

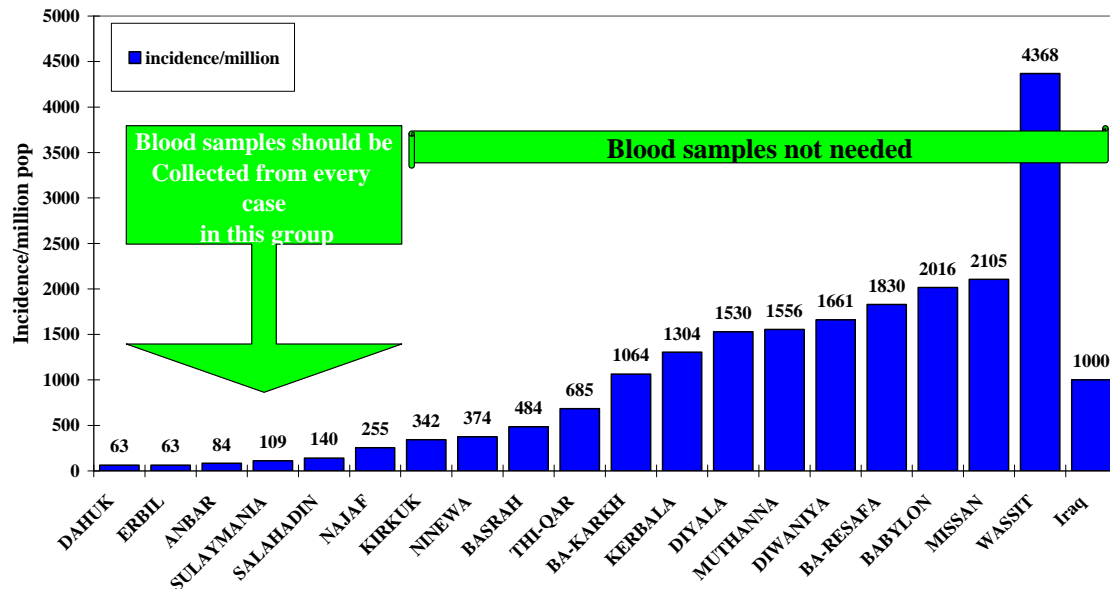


**MoH and WHO Representative's Office in Iraq**

**Weekly feed back on measles in Iraq**  
**Report no. 65 international week 35 ending 30/08/2009**

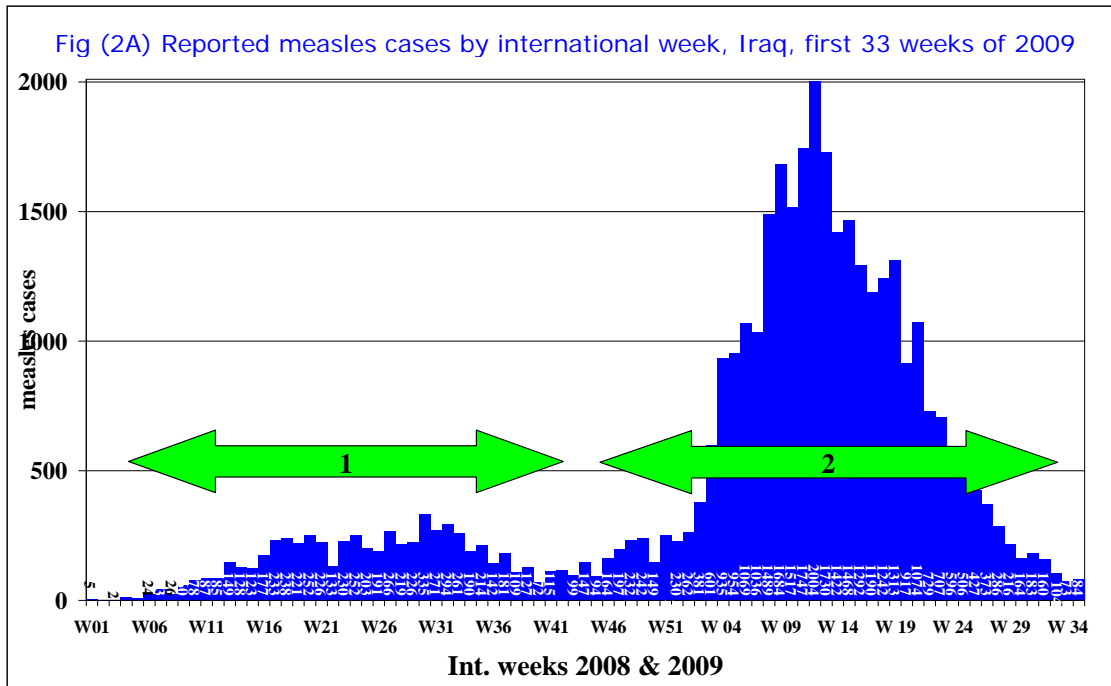
1. **Confirmed Measles cases by province:** 29935 suspected measles cases were reported in Iraq during the first 35 weeks of 2009. The 3 northern governorates and Najaf reported 629 cases (2%) only 2 cases reported in the last 9 weeks, this a clear evidence of the positive impact of the measles campaign. The provinces where containment immunization were implemented reported 1724 (6%) cases; the majority of cases in the containment group 1072 or (62%) were reported from Mosul where only selective SIAs have been implemented. The 4 Southern provinces of Basra, Missan, Thiqr and Muthana reported 4964 (17%) of the total cases. The remaining 8 provinces in central Iraq reported the remaining (22618) 76% of cases. It is clear that the outbreak is mainly concentrated in the central part of Iraq and from where it 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 9 months..

Fig (1) measles incidence/million population by DoH, Iraq, First 35 weeks of 2009



2. **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 35 weeks of 2009. In 2008 (8134) measles cases were reported in comparison to 29935 in the first 35 weeks of 2009. It is clear that the outbreak is on the down trend during the last 22 weeks. During this year almost 1000 measles cases are reported every week compared to less than 130 cases per week during the same period in 2008. It is apparent that the measles outbreak occurred in 2 waves; each wave took about 37 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.

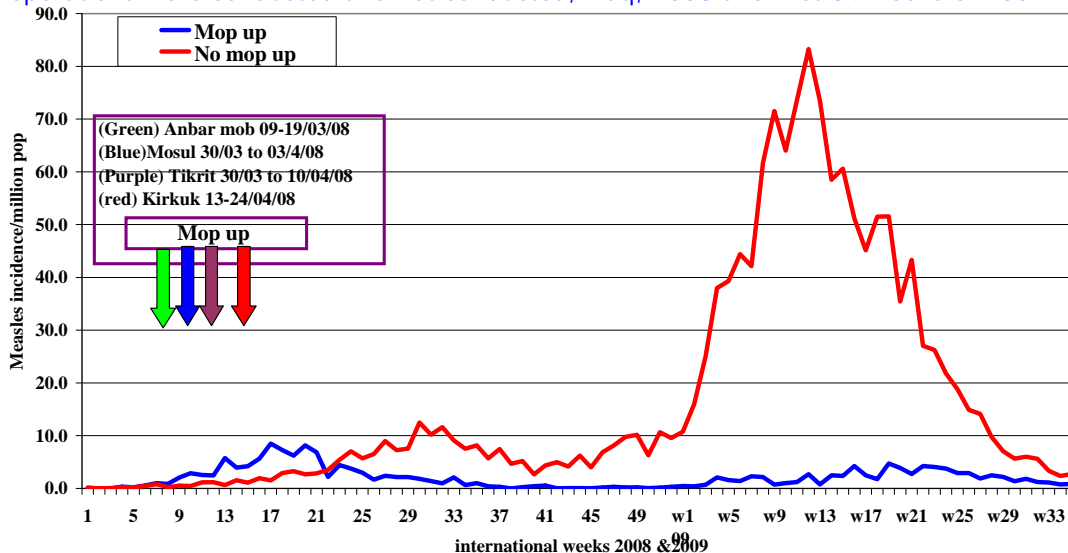


On 24 May, WHO and UNICEF supported the 3 northern governorates to conduct a 10 days house to house campaign to prevent the spread of measles outbreak to Kurdistan Region in Iraq. By the 10<sup>th</sup> day of the campaign, 93% of the target children aged 9-59 months were reached and vaccinated by measles 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.

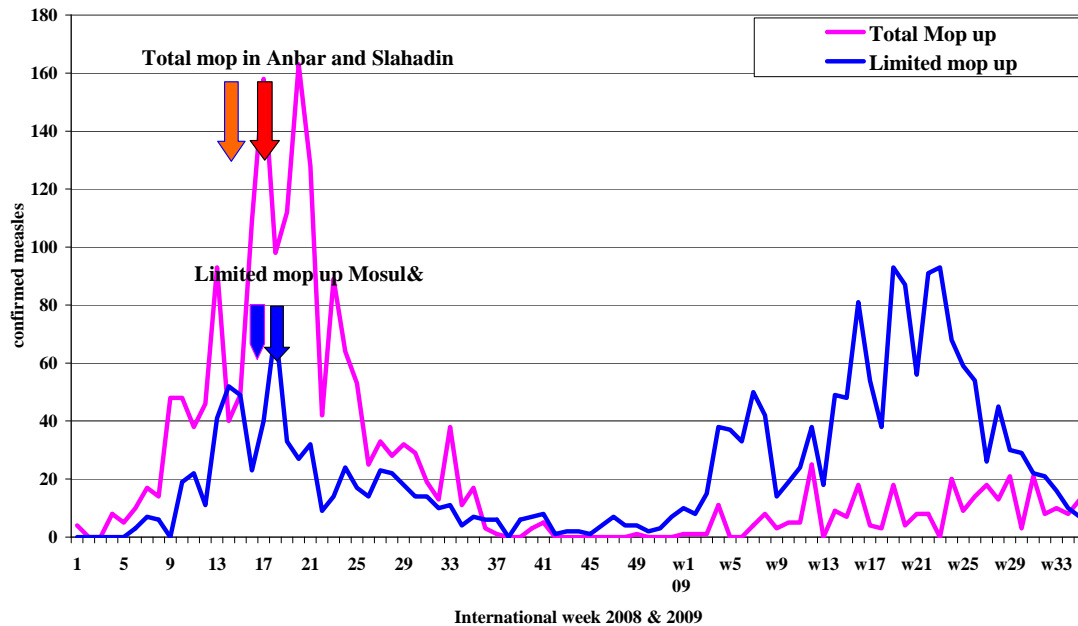
The first measles outbreaks were reported from Anbar and Salah al-Din provinces, followed by districts plagued by a lack of security such as the Ninewa and Kirkuk provinces. Routine measles vaccination coverage in these areas is generally far below the average for the country. WHO and UNICEF supported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

Fig (2B) Measles Incidence/Million population by international weeks in DoHs Where Mop up operations were conducted and not conducted, Iraq, 2008 and first 34 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 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 (38069) reported cases in 2008 & first 35 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 35 weeks. 2009



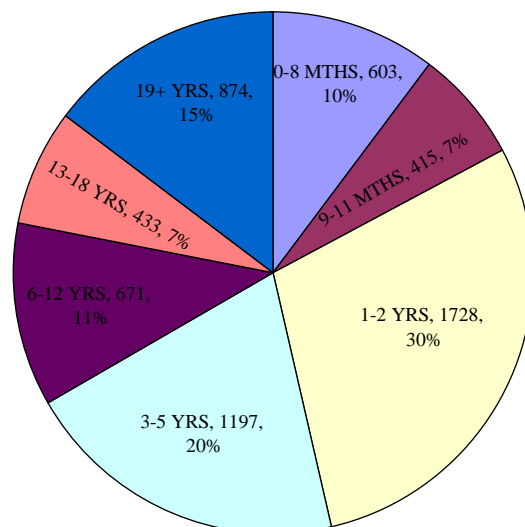
**4. Measles cases according to the size of Mop Up campaigns.**

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 was done mainly in Mosul.

**5. Age distribution:**

Fig 3 shows that 67% of measles cases reported in the first 35 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 confirmed measles cases by age group, Iraq, first 35 weeks, 2009

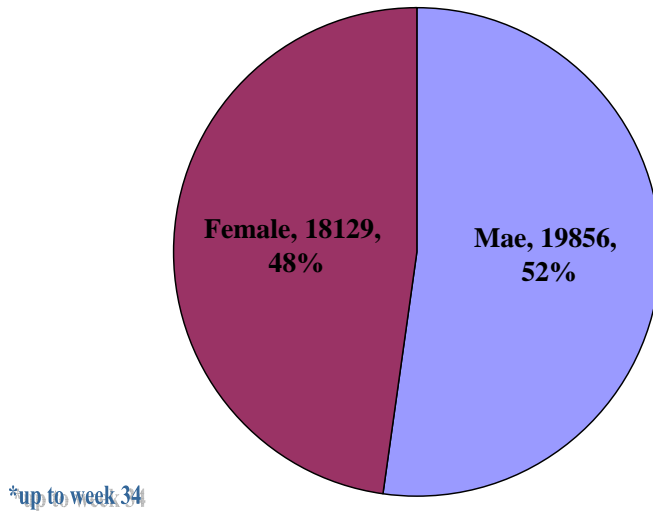


**6. Sex distribution:**

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

**Fig. 4 Confirmed measles by sex, Iraq 2008 & first 35 weeks of 2008&2009**

**Reported measles by sex, Iraq, 2008 &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**

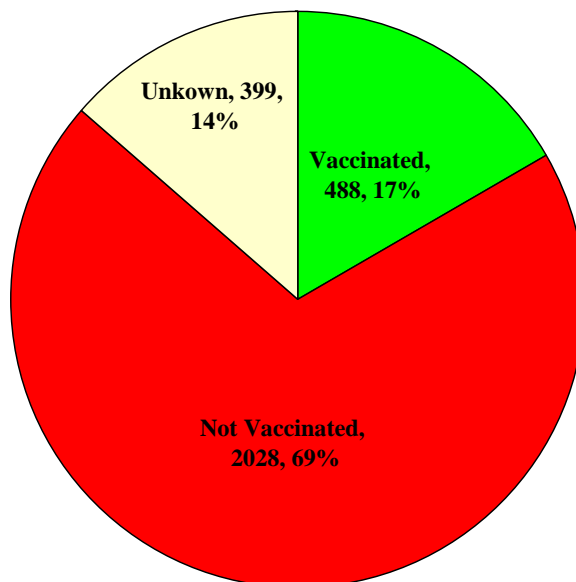
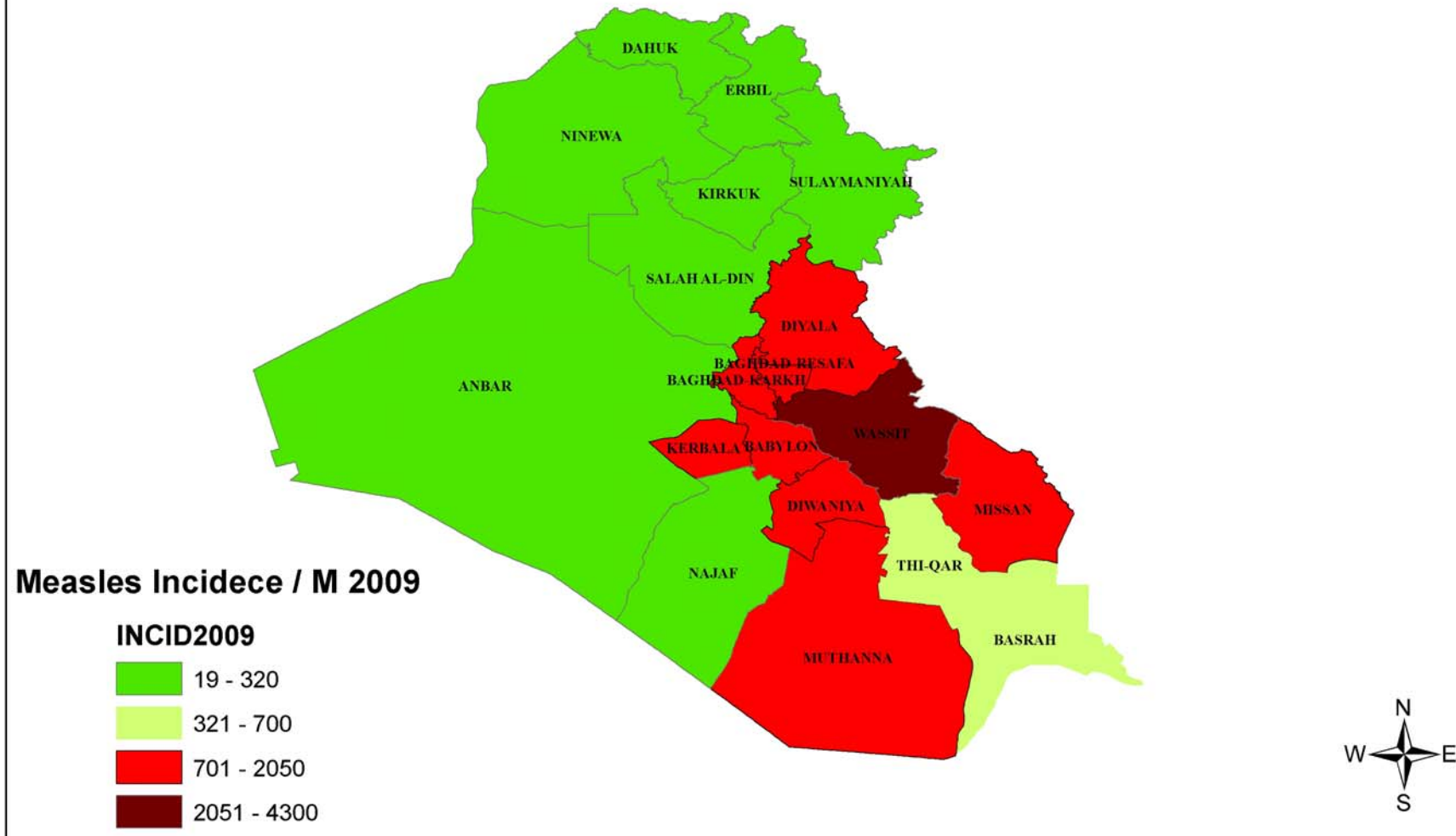


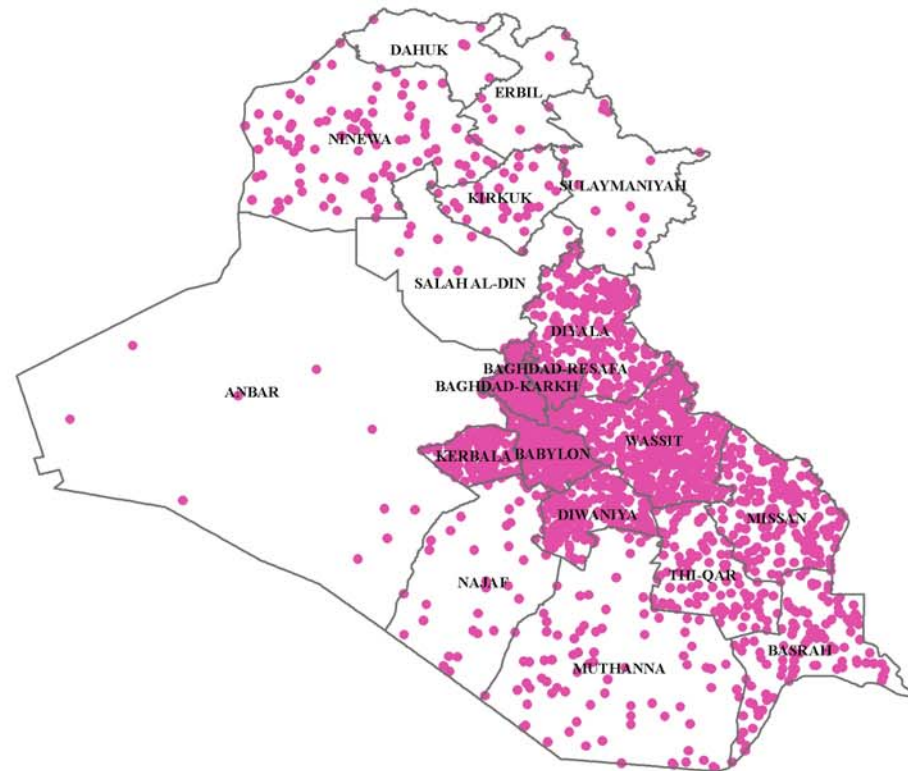
Table (1) Measles Bulletin, WHO Iraq, Cumulative measles results for all 2008 and the first 35 weeks of 2009

| Province   | Total pop       | No. of cases   |             |       |            | Incidence per million population |            |
|------------|-----------------|----------------|-------------|-------|------------|----------------------------------|------------|
|            |                 | First 33 Ws 09 | Total 2008  | total | % of cases | first 33 Ws 09                   | Total 2008 |
| DAHUK      | 942268          | 59             | 28          | 87    | 0%         | 63                               | 30         |
| ERBIL      | 1482958         | 94             | 7           | 101   | 0%         | 63                               | 5          |
| ANBAR      | 1483280         | 125            | 1056        | 1181  | 0%         | 84                               | 712        |
| SULAYMANIA | 1547072         | 169            | 30          | 199   | 1%         | 109                              | 19         |
| SALAHADIN  | 1254303         | 176            | 637         | 813   | 1%         | 140                              | 508        |
| NAJAF      | 1206264         | 307            | 68          | 375   | 1%         | 255                              | 56         |
| KIRKUK     | 1027800         | 351            | 344         | 695   | 1%         | 342                              | 335        |
| NINEWA     | 2864705         | 1072           | 364         | 1436  | 4%         | 374                              | 127        |
| BASRAH     | 2426607         | 1175           | 113         | 1288  | 4%         | 484                              | 47         |
| THI-QAR    | 1640193         | 1123           | 482         | 1605  | 4%         | 685                              | 294        |
| BA-KARKH   | 2937300         | 3125           | 789         | 3914  | 10%        | 1064                             | 269        |
| KERBALA    | 930509          | 1213           | 711         | 1924  | 4%         | 1304                             | 764        |
| DIYALA     | 1486547         | 2274           | 80          | 2354  | 8%         | 1530                             | 54         |
| MUTHANNA   | 583511          | 908            | 402         | 1310  | 3%         | 1556                             | 689        |
| DIWANIYA   | 1025253         | 1703           | 1076        | 2779  | 6%         | 1661                             | 1049       |
| BA-RESAFA  | 3650383         | 6679           | 663         | 7342  | 22%        | 1830                             | 182        |
| BABYLON    | 1625434         | 3277           | 843         | 4120  | 11%        | 2016                             | 519        |
| MISSAN     | 834977          | 1758           | 173         | 1931  | 6%         | 2105                             | 207        |
| WASSIT     | 995296          | 4347           | 268         | 4615  | 15%        | 4368                             | 269        |
| Iraq       | <b>29944660</b> | <b>29935</b>   | <b>8134</b> | 38069 | 100%       | 1000                             | 272        |

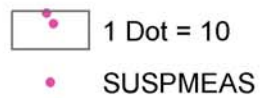
# Measles Incidence per Million Population by Province Iraq - first 35 weeks 2009



# Measles cases by Province, Iraq , first 35 weeks, 2009



## Suspect Measles Cases 2009



# Measles incidence by province, 2008

