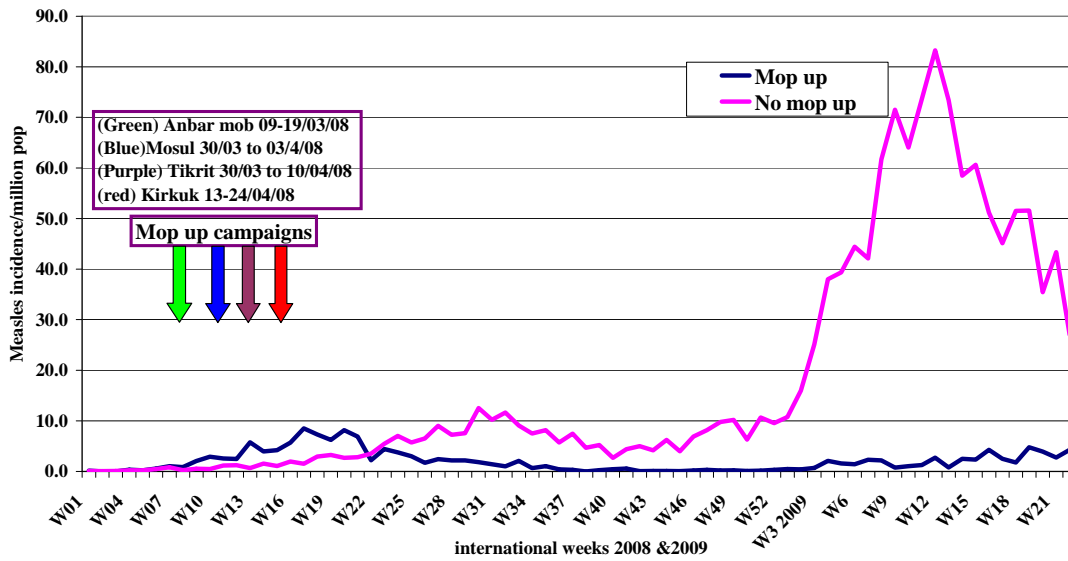
On 24 May, WHO supported the 3 northern governorates to conduct a 10 days house to house campaign to prevent the spread of measles outbreak to Kurdistan Region in Iraq. By the 10<sup>th</sup> day of the campaign, 93% of the target children aged 9-59 months were reached and vaccinated by measles Monovalent vaccine; the Iraq Red Crescent Society and medical and nursing schools contracted to monitor the campaign and CERF funds supported the campaign financially.

3.

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

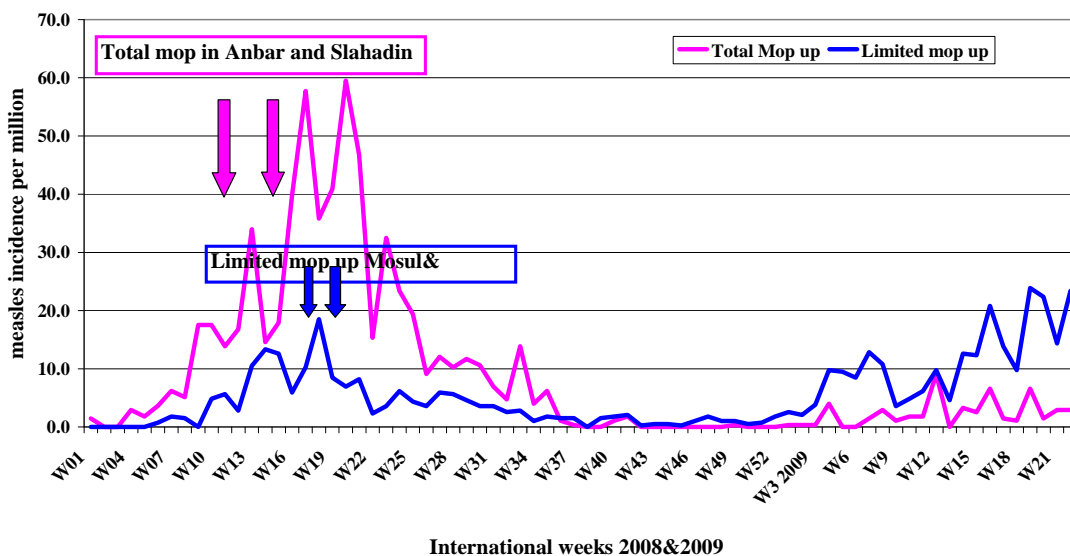
The first measles outbreaks were reported from Anbar and Salah al-Din provinces, followed by districts plagued by a lack of security such as the Ninewa and Kirkuk provinces. Routine measles vaccination coverage in these areas is generally far below the average for the country. WHO and UNICEF supported MoH's efforts in conducting total house to 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, Diwanyia, Babil, Karbala and Diala.

**Fig (2B) Measles Incidence/M population by international weeks in DoHs Where Mop up operations were conducted and not conducted, Iraq, 2008 and first 22 weeks of 2009**



The chart above (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 are 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 (34,190) reported cases in 2008 & first 22 weeks of 2009) could have been avoided if a nation wide campaign had been implemented instead of fragmented SIAs

**Fig (2C) Measles incidence/million population by total or selective mop up, according to week of onset, 2008 and first 22 weeks, 2009**



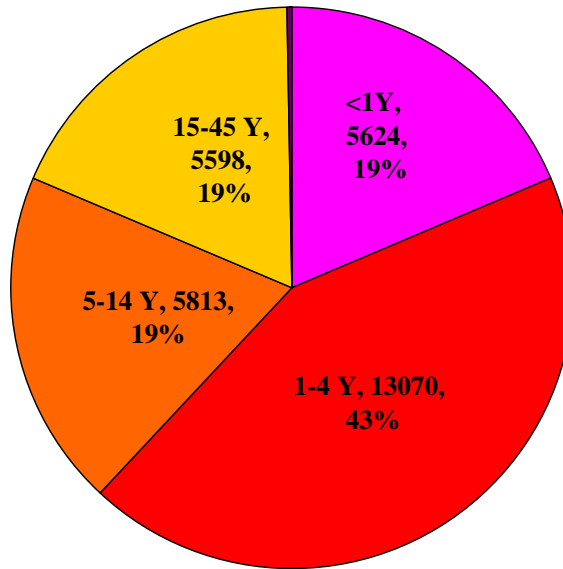
**4. Measles cases according to the size of Mop Up campaigns.**

Fig. 2C; show 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 terms of number of cases, and more swift and sustained control. Another wave of measles cases is seen in provinces where limited MoP up was done mainly in Mosul.

**5. Age distribution:**

Fig 3 shows that **61%** of measles cases reported in 2008 and first 21weeks 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.

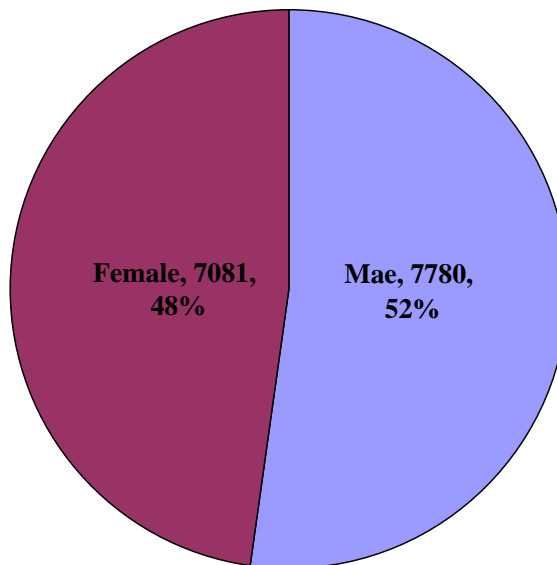
Fig. 3 notified measles cases by age group, Iraq, first 21weeks of 2009



**6. Sex distribution:**

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

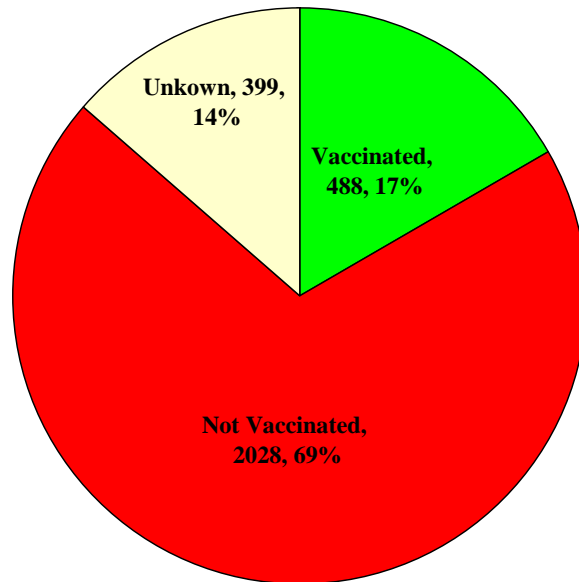
**Fig. 4 Confirmed measles by sex, Iraq 2008 & first 21weeks of 2009**



**7. Immunization status of notified measles cases in Iraq:**

19% immunized, 66% not immunized and 15% unknown vaccination status.

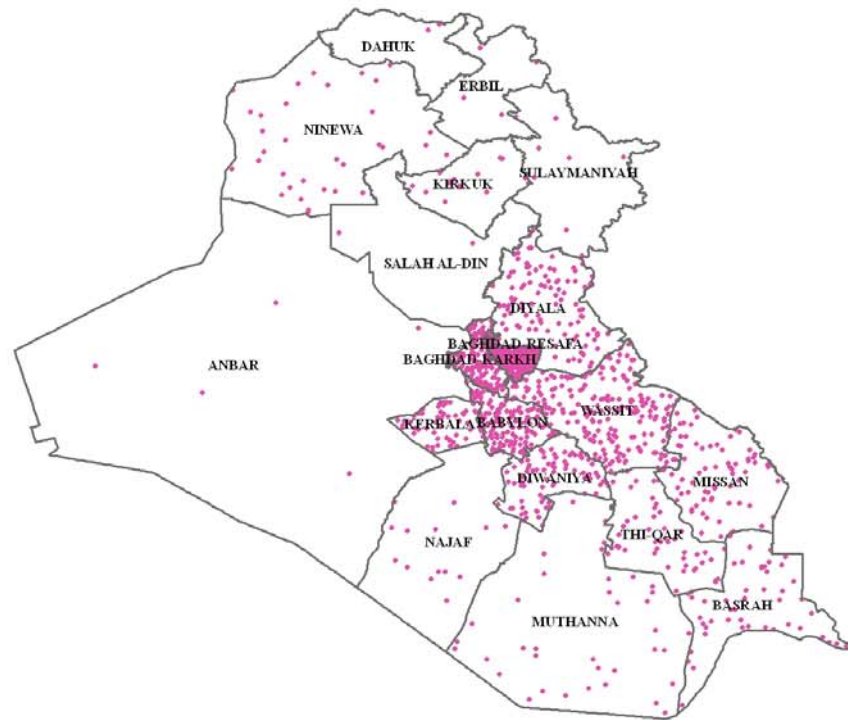
**Fig. 5 confirmed measles cases among children 1-5 years of age by vaccination status, Iraq, 2008**



Measles Bulletin, WHO Iraq, Cumulative measles results for 2008 and the first 22weeks of 2009

Province	Total pop	No. of cases				Incidence per million population	
		First 21Ws 09	2008	total	% of cases	first 21Ws 09	2008
DAHUK	942268	34	28	62	0%	36	30
SALAHADIN	1254303	48	637	685	0%	38	508
ERBIL	1482958	75	7	82	0%	51	5
ANBAR	1483280	95	1056	1151	0%	64	712
SULAYMANIA	1547072	154	30	184	1%	100	19
NAJAF	1206264	279	68	347	1%	231	56
NI NEWA	2864705	688	364	1052	3%	240	127
KIRKUK	1027800	255	344	599	1%	248	335
BASRAH	2426607	1006	113	1119	4%	415	47
THI-QAR	1640193	929	482	1411	4%	566	294
BA-KARKH	2937300	2853	789	3642	11%	971	269
KERBALA	930509	1084	711	1795	4%	1165	764
MUTHANNA	583511	748	402	1150	3%	1282	689
DIYALA	1486547	2117	80	2197	8%	1424	54
DIWANIYA	1025253	1600	1076	2676	6%	1561	1049
BA-RESAFA	3650383	5818	663	6481	22%	1594	182
MISSAN	834977	1415	173	1588	5%	1695	207
BABYLON	1625434	2897	843	3740	11%	1782	519
WASSIT	995296	3961	268	4229	15%	3980	269
Iraq	29944660	26056	8134	34190	100%	870	272

## Measles cases by Province, Iraq , first 22 weeks, 2009



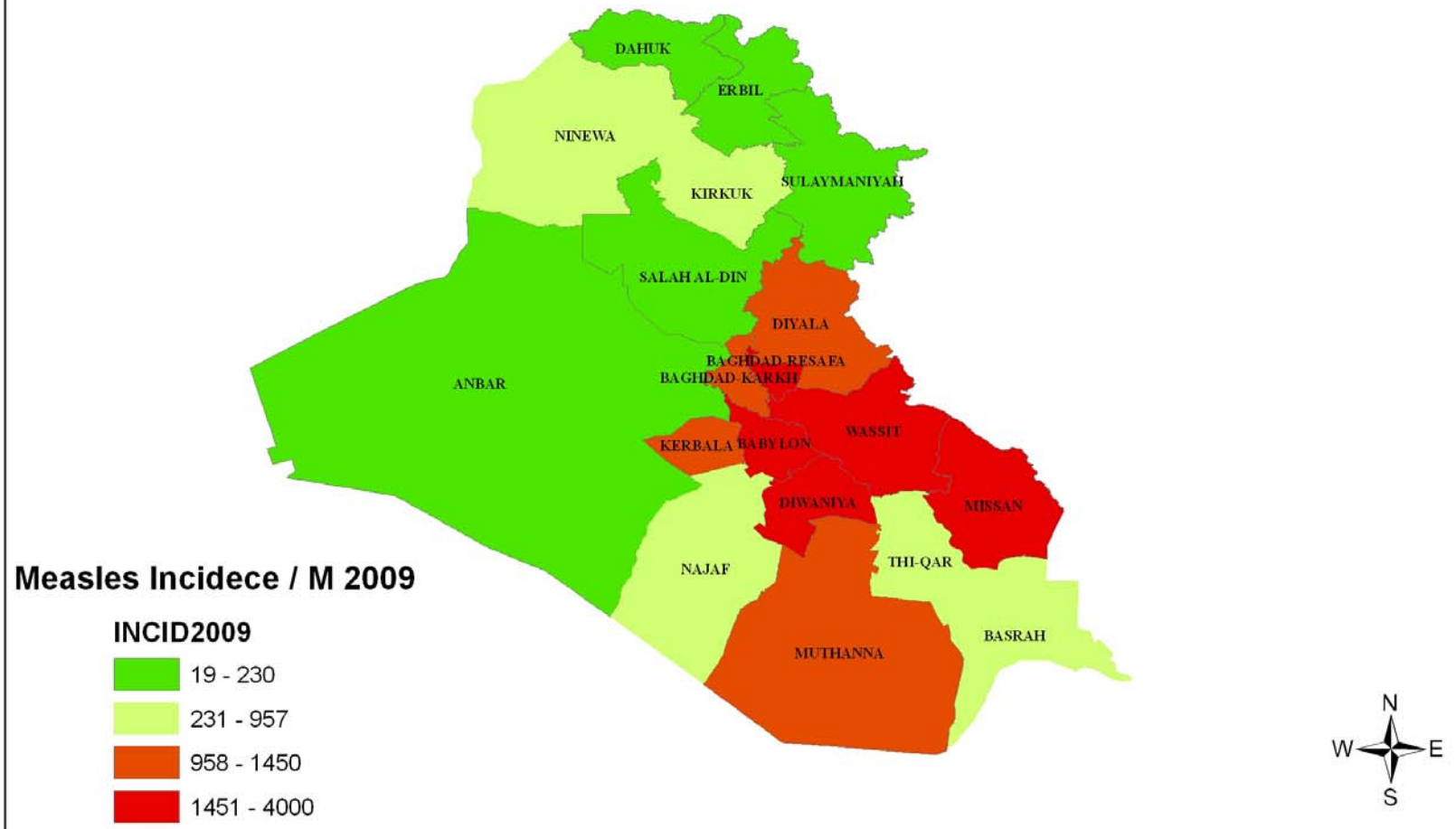
### Suspect Measles Cases 2009

1 Dot = 20

• SUSPMEAS



## Measles Incidence per Million Population by Province Iraq - first 22 weeks 2009



## Measles incidence by province, 2008

