



**Republic of Kenya**  
**Ministry of Public Health and Sanitation**

**WEEKLY EPIDEMIOLOGICAL BULLETIN**

**Week 29**

**Week ending 25<sup>th</sup> July 2010**

Provincial & national surveillance indicators for week 29

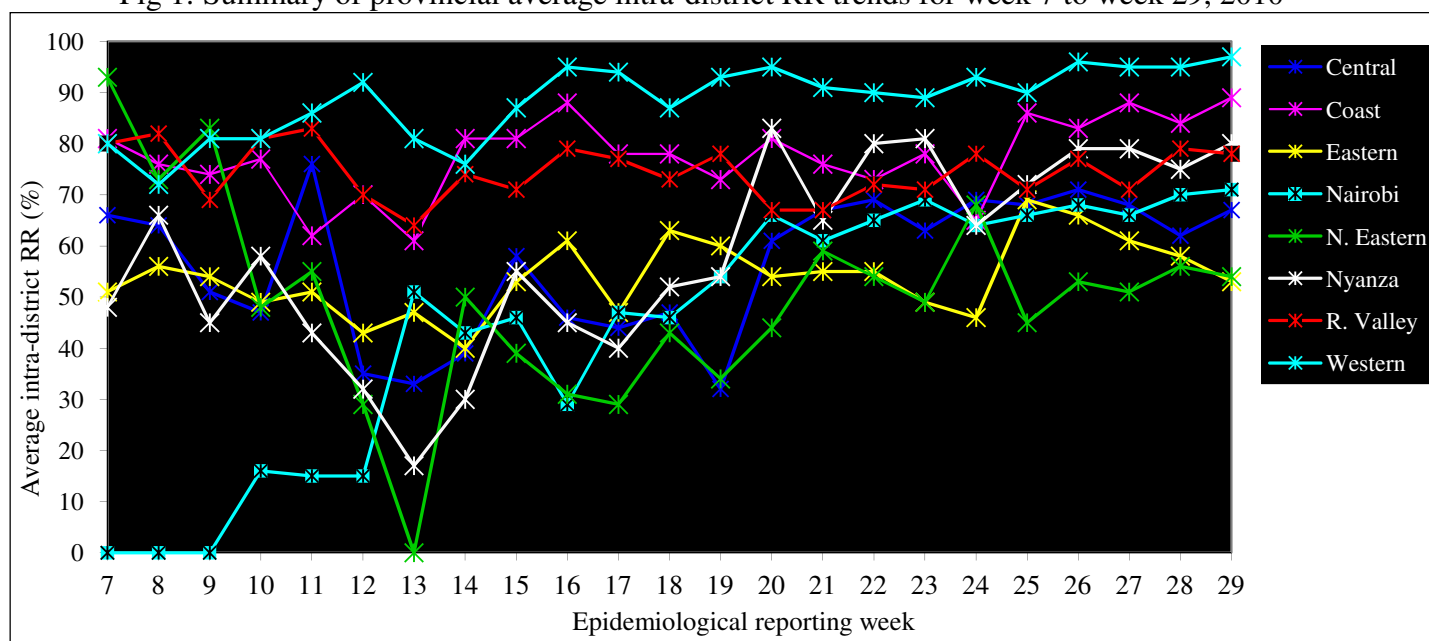
Province	No. of Districts	Reporting on time	Complete reports	Intra-district facility RR (%)	Timeliness (%)	Completeness of reports (%)	Weighted aggregate score (%)
Central	11	11	11	67	100	100	89
Coast	13	13	13	89	100	100	96
Eastern	28	22	22	53	79	100	74
Nairobi	3	3	3	71	100	100	90
N. Eastern	11	11	11	54	100	100	85
Nyanza	21	20	20	80	95	100	91
R. Valley	43	42	42	78	98	100	91
Western	19	19	19	97	100	100	99
<b>National</b>	<b>149</b>	<b>141</b>	<b>143</b>	<b>73</b>	<b>95</b>	<b>100</b>	<b>88</b>

✦ The national average district reporting rate declined marginally to 95%

✦ The national weighted aggregate score also declined to 88%

✦ Central, Coast, Nairobi, N. Eastern, and Western provinces had 100% district reporting

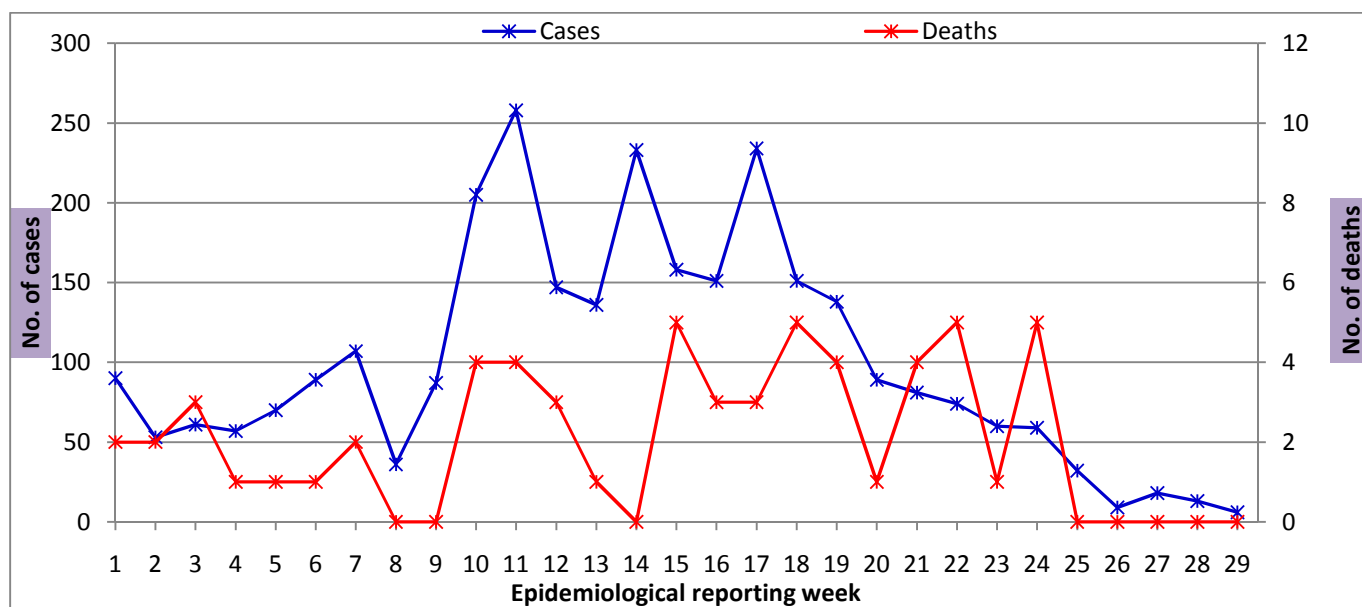
Fig 1: Summary of provincial average intra-district RR trends for week 7 to week 29, 2010



**Reports not received from the following 8 Districts**

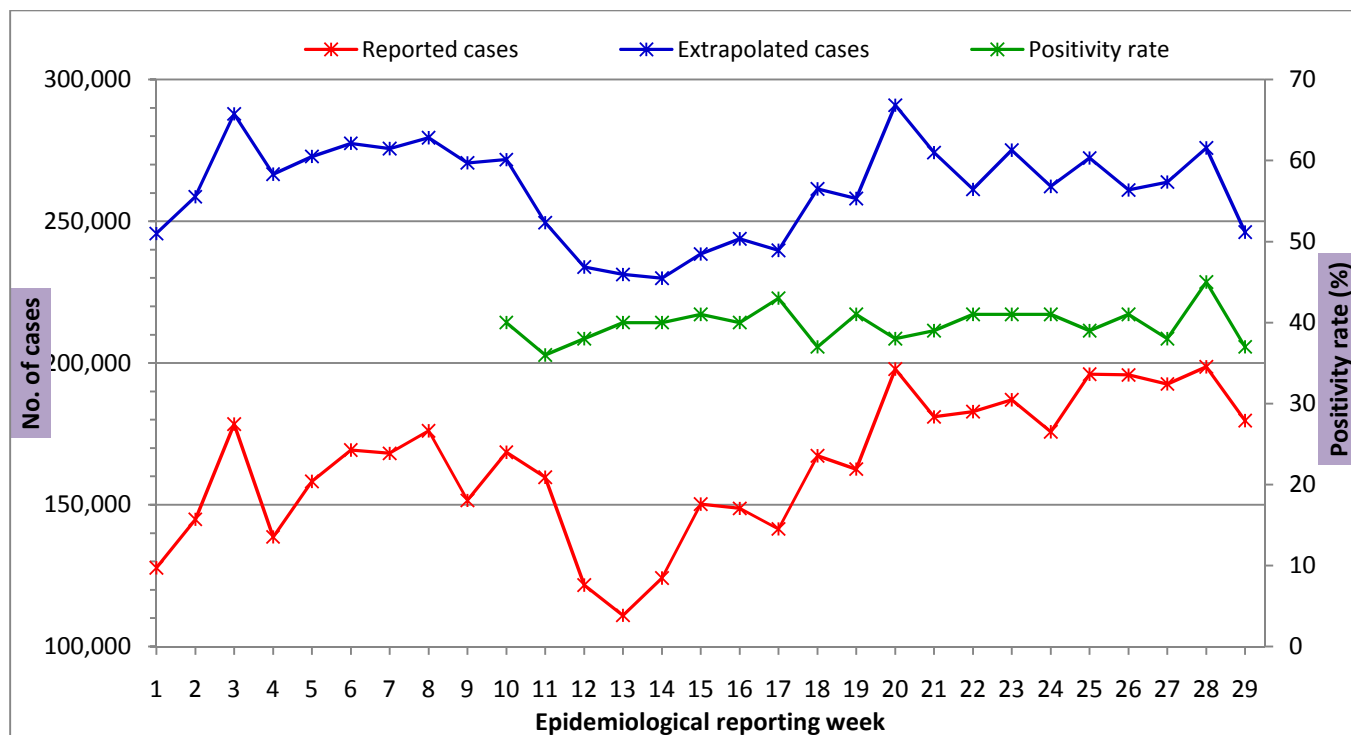
Garbatula, Imenti South, Kibwezi, Machakos, Marsabit, Meru Central, Borabu, Laikipia East

Fig. 2: Cholera\*\* cases and deaths from week 1 to week 29



\*\* Derived from daily updates (line-lists and active DDSR inquiry). A national DDSR officer calls districts in cholera outbreak every morning to get updates. Therefore figures might not be same as those from routine weekly data reports

Fig. 3: Malaria cases (reported\* and extrapolated\*\*) and positivity rate, week 1 to week 29



\* Cases reported by health facilities that submitted weekly reports during the reporting week

\*\* Extrapolated from reported cases considering the intra-district reporting rate for the week

## Highlights for the week

- ✚ Nationally:
  - The surveillance weighted aggregate score declined marginally from 89% in week 28 to 88%
  - The number of districts that submitted reports on time declined from 143 (96%) in week 28 to 141 (95%)
  - The intra-district average reporting rate however rose from 72% in week 28 to 73% in week 29
- ✚ Best performing provinces in week 29:
  - Western (99%), Coast (96%), Nyanza (91%) and Rift Valley (91%) provinces had the highest surveillance weighted aggregate score while Eastern (74%) province had the lowest score
  - All districts in Central, Coast, Nairobi, North Eastern, and Western provinces reported in week 29 while only 79% of the districts in Eastern province reported
  - Western (97%) Province had the highest intra-district facility reporting rate while Eastern (53%) and North Eastern (54%) had the lowest rates
- ✚ Most improved provinces in week 29:
  - Intra-district facility RR: Central (62% to 67%), Coast (84% to 89%) and Nyanza (75% to 80%) provinces improved the most while Eastern (58% to 53%) province declined the most
  - District reporting rate: Central (91% to 100%) and Nyanza (90% to 95%) provinces improved the most while Eastern (89% to 79%) province had the biggest decline in reporting rate
- ✚ Stability: Western remains the most stable province while North Eastern and Eastern provinces are still fluctuating
- ✚ The following 29 (19%) districts, down from 30 (20%) in week 28, attained 100% intra-district reporting rate: Kilindini, Taita, Taveta, Maara, Meru South, Gucha, Kisii South, Kisumu West, Manga, Masaba, Nyamira, Pokot Central, Sotik, Trans Nzoia East, Trans Nzoia West, Bunyala, Busia, Butere, East Bungoma, Emuhaya, Kakamega East, Kakamega North, Kakamega South, Lugari, Mt Elgon, Mumias, North Bungoma, Samia, South Bungoma

## Disease specific reports

### Cholera

- ✚ Zero cholera cases (down from 3 in week 28) were reported in week 29
- ✚ We have been experiencing a steady decline in the reported cases from epidemiological week 17

### Measles

- ✚ 38 suspected cases (a decline from 79 in week 28) were reported with no death
- ✚ Ten (26%) of these cases were reported from Eldoret West district
- ✚ The rest of the cases were reported from Trans Nzoia East (7), Kirinyaga (4), Isiolo (4), Transmara (4), North Bungoma (2), Nyandarua North (1), Taveta (1), Imenti North (1), Kajiado (1), Narok North (1), West Pokot (1) and Samia (1)
- ✚ The lab surveillance system investigated 42 case specimen from 18 districts
  - ✚ None of the specimen was classified positive for measles though 25 (60%) tested positive for rubella

### Malaria

- ✚ Reported cases declined from 198,629 in week 28 to 179,698 in week 29
- ✚ Mortality however rose 41 to 45 cases
- ✚ Overall, 59,288 cases (33%) were laboratory tested, yielding a positivity rate of 37%

### Dysentery

- ✚ The number of reported cases fell from 1,259 in week 28 to 1,124 in week 29 with five deaths from South Bungoma district

### Typhoid fever

- ✚ Reported cases declined from 4,835 in week 28 to 4,178 in week 29 with no death

### AFP

- ✚ Zero cases were reported

### Meningococcal Meningitis

- ✚ Zero cases were reported

### NNT

- ✚ Zero cases were reported

For comments please contact:

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### Summary of Weekly Integrated Disease Surveillance and Response Report for week 29

Province	District	Reports Expected	% RR	Cholera	Dysentery	Malaria	Malaria Tested	Malaria Positive	Measles	MM	Typhoid	NNT	AFP	VHF	Plague	Yellow Fever
Central																
	Gatundu	43	88	0(0)	0(0)	264(0)	0	0	0(0)	0(0)	8(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kiambu East	34	97	0(0)	0(0)	395(0)	1677	296	0(0)	0(0)	107(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kiambu West	54	70	0(0)	0(0)	772(0)	827	152	0(0)	0(0)	97(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kirinyaga	87	67	0(0)	0(0)	1234(0)	801	83	4(0)	0(0)	8(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Murang'a North	41	46	0(0)	0(0)	245(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Murang'a South	40	45	0(0)	0(0)	681(0)	227	12	0(0)	0(0)	56(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Nyandarua North	30	87	0(0)	3(0)	758(0)	0	0	1(0)	0(0)	99(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Nyandarua South	22	91	0(0)	0(0)	145(0)	96	10	0(0)	0(0)	8(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Nyeri North	70	80	0(0)	0(0)	358(0)	330	23	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Nyeri South	52	40	0(0)	0(0)	161(0)	17	10	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Thika	100	55	0(0)	0(0)	1275(0)	724	56	0(0)	0(0)	27(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Coast																
	Kaloleni	18	72	0(0)	24(0)	957(0)	306	52	0(0)	0(0)	11(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kilifi	39	92	0(0)	47(0)	2303(0)	789	252	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kilindini	40	100	0(0)	30(0)	2037(0)	1326	769	0(0)	0(0)	10(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kinango	21	76	0(0)	6(0)	1972(0)	338	61	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kwale	20	85	0(0)	5(0)	794(0)	240	24	0(0)	0(0)	2(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Lamu	33	76	0(0)	0(0)	1199(0)	398	38	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Malindi	35	86	0(0)	24(0)	1075(0)	385	50	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Mombasa	30	97	0(0)	0(0)	1175(0)	755	94	0(0)	0(0)	51(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Msambweni	21	76	0(0)	0(0)	523(0)	348	68	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Taita	44	100	0(0)	1(0)	783(0)	990	143	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Tana Delta	16	88	0(0)	15(0)	851(0)	108	7	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Tana River	21	86	0(0)	4(0)	726(1)	502	216	0(0)	0(0)	7(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Taveta	12	100	0(0)	0(0)	546(0)	234	97	1(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Eastern																
	Chalbi	12	17	0(0)	0(0)	31(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Embu	70	57	0(0)	0(0)	3309(0)	2338	1059	0(0)	0(0)	70(0)	0(0)	0(0)	0(0)	0(0)	0(0)

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Province	District	Reports Expected	% RR	Cholera	Dysentery	Malaria	Malaria Tested	Malaria Positive	Measles	MM	Typhoid	NNT	AFP	VHF	Plague	Yellow Fever
North Eastern																
	Fafi	4	50	0(0)	0(0)	152(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Garissa	23	52	0(0)	0(0)	696(0)	766	401	0(0)	0(0)	44(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Ijara	9	56	0(0)	2(0)	242(0)	0	0	0(0)	0(0)	9(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Lagdera	13	54	0(0)	0(0)	236(0)	54	22	0(0)	0(0)	10(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Mandera Central	9	78	0(0)	0(0)	373(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Mandera East	8	63	0(0)	0(0)	319(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Mandera West	8	50	0(0)	0(0)	304(0)	0	0	0(0)	0(0)	16(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Wajir West	8	25	0(0)	0(0)	114(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Wajir East	9	56	0(0)	9(0)	246(0)	0	0	0(0)	0(0)	19(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Wajir North	8	50	0(0)	5(0)	173(0)	0	0	0(0)	0(0)	2(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Wajir South	9	56	0(0)	0(0)	252(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Nyanza																
	Bondo	25	96	0(0)	69(0)	2469(0)	732	431	0(0)	0(0)	69(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Borabu	14	0	DNR	DNR	DNR	0	0	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR
	Gucha	35	100	0(0)	0(0)	2625(0)	1222	187	0(0)	0(0)	3(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Homa Bay	42	86	0(0)	4(0)	2717(15)	1902	441	0(0)	0(0)	7(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kisii Central	42	93	0(0)	4(0)	3342(0)	1257	80	0(0)	0(0)	120(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kisii South	11	100	0(0)	3(0)	1368(0)	770	170	0(0)	0(0)	3(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kisumu East	54	83	0(0)	0(0)	4015(0)	1478	647	0(0)	0(0)	11(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kisumu West	18	100	0(0)	28(0)	2930(0)	0	0	0(0)	0(0)	20(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kuria East	13	62	0(0)	1(0)	367(0)	67	29	0(0)	0(0)	9(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kuria West	24	79	0(0)	4(0)	1677(0)	0	0	0(0)	0(0)	18(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Manga	17	100	0(0)	0(0)	223(0)	118	37	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Masaba	32	100	0(0)	0(0)	1181(0)	339	50	0(0)	0(0)	69(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Migori	42	40	0(0)	13(0)	1137(0)	77	29	0(0)	0(0)	10(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Nyamira	45	100	0(0)	2(0)	1213(0)	473	39	0(0)	0(0)	28(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Nyando	42	86	0(0)	5(0)	2357(0)	560	355	0(0)	0(0)	10(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Rachuonyo	34	76	0(0)	0(0)	1879(0)	0	0	0(0)	0(0)	10(0)	0(0)	0(0)	0(0)	0(0)	0(0)

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Province	District	Reports Expected	% RR	Cholera	Dysentery	Malaria	Malaria Tested	Malaria Positive	Measles	MM	Typhoid	NNT	AFP	VHF	Plague	Yellow Fever
	Nandi South	18	78	0(0)	0(0)	997(0)	66	25	0(0)	0(0)	16(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Narok North	29	59	0(0)	2(0)	617(0)	291	125	1(0)	0(0)	4(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Narok South	30	67	0(0)	26(0)	335(0)	108	10	0(0)	0(0)	49(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	North Pokot	12	75	0(0)	13(0)	1152(0)	578	229	0(0)	0(0)	33(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Pokot Central	18	100	0(0)	0(0)	940(0)	234	90	0(0)	0(0)	10(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Samburu	16	56	0(0)	10(0)	234(0)	0	0	0(0)	0(0)	16(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Samburu East	15	53	0(0)	0(0)	256(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Samburu North	9	11	0(0)	0(0)	70(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Sotik	29	100	0(0)	0(0)	1381(0)	340	23	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Tinderet	10	70	0(0)	2(0)	181(0)	134	14	0(0)	0(0)	29(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Trans Nzoia East	23	100	0(0)	0(0)	967(0)	765	300	7(0)	0(0)	117(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Trans Nzoia West	22	100	0(0)	16(0)	1786(1)	773	299	0(0)	0(0)	10(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Transmara	39	82	0(0)	3(0)	1092(0)	241	13	4(0)	0(0)	16(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Turkana Central	31	77	0(0)	20(0)	2329(0)	603	362	0(0)	0(0)	20(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Turkana North	21	81	0(0)	22(0)	743(0)	964	352	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Turkana South	20	75	0(0)	7(0)	774(0)	78	59	0(0)	0(0)	6(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Wareng	38	95	0(0)	0(0)	1040(0)	366	165	0(0)	0(0)	26(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	West Pokot	26	85	0(0)	3(0)	1663(3)	510	157	1(0)	0(0)	86(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Western																
	Bunyala	7	100	0(0)	0(0)	1172(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Busia	27	100	0(0)	27(0)	5127(0)	1950	1302	0(0)	0(0)	233(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Butere	16	100	0(0)	25(0)	4636(0)	1356	893	0(0)	0(0)	84(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	East Bungoma	15	100	0(0)	0(0)	2323(6)	1697	860	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Emuhaya	22	100	0(0)	1(0)	1942(0)	362	192	0(0)	0(0)	90(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Hamisi	13	54	0(0)	3(0)	670(0)	418	215	0(0)	0(0)	44(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kakamega Central (Lurambi)	29	97	0(0)	0(0)	3424(0)	1072	612	0(0)	0(0)	52(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kakamega East (Shinyalu)	12	100	0(0)	0(0)	1547(0)	773	179	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kakamega North (Malava)	18	100	0(0)	0(0)	1546(0)	604	362	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kakamega South (Ikolomani)	10	100	0(0)	4(0)	1158(0)	349	155	0(0)	0(0)	3(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Lugari	24	100	0(0)	9(0)	2317(0)	317	62	0(0)	0(0)	57(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Mt Elgon	16	100	0(0)	8(0)	1087(0)	613	257	0(0)	0(0)	21(0)	0(0)	0(0)	0(0)	0(0)	0(0)



Province	District	Reports Expected	% RR	Cholera	Dysentery	Malaria	Malaria Tested	Malaria Positive	Measles	MM	Typhoid	NNT	AFP	VHF	Plague	Yellow Fever
	Mumias	26	100	0(0)	47(0)	2523(0)	815	400	0(0)	0(0)	36(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	North Bungoma	18	100	0(0)	0(0)	2443(0)	1062	672	2(0)	0(0)	5(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Samia	9	100	0(0)	6(0)	605(0)	93	47	1(0)	0(0)	6(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	South Bungoma	22	100	0(0)	145(5)	4092(5)	0	0	0(0)	0(0)	198(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Teso	21	90	0(0)	12(0)	3206(3)	572	220	0(0)	0(0)	58(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Vihiga	21	95	0(0)	0(0)	3630(0)	1025	285	0(0)	0(0)	127(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	West Bungoma	20	90	0(0)	33(0)	2382(0)	1035	633	0(0)	0(0)	26(0)	0(0)	0(0)	0(0)	0(0)	0(0)

	Cholera	Dysentery	Malaria	Malaria Tested*	Malaria Positive*	Measles	MM	Typhoid	NNT	AFP	VHF	Plague	Yellow Fever
Week 29 summary	0 (0)	1,124 (5)	179,698 (45)	59,288	21,812	38 (0)	0 (0)	4,178 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Years cumulative summary	1,782 (27)	35,812 (21)	4,755,676 (1,132)	1,052,483	418,932	567 (0)	86 (15)	108,756 (9)	2 (1)	23 (0)	0 (0)	0 (0)	0 (0)

\* From week 10 of 2010 (Excludes week 1 up to week 9)

Key:

DNR: District did not report for this disease

AFP: Acute Flaccid Paralysis

NNT: Neonatal Tetanus

HF: Health Facilities

Timely reports: Reports received before Wednesday

Intra-district: Proportion of health facilities reporting in a district

Timeliness: Proportion of districts in a province/country reporting on time

Weighted Aggregate Score: Composite Surveillance Score (3 for Timeliness, 2 for Completeness and 1 for Complete reports)

MM: Meningococcal Meningitis

VHF: Viral Hemorrhagic Fever

NEP: North Eastern Province

% RR: Health Facility reporting rate for this week