

Epidemiological Bulletin Number 56 Week 16 (week ending 25 April 2010)

Foreword

This bulletin provides a weekly overview of the outbreaks and other important public health events occurring in Zimbabwe. It includes disaggregated data to inform and improve the continuing public health response by the various partners. It also provides guidance to agencies on issues relating to data collection, analysis and interpretation, and suggests operational strategies on the basis of epidemiological patterns so far. The bulletin is published weekly. Note that the epidemiological week runs from Monday to Sunday. This edition covers week 16 (week ending 25 April 2010).

The C4 team welcomes feedback. Data provided by individual agencies is welcome but will be verified with MOHCW structures before publication.

Please send any comments and feedback to the Cholera Control and Command Centre Email: Cholera_Taskforce@zw.afro.who.int.

Toll free number for alert by district and province is: **08089001** or **08089002** or **08089000**

The mobile number for alerts is **0912 104 257**

Acknowledgements

We are very grateful to MoHCW District Medical Officers, District and Provincial Surveillance Officers, Provincial Medical Directors, Directors of City Health departments, Environmental Health Officers, and MoHCW's National Health Information Unit, who have helped to gather and share the bulk of the information presented here.

Likewise, we acknowledge agencies, including members of the Health and WASH clusters, who have kindly shared their data with our team. MoHCW recognizes and thanks the efforts made by NGOs and other partners assisting in the response and providing support to MoHCW.

Highlights of the week:

- **2 cases of Cholera reported in Chegutu**
- **Suspect Measles Cases reported from 61 districts**
- **Measles deaths now 384**
- **12 Typhoid cases reported this week**

Figures

The case definitions can be found in appendix 1 and detailed data by district are shown in appendix 2. See also summary tables (annex 1), maps (annex 2) and graphs (annex 3).

Cholera

14 out of the 62 districts in the country have been affected by the cholera outbreak that started on 4 February, 2010 compared to 54 districts last year at the same time. 456 cumulative suspected cholera cases and 13 deaths were reported by 18 April 2010 to the World Health Organization (WHO) through the Ministry of Health and Child Welfare's (MoHCW) National Health Information Unit. 59 of the cases were laboratory confirmed. The crude case fatality rate since the outbreak started stands at 2.9% which is 1.5% lower than that of last year. By week 16, 2009, 97 817 cumulative cases and 4 244 deaths had been reported since August 2008, with a crude case fatality rate of 4.4%

Week 16 (19 - 25 April 2010)

2 suspected cases were reported from Chegutu District.

Geographical distribution of cases

The cases reported so far came from the following districts: Beitbridge, Bindura, Buhera, Chegutu, Chivi, Chimanimani, Chiredzi, Harare, Hurungwe, Kadoma, Masvingo, Makonde, Mwenezi and Plumtree.

Urban/Rural distribution of cases

71.7 % of the cases currently reported are from rural areas. In comparison, during the corresponding week in 2009, 46.8% cases came from urban areas and 53.2 % from rural areas.

Assessments & response

Surveillance, case management and investigation of alerts continued in all the provinces.

Measles

6 215 suspected cases and 384 deaths (of which 372 were community deaths) were reported since the beginning of the outbreak in September 2009. 1 298 blood specimens were received by the polio-measles laboratory and 442 cases have been confirmed to be Measles IgM positive.

Vaccination Status of Measles Cases

The vaccination status of 3 358 cases entered in the national measles databases is as follows: 3048 (86.0%) cases were not vaccinated, 99 (2.8%) had unknown vaccination status and 396(11.2%) cases had been vaccinated at least once. **46 of the total positive cases had been vaccinated .**

Igm Positive Cases by Age Group

59 (13.3%) of the positive IgM cases were below 9 months, 39 (8.8%) in the 9 – 12 months age group, 86 (19.5%) were in the 1-5 years age group, 199 (45.0 %) were in the 5 -14 years age group and 59 (13.3%) in the above 14 Years age group. Hence 383 (89.2%) of the positive cases were above the routine immunisation age (9 months -12 months)

The district measles IgM positive attack rates ranged from 0.4 to 19.0 per 100 000 and the attack rate for all the affected districts is 3.5 per 100 000. The lowest attack rate was recorded in Chiredzi district and the highest was recorded in Zvishavane district.

See table 3 for detailed distribution of the IgM positive cases by agegroup and and attack rates by district.

Week 16 (19 - 25 April 2010)

10 specimens were received by the laboratory during the week. 6 of the specimens were IgM positive. The positive cases were from: Gwanda 1, Hurungwe 1, Lupane 2 , Nkayi 1 and Seke 1. 1 of the positive cases had been vaccinated. See table 4 for detailed distribution.

Back reporting of 2 672 cases from Buhera 790, Seke 1172, Goromonzi 74, Mutoko 24, UMP 461 , Mudzi 81 , Murehwa 7 and Chikomba 3

Geographical distribution of cases

Since September 2009, 57 districts out of 62, have had at least 1 laboratory confirmed measles case namely: Beitbridge, Bindura, Bikita, Bubi, Buhera, Bulawayo, Centenary, Chegutu, Chikomba, Chimanimani, Chiredzi ,Chirumhanzu, Chipinge, , Chivi, Gokwe North, Gokwe South, Goromonzi, Guruve, Gweru, Gutu, Harare (including Chitungwiza) ,Hurungwe, Hwange, Hwedza, Insiza , Kadoma , Kwekwe, Lupane,Makoni, Makonde, Marondera, Mangwe, Masvingo, Mazowe, Mt. Darwin, Mutare, Mutasa, Murehwa, Mutoko, Mwenezi, Nyanga , Umzingwane,Seke, Shurugwi, Umguza, UMP, Zaka, Zvimba and Zvishavane. 61 districts have reported suspected measles cases.

Confirmed laboratory Outbreaks

The number of districts with laboratory confirmed measles outbreaks have gone up by 4 to 42 from last weeks figure. The new districts to have confirmed outbreaks are Gwanda, Hurungwe, Lupane and Umguza. The districts with confirmed outbreaks are shaded in table 3.

Suspected Outbreaks

The number of districts with suspected measles outbreaks is still **48** districts.

Assessments & response

Vaccination and surveillance continued in all affected Districts. All provinces and districts to hold planning meetings for the joint Child Health and Immunisation Days. Partners encouraged to support the initiatives through their respective provincial , city or district medical directorates offices.

Typhoid

Since the typhoid outbreak started on 3 February, 418 cases and 8 suspect deaths were reported by 18 April. Only 6 samples (4 blood and 2 stool) have so far been laboratory confirmed to be *Salmonella typhi*, the cause of typhoid fever from 18 samples tested.

Week 16 (19 - 25 April 2010)

10 Cases of Typhoid were reported in the week. 5 cases each from Mabvuku and Tafara.

Geographical distribution of cases

The cases were reported from mainly Harare suburbs and areas in the environs of Harare namely Caledonia, Chishawasha, Epworth, Moutnt Hampden, Hunyani(Norton), Ruwa, Zimre Park, Zengeza 3 and Zengeza 5. 260 cases (62.2%) of the cases were from Mabvuku and 85 cases (20.3 %) were from Tafara. Map 3 shows the distribution of the cases by suburb.

Assessments & response

Surveillance, health promotion and case management continued.

Annex 1: Summary Tables

Table 1: Cumulative Cholera cases and deaths reported by district as of week 16, 2010

District	Suspected Cases reported this week	Confirmed Cases Reported this week	Suspected Cases	Confirmed Cases	Discarded Cases	Total Cases	Deaths	Attack Rate/ 100000
Shamva	0	0	2	0	2	0	0	0
Harare Urban	0	0	0	1	0	1	0	0.06
Bulilima	0	0	0	1	0	1	0	0.99
Chimanimani	0	0	2	0	0	2		1.65
Bindura	0	0	0	4	0	4	0	2.6
Makonde	0	0	3	1	0	4	0	1.4
Mwenezi	0	0	0	5	0	5	0	3.66
Masvingo	0	0	9	1		10	1	3.5
Chivi	0	0	11	2	0	13	0	7.71
Beitbridge	0	0	16	1	0	17	0	15.14
Chegutu	2	0	15	11		26	1	10.66
Chiredzi	0	0	45	9	0	54	2	21.31
Buhera	0	0	66	1	0	67	0	28.12
Kadoma	0	0	122	18	0	140	4	54.73
Hurungwe	0	0	165	4		169	5	54.51
	2	0	456	59	2	513	13	11.79

Table 2: Age and Sex breakdown of cumulative cholera linelisted cases for the period week 16, 2010

District	Under 5 Years		5-14 Years		15-29 Years		30 Years and over	
	Male	Female	Male	Female	Male	Female	Male	Female
Chiredzi	2	2	5	3	6	9	6	8
Chivi				1		1	2	4
Harare								
Masvingo						1	2	3
Mwenezi						1	2	1
Beitbridge								
Total	2	2	5	4	6	12	12	16

Table 3: Distribution of Measles IgM Positive by Agegroup and District of residence since September 2009-25 April, 2010

District	< 9 months	9-12 months	1-5 years	5-14 years	>14 years	TOTAL	Pop	Attack Rate per 100000
Beitbridge	0	0	0	1	0	1	112318.2	0.89
Bikita	0	0	2	6	0	8	169943.5	4.71
Bindura	0	2	2	0	0	4	190440	2.1
Binga	0	1	0	2	0	3	129951.5	2.31
Bubi	0	0	0	6	3	9	51323.12	17.54
Buhera	0	1	3	2	0	6	235934.1	2.54
Bulawayo	7	6	2	5	2	22	732715	3
Centenary	0	0	0	1	0	1	116707	0.86
Chegutu	1	0	2	6	0	9	243812.8	3.69
Chikomba	1	1	1	3	0	6	130211.4	4.61
Chimanimani	0	0	0	0	2	2	124850.1	1.6
Chipinge	0	0	2	5	2	9	304263.4	2.96
Chiredzi	1	0	0	0	0	1	250901.1	0.4
Chirumanzu	0	0	0	3	0	3	76266.68	3.93
Chitungwiza	1	0	0	4	1	6	346578.5	1.73
Chivi	1	0	2	1	0	4	168535.8	2.37
Gokwe North	0	0	0	2	0	2	232120.1	0.86
Gokwe South	1	1	4	10	1	17	317948.4	5.35
Goromonzi	1	1	1	6	0	9	167043.6	5.39
Guruve	1	0	0	1	0	2	200652.3	1
Gutu	0	0	2	5	0	7	214986	3.26
Gwanda	0	1	0	0	2	3	140794.1	2.13
Gweru	1	0	0	2	0	3	243793.3	1.23
Harare	28	17	12	39	23	119	1579679	7.53
Hurungwe	0	1	2	1	0	4	310019.7	1.29
Hwange	2	0	1	0	3	6	109303.6	5.49
Hwedza	0	0	3	5	0	8	76533.06	10.45
Insiza	0	0	0	2	0	2	92716.36	2.16
Kadoma	1	0	1	5	0	7	253273.8	2.76
Kariba	0	0	0	2	0	2	63665.48	3.14
Kwekwe	1	0	2	4	0	7	271330.7	2.58
Lupane	1	1	0	0	2	4	106843.3	3.74
Makonde	0	0	2	3	1	6	125731.5	4.77
Makoni	1	0	6	3	2	12	268541	4.47
Mangwe	0	0	0	1	1	2	84638.25	2.36
Marondera	2	0	2	6	1	11	111350	9.88
Masvingo	1	1	0	2	0	4	210579.9	1.9
Matobo	0	0	0	2	0	2	107985.7	1.85
Mazowe	1	0	0	2	1	4	211078	1.9
Mt Darwin	0	0	1	5	0	6	216558.3	2.77
Mudzi	0	0	1	3	0	4	137419.9	2.91
Murehwa	0	0	0	4	1	5	175603.6	2.85
Mutare	1	0	2	4	1	8	421187.3	1.9
Mutasa	0	0	3	4	0	7	180453.7	3.88
Mutoko	0	0	2	2	1	5	175603.6	2.85
Mwenezi	1	1	2	1	0	5	136697.7	3.66

District	< 9 months	9-12 months	1-5 years	5-14 years	>14 years	TOTAL	Pop	Attack Rate per 100000
Nkayi	0	0	0	0	1	1	121525.8	0.82
Nyanga	1	0	3	1	2	7	125739	5.57
Seke	1	0	4	4	1	10	83296.59	12.01
Shamva	0	0	0	1	0	1	106139.4	0.94
Shurugwi	0	0	1	1	0	2	95713.7	2.09
Umguza	0	0	0	2	1	3	80169.3	3.74
Umzingwane	0	1	0	1	0	2	200444.4	1
Uzumba Maramba Pfungwe	0	1	2	0	2	5	91798.37	5.45
Zaka	0	0	0	1	0	1	200444.4	0.5
Zvimba	1	2	3	4	1	11	239054.7	4.6
Zvishavane	0	0	7	13	1	21	110566.1	18.99
Total	59	39	85	199	59	441	11783775	3.74

Table 4: Distribution of Confirmed measles cases by agegroup by district reported in week 16, 19-25 April 2010.

District	< 9 months	9 months -12 months	1-5 years	5-14 years	>14 years	TOTAL
GWANDA	0	1	0	0	0	1
HURUNGWE	0	0	0	1	0	1
LUPANE	1	0	0	0	1	2
NKAYI	0	0	0	0	1	1
SEKE	0	0	1	0	0	1
TOTAL	1	1	1	1	2	6

Table 5: Distribution of Community and Institutional Measles Deaths attributed to Measles as of 25 April 2010

District	Community Deaths	Institutional Deaths	Total Deaths
Bikita	11	0	11
Bindura	10	0	10
Buhera	92	4	96
Chegutu	2	0	2
Chimanimani	3	0	3
Chipinge	3	0	3
Gokwe North	18	1	19
Gokwe South	6	0	6
Goromonzi	12	0	12
Insiza	4	0	4
Kadoma	1	0	1
Makoni	24	5	29

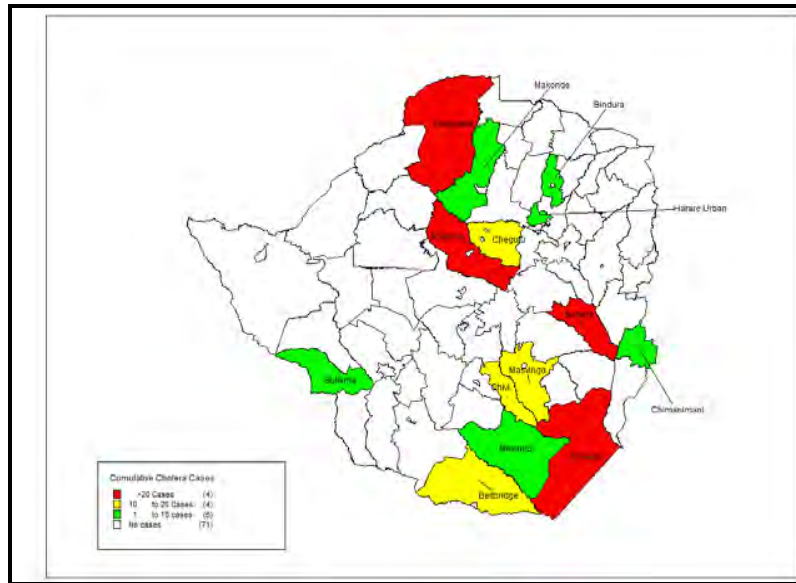
District	Community Deaths	Institutional Deaths	Total Deaths
Marondera	1	0	1
Mudzi	30	0	30
Murehwa	44	0	44
Mutare	47	0	47
Mutoko	10	0	10
Mutasa	10	0	10
Nyanga	9	0	9
Seke	7	2	9
UMP	28	0	28
Total	372	12	384

Table 6: Some Key Measles Indicators as of 25 April 2010

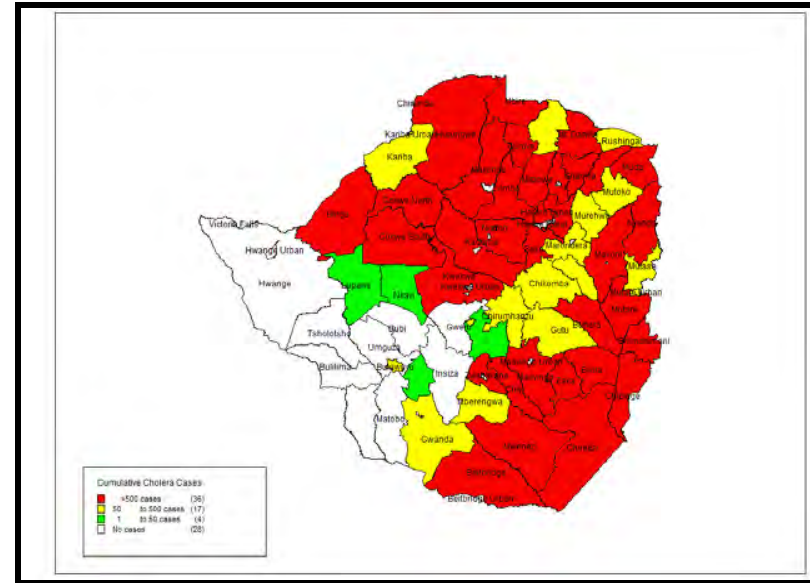
Indicator	Value
Suspected Cases	6 215
Blood Specimens received by Laboratory	1 298
Confirmed Cases	441
Deaths	384
Districts with laboratory confirmed outbreaks Affected	42
Overall Attack Rate of Lab Confirmed cases	3.7/100 000
Confirmed Cases that were vaccinated	46

Annex 2: Maps

Map 1: Comparison of cumulative cholera cases by district as of week 16, 2009 and 2010

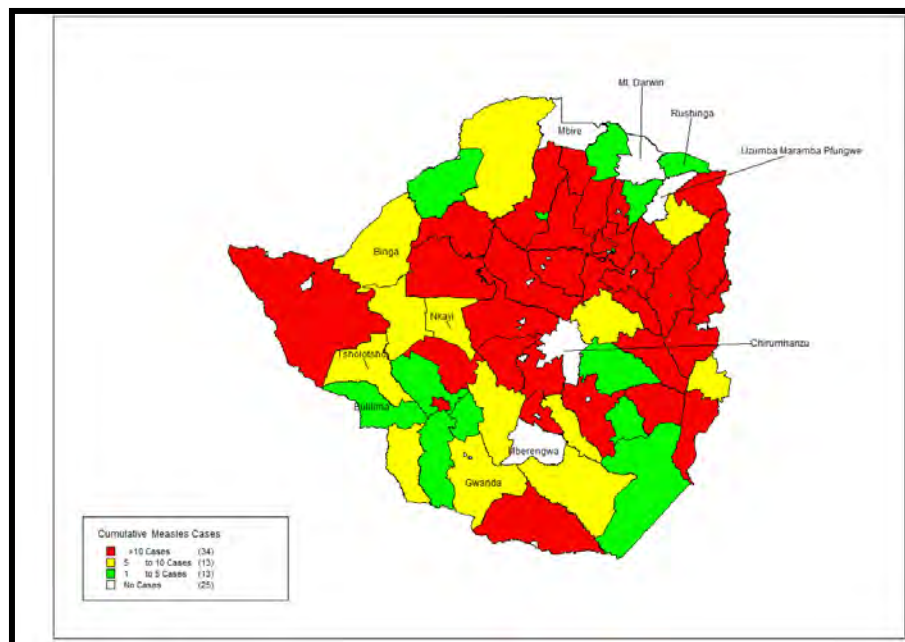


2010

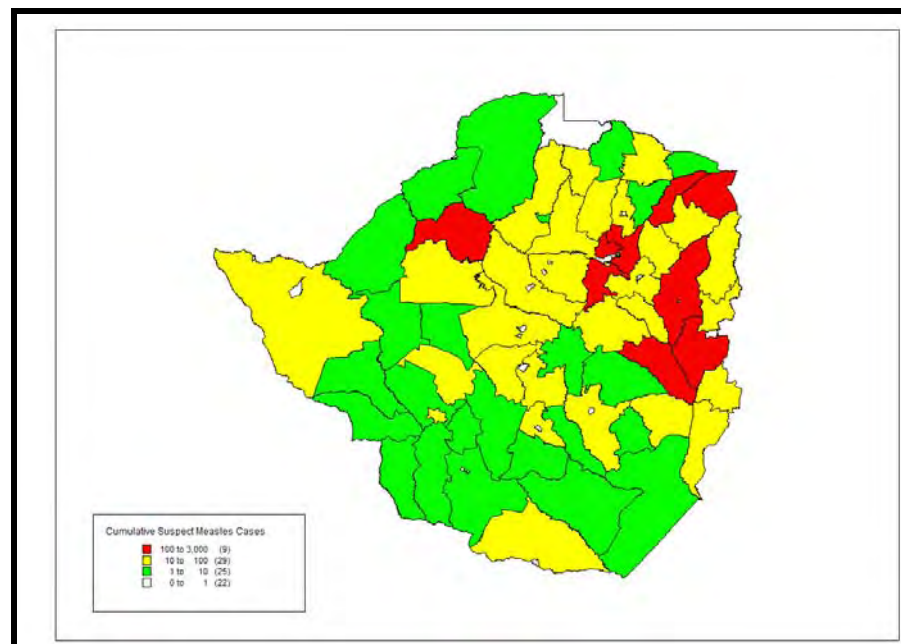


2009

Map 2: Comparison of Cumulative Measles IgM positive cases and Suspected Measles case by district reported this year, as at 25 April, 2010

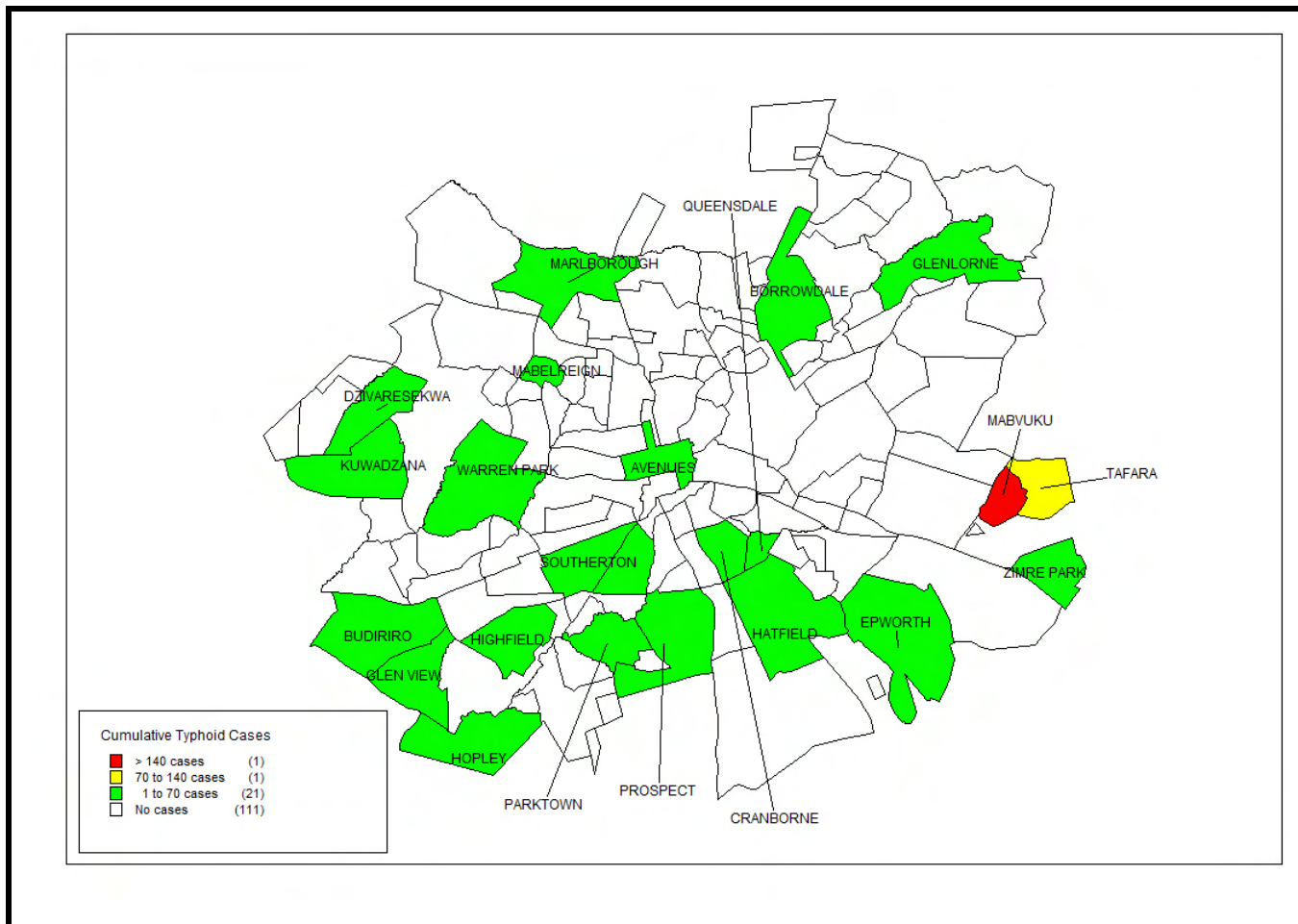


Confirmed Cases



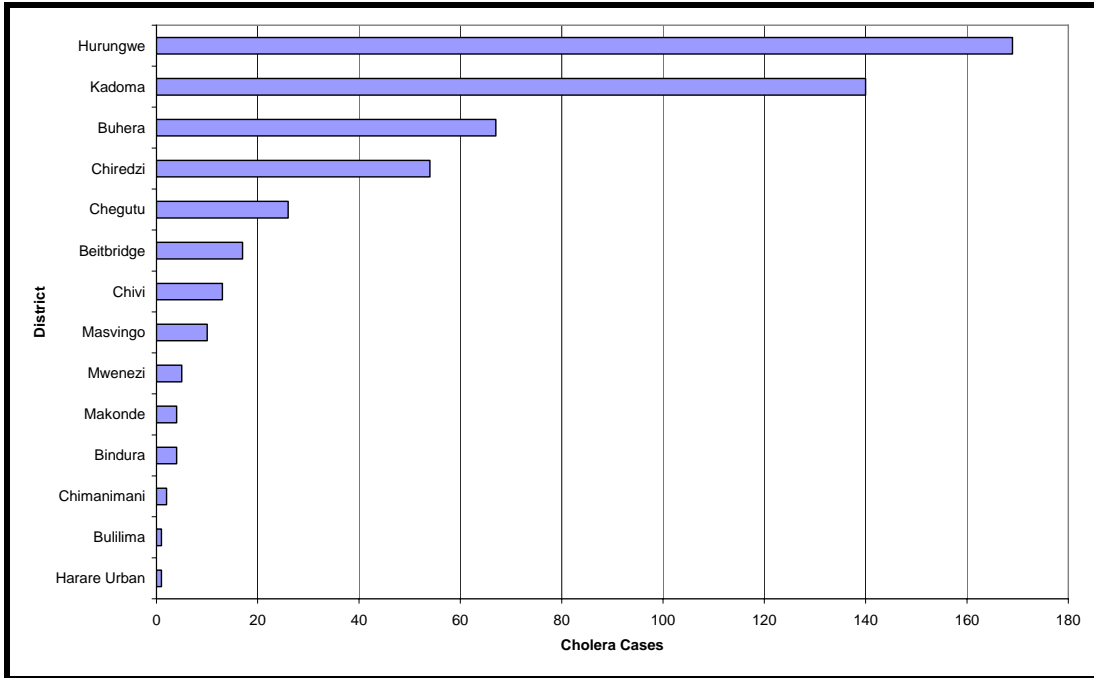
Suspected Measles Cases

Map 3: Distribution of Cumulative Typhoid Cases in Harare as of week 16, 2010

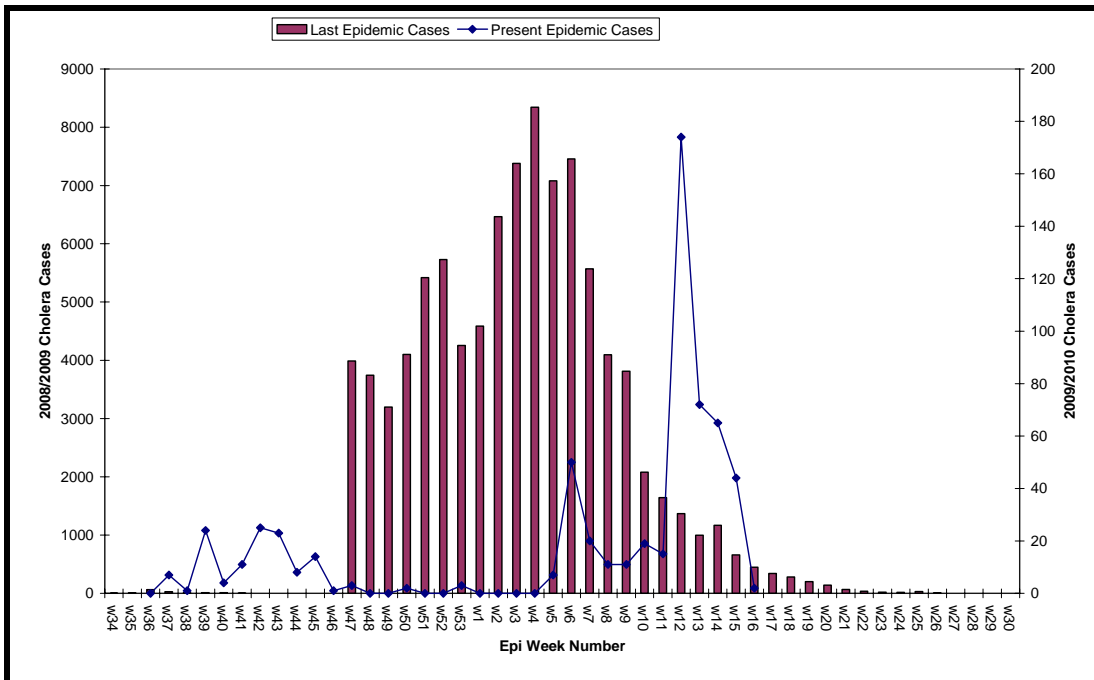


Annex 3: Graphs

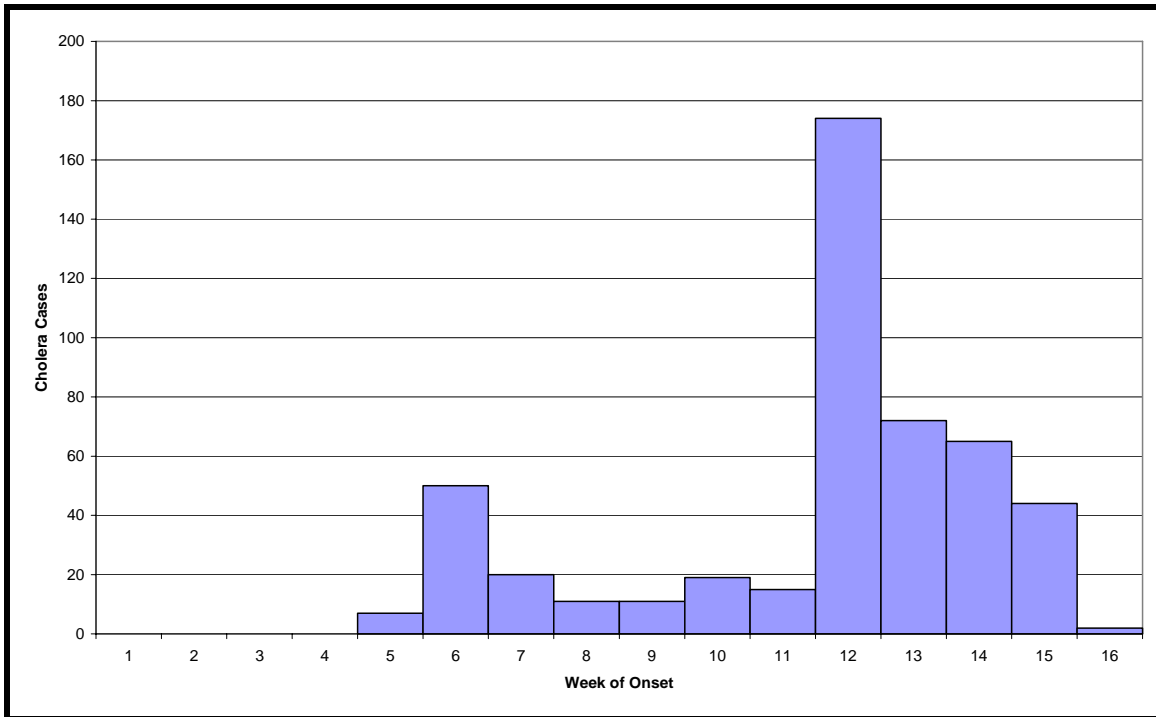
Graph 1: Ranking of District Cumulative Cholera Cases Reported as at week 16, 2010



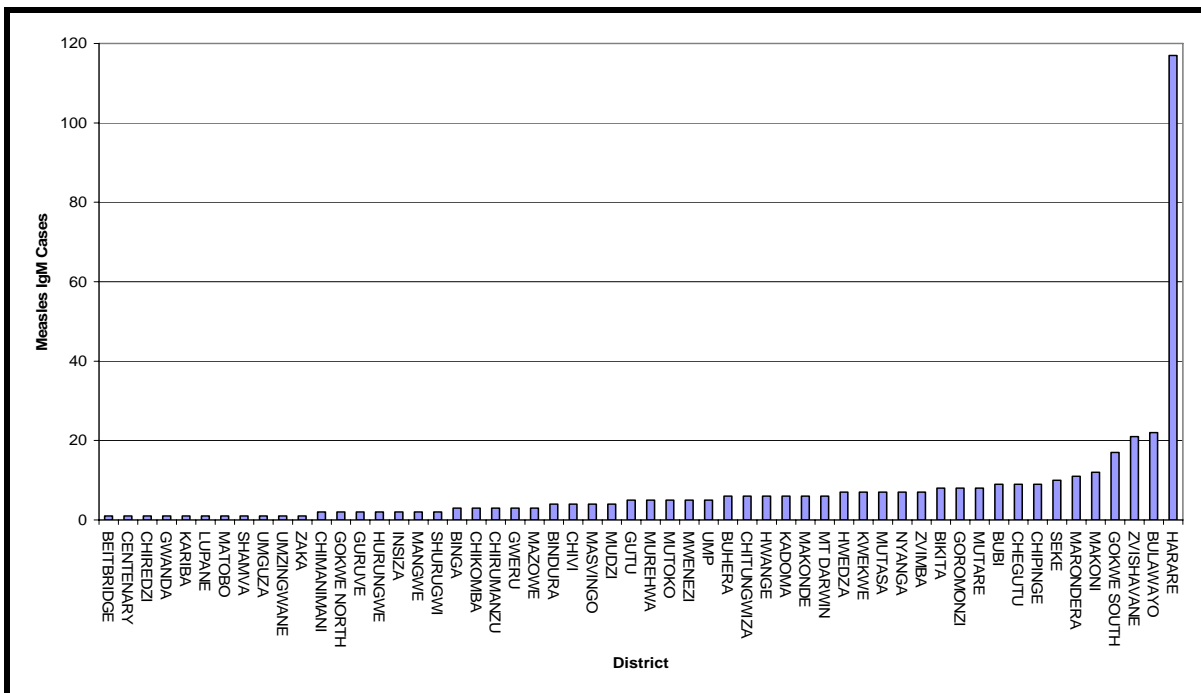
Graph 2: Cumulative Cholera Cases by week for the years 2009 and 2010



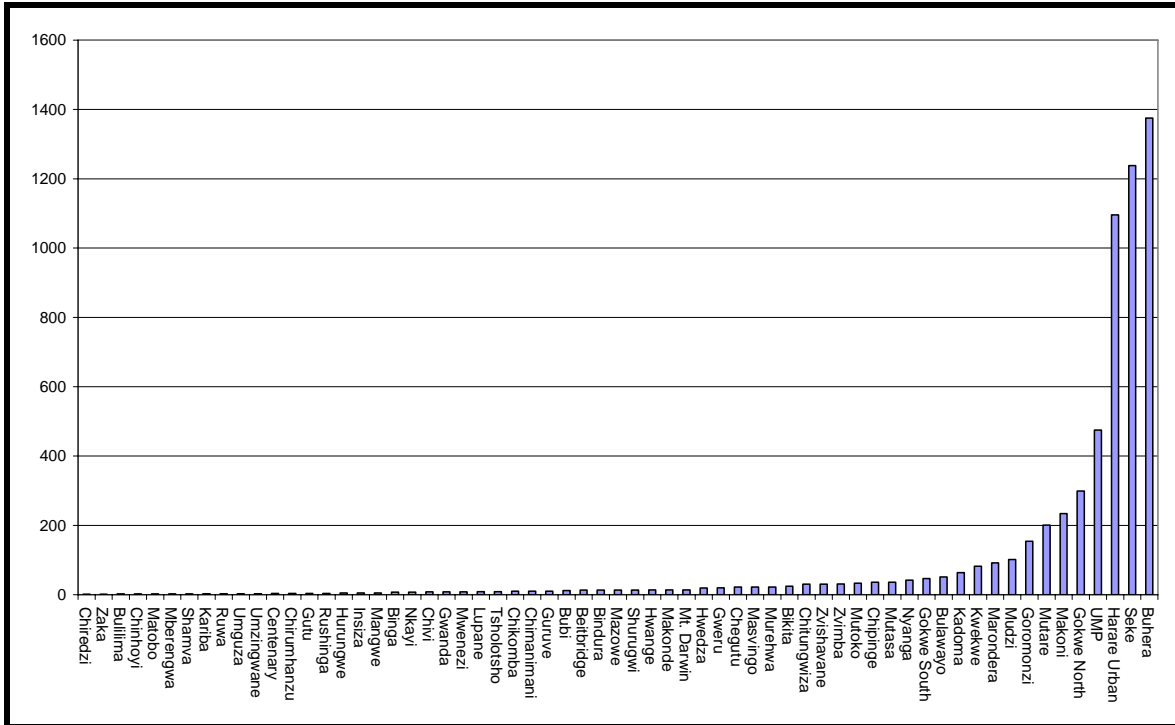
Graph 3: Cholera Epidemic Curve Week 5-Week 16 2010



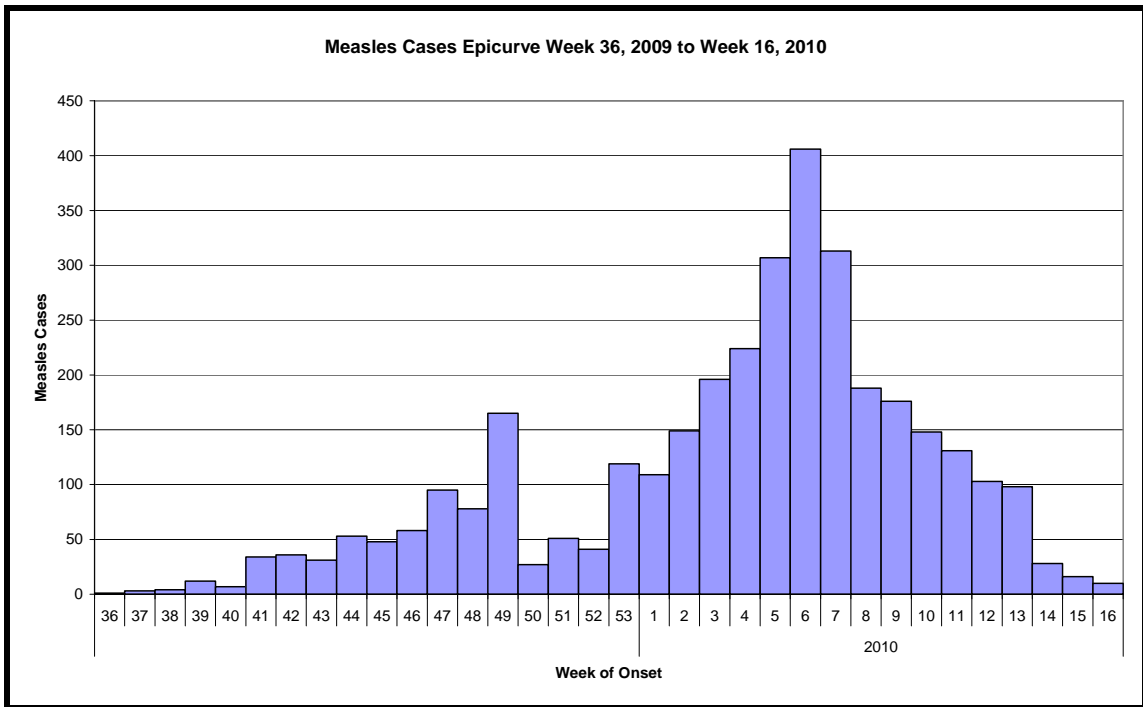
Graph 4: Ranking of Confirmed Measles Igm Cases by District Reported from September 2009 to 25 April 2010



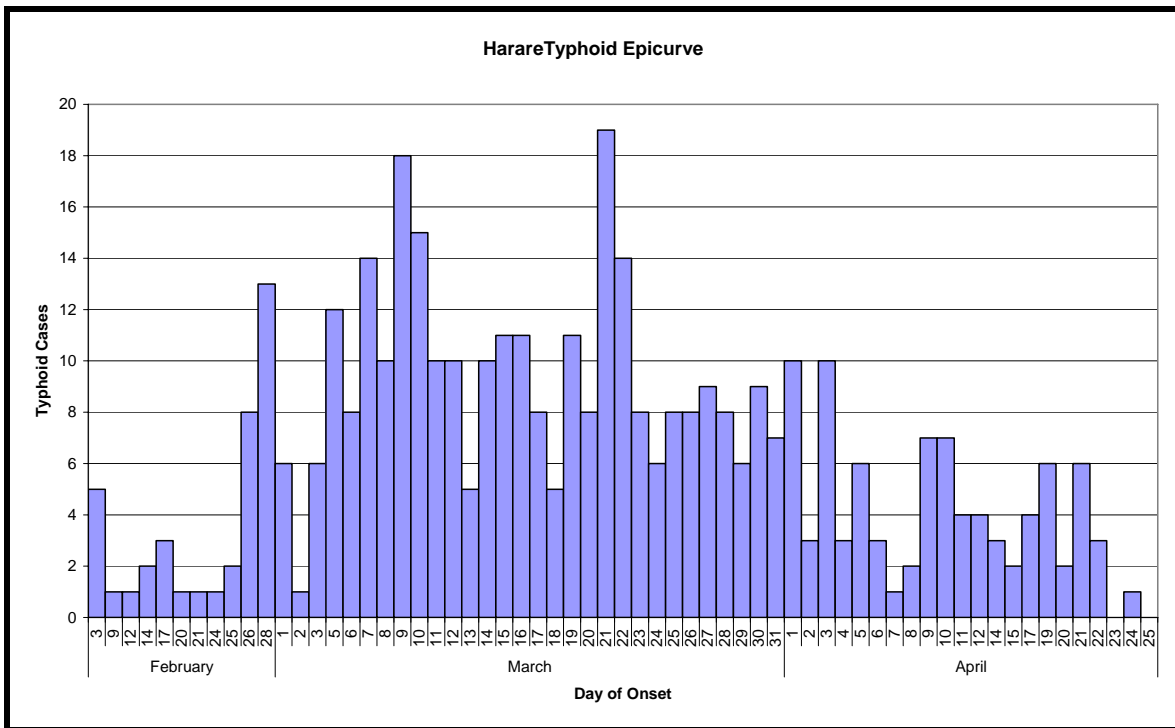
Graph 5: Ranking of Suspected Measles Cases by District Reported from September 2009 to 25 April 2010



Graph 5: Distribution of Suspected Measles Cases by Week, as at week 16, 2010



Graph 6: Distribution of Typhoid Cases by Day of Onset , 3 Feb -25 Apr 2010



Appendix 1: Case Definitions

Cholera

The Zimbabwe cholera state definition states that

"In an area where there is a cholera epidemic, a patient aged 2 years or more develops acute watery diarrhoea, with or without vomiting".

"A confirmed cholera case is when *Vibrio cholerae* is isolated from any patient with diarrhoea".

This is adapted from the WHO case definition for cholera.

The inclusion of all ages in the case definition somewhat reduces specificity, that is, inclusion of more non-cholera childhood diarrhoea cases. It, however, does not impede meaningful interpretation of trends. Teams should monitor any shift in the age distribution of cases, which might indicate a changing proportion of non-cholera cases among patients seen.

Influenza A H1N1

Influenza A and B are two of the three types of influenza viruses associated with annual outbreaks and epidemics of influenza. Only influenza A virus can cause pandemics.

The Zimbabwe IDSR technical guidelines define influenza case by a new sub type (including Avian flu Influenza A H5N1 and Swine flu Influenza A H1N1) as;

"Any person presenting with unexplained acute lower respiratory illness with fever (>38 °C) and cough, shortness of breath or difficulty breathing AND notion of exposures in the 7 days prior to symptom onset."

Probable case definition:

Any person meeting the criteria for a suspected case **AND** positive laboratory confirmation of an influenza A infection but insufficient laboratory evidence for H1N1 infection.

Confirmed H1N1 case: A person meeting the criteria for a suspected or probable case **AND** a positive result conducted in a national, regional or international influenza laboratory whose H1N1 test results are accepted by WHO as confirmatory.

There may be difficulty in telling apart mild cases of pandemic influenza from the seasonal influenza.

Suspected measles:

Any person with fever and maculopapular rash and cough OR coryza (running nose) OR conjunctivitis (Red eyes) OR clinician suspects measles.

Measles Outbreak Definition:

A suspected outbreak is where you have a cluster of at least 5 suspected measles cases in a facility or district within a month whilst a confirmed outbreak is where you have a cluster of at least 3 confirmed measles IgM positive cases.

Lab confirmed: Suspected case of measles with positive serum IgM antibody, with no history of measles vaccination in the past 4 weeks.

Confirmed by epidemiologic linkage: Suspected case of measles not investigated serologically but has possibility of contact with a laboratory-confirmed case whose rash onset was within the preceding 30 days (same / adjacent districts with plausible transmission)

Typhoid

Suspect Typhoid Case: Any person with gradual onset of steadily increasing and then persistently high fever, chills, malaise, headache, sore throat, cough, and sometimes abdominal pain and constipation or diarrhoea.

Confirmed Typhoid case: Suspect case confirmed by isolation of Salmonella Typhi from Blood, Bone marrow, bowel fluid or stool.