



Republic of Kenya
Ministry of Public Health and Sanitation

WEEKLY EPIDEMIOLOGICAL BULLETIN

Week 39

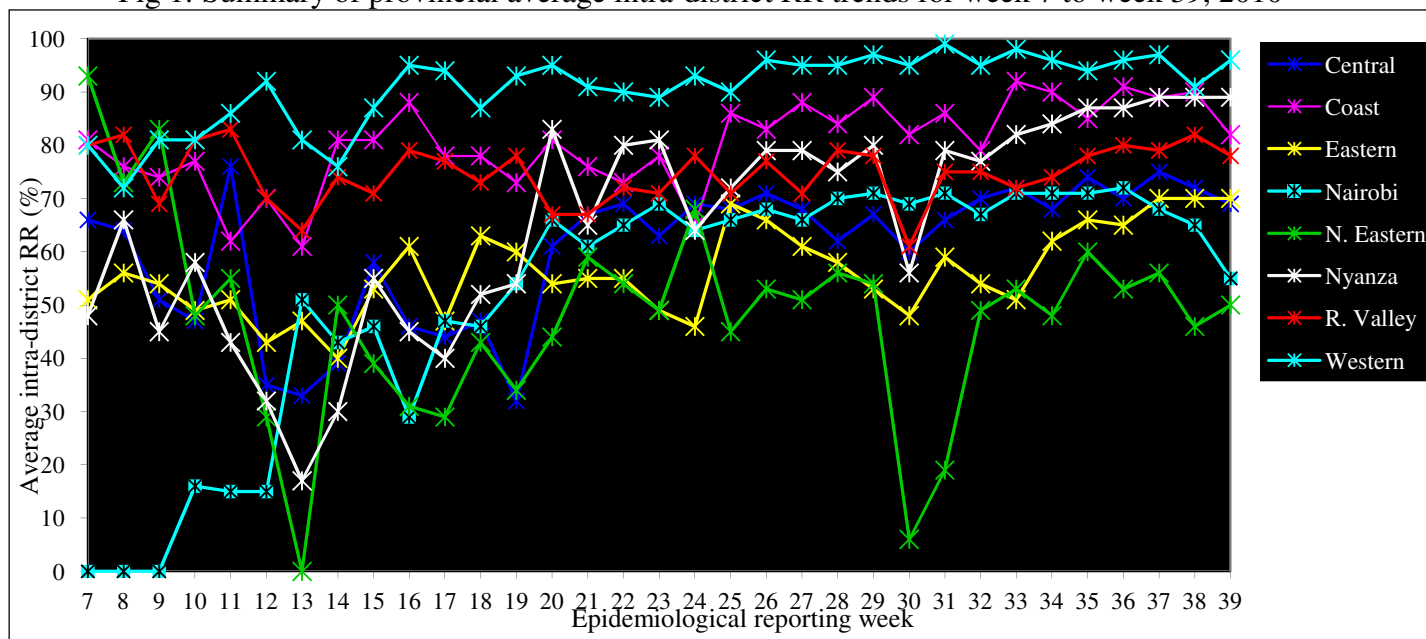
Week ending 3rd October 2010

Provincial & national surveillance indicators for week 39

Province	No. of Districts	Reporting on time	Complete reports	Intra-district facility RR (%)	Timeliness (%)	Completeness of reports (%)	Weighted aggregate score (%)
Central	11	10	10	69	91	100	85
Coast	13	12	12	82	92	100	90
Eastern	28	28	28	70	100	100	90
Nairobi	3	3	3	55	100	100	85
N. Eastern	11	10	10	50	91	100	79
Nyanza	21	20	20	89	95	100	94
R. Valley	43	42	42	78	98	100	91
Western	19	19	19	96	100	100	99
National	149	144	144	77	97	100	91

- ✦ The national average district reporting rate declined to 97%
- ✦ The national weighted aggregate score also declined to 91%
- ✦ All districts in Eastern, Nairobi and Western provinces reported in the week

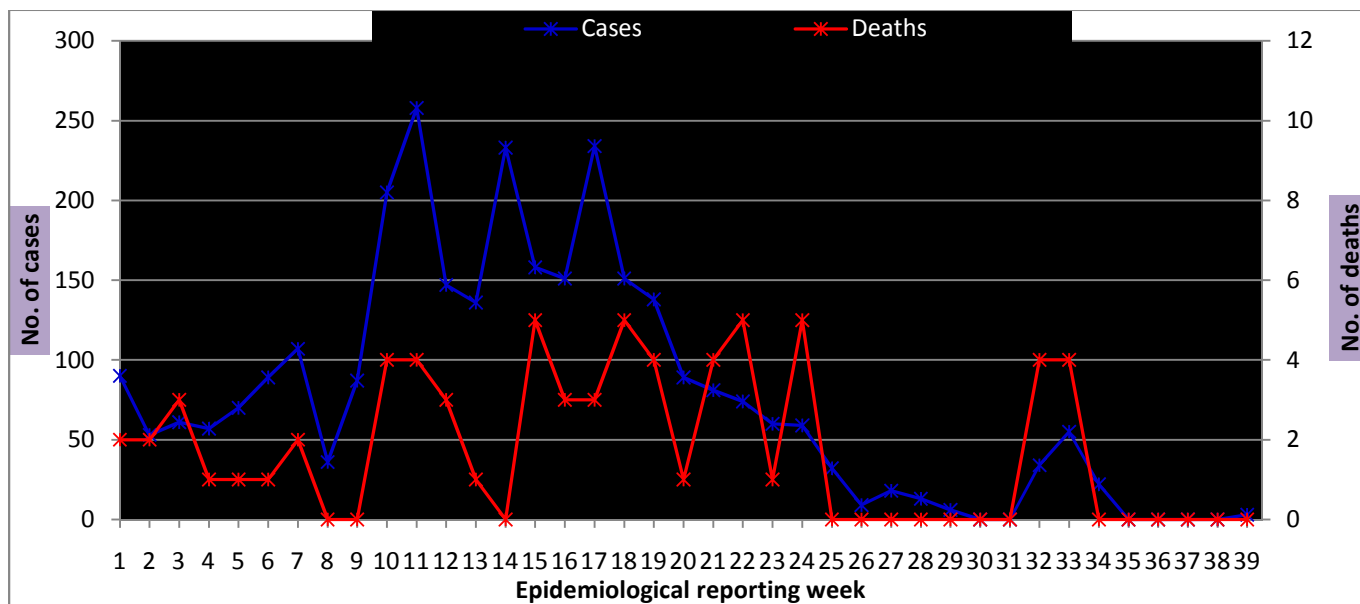
Fig 1: Summary of provincial average intra-district RR trends for week 7 to week 39, 2010



Reports not received from the following 5 Districts

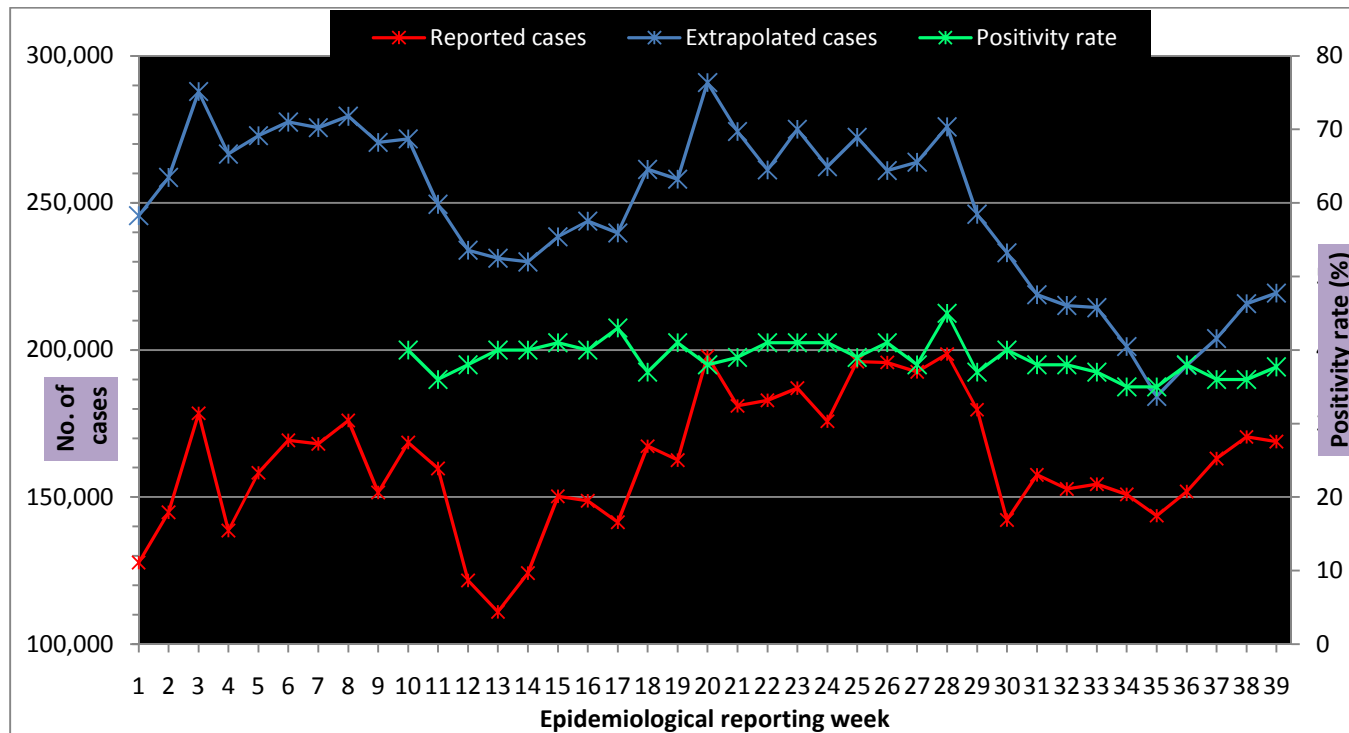
Murang'a North, Kwale, Garissa, South Gucha, Baringo North

Fig. 2: Cholera** cases and deaths from week 1 to week 39



** 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 39



* 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 to 91% in week 39
 - The number of districts that submitted reports on time declined from 147 (99%) to 144 (97%)
 - The intra-district average reporting rate declined further from 79% in week 38 to 77%
- ✚ Best performing provinces in week 39:
 - All districts in Eastern, Nairobi and Western provinces reported in the week
 - Intra-district facility reporting rate: Western (96%) and Nyanza (89%) provinces had the highest rates while North Eastern (50%) and Nairobi (55%) had the lowest rates
 - Weighted Aggregate Score: Western (99%), Nyanza (94%) and Rift Valley (91%) provinces had the highest score while North Eastern (79%) province had the lowest score
- ✚ Most improved provinces in week 39:
 - Intra-district facility RR: Western (91% to 96%) and North Eastern (46% to 50%) are the only provinces that improved in the week while Nairobi (65% to 55%) and Coast (90% to 82%) provinces declined the most
 - District reporting rate: Only North Eastern (82% to 91%) province improved while Central (100% to 91%) and Coast (100% to 92%) provinces declined the most
- ✚ Stability: North Eastern, and now Nairobi are the most fluctuating provinces
- ✚ The following 30 (20%) districts [down from 33 (22%) districts in week 38] attained 100% intra-district reporting rate in week 39: Kiambu East, Kilindini, Kinango, Taveta, Maara, Mbooni, Meru South, Bondo, Gucha, Kisii South, Kisumu West, Manga, Laikipia North, Sotik, Trans Nzoia East, Trans Nzoia West, Wareng, Bunyala, Butere, Emuhaya, Kakamega Central, Kakamega East, Kakamega North, Kakamega South, Lugari, Mt Elgon, Mumias, North Bungoma, Samia, South Bungoma

Disease specific reports

Cholera

- ✚ Three cholera cases were reported from Siaya district
- ✚ Cholera was confirmed in one; the other two tested negative for cholera
- ✚ Response was mounted by the district and provincial teams

Measles

- ✚ Nineteen suspected cases (a fall from 25 cases in week 38) were reported with no death
- ✚ The cases were reported from Nyamira (3), Kitui (2), Kipkelion (2), Koibatek (2), Laikipia East (2), Loitokitok (2), Imenti North (1), Meru Central (1), Migori (1), Rongo (1), Siaya (1), and Bunyala (1) districts
- ✚ The lab surveillance system investigated 30 case specimen from 17 districts
 - None of the specimen was classified positive for measles
 - Ten (33%) specimen tested positive for rubella

Malaria

- ✚ Reported cases declined from 170,453 in week 38 to 168,882 in week 39
- ✚ Mortality also declined from 26 cases to 21 cases
- ✚ Overall, 67,804 (40%) cases were laboratory tested, yielding a positivity rate of 37.7%

Dysentery

- ✚ Reported cases rose from 1,328 in week 38 to 1,362 in week 39 with no deaths

Typhoid fever

- ✚ Reported cases rose from 4,124 in week 38 to 4,543 in week 39 with one death

AFP

- ✚ One case was reported from Bondo district with no death
- ✚ The case tested negative for polio virus

Meningococcal Meningitis

- ✚ Four cases were reported in the week from Imenti North (3) and Siaya (1) districts with no death

NNT

- ✚ One case with a fatal outcome was reported from Kitui district

Influenza

- ✚ 54 (82%) out of 66 submitted specimen were processed by the National Influenza Centre
- ✚ Four (7%) tested positive for influenza A (H3)
- ✚ None tested positive for Influenza A (H1), A (H5), B and Pandemic A (H1N1)

For comments please contact:

Head, Division of Disease Surveillance and Response
 Ministry of Public Health and Sanitation
 P.O. Box 20781 - 00202
 Tel. 2718292
 Fax: 0202720533
 Web site: <http://www.health.go.ke>

Summary of Weekly Integrated Disease Surveillance and Response Report for week 39

[illegible]

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)	112(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Garissa	18	0	DNR	DNR	DNR	0	0	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR
	Ijara	9	56	0(0)	2(0)	248(0)	0	0	0(0)	0(0)	6(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Lagdera	13	69	0(0)	4(0)	381(0)	128	9	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Mandera Central	9	56	0(0)	0(0)	259(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Mandera East	8	50	0(0)	2(0)	253(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Mandera West	8	63	0(0)	0(0)	247(0)	0	0	0(0)	0(0)	6(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Wajir West	13	62	0(0)	0(0)	81(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Wajir East	11	45	0(0)	8(0)	245(0)	0	0	0(0)	0(0)	12(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Wajir North	13	69	0(0)	0(0)	141(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Wajir South	9	56	0(0)	2(0)	284(0)	0	0	0(0)	0(0)	12(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Nyanza																
	Bondo	26	100	0(0)	64(0)	1859(0)	978	505	0(0)	0(0)	110(0)	0(0)	1(0)	0(0)	0(0)	0(0)
	Borabu	27	85	0(0)	0(0)	1129(0)	356	20	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Gucha	35	100	0(0)	0(0)	3932(0)	1014	222	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Homa Bay	42	88	0(0)	3(0)	1420(5)	753	484	0(0)	0(0)	32(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kisii Central	44	95	0(0)	1(0)	2623(0)	1614	233	0(0)	0(0)	125(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kisii South	11	100	0(0)	15(0)	535(0)	232	35	0(0)	0(0)	10(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kisumu East	55	85	0(0)	3(0)	4361(0)	1808	837	0(0)	0(0)	11(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kisumu West	22	100	0(0)	19(0)	1591(0)	611	253	0(0)	0(0)	36(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kuria East	13	85	0(0)	1(0)	329(0)	61	22	0(0)	0(0)	10(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kuria West	24	96	0(0)	1(0)	1147(0)	315	118	0(0)	0(0)	3(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Manga	16	100	0(0)	0(0)	332(0)	290	52	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Masaba	32	97	0(0)	0(0)	1298(0)	372	41	0(0)	0(0)	7(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Migori	52	94	0(0)	43(0)	2199(0)	670	300	1(0)	0(0)	37(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Nyamira	48	98	0(0)	1(0)	1024(0)	449	37	3(0)	0(0)	24(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Nyando	42	90	0(0)	0(0)	2388(0)	1068	544	0(0)	0(0)	5(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Rachuonyo	52	65	0(0)	7(0)	2245(0)	432	230	0(0)	0(0)	36(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Rarienda	21	95	0(0)	2(0)	1864(0)	614	499	0(0)	0(0)	52(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
	Rongo	32	97	0(0)	19(0)	1470(0)	849	385	1(0)	0(0)	76(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Siaya	72	69	3(0)	81(0)	3589(0)	984	326	1(0)	1(0)	137(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	South Gucha	0	0	DNR	DNR	DNR	0	0	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR
	Suba	41	98	0(0)	62(0)	1609(1)	282	83	0(0)	0(0)	37(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Rift Valley																
	Baringo	50	68	0(0)	0(0)	725(0)	136	40	0(0)	0(0)	7(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Baringo North	36	0	DNR	DNR	DNR	0	0	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR
	Bomet	38	95	0(0)	0(0)	1720(0)	329	29	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Bureti	32	91	0(0)	0(0)	1934(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	East Pokot	9	56	0(0)	0(0)	338(0)	0	0	0(0)	0(0)	9(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Eldoret East	36	97	0(0)	0(0)	1473(0)	735	158	0(0)	0(0)	52(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Eldoret West	40	75	0(0)	0(0)	891(0)	264	84	0(0)	0(0)	35(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kajiado	35	86	0(0)	59(0)	1007(0)	157	58	0(0)	0(0)	55(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Keiyo	45	80	0(0)	0(0)	842(1)	338	73	0(0)	0(0)	31(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kericho	30	90	0(0)	0(0)	935(0)	212	24	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kipkelion	38	82	0(0)	0(0)	491(0)	0	0	2(0)	0(0)	6(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Koibatek	32	81	0(0)	2(0)	861(0)	165	59	2(0)	0(0)	12(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kwanza	17	82	0(0)	0(0)	1010(0)	388	146	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Laikipia East	14	86	0(0)	0(0)	381(0)	0	0	2(0)	0(0)	11(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Laikipia North	9	100	0(0)	0(0)	114(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Laikipia West	25	84	0(0)	0(0)	703(0)	0	0	0(0)	0(0)	15(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Loitoktok	23	78	0(0)	106(0)	683(0)	0	0	2(0)	0(0)	196(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Marakwet	58	76	0(0)	10(0)	639(0)	83	60	0(0)	0(0)	24(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Molo	34	91	0(0)	5(0)	426(0)	0	0	0(0)	0(0)	8(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Naivasha	35	91	0(0)	22(0)	1369(0)	520	294	0(0)	0(0)	160(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Nakuru	45	91	0(0)	0(0)	371(1)	595	45	0(0)	0(0)	58(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Nakuru North	33	91	0(0)	0(0)	862(0)	179	115	0(0)	0(0)	100(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Nandi Central	22	36	0(0)	0(0)	321(1)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Nandi East	32	78	0(0)	24(0)	931(1)	332	63	0(0)	0(0)	15(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Nandi North	20	85	0(0)	0(0)	878(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Nandi South	18	83	0(0)	0(0)	1016(0)	122	61	0(0)	0(0)	26(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
	Narok North	29	62	0(0)	0(0)	503(0)	274	82	0(0)	0(0)	17(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Narok South	30	63	0(0)	25(0)	310(0)	156	26	0(0)	0(0)	55(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	North Pokot	12	67	0(0)	1(0)	742(0)	555	165	0(0)	0(0)	26(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Pokot Central	18	89	0(0)	0(0)	880(0)	223	81	0(0)	0(0)	36(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Samburu	18	22	0(0)	3(0)	227(0)	0	0	0(0)	0(0)	16(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Samburu East	15	40	0(0)	0(0)	139(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Samburu North	9	33	0(0)	0(0)	224(0)	0	0	0(0)	0(0)	22(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Sotik	29	100	0(0)	0(0)	1341(0)	280	18	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Tinderet	10	80	0(0)	1(0)	271(0)	158	19	0(0)	0(0)	11(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Trans Nzoia East	20	100	0(0)	0(0)	914(0)	828	295	0(0)	0(0)	113(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Trans Nzoia West	22	100	0(0)	12(0)	1624(0)	625	163	0(0)	0(0)	7(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Transmara	48	77	0(0)	0(0)	1187(0)	236	9	0(0)	0(0)	11(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Turkana Central	33	73	0(0)	14(0)	1830(0)	580	310	0(0)	0(0)	51(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Turkana North	21	95	0(0)	9(0)	579(0)	1246	316	0(0)	0(0)	7(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Turkana South	18	22	0(0)	2(0)	404(0)	56	33	0(0)	0(0)	1(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Wareng	38	100	0(0)	0(0)	6053(0)	732	263	0(0)	0(0)	49(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	West Pokot	24	88	0(0)	2(0)	1427(2)	508	127	0(0)	0(0)	83(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Western																
	Bunyala	7	100	0(0)	0(0)	1337(0)	505	411	1(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Busia	27	96	0(0)	41(0)	3742(0)	1486	768	0(0)	0(0)	71(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Butere	18	100	0(0)	13(0)	2363(0)	665	408	0(0)	0(0)	66(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	East Bungoma	13	69	0(0)	0(0)	1188(7)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Emuhaya	22	100	0(0)	2(0)	1018(0)	184	103	0(0)	0(0)	32(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Hamisi	13	85	0(0)	6(0)	1392(0)	514	296	0(0)	0(0)	44(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kakamega Central (Lurambi)	29	100	0(0)	2(0)	3666(0)	1672	673	0(0)	0(0)	103(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kakamega East (Shinyalu)	14	100	0(0)	0(0)	1079(0)	471	205	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)	1303(0)	557	358	0(0)	0(0)	49(1)	0(0)	0(0)	0(0)	0(0)	0(0)
	Kakamega South (Ikolomani)	11	100	0(0)	0(0)	991(0)	155	77	0(0)	0(0)	7(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Lugari	24	100	0(0)	58(0)	2470(0)	256	37	0(0)	0(0)	54(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Mt Elgon	16	100	0(0)	0(0)	912(0)	0	0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Mumias	24	100	0(0)	1(0)	2709(0)	1891	879	0(0)	0(0)	12(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
	North Bungoma	18	100	0(0)	52(0)	1413(0)	1231	683	0(0)	0(0)	143(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Samia	9	100	0(0)	0(0)	754(0)	102	52	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	South Bungoma	22	100	0(0)	37(0)	3374(0)	1139	395	0(0)	0(0)	132(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Teso	21	95	0(0)	33(0)	3107(0)	513	186	0(0)	0(0)	101(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	Vihiga	21	95	0(0)	0(0)	2281(0)	1492	772	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
	West Bungoma	20	85	0(0)	47(0)	1715(0)	1074	769	0(0)	0(0)	34(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 39 summary	3 (0)	1,362 (0)	168,882 (21)	67,804	25,585	19 (0)	4 (0)	4,543 (1)	1 (1)	1 (0)	0 (0)	0 (0)	0 (0)
Years cumulative summary	1,786 (27)	47,035 (24)	6,311,405 (1,380)	1,644,248	638,334	742 (0)	98 (16)	148,014 (11)	4 (2)	36 (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

Editorial: Dr. D. Mutonga, Dr. C. Nzioka, Dr. M. Ope, Dr. D. Langat, Dr. P. Muthoka, Dr. O. Shikanga, C. Njuguna, J. Njau, J. Njoroge, H. Limo, Z. Irura, M. Badel, C. Maina, E. Kathini, R. Kalani, D. Mwangi, A. Muange, J. Ayaga, P. Njiru