

AVMI Annual General Meeting
Cape Town, South Africa
30 November 2016 – 01 December 2016

Diseases of African Health Importance

Guinea's Perspectives

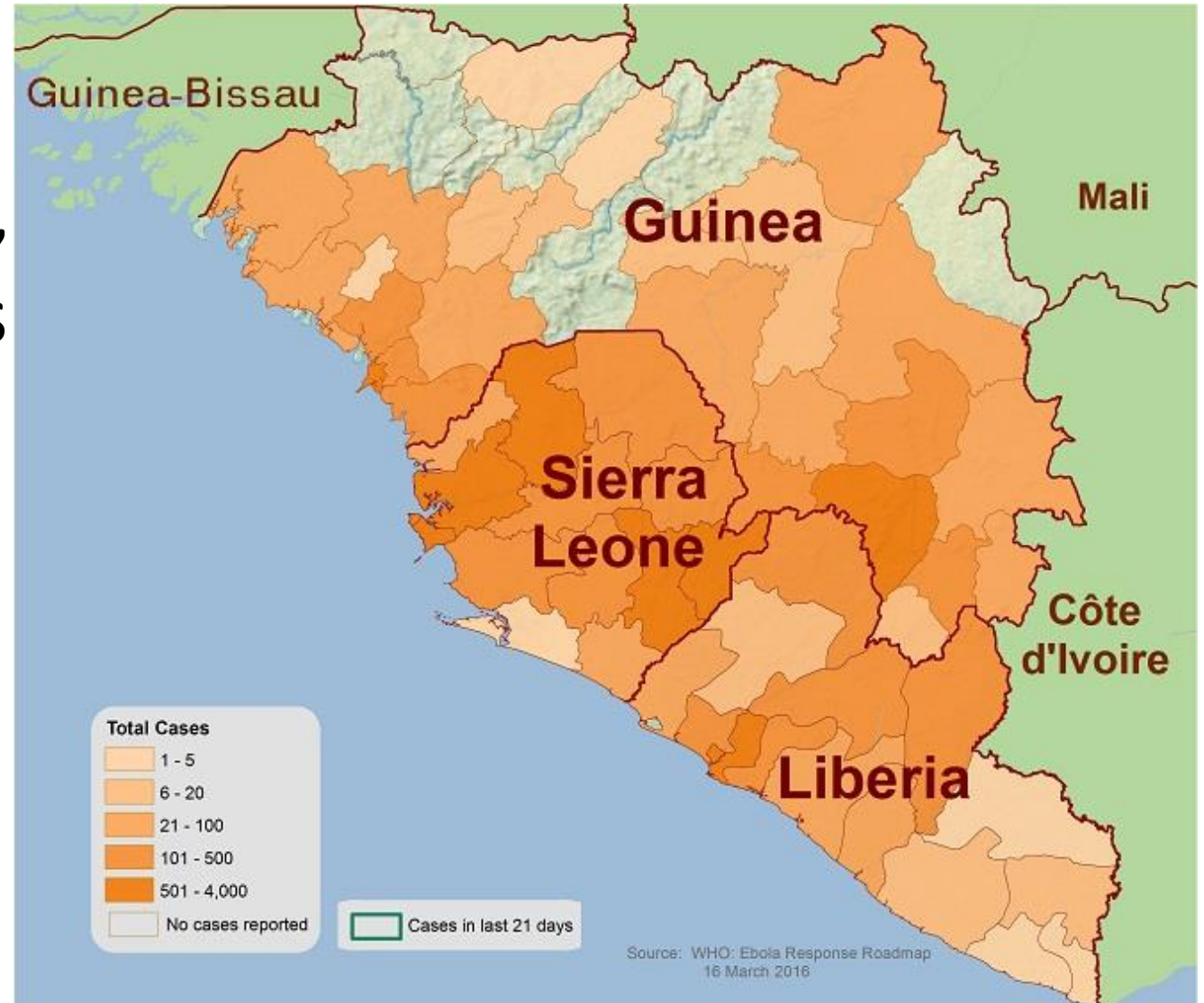
Mandy Kader KONDE, MD, MPH, PHD

- *Chair, Guinea Ebola Scientific Commission,*
- *Prof, Department Public Health University of Conakry, Guinea*
- *Director of Main Disease Center of Resaerch (CEFORPAG/
Foundation FOSAD)*

The Recent Ebola Outbreak

Ebola Viral Disease (EVD) 2014-2015

- 3 Most affected Countries,
- Globally: > 10 000 Survivors



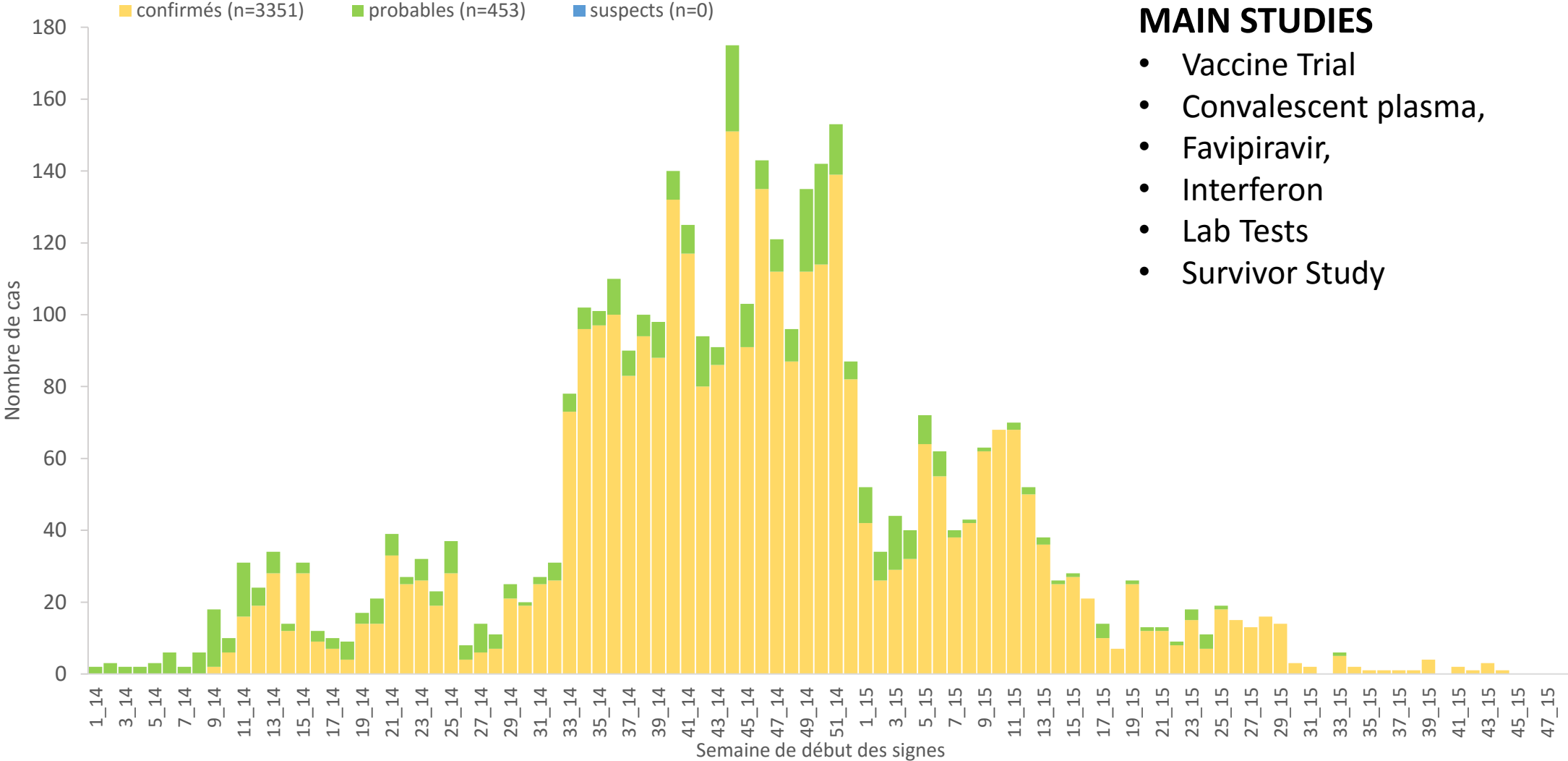
WHO Situation Report as of 10 June 2016

Unprecedented Ébola Viral Outbreak (EVD) in West Africa 2014-2015

Global Health Threat & Global Response

Country	Cases	Deaths
Guinea	3 811	2 543
Liberia	10 675	4 809
Sierra Leone	14 124	3 956
Italy	1	0
Mali	8	6
Nigeria	20	8
Senegal	1	0
Spain	1	0
UK	1	0
USA	4	1
TOTAL	28 646	11 323

Guinea Ebola Epidemic Curve, 30 Dec 2013- Week 48, 2015



MAIN STUDIES

- Vaccine Trial
- Convalescent plasma,
- Favipiravir,
- Interferon
- Lab Tests
- Survivor Study

International Workshop in Guinea

Conakry, (27-29 Nov 2015)

How African's people could assess to essential, efficacious & Affordable Vaccines for emergent and Outbreak disease including Ebola

Importance of Surveillance

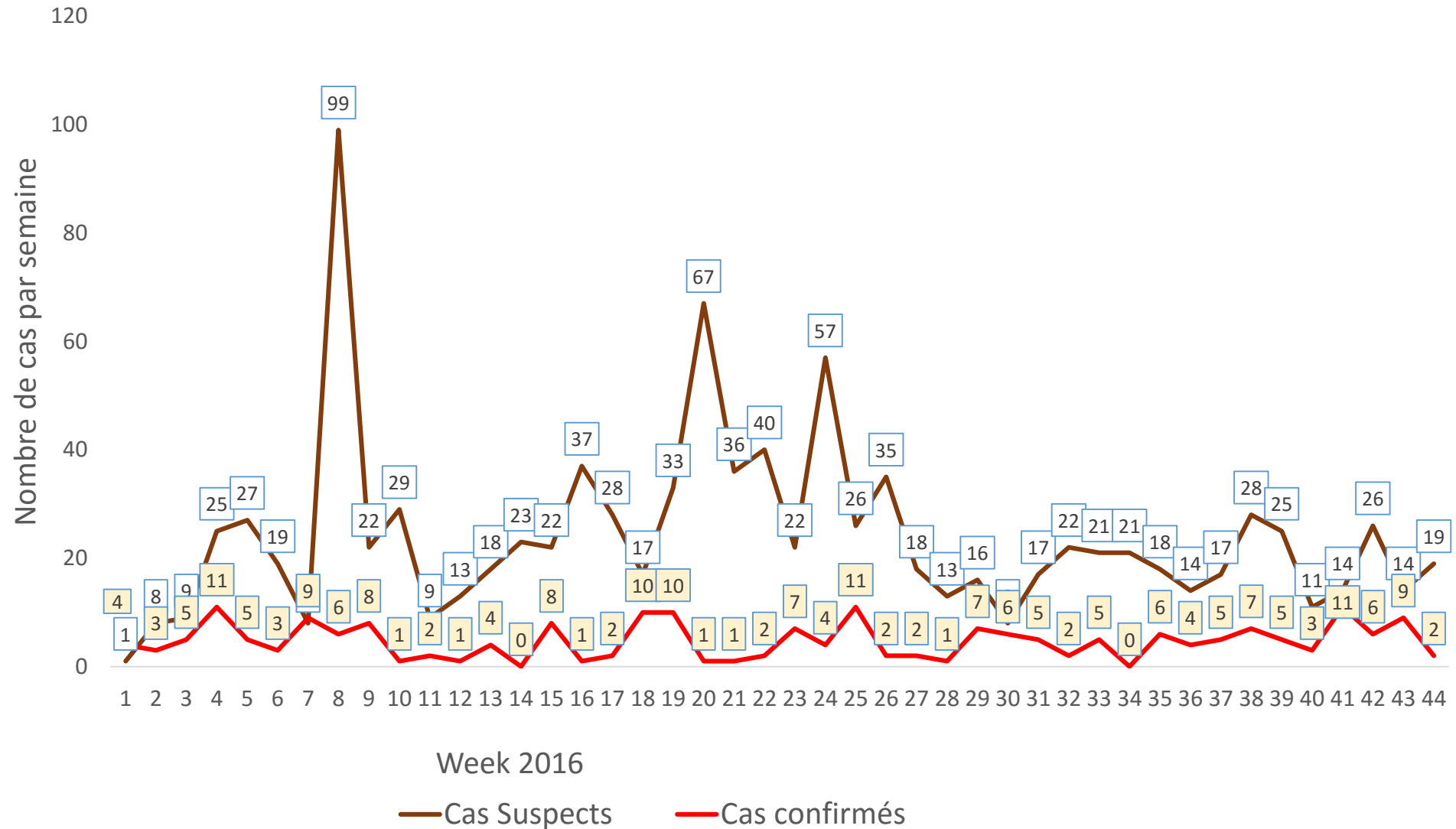
Epidemiologic Surveillance (Epidemic Prone Diseases & Other priority Events) – Week 44 & Cumulative -2016

Case	CHOLERA		MENINGITIs		YF		NMT		AFP		Measles	
	Week		Week		Week		Week		Week		Week	
		cumul		cumul		cumul		cumul		cumul		cumul
	44	S1 - S44	44	S1 - S44	44	S1 - S44	44	S1 - S44	44	S1 - S44	44	S1 - S44
Suspected	0	0	4	129	17	360	2	78	26	783	19	1053
CFR	0	0	1	13	0	0	0	26	0	1	0	1

Epidemiologic Surveillance (Epidemic Prone Diseases & Other priority Events) – Week 44 & Cumulative W 1-44 -2016

	Ebola		Blood Diarrhea		Flu Syndroma		Malaria		Maternal Death	
	Week		Week		Week		Week		Week	
	44	cumul	44	cumul	44	cumul	44	cumul	44	cumul
Suspected Case	01	135	0	931	2	2494	19 104	185 233		
Death	01	5	0	0	0	0	18	448	18	558

Weekly Suspected & Confirmed Measles Cases in Guinea W 1- W42



Guinea Post Ebola Perspectives

- Ebola Sexual risk long term surveillance,
- Monitoring Community Febrile Illness & Death
- Implementation Guinea Ebola Survivors National strategic plan
- Research's on Survivors:
 - Vaccine trial
 - Survivor long term follow up (POSTEBOGUI)
 - Immunology Study (EVIDENT – PHE/FOSAD-CEFORPAG)
 - Animal & reservoir studies (Not yet funded)

THE LANCET


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Articles

Efficacy and effectiveness of an rVSV-vectored vaccine expressing Ebola surface glycoprotein: interim results from the Guinea ring vaccination cluster-randomised trial

Ana Maria Henao-Restrepo, MD, Prof Ira M Longini, PhD, Prof Matthias Egger, MD, Natalie E Dean, PhD, Prof W John Edmunds, PhD, Anton Camacho, PhD, Miles W Carroll, PhD, Moussa Doumbia, MD, Bertrand Draguez, MD, Sophie Duraffour, PhD, Godwin Ewere, FWACP, Rebecca Grais, PhD, Stephan Gunther, MD, Stefanie Hossmann, MSc, Prof Mandy Kader Kondé, PhD, Souleymane Kone, MSc, Eeva Kuisma, PhD, Prof Myron M Levine, MD, Sema Mandal, MD, Gunnstein Norheim, PhD, Ximena Riveros, BSc, Aboubacar Soumah, MD, Sven Trelle, MD, Andrea S Vicari, PhD, Conall H Watson, MFPH, Sakoba Kéita, MD, Dr Marie Paule Keny, PhD  , Prof John-Arne Røttingen, MD[†]

[†] These authors contributed equally

Published Online: 03 August 2015

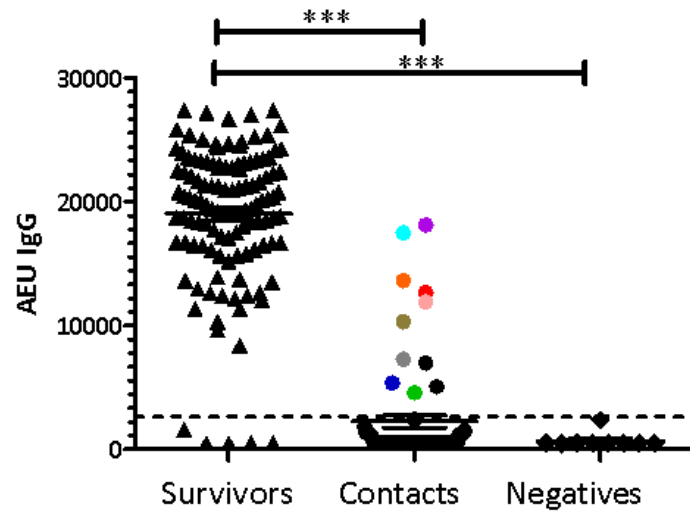
Research Finding in Guinea

PHE Evident – CEFORPAG/FOSAD

Antibody Responses

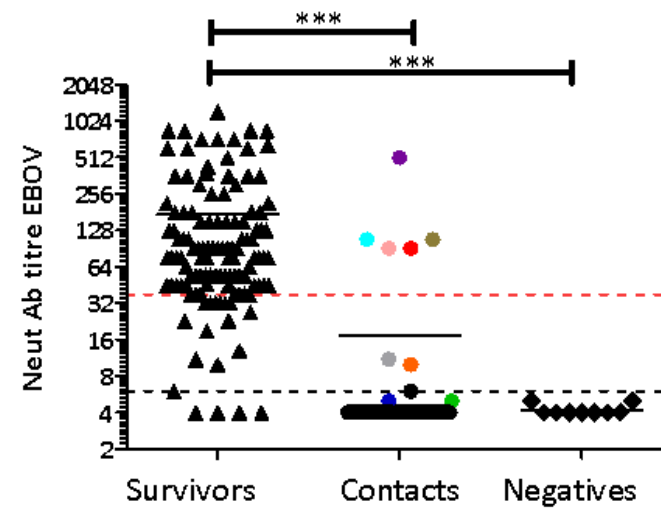
ELISA:

- Enzyme-Linked ImmunoSorbent Assay
- EBOV-specific antibodies



Neutralisation assay:

- Antibodies that stop viral infection



- *Antibodies are present for 96 % of survivors and 10% of contacts.*
- *Neutralising antibodies in some contacts are equivalent to some survivor responses.*

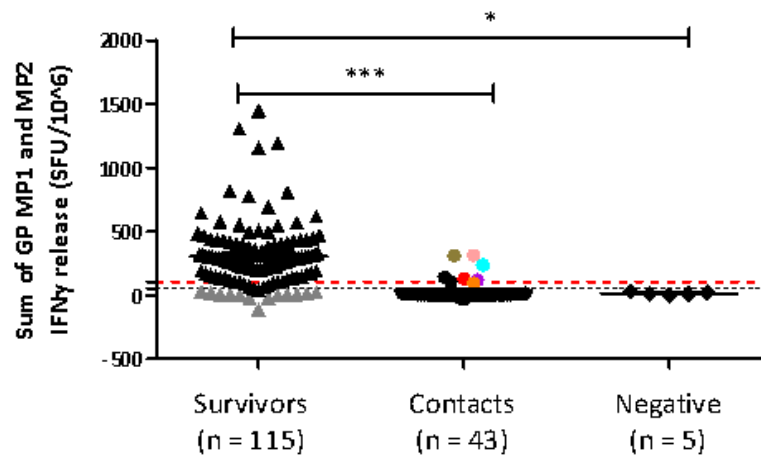
Unpublished Data

Research Finding in Guinea

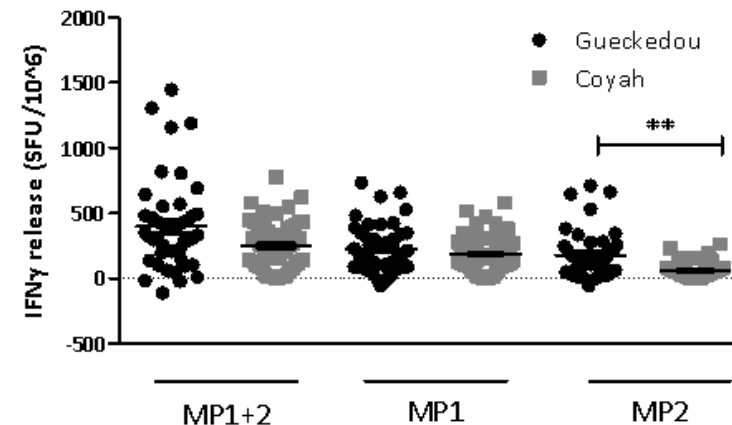
PHE Evident – CEFORPAG/FOSAD

PBMC Responses

ELISpot: Enzyme-Linked ImmunoSpot
PBMC response to glycoprotein



Survivor responses between regions



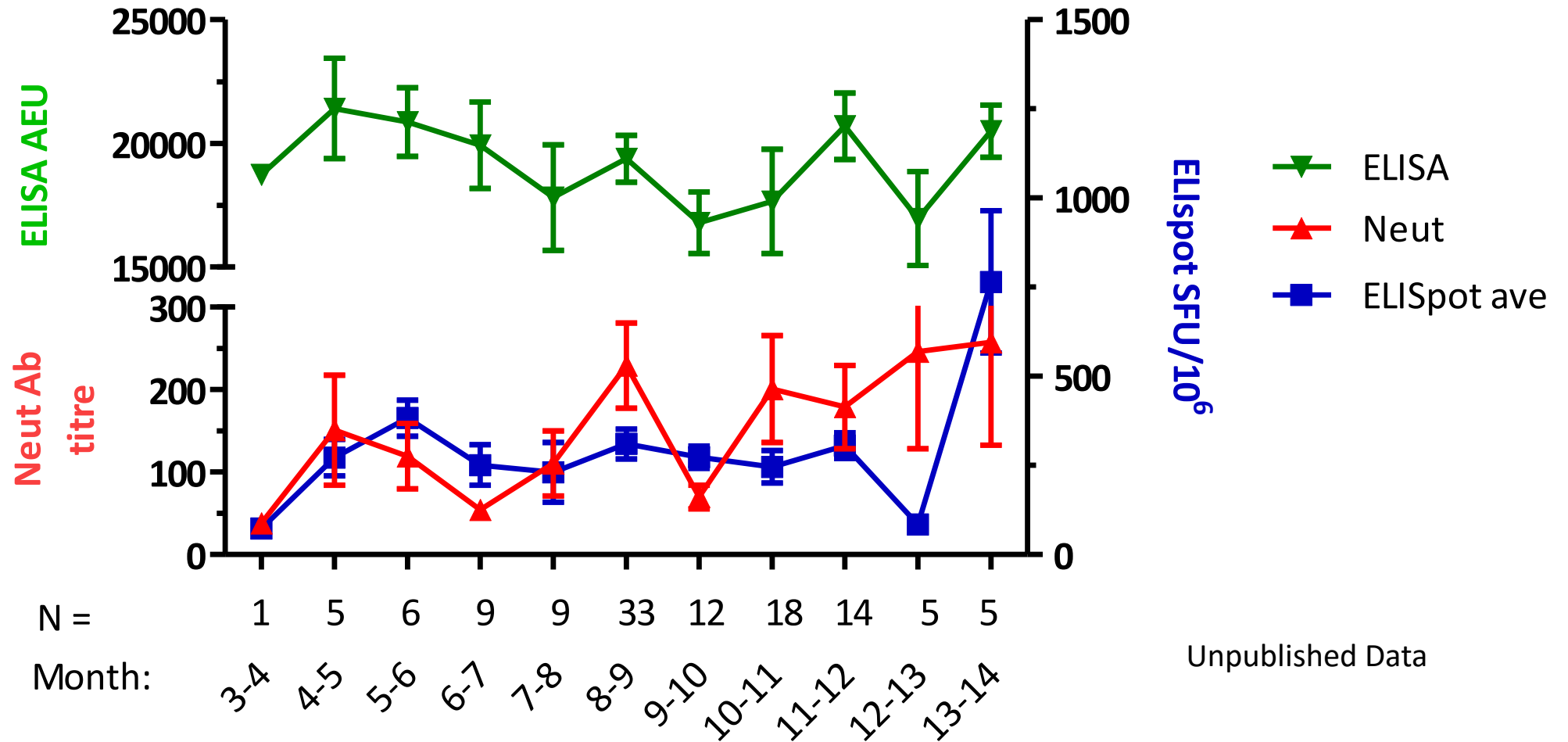
- PBMC responses were measured as the number of cell releasing IFN γ after stimulation with EBOV-GP.
- *PBMC responses were detected for 87% of survivors and 18% of contacts.*
- *PBMC responses in survivors at ~ 10-fold higher than vaccinees*
- *Regional differences in PBMC response to GP peptide pools.*

Unpublished Data

Temporal antibody and T-cell responses of survivors

PHE Evident – CEFORPAG/FOSAD

- From 3 to 14 months post release from ETC
- No decrease in immune intensity over 14 months post-recovery



Unpublished Data

PREVAC Vaccine Trial In GUINEA



DEPARTMENT OF HEALTH & HUMAN SERVICES

National Institute of Allergy and Infectious Diseases
National Institutes of Health
Bethesda, MD



Inserm

Institut national
de la santé et de la recherche médicale

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



Challenges & Opportunities Beyond Routine EPV Vaccination

- AVMI involvement with respect to these priorities Diseases (Ebola, YF, Influenza, Meningitis)
- Identifying other important diseases of relevance to Africa/AVMI (HIV, Malaria, TB, etc).
- Role of vaccines in stemming outbreaks of Yellow Fever, Influenza and Ebola.
- highlight the shortcomings/successes of the Global and continental producers in these situations.

Way Forward

- Guinea leader's express a long term vision & Advocacy for the development & access for emergency vaccine including Ébola, animal vaccines in Africa
- How the most affected Ebola & Priority diseases countries
- How AVMI can support a Country like Guinea interested to develop a strategic plan
- Guinea as a country for conducting clinical trial & developing and producing essential vaccines

Thank you !