

Key Highlights

- ◆ The IM System is transitioning during this phase of the response to focus support on vaccination campaign and post-epidemic surveillance system strengthening.
- ◆ Three positive laboratory cases were reported in Porto Amboim district (Cuanza Sul) and Chongoroi (Benguela); cases are being investigated and post-reviewed by the Classification Committee. The population of Porto Amboim district have not been vaccinated to date but included in the next phase of vaccination campaign starting October 10th, 2016.
- ◆ KAP study will be implemented this week in eight provinces including Luanda to identify risks for communication inputs
- ◆ Entomologic risk assessment has been completed in three of five provinces with preliminary results suggesting a high-level infestation of Aedes aegypti in Bengo, medium in Cuanza Norte and no infestation in Cuando Cubango province.

II. Epidemiological Situation as of 29 September 2016

Table 1: National Summary of Yellow Fever Outbreak

Yellow Fever Outbreak Summary 23 Sep — 29 Sep 2016, (W39)	
Reported cases	45
Samples tested	16
Confirmed cases	0
Total Deaths	0
Total provinces that reported cases	4
New provinces with confirmed cases	0
Total districts with reported cases	11
New districts with confirmed cases	0
New districts with documented local transmission	0
Yellow Fever Outbreak Summary from 5 Dec 2015— 29 Sep 2016	
Total cases reported to central level	4,188
Total Samples Tested	3,666
Total confirmed cases	884
Total deaths	373
Total deaths among confirmed cases	121
Total provinces that have reported cases	18
Total provinces with confirmed cases	16
Total districts that have reported cases	136
Total districts with confirmed cases	80
Total provinces with documented local transmission	12
Total districts with documented local transmission	45
Total number of provinces in Angola	18
Total number of districts in Angola	166

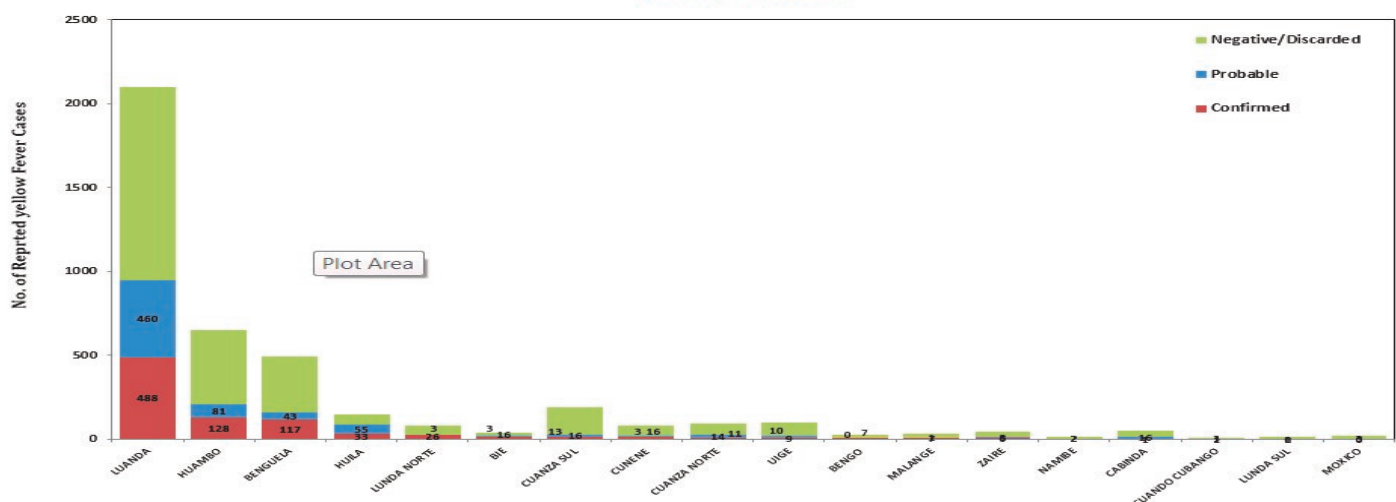
⇒ Week 39 statistics (23—29 September 2016):

- ◆ Of 45 suspected cases reported, 16 specimens that were tested in the National Laboratory were negative.
- Zero(0) deaths were reported among the suspected cases during this period.
- 11 districts in 4 provinces reported suspected cases of yellow fever. No district reported new confirmed local transmission.

⇒ Cumulative statistics since 05 December 2015:

- A total of 884 laboratory confirmed cases have been reported out of 4,188 suspected cases and 3,666 laboratory samples tested
- Overall, 373 (CFR = 9.2%) deaths were reported among suspected cases and 121 (CFR 13.7%) among confirmed cases
- Laboratory confirmed cases have been reported for 16 out of 18 provinces in 80 out of 136 districts.
- The last confirmed cases had a date of onset 23rd June 2016 from Cunene and Cuanza Norte provinces
- Vaccination campaigns have been completed in 73 districts with a cumulative of 16,011,303 vaccinated people representing 95% of the population in the targeted districts.

**Fig.7: National Trend of Yellow Fever Suspected and Confirmed Cases in Angola out of Luanda Province
5 Dec 2015— 29 Sep 2016**



Source: MoH, Angola

YELLOW FEVER OUTBREAK WEEKLY SITUATION REPORT, INCIDENT MANAGEMENT TEAM—ANGOLA

Fig.1. Yellow Fever Suspected and Confirmed Cases -Lunda
5 Dec 2015— 29 Sep 2016

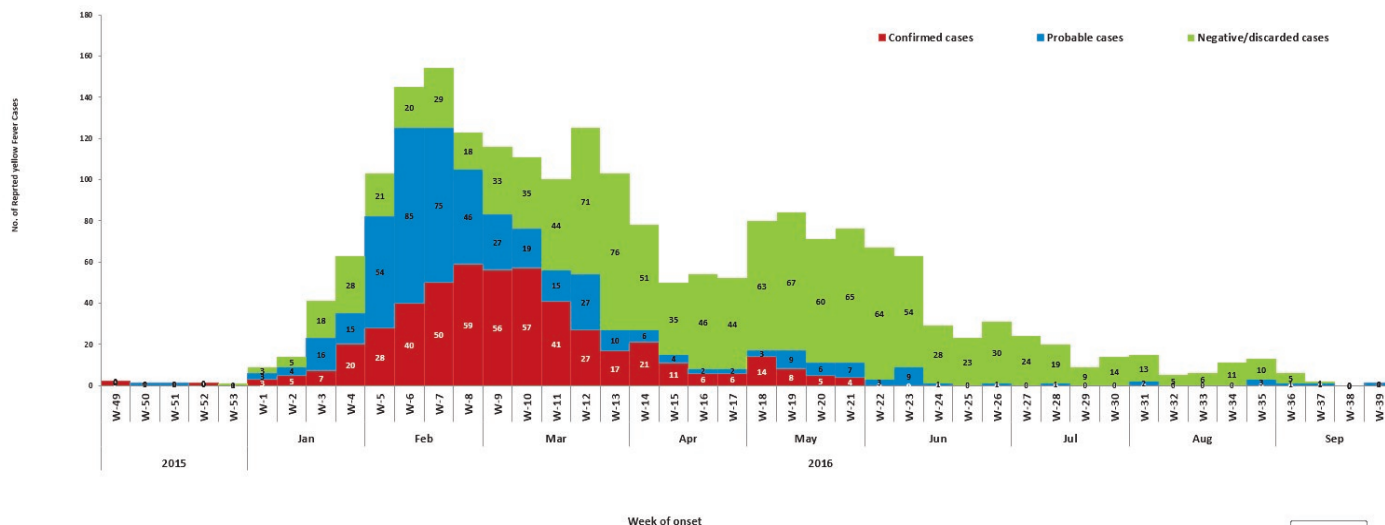


Fig.1. Yellow Fever Suspected and Confirmed Cases - Huambo
5 Dec 2015— 29 Sep 2016

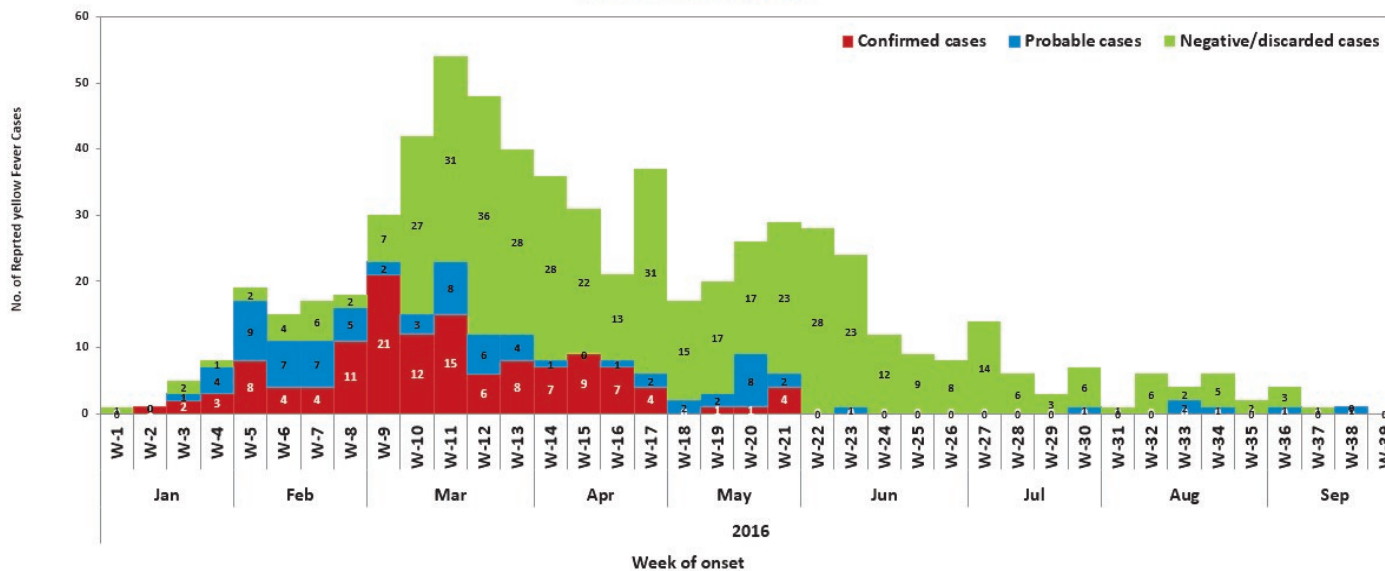
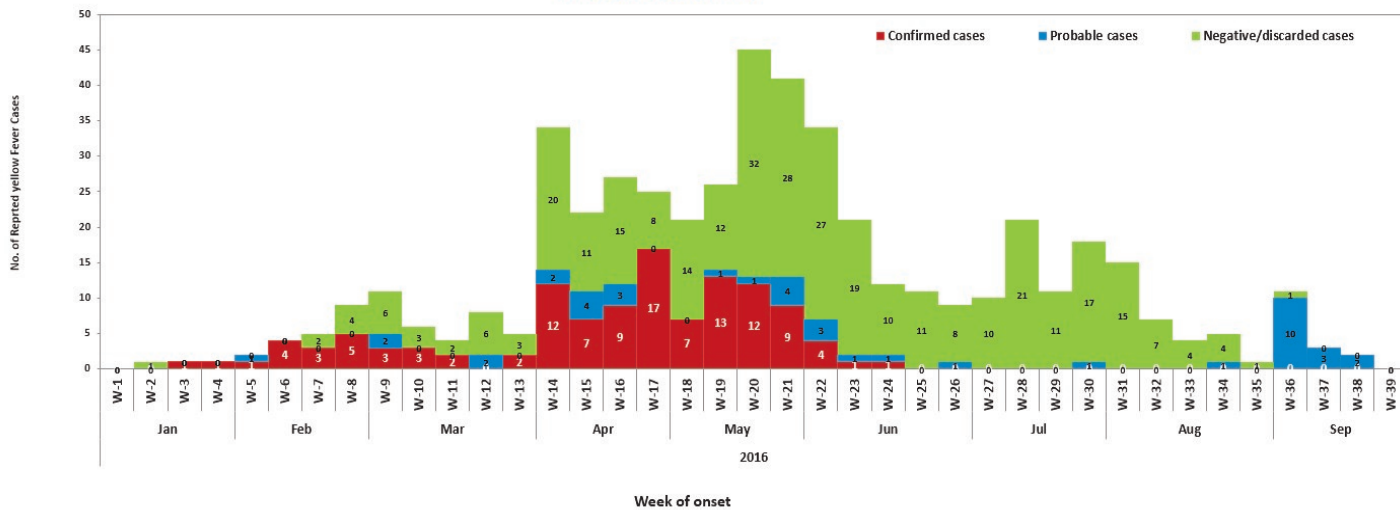


Fig.1. Yellow Fever Suspected and Confirmed Cases - Benguela
5 Dec 2015— 29 Sep 2016



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Table 2. Provinces with Yellow Fever Laboratory Confirmation up to 29 Sep, 2016

Province	Cumulative (5 Dec 2015— 29 Sep 2016)					Discarded, Lab with Vacc. History
	Notified Cases	Tested		Confirmed		
		No	%	No	%	
LUANDA	2097	1735	83	488	23	126
HUAMBO	651	596	92	128	20	29
BENGUELA	493	474	96	117	24	23
CUANZA SUL	187	183	98	16	9	0
HUILA	148	100	68	33	22	1
UIGE	101	98	97	9	9	0
CUANZA NORTE	93	83	89	11	12	1
CUNENE	79	78	99	16	20	1
LUNDA NORTE	78	77	99	26	33	1
CABINDA	51	45	88	1	2	0
ZAIRE	47	39	83	6	13	1
BIE	40	38	95	16	40	0
MALANGE	35	34	97	7	20	0
BENGO	28	28	100	7	25	0
MOXICO	21	21	100	0	0	0
LUNDA SUL	14	13	93	0	0	1
NAMIBE	14	14	100	2	14	0
CUANDO CUBANGO	11	10	91	1	9	0
TOTAL	4188	3666	88	884	21	184

Fig.5: Districts with confirmed cases/high risk of yellow fever and already Vaccinated Districts (Green) in Angola, 5 Dec 2015— 29 Sept 2016

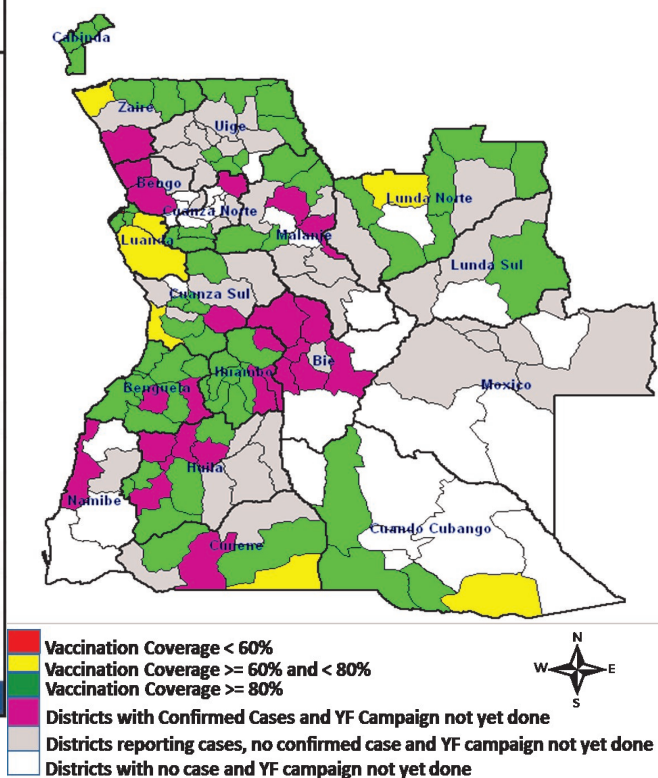
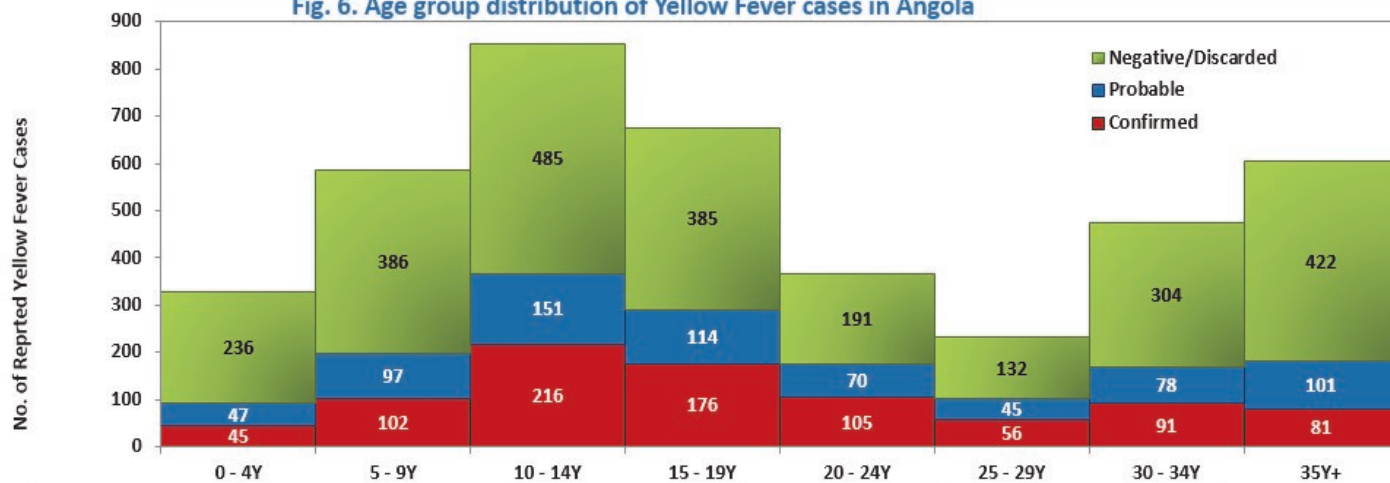


Fig. 6. Age group distribution of Yellow Fever cases in Angola



YELLOW FEVER OUTBREAK WEEKLY SITUATION REPORT, INCIDENT MANAGEMENT TEAM—ANGOLA

Table 4. Distribution of Yellow Fever Vaccination Coverage in Angola as of 29 Sep 2016

Province	Target population	Launching date	Population vaccinated	Administrative coverage (%)
Belas	1 071 662	19-févr-16	1 292 404	121%
Cacuaco	887 829	29-févr-16	776 075	87%
Cazenga	867 659	29-févr-16	825 793	95%
Icolo e Bengo	75 103	28-mars-16	46 309	62%
Ingombota	89 556	24-mars-16	65 083	73%
Kilamba Kiaxi	640 006	10-mars-16	241 812	38%
Maianga	660 884	14-mars-16	489 998	74%
Quissama	25 240	28-mars-16	15 572	62%
Rangel	136 031	28-mars-16	48 021	35%
Samba	160 174	24-mars-16	58 535	37%
Sambizanga	433 970	20-mars-16	146 149	34%
Viana	1 535 102	02-févr-16	2 130 549	139%
Luanda	6 583 216		6 136 300	93%
Baia Farta	103 623	16-mai-16	105 116	101%
Balombo	99 932	16-mai-16	101 700	102%
Benguela	598 902	12-avr-16	563 250	94%
Bocoio	155 397	30-juin-16	138 747	89%
Catumbela	173 601	13-avr-16	188 421	109%
Chongoroi	81 977	30-juin-16	85 175	104%
Cubal	289 703	16-mai-16	297 264	103%
Lobito	335 601	13-avr-16	356 144	106%
Benguela	1 838 736		1 835 817	100%
Belize	19 574	17-ago-16	21 780	111%
Buco Zau	34 051	17-ago-16	33 000	97%
Cabinda	601 892	17-ago-16	603 328	100%
Cacongo	37 004	17-ago-16	38 877	105%
Cabinda	692 521		696 985	101%
Menongue	308 509	17-ago-16	331 991	108%
Calai	20 266	08-ago-16	16 973	84%
Dirico	14 691	08-ago-16	8 939	61%
Cuangular	27 503	08-ago-16	23 339	85%
Cuango Cubango	370 969		381 242	103%
Cazengo	166 860	30-juin-16	142 561	85%
Cambambe	89 498	17-ago-16	74 639	83%
Cuanza Norte	256 358		217 200	85%
Amboim	236 339	16-mai-16	228 060	96%
Cassongue	145 579	16-mai-16	135 907	93%
Ebo	159 024	16-mai-16	159 495	100%
Libolo	85 630	16-mai-16	88 897	104%
Seles	176 058	16-mai-16	170 883	97%
Sumbe	269 341	17-ago-16	195 537	73%
Cuanza Sul	1 071 971		978 779	91%
Cahama	69 519	22-juin-16	65 132	94%
Cuanhama	362 710	22-juin-16	329 772	91%
Namacunde	144 624	17-ago-16	92 750	64%
Cunene	576 853		487 654	85%
Bailundo	283 887	16-mai-16	270 735	95%
Caala	268 734	13-avr-16	222 811	83%
Ecunha	79 334	16-mai-16	75 022	95%
Huambo	689 301	13-avr-16	558 150	81%
Londuimbale	125 214	02-juil-16	114 709	92%
Longonjo	87 329	02-juil-16	88 892	102%
Ukuma	42 950	16-mai-16	47 348	110%
Tchinjenje	28 371	17-ago-16	28 909	102%
Huambo	1 605 120		1 406 576	88%
Caconda	160 892	16-mai-16	167 102	104%
Gambos	76 456	29-juin-16	81 982	107%
Humpata	83 267	28-juin-16	83 731	101%
Lubango	736 077	17-ago-16	737 475	100%
Quipungo	147 818	16-mai-16	168 781	114%
Huila	1 204 510		1 239 071	103%
Capenda Camulemba	54 098	02-juil-16	46 528	86%
Caungula	27 266	02-juil-16	20 967	77%
Cambulo	113 570	17-ago-16	110 714	97%
Chitato	196 869	11-juin-16	203 794	104%
Cuango	174 429	04-juin-16	187 504	107%
Cuilo	19 841	01-juil-16	17 479	88%
Lunda Norte	586 073		586 986	100%
Muconda	35 469	17-ago-16	33 061	93%
Lunda Sul	35 469		33 061	93%
Cacuso	71 981	08-juil-16	60 852	85%
Malanje	489 867	14-juil-16	396 547	81%
Marimba	27 241	17-ago-16	24 703	91%
Massango	32 811	17-ago-16	33 429	102%
Malange	621 900		515 531	83%
Maquela do Zombo	123 073	01-juil-16	117 896	96%
Milunga	48 454	17-ago-16	52 815	109%
Negage	136 323	16-mai-16	129 732	95%
Puri	35 710	23-juin-16	36 137	101%
Quimbele	130 192	17-ago-16	138 419	106%
Uige	496 567	16-mai-16	624 138	126%
Uige	970 319		1 099 137	113%
Cuimba	65 011	17-ago-16	58 344	90%
Mbanza Congo	174 920	17-ago-16	147 578	84%
Noqui	22 966	17-ago-16	22 505	98%
Soyo	219 536	16-juin-16	168 537	77%
Zaire	482 433		396 964	82%
GRAND TOTAL	16 896 448		16 011 303	95%

III. Response Interventions

IM/Coordination :

- ◆ The IM system has now a reduced number of international staff and is focusing the response to key activities in each intervention: vaccination, logistics, active surveillance and social mobilization(including technical assistance for the KAP study), entomological evaluations, laboratory support and capacity building for data management personnel, as well as support for the FES (Fever Encephalitis Syndrome) investigation and laboratory testing to identify the etiology.
- ◆ Interagency coordination with government and partners (UNICEF, WHO, Institute of Public Health) is ongoing to support the implementation of a KAP survey. The work started this week with training and preparation of materials for eight provinces.
- ◆ Coordination with the Cuban Cooperation continues to end the entomologic evaluations in the remaining two of five provinces in need of vector risk assessments

Surveillance, Laboratory and Data management :

- ◆ Three laboratory positive test (IgM) cases were identified this week, the samples tested negative for Dengue, Chikungunya, Zika and West Nile viruses. Investigation teams were set to be deployed to Porto Amboim, Cuanza Sul and Chongoroi (Benguela) to investigate these cases.
- ◆ Support is being provided for the shipment of the samples of the cases of encephalitis (EFS) to an alternative laboratory to be tested for the main etiologies of encephalitis.
- ◆ Training and capacity building of national level data processing center continues

Vaccination:

- ◆ The vaccination campaign is planned to start in October the 10th in 8 districts with a total of 1,086,716 doses to be administered. This number of doses include 573,200 that arrived from Chumakov (Russia) ; and stock of 513,516 doses remaining from previous vaccination campaign phases in the country.
- ◆ 1,332,900 doses from Bio-Manginhos, Brazil, arrive in two shipments October 5th and 7th, 2016 respectively.

Logistics:

- ◆ Logistics preparation is underway for a vaccination campaign in Porto Amboim district, in Cuanza Sul province.
- ◆ Development of standard operating procedures for lab specimen collection and transport is on going
- ◆ Lab materials for collection of blood specimen, case investigation forms, and cold boxes for transportation of samples have been distributed to all provinces

Border Health:

- ◆ Following the assessment conducted at the International Airport in Luanda in the previous week, there was an immediate request from the National Civil Aviation Authority to revise and support drafting the Airport Public Health Emergency Contingency Plan. The multidisciplinary team working on strengthening the IHR (2005) at Points of Entry (PoEs) has revised this draft and has put forward recommendations to be discussed at an inter-sectoral meeting planned by the National Directorate for Public Health.
- ◆ The work on developing the action plan for strengthening the IHR (2005) core capacities at designated PoEs continues, with the first phase mapping of key designated PoEs (Airports, Ports and ground crossings) already accomplished in week 38. WHO is also supporting the revision of SOPs for both Airport/airplanes sanitary inspection and Port/ships sanitary inspection by the National Health Inspection Agency.

Social Mobilization, Risk Communication and Media:

- ◆ The “Café de ideias” meeting with journalist from different media outlets in Luanda was organized on the 16th of September to share main concerns and proposals in communicating yellow fever risks; key inputs were made for future activities
- ◆ The KAP study protocol was approved.; and the aim of this study is to provide inputs in risk communication in 8 provinces. Training of supervisors who will administer the questionnaire has commenced.

Case Management :

- ◆ No update for case management activities during this period

Vector Control:

- ◆ Entomologic risk assessment has been completed in three of five provinces with preliminary results suggesting high-level infestation of *Aedes aegypti* in Bengo, medium in Cuanza Norte ; no infestation in Cuando Cubango due to dry climate in this province

Special Studies and Assessments

- ◆ KAP survey training activities and preparation of materials including questionnaire distribution have commenced
- ◆ The entomologic assessments will continue in the two remaining provinces—Bie and Moxico
- ◆ The vaccination cluster coverage survey remains on-hold due to financial constraints

Key challenges

- ◆ Sustaining adequate support for pillar responses with limited human resources
- ◆ Departure of the remaining international staff in country within two weeks will have an impact on response activities especially investigation of FES cases
- ◆ The reception of YF vaccine in three batches for the fifth vaccination campaign phase limits the media communication support for a single advertisement.
- ◆ Delays in identifying causal aetiology of FES requires support from other WHO regional offices with the capacities to test for most likely causes of infectious encephalitis
- ◆ Fundraising initiatives are still required so that the IM system can guarantee a minimum level of technical assistance post outbreak

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