

I. Key Highlights

- ◆ WHO and its partners published the **Strategic Response Framework** to guide the international response to yellow fever outbreak in Angola and Democratic Republic of the Congo
- ◆ A ten days **Process Review mission** of the yellow fever response has been proposed to start its activities in Angola on July 4th. TORs were agreed with partners and presented to the Health Minister by the WHO Representative and the incident manager.
- ◆ The ICG supports **pre-emptive vaccination based on risk of spread** of the outbreak, in addition of presence of local transmission
- ◆ ICG committed **2.3 M additional doses** of YF vaccine for Angola, expected in country this week
- ◆ IMS partners met to agree on a **plan to increase their presence at the province level**. MoH compiled a list of Angolan experts to join the multi-agency province teams. Province deployments will start immediately
- ◆ A plan for pre-emptive vaccination in high-risk districts and borders is being finalized with the MoH-Angola, based on recommendations from WHO HQ, AFRO, Country Office, IMS and UNICEF and their scientific partners (Imperial College of London, Kemri, Oxford University)
- ◆ Border health, vector control and case management intervention pillars are reviewing their strategies and developing guidance

II. Epidemiological Situation as of 17 June 2016

⇒ Week 24 statistics (11 June to 17 June):

- 156 cases and samples were reported this week of which 1 cases was confirmed as yellow fever by the laboratory
- 2 deaths were reported among no confirmed cases
- Cases were reported from 39 districts in 14 provinces.
- 2 districts reported suspect cases for the first time (Camulemba & Bibala)
- No new local transmission was documented this week, (Table 3.1 & 3.2)

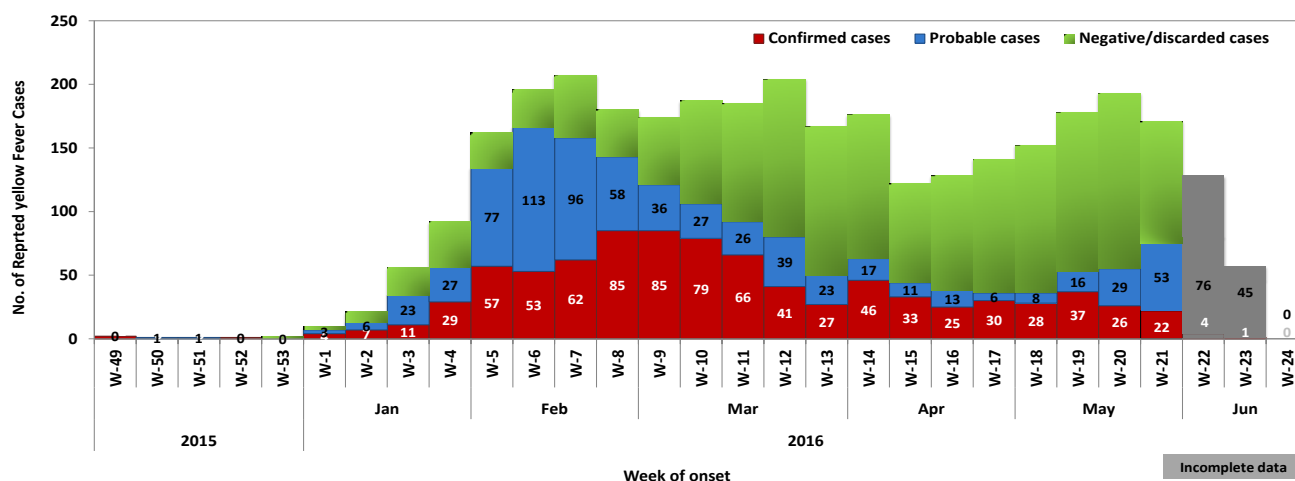
⇒ Cumulative statistics since 05 December:

- A total of 3,294 suspected cases were reported of which 861 were laboratory confirmed cases. Overall, 347 deaths (CFR 10.5%) are reported among all suspected cases being 115 deaths (CFR 13.4%) among the confirmed cases.
- Laboratory confirmed cases were reported for 18 out of 18 provinces and 79 out of 123 reporting districts (Table 2). Luanda province reported the majority of the confirmed cases 489 (56.8%), followed by Huambo 127 (17.7%) and Benguela 111 (12.9%), (Table.2 & Figure.2—4)
- Local transmission has been documented in 43 districts in 11 provinces (Table 3.1 & 3.2)
- The majority of the confirmed cases are in males 15-19 yrs; (170 or 16.5%), followed by 20-24 years (105 or 9.0%); (Figure 6).

Table 1: National Summary of Yellow Fever Outbreak

Yellow Fever Outbreak Summary 11 June — 17 June 2016, (W24)	
Reported cases	156
Samples tested	156
Confirmed cases	1
Total Deaths	2
Total provinces that reported cases	14
New provinces with confirmed cases	0
Total districts with reported cases	39
New districts with confirmed cases	0
New districts with documented local transmission	0
Yellow Fever Outbreak Summary from 5 Dec 2015— 17 June 2016	
Total cases reported to central level	3,294
Total Samples Tested	2,798
Total confirmed cases	861
Total deaths	347
Total deaths among confirmed cases	115
Total provinces that have reported cases	18
Total provinces with confirmed cases	16
Total districts that have reported cases	123
Total districts with confirmed cases	79
Total provinces with documented local transmission	11
Total districts with documented local transmission	44
Total number of provinces in Angola	18
Total number of districts in Angola	166

Fig.1. Yellow Fever Suspected and Confirmed Cases - Angola
5 Dec 2015— 17 June 2016



Source: MOH, Angola

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Fig.2 Yellow Fever Suspected and Confirmed Cases - Luanda province
5 Dec 2015— 17 June 2016

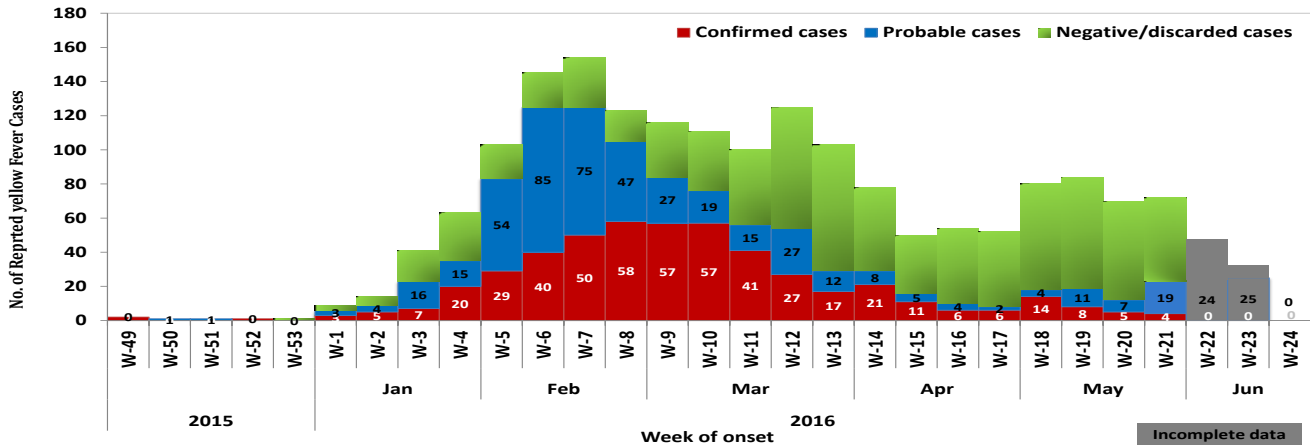


Fig.3 Yellow Fever Suspected and Confirmed Cases - Huambo province
5 Dec 2015— 17 June 2016

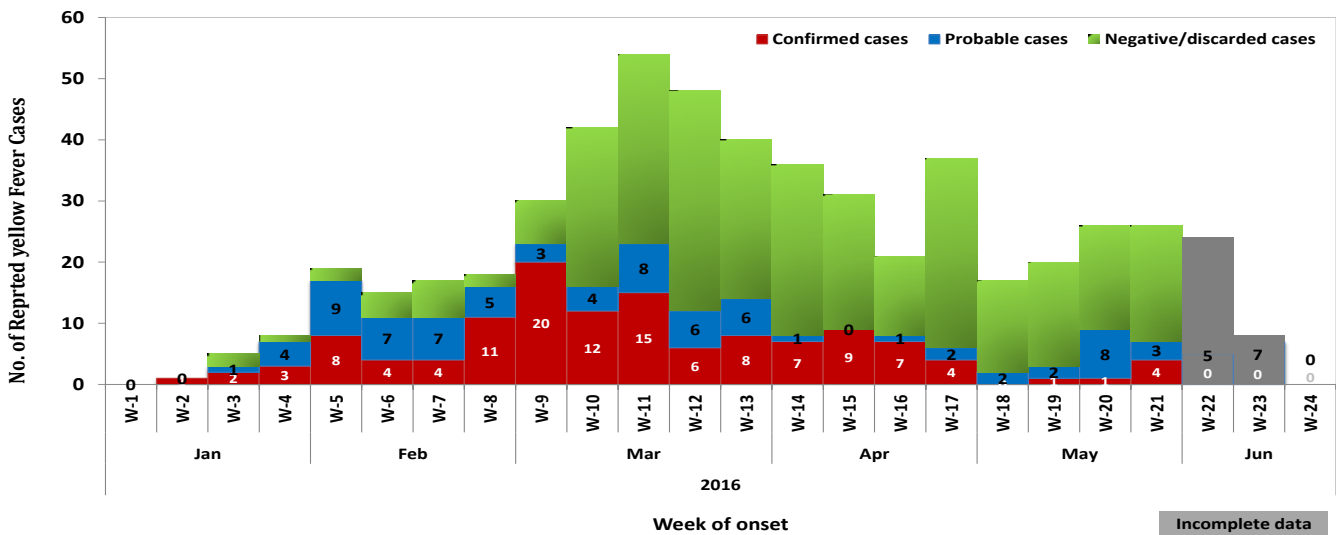
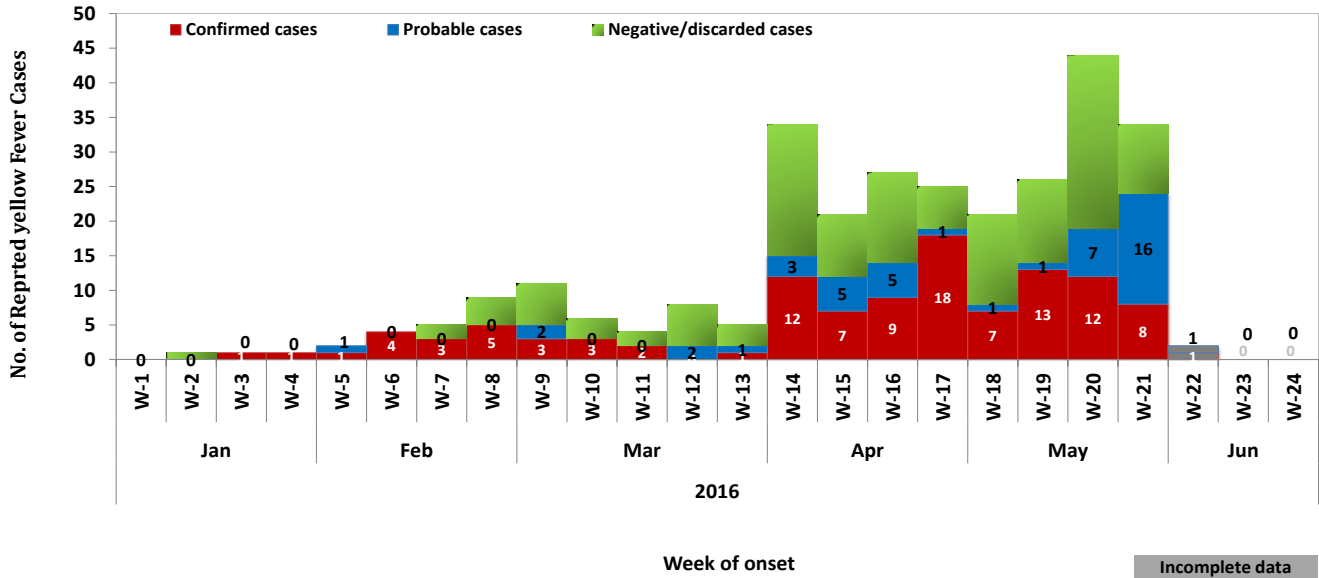


Fig.4 Yellow Fever Suspected and Confirmed Cases - Benguela province
5 Dec 2015— 17 June 2016



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Table 2. Provinces with Yellow Fever Laboratory Confirmation up to 17 June, 2016

Province	Cumulative (5 Dec 2015— 17 June 2016)					Discarded, Lab with Vacc. History
	Notified Cases	Tested		Confirmed		
		No	%	No	%	
Bengo	21	21	100	6	29	0
Benguela	291	278	96	111	38	11
Bie	33	31	94	16	48	0
Cabinda	37	31	84	1	3	0
Cuando Cubango	6	5	83	1	17	0
Cuanza Norte	61	51	84	5	8	0
Cuanza Sul	103	99	96	16	16	0
Cunene	49	49	100	14	29	0
Huambo	543	487	90	127	23	15
Huíla	137	89	65	33	24	0
Luanda	1833	1483	81	489	27	73
Lunda Norte	55	54	98	21	38	0
Lunda Sul	9	8	89	0	0	0
Malange	21	21	100	6	29	0
Moxico	5	5	100	0	0	0
Namibe	13	13	100	2	15	0
Uíge	63	61	97	9	14	0
Zaire	14	12	86	4	29	0
TOTAL	3294	2798	85	861	26	99

Fig.5: Yellow Fever Cases with Local Transmission and Vaccination Provinces & Districts in Angola, 5 Dec 2015— 17 June 2016

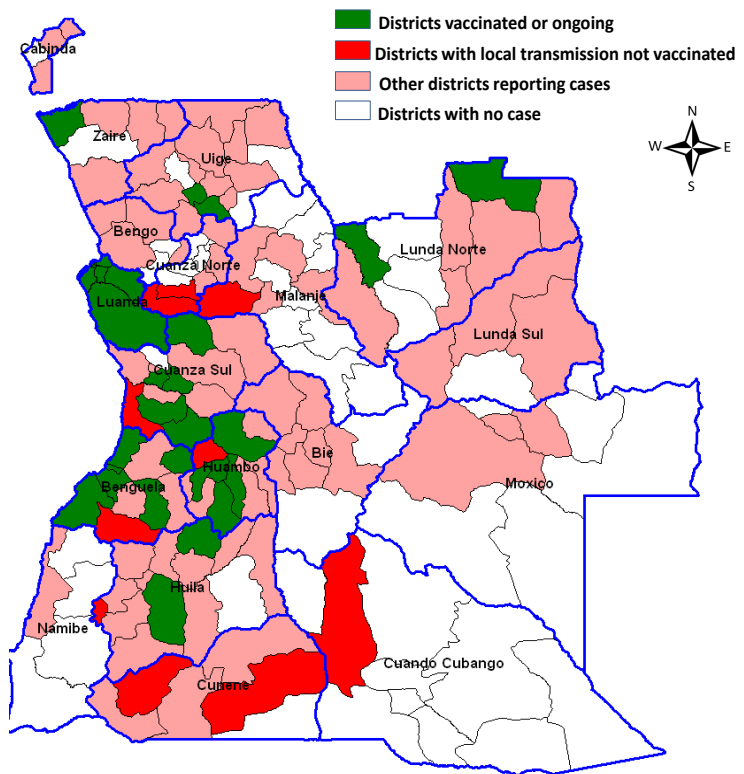


Fig. 6. Age group distribution of Yellow Fever cases in Angola

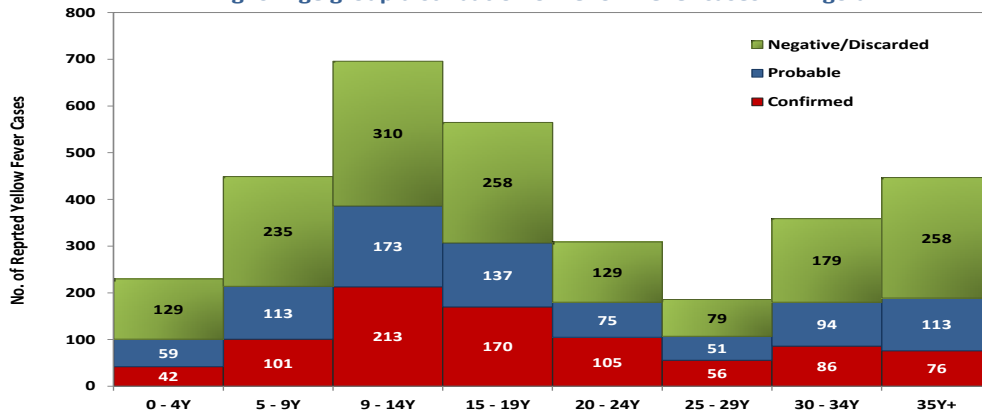
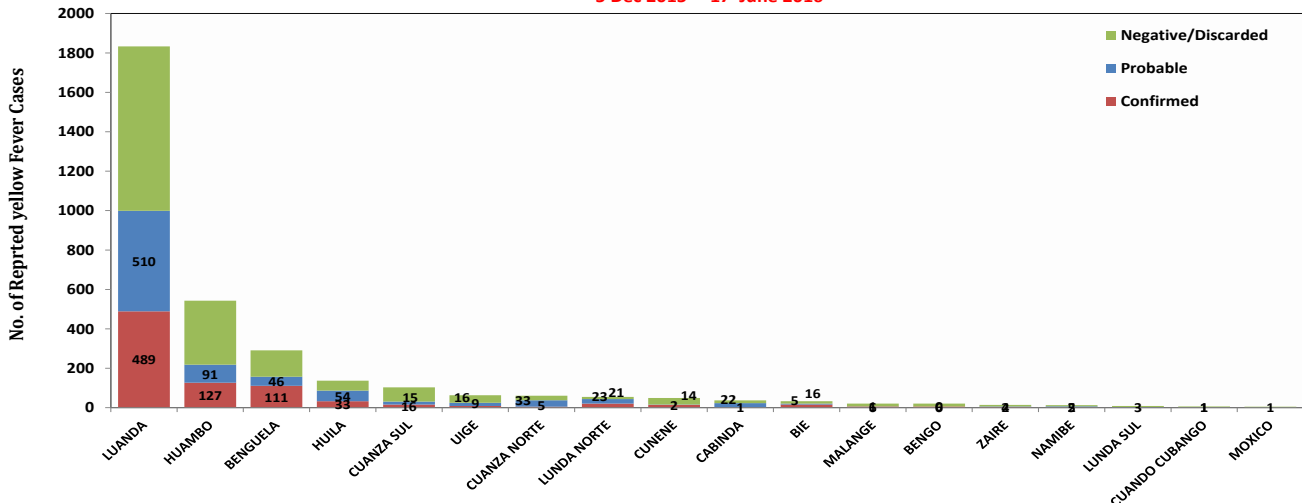


Fig.7: National Trend of Yellow Fever Suspected and Confirmed Cases in Angola out of Luanda Province 5 Dec 2015— 17 June 2016



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**Table 3.1: Yellow Fever Reported and Confirmed Cases per Angola Provinces and Districts, 2016
5 Dec 2015— 17 June 2016**

Province	Cases notified during the period (11 June — 17 June 2016)			Cumulative Cases (5 Dec 2015— 17 June 2016)			Documented Local Transmission*	Date of onset first confirmed case*	Date of onset of last confirmed case*	Average days of reporting delay	Days since last case reported to central level	Days since last confirmed case
	Reported	Confirmed	Deaths	Reported	Confirmed	Deaths						
Belas	6	0	0	194	54	25	Y	15/01/16	26/05/16	3	1	21
Cacuaco	4	0	0	220	78	22	Y	28/01/16	12/05/16	1	0	36
Cazenga	17	0	0	407	109	33	Y	18/01/16	27/05/16	2	0	21
Icolo e Bengo	0	0	0	5	1	0	Y	08/03/16	08/03/16	3	18	101
Ingombota	0	0	0	16	4	0	Y	01/02/16	15/03/16	1	14	94
Kilamba xiayi	13	0	0	235	68	18	Y	06/12/15	18/05/16	2	0	30
Maianga	3	0	0	116	28	11	Y	08/02/16	26/05/16	2	3	22
Quissama	0	0	0	1	1	0	N	24/04/16	24/04/16	1	51	54
Rangel	0	0	0	44	15	2	Y	29/01/16	02/05/16	3	7	46
Samba	0	0	0	24	5	2	Y	10/02/16	11/05/16	2	7	37
Sambizanga	4	0	0	89	30	13	Y	23/01/16	21/05/16	3	0	27
Viana	8	0	0	482	96	85	Y	05/12/15	14/05/16	2	1	34
LUANDA	55	0	0	1833	489	211	Y	05/12/15	27/05/16	2	0	21
Ambriz	0	0	0	3	1	0	N	04/04/16	04/04/16	3	31	74
Bula Atumba	0	0	0	1	0	0	N			3	95	
Dande	0	0	0	11	5	0	N	05/02/16	19/05/16	4	17	29
Nambuangongo	0	0	0	6	0	0	N			6	17	
BENGO	0	0	0	21	6	0	N	05/02/16	19/05/16	4	17	29
Baia Farta	0	0	0	13	9	3	Y	08/04/16	12/05/16	6	12	36
Balombo	0	0	0	30	8	2	Y	22/04/16	30/05/16	10	7	18
Benguela	0	0	0	128	60	13	Y	15/02/16	29/05/16	7	7	19
Bocoio	0	0	0	5	1	0	N	02/05/16	02/05/16	8	27	46
Caimbambo	0	0	0	5	1	0	N	26/02/16	26/02/16	4	39	112
Catumbela	0	0	0	33	7	1	Y	15/04/16	25/05/16	9	7	23
Chongoroi	0	0	0	6	5	1	Y	26/02/16	25/05/16	6	12	23
Cubal	0	0	0	6	3	1	Y	05/02/16	10/03/16	3	59	99
Ganda	0	0	0	5	3	0	N	10/02/16	28/02/16	5	92	110
Lobito	0	0	0	60	14	4	Y	22/01/16	19/05/16	6	7	29
BENGUELA	0	0	0	291	111	25	Y	22/01/16	30/05/16	7	7	18
Andulo	2	0	0	15	6	1	N	14/02/16	27/03/16	7	0	82
Camacupa	1	0	0	2	1	0	N	19/03/16	19/03/16	5	4	90
Catabola	0	0	0	1	0	0				3	12	
Chinguar	0	0	0	6	3	0	N	02/02/16	22/05/16	3	20	26
Cuito	0	0	0	5	4	1	N	30/01/16	18/04/16	5	39	60
Cunhinga	0	0	0	3	1	0	N	01/03/16	01/03/16	6	62	108
Nharea	0	0	0	1	1	0	N	22/02/16	22/02/16	11	105	116
BIE	3	0	0	33	16	2	N	30/01/16	22/05/16	6	0	26
Belize	0	0	0	1	0	0	N			4		
Buco Zau	0	0	0	1	0	0	N			0	139	
Cabinda	6	0	0	35	1	1	N	25/01/16	25/01/16	7	0	144
CABINDA	6	0	0	37	1	1	N	25/01/16	25/01/16	6	0	144
Menongue	0	0	0	6	1	1	Y	18/04/16	18/04/16	8	12	60
CUANDO CUBANGO	0	0	0	6	1	1	Y	18/04/16	18/04/16	8	12	60
Ambaca	4	0	0	25	1	0	N	21/03/16	21/03/16	8	0	88
Cambambe	1	0	0	7	0	0	N			4	3	
Cazengo	7	0	1	27	4	8	Y	23/02/16	24/05/16	19	0	24
Lucala	0	0	0	1	0	0	N			46	77	
Samba Caju	0	0	0	1	0	0	N			0	8	
CUANZA NORTE	12	0	1	61	5	8	Y	23/02/16	24/05/16	13	0	24
Amboim	0	0	0	7	2	1	Y	23/01/16	05/04/16	6	12	73
Cassongue	0	0	0	2	2	0	Y	02/02/16	02/02/16	19	101	136
Cela	0	0	0	7	1	0	N	04/02/16	04/02/16	5	52	134
Conda	0	0	0	2	0	0	N			6	12	
Ebo	3	0	0	37	4	1	Y	17/01/16	16/04/16	7	0	62
Libolo	0	0	0	4	1	1	Y	05/04/16	05/04/16	6	28	73
Mussende	0	0	0	2	0	0	N			4	50	
Porto amboim	0	0	0	5	0	2	N			2	21	
Quibala	0	0	0	1	0	0	N			8	59	
Quilenda	0	0	0	5	0	0	N			6	7	
Seles	1	0	0	22	5	2	Y	05/02/16	11/05/16	6	0	37
Sumbe	0	0	0	9	1	2	Y	02/03/16	02/03/16	3	28	107
CUANZA SUL	4	0	0	103	16	9	Y	17/01/16	11/05/16	6	0	37
Cahama	0	0	0	16	5	0	Y	28/02/16	13/05/16	8	10	35
Cuanhama	0	0	0	16	4	1	Y	24/02/16	15/05/16	17	10	33
Curoca	0	0	0	3	0	0	N			12	23	
Cuvelai	0	0	0	2	0	0	N			7	23	
Ombadja	1	0	0	12	5	1	N	01/02/16	17/04/16	7	0	61
CUNENE	1	0	0	49	14	2	Y	01/02/16	15/05/16	11	0	33

Average days of reporting delay: average of difference between date of receipt of case report at national level and date of case notification

Days since last case reported to central level: difference between last day of reporting period (10/06/2016) and date of receipt at national level of report of last suspected case

Days since last confirmed case: difference between last day of reporting period (10/06/2016) and date of onset of last confirmed case.

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Table 3.2: Yellow Fever Reported and Confirmed Cases per Angola Provinces and Districts, 2016
5 Dec 2015— 17 June 2016

Province	Cases notified during the period (11 June — 17 June 2016)			Cumulative Cases (5 Dec 2015— 17 June 2016)			Documented Local Transmission*	Date of onset first confirmed case*	Date of onset of last confirmed case*	Average days of reporting delay	Days since last case reported to central level	Days since last confirmed case
	Reported	Confirmed	Deaths	Reported	Confirmed	Deaths						
Bailundo	5	0	0	89	11	4	Y	05/02/16	24/03/16	5	1	85
Caala	3	0	0	88	25	7	Y	28/01/16	16/05/16	3	4	32
Catchiungo	0	0	0	31	2	0	N	18/03/16	29/04/16	5	12	49
Ecunha	0	0	0	71	20	4	Y	17/01/16	24/05/16	4	16	24
Huambo	17	1	0	160	42	12	Y	20/01/16	29/05/16	4	1	19
Londumbale	5	0	0	32	7	7	Y	17/02/16	27/04/16	4	6	51
Longonjo	0	0	0	24	10	4	N	09/02/16	15/04/16	7	17	63
Mungo	2	0	0	16	2	2	N	06/02/16	01/03/16	5	1	108
Tchikala tchologanga	2	0	0	13	3	0	N	16/03/16	07/04/16	4	1	71
Tchinjenje	0	0	0	3	1	0	N	01/04/16	01/04/16	5	29	77
Ukuma	1	0	0	16	4	4	Y	22/02/16	19/04/16	4	6	59
HUAMBO	35	1	0	543	127	44	Y	17/01/16	29/05/16	4	1	19
Caconda	0	0	0	28	10	4	Y	05/01/16	30/03/16	10	20	79
Cacula	0	0	0	8	4	1	N	23/02/16	15/05/16	6	20	33
Caluquembe	1	0	0	11	2	6	N	04/03/16	21/03/16	3	6	88
Chibia	0	0	0	2	1	0	N	08/02/16	08/02/16	1	119	130
Chicomba	0	0	0	11	1	0	N	02/02/16	02/02/16	5	16	136
Chipindo	1	0	1	2	0	1	N			9	6	
Cuvango	0	0	0	2	0	0	N			4	60	
Gambos	0	0	0	5	1	1	N	24/02/16	24/02/16	3	98	114
Humpata	0	0	0	11	3	0	Y	09/02/16	28/04/16	5	37	50
Lubango	0	0	0	14	4	4	N	30/01/16	05/02/16	1	50	133
Matala	0	0	0	2	0	1	N			4	88	
Quilengues	0	0	0	10	4	2	N	21/02/16	10/03/16	1	90	99
Quipungo	0	0	0	31	3	3	Y	02/02/16	05/02/16	4	14	133
HUILA	2	0	1	137	33	23	Y	05/01/16	15/05/16	5	6	33
Cambulo	1	0	0	2	0	0	N			22	0	
Camulemba	4	0	0	4	0	0				5		
Chitato	6	0	0	12	1	1	N	08/05/16	08/05/16	10	0	40
Cuango	10	0	0	32	19	8	Y	02/05/16	06/06/16	7	0	11
Cuilo	0	0	0	1	1	0	N	20/05/16	20/05/16	9		28
Lucapa	0	0	0	1	0	0	N			26	25	
Xa Muteba	1	0	0	3	0	0	N			20	4	
LUNDA NORTE	22	0	0	55	21	9	Y	02/05/16	06/06/16	9	0	11
Cacolo	0	0	0	1	0	0	N			1		
Muconda	0	0	0	1	0	0	N			4	21	
Saurimo	2	0	0	7	0	0	N			3	0	
LUNDA SUL	2	0	0	9	0	0	N			3	0	
Cacuso	0	0	0	3	1	0	Y	21/04/16	21/04/16	9	11	57
Cahombo	0	0	0	1	1	1	N	20/03/16	20/03/16	9	78	89
Calandula	0	0	0	4	0	1	N			5	11	
Cambundi Catembo	0	0	0	1	0	1	N			5	20	
Malange	0	0	0	11	3	0	Y	21/02/16	19/05/16	3	18	29
Quela	0	0	0	1	1	0	N	07/05/16	07/05/16	4	30	41
MALANGE	0	0	0	21	6	3	Y	21/02/16	19/05/16	5	11	29
Cameia	1	0	0	2	0	0	N			8	1	
Leua	0	0	0	1	0	0	N			5	41	
Moxico	0	0	0	2	0	0	N			3	29	
MOXICO	1	0	0	5	0	0	N			5	1	
Bibala	1	0	0	1	0	0	N			7	1	
Namibe	2	0	0	12	2	1	N	17/04/16	14/05/16	5	1	34
NAMIBE	3	0	0	13	2	1	N	17/04/16	14/05/16	5	1	34
Ambuila	1	0	0	5	0	0	N			5	0	
Bembe	0	0	0	3	0	0	N			6	7	
Buengas	0	0	0	1	0	0	N			4	34	
Bungo	0	0	0	1	0	0	N			3	89	
Damba	0	0	0	2	0	0	N			4	59	
Maquela do zombo	0	0	0	1	0	1	N			0	116	
Mucaba	0	0	0	1	0	0	N			4	27	
Negage	3	0	0	15	3	0	Y	03/02/16	15/05/16	4	0	33
Puri	0	0	0	1	1	0	N	10/05/16	10/05/16	3	27	38
Quimbele	1	0	0	4	0	0	N			5	0	
Quitexe	0	0	0	1	0	0	N			10	39	
Sanza pombo	0	0	0	1	0	0	N			4	34	
Songo	0	0	0	1	0	0	N			4	14	
Uige	4	0	0	26	5	4	Y	02/02/16	08/05/16	5	0	40
UIGE	9	0	0	63	9	5	Y	02/02/16	15/05/16	5	0	33
Cuimba	0	0	0	2	1	2	N	24/03/16	24/03/16	11	59	85
Mbanza congo	0	0	0	4	0	0	N			9	80	
Noqui	0	0	0	2	0	0	N			16	95	
Nzeto	0	0	0	2	1	0	N	05/02/16	05/02/16	10	107	133
Zoia	1	0	0	4	2	1	Y	10/02/16	15/05/16	3	4	33
ZAIRE	1	0	0	14	4	3	Y	05/02/16	15/05/16	9	4	33
Angola	156	1	2	3294	861	347	Y	05/12/15	06/06/16	4	0	11

* 1. For cases with date of onset

* 2. Y = Yes confirmed Local Transmission, N= Not Confirmed Local Transmission

Newly reported districts in W24

Newly districts with confirmed cases in W24

New documented local transmission in W24

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Table:4 Distribution of Yellow Fever Vaccination Coverage in Angola as of 17 June 2016

Province	Target population	Launching date	Population vaccinated	Administrative coverage (%)	IM Percent vaccinated*
Belas	1,071,662	19-Feb-16	1,288,081	120%	88.2%
Cacuaco	887,829	29-Feb-16	772,521	87%	87.8%
Cazenga	867,659	29-Feb-16	819,320	94%	94.3%
Icolo e Bengo	75,103	28-Mar-16	39,135	52%	81.5%
Ingombota	89,556	24-Mar-16	63,271	71%	91.3%
K. Kiaxi	640,006	10-Mar-16	214,693	34%	79.0%
Maianga	660,884	14-Mar-16	486,466	74%	99.8%
Quissama	25,240	28-Mar-16	13,774	55%	91.1%
Rangel	136,031	28-Mar-16	43,366	32%	94.4%
Samba	160,174	24-Mar-16	55,358	35%	91.3%
Sambizanga	433,970	20-Mar-16	136,697	31%	79.7%
Viana	1,535,102	2-Feb-16	2,124,758	138%	86.3%
Luanda	6,583,216		6,057,440	92%	
Baia Farta	103,623	16-May-16	105,116	101%	
Balombo	99,932	16-May-16	101,700	102%	
Benguela	531,744	12-Apr-16	489,449	92%	80%
Catumbela	173,601	13-Apr-16	188,421	109%	95%
Cubal	289,703	16-May-16	297,264	103%	94%
Lobito	335,601	13-Apr-16	356,144	106%	
Chorongoi	81,977				
Benguela*	1,534,204		1,538,094		
Menongue	308,509				
Cuango Cubango	308,509				
Ambaca	61,209				
Cazengo	166,860				
Cuanza Norte	228,069				
Amboim	236,339	16-May-16	219,663	93%	
Cassongue	145,579	16-May-16	124,345	85%	
Ebo	159,024	16-May-16	158,614	100%	
Libolo	85,630	16-May-16	87,540	102%	
Seles	176,058	16-May-16	165,639	94%	
Sumbe	269,341				
Cuanza Sul	1,071,971		755,801		
Cahama	69,519				
Cuanhama	362,710				
Cunene*	432,229				
Bailundo	283,887	16-May-16	270,735	95%	
Caala	268,734	13-Apr-16	222,811	83%	96%
Ekunha	79,334	16-May-16	75,022	95%	
Huambo	689,301	13-Apr-16	558,150	81%	95%
Ukuma	42,950	16-May-16	47,348	110%	
Huambo*	1,364,206		1,174,066		
Caconda	160,892	16-May-16	167,102	104%	
Lubango	736,077	16-May-16	14,938	2%	
Quipungo	147,818	16-May-16	168,781	114%	
Humpata	83,267				
Huila	1,128,054		350,821		
Chitato	196,869		109,057	55%	
Cuango	174,429	27-May-16	140,414	80%	
Lunda Norte	371,298		249,471		
Malange	489,867				
Malange	489,867				
Negage	136,323	16-May-16	129,732	95%	
Uige	496,567	16-May-16	624,138	126%	
Uige	632,890		753,870	119%	
Soyo	219,536		5,021	2%	
Zaire	219,536		5,021		
GRAND TOTAL	13,484,215		10,884,584		
	Vaccination ongoing or about to start, Cunene will start on 22 June Benguela & Huambo: IM percents as of 14 May 2016				

* IM Percent vaccinated estimated from Post-vaccination Independent Monitoring

III. Response Interventions

IM/Coordination

- ◆ WHO and its partners published the **Strategic Response Framework** to guide the international response to yellow fever outbreak in Angola and Democratic Republic of the Congo
- ◆ A ten days **Process Review mission** of the yellow fever response has been proposed to start its activities in Angola on July 4th. TORs were agreed with partners and presented to the Health Minister by the WHO Representative and the Incident Manager
- ◆ The ICG agree to support the provision of YF vaccine based on risk of spread of the outbreak, in addition of presence of local transmission
- ◆ ICG committed **2.3 M** additional doses of YF vaccine for Angola, the vaccine is arriving to the Angola this week
- ◆ IMS, WHO, UNICEF, UN Resident Coordinator and others partners met to agree on a plan to increase international partners presence at the province level. MoH compiled a list of Angolan experts to join the multi-agency province teams. Province deployments will start immediately under MoH and IMS coordination
- ◆ Angola Red Cross and IFRC expressed their ongoing commitment to support the MoH and Provincial Directorates of Health in mass vaccination campaigns and social mobilization, in coordination with IMS and UNICEF
- ◆ Angola Red Cross signed a partnership agreement with UNICEF to support social mobilization at community level in 8 additional provinces (Luanda, Cunene, Huila, Namibe, Huambo, Benguela, Uige and Cwanza Sul)
- ◆ UNICEF will deploy three additional Social Mobilization experts to support the Provincial Health Direction in Cunene, Huila and Namibe
- ◆ UNICEF deployed 3 Social Mobilization consultants to support the vaccination campaigns in Lunda Sul, Lunda Norte and Zaire

Surveillance, Laboratory and Data management

- ◆ Only one case was laboratory confirmed this week, out of 156 suspected cases. The surveillance team is contacting all provinces to assess reporting bottlenecks and the laboratory teams has been asked to review procedures and perform quality control. The lack of cases from Benguela province is known to be related to delays in sending of samples due to cost, and the problem is being addressed
- ◆ No new cases of local transmission were confirmed this week. A suspected case of local transmission from Cuilo district, Lunda Norte province, was confirmed as imported case from Cuango
- ◆ Local transmission has been documented in 43 districts to date; 34 of them have been or are being vaccinated
- ◆ The epicurve for Huambo shows a slow but persistent decline in number of cases, which matches MSF observation of a decline of admissions to Huambo referral hospital. The epicurve for Benguela show signs of serious reporting problems, particularly in March and April. An sudden increase in reporting coincides with the arrival of MSF to Benguela hospital. Benguela has reported zero suspected cases in the last two weeks. A senior epidemiologist has been deployed to the province to investigate and help solve reporting problems. A permanent epidemiologist presence is being organized
- ◆ The final approval for the new case investigation form and related surveillance materials was given by NDPH
- ◆ A mission to Bengo province is planned this week to pilot the new case investigation form and conduct a rapid assessment of the surveillance system in the province
- ◆ Four additional epidemiologist from GOARN and 4 from CDC are joining the IM team in the coming weeks
- ◆ An additional data management and analysis experts was identified by AFRO
- ◆ One person for laboratory logistics support was identified and will start working this week. An additional laboratory data clerk is also projected to join the team by the end of June
- ◆ The Luanda epi team conducted investigation of 17 out of 29 confirmed cases identified in the month of May, among which 1 had history of vaccination.
- ◆ Angola epi team has been requested from the DRC/IMS to locate hospitals and vaccination records for patients identified in Kinshasa, more information is required for this investigation.
- ◆ Four training sessions on community-based surveillance took place in Cafunfu, Lunda Norte province, involving ADECOS (Agentes de Desenvolvimento Comunitário e Sanitário) and Red Cross volunteers, for a total of 86 participants

Vaccination

- ◆ Mass vaccination started in Soyo district, Zaire province, on June 16. A multi-agency team lead by MoH and including WHO, UNICEF, CDC, Cuban Cooperation and Red Cross was sent to support province authorities
- ◆ Mass vaccination campaigns continued in Cuango and Chitato, Lunda Norte Province
- ◆ Mass vaccination campaigns were organized in Cuanhama and Cahama, Cunene Province, and vaccination is planned to start this week
- ◆ All districts in Luanda prepared microplans for focused mop-up vaccination with support from IMS partners, based on results of independent monitoring surveys and numbers of new cases reported. Main results of the independent monitoring exercise suggest that coverage is more homogenous across the province than suggested by administrative coverage figures, although a number of unvaccinated pockets have been identified. It also suggests that the population in the province is likely to be 1 or 2 million people larger than what is recorded in census data
- ◆ A plan for pre-emptive vaccination in high-risk districts and borders is being finalized with the MoH-Angola, based on recommendations from WHO HQ, AFRO, Country Office, IMS and UNICEF and their scientific partners (Imperial College of London, Kemri, Oxford University)
- ◆ MoH and IMS partners started support of preparation of microplans for districts most likely to vaccinate in the first phase of pre-emptive vaccination

Logistics

- ◆ Additional shipment of **448,800** vaccine doses from Sanofi-Pasteur Dakar arrived on 11 June 2016. The first **587,000** vaccine doses in the same order had arrived on Tuesday 7th June
- ◆ Lunda Norte received **312,300** doses for Coango and Chitato. Zaire province received **243,690** doses for Soyo and Cunene province received **479,900** doses for Cahama and Cuanhama. All received the necessary dry materials for vaccination
- ◆ The current stock of vaccine at central level is **15,770** doses

Border Health

- ◆ Border health assessments were held in Soyo and Cuimba, Zaire province, and Massango, Malange province
- ◆ A new focal point for border health, from CDC, started her work with an assessment of border health situation in Soyo. Standard operation procedures for border health assessment will be drafted this week
- ◆ The Health Minister agreed to strengthen cross-border collaboration with his peers in neighbouring countries. The IMS is supporting provincial and national authorities to facilitate collaboration, share surveillance procedures and strengthen communication
- ◆ IOM is planning to send a consultant to artisanal mining areas in Lunda Norte and Lunda Sul, for assessment of tuberculosis among workers, many of which are migrants. IMS is working with IOM to add yellow fever activities to the visit

Social Mobilization, Risk Communication and Media

- ◆ UNICEF ordered new Communication Materials, including 30.000 Question and Answer brochures, 30.000 posters and 2 million leaflets on safety and importance of YF vaccine
- ◆ UNICEF facilitated advocacy meetings in Soyo, Zaire; Cuango and Chitato, Lunda Norte. It also mapped social mobilizers and contributed to micro-plans for social mobilization during vaccination
- ◆ UNICEF trained 80 social mobilizers in Soyo, 173 in Cuango and 69 in Chitato, Lunda Norte and provided IEC materials for distribution
- ◆ UNICEF trained 12 provincial supervisors in Saurimo, Lunda Sul and mapped social mobilizers and distributed IEC materials
- ◆ IMS lead for risk communication and media travelled to Lunda Norte for information gathering
- ◆ WHO social mobilization experts are providing technical support to vaccination activities in Luanda, Cuanza-Sul, Lunda-Norte and Zaire provinces
- ◆ IEC messages continue being disseminated through national and international media (National Radio, National TV, Provincial Radios, Reuters agency and the Washington Post Journal)

Case Management

- ◆ The subcommittee for clinical and case management met to share experiences, discuss co-infection and differential diagnosis and provide comments to guidelines drafted by WHO HQ. The subcommittee recommended updating Angola Yellow Fever guidelines to adapt them to facilities with poor diagnostics capacity
- ◆ Two case management experts joined the IMS team this week and started contacts with partners and assessment of case management in Luanda hospitals. They will work with MoH clinical leads, MSF, MdM and Cuban Cooperation to assess case management and provide recommendations
- ◆ MSF and MDM continued case management activities in Luanda, Huambo, Huila, Benguela and Cuanza Norte provinces

Vector Control

- ◆ Vector control missions for entomological assessment by Cuban Cooperation and IMS/WHO vector control lead started in Cunene, Lunda Norte, Lunda Sul and Malange
- ◆ Translation and adaptation of the entomological SOPs for YF entomological investigations are under process
- ◆ A plan to produce more robust periodical entomological data is being drafted
- ◆ A guide to train epidemiologists and surveillance officers on entomological surveillance was drafted, to cover the lack of trained entomologists in many areas of the country and strengthen vector surveillance
- ◆ Cuban Cooperation continues to support vector control activities in several provinces across the country

Special Studies and Assessments

- ◆ CDC supported the development and implementation of guidelines for case investigation of confirmed cases with history of YF vaccination
- ◆ One thousand rapid diagnostic tests for Leptospirosis are expected this week for the implementation of a differential diagnosis study among suspected cases, given the proportion negative for yellow fever. This study is projected to be implemented by CDC and MSF with the support of MoH National Institute of Health and provincial authorities. Additional tests for Hepatitis E are expected to follow

V. Key challenges

- ◆ The massive vaccination activities have reached more than 10 million people. However, new cases continue to be reported, indicating that some pockets of unvaccinated people still exist.
- ◆ Significant surveillance and vaccination activities are being implemented across the country in collaboration with many partners. Any remaining gaps in the existing coordination and follow-up mechanism must be identified and addressed to further strengthen the response on the ground.
- ◆ Independent monitoring results should be fully used to guide mop-up vaccination activities and to understand the reason for persisting low coverage vaccination areas.
- ◆ The strategy for vector control must be re-assessed and its implementation accelerated to focus on eliminating gathering places and adult vectors
- ◆ Under-reporting from all healthcare facilities in Luanda, Benguela and Huambo has been confirmed. The number of cases reported in province-level line lists does not match the number of cases in the central database. These discrepancies are not reported in this SitRep. Harmonization efforts are being addressed with the NDSP
- ◆ Continuous strengthening of case investigation and surveillance activities is necessary and ongoing in all provinces
- ◆ Clinical case management activities require additional refinement and coordination
- ◆ All response activities at the province level require strengthening. The Incident Management is determining which administrative and structural changes are necessary to set up a similar structure at the province level.

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