

## Bioterrorism Possibility, The Perceptions of Security Officers in Nigeria and Buea, Cameroon

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### Abstract

**Background:** There are growing interests by Islamic extremist groups like Al Qaeda, ISIS and their affiliates to obtain bioagents (BA) and use them, making almost every country with such terrorist threat a potential target for bioterrorism. Nigeria, Cameroon and others, have recently being on constant attack by the Boko Haram terrorist group, with military authorities, especially in Nigeria trying unsuccessfully to contain or defeat them. This study was conducted months prior to the Ebola virus outbreak in Nigeria, to know how the security personnel in both countries perceive the possibility of bioterrorism, the possibility of a human-borne with a bioagent terrorist (HBBA) breaching their countries entry control point (ECP) and also attempt to determine their level of knowledge about the subject.

**Methods:** This was a cross sectional survey based-study with the dissemination of a questionnaire that has being validated with a Cronbach's alpha of  $> 0.8$  to respondents that consented in cities in both countries.

**Results:** Study tends to indicate that 92.9% of the respondents sampled in this study claimed that it is possible to have a human-borne with bioagent (HBBA) terrorist, there was no significant difference ( $p = 0.437$ ) in response base on respondents' country of domicile. In terms of the possibility of a terrorist with a bioagent (BA) breaching their security points successfully, a significant difference was observed between respondents from Buea, Cameroon (15.8%) and those from Nigeria (58%) ( $p = 0.004$ ). Critical assessment of these result tend to tilt towards an inference, that these security personnel have little knowledge about BA and/or lack adequate thorough knowledge about bioterrorism.

**Conclusion:** The author tend to query the true knowledge about BA and bioterrorism by security agents in both Cameroon and Nigeria based on their responses with currently employed search procedures and the identification of BA. It is thus recommended that, there is the need for education, training and equipping of security personnel especially at ECPs by government in Nigeria and Cameroon.

**Keywords:** Bioterrorism; ECP breach; Perceptions; Security Personnel; Cameroon; Nigeria

### Introduction

Bioterrorism (BT) is the intentional use of biological agent-bioagents (BA) or its by-products to cause harm to either humans or animals and thus terror in a community usually for a political or religious/ideological purpose [1-3]. The 2001 anthrax mail release in U.S. is believed to have brought the issue of bioterrorism (BT) into priority concern especially among policy makers, researchers, private industrialist and public health officers [4].

Nigeria, like most countries has also being contending with the issues of Islamic extremist terrorist activities, that has being reported to have claimed the lives of over 5,000 citizens, displacing over 4 million [5,6] with an unmeasurable economic cost to affected communities/countries. This group, known as the Boko Haram, with the initial goal to oppose the education of girls and generally western forms

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of education [5], has since metamorphosed into an international terrorist organization in alliance with the Al Qaeda group [5] and later, reported to have sworn allegiance to the current most organized terrorist groups known as the Islamic State of Iraq and Syria (ISIS).

Documentations exist indicating the willingness and desire by these religious extremist terrorist groups to acquire bioagents and employ them for terrorist action [6-8]. The fact is that BT has occurred in some countries before, like in the U.S. [1,6,9,10]. Also, the activities of this ISIS linked Boko Haram terrorist group has been reported in many neighboring countries around Nigeria, like Niger, Chad, and Cameroon [5,11].

Alakpa [12], had earlier reported the perception about bioagents from security agents stationed at the Murtala Muhammad International Airport, Lagos Nigeria, where most of them indicated the vulnerability of this port of entry to bioagents. This study, is thus a continuation of that prior study, but with the goal to obtain the perception from security personnel in Nigeria and Cameroon, about bioterrorism, bioagents (BAs) and the possibility of a human-borne with a bioagent terrorist (HBBA) breaching their countries entry control point (ECP).

## Materials and Methods

### The Instrument

The tool has three sections A, B, and C. Section A comprises of questions to obtain information about the respondents' past military or security trainings without personal identification. Respondents without any anti-terrorism (AT) training or tactics, techniques and procedures (TTP) knowledge were eliminated at this point. Section B, sort to obtain more specific TTP trainings and their perceptions about the possibility of a terrorist carrying a BA breaching the point of entry (POE), with three more questions of Five- Likert Scale answered options, becoming the first Construct. The questionnaire has two constructs:

*Construct 1: Tactics, Techniques, and Procedures (TTP) Effectiveness against a terrorist with a biological agent at the POE.* It comprises of three questions; questions 10 to 12 on the questionnaire, with Five-Likert Scale answers: Not Effective, Somewhat Effective, Neutral, Effective and Very Effective. It is meant to obtain the perceptions of respondents about the effectiveness of current TTPs against a terrorist with biological agents at their POE.

*Construct 2: TTP measures /mitigations at the POE.* Covers questions 13 to end the questionnaire, with Five-Likert Scale answer options: Not possible (NP), Somewhat possible (SWP), Neutral (Neu), Possible (PO) and Very possible (VP). It is meant to obtain the respondents' perceptions about the possibilities of the current procedures or TTPs employed at the entry control point (ECP) for explosive devices detections, and how these may be effective for BA detection.

### Pre-Testing for Reliability

**Respondents:** The target Population selected for this pre-test were security professionals stationed at various military locations, Customs and Border control points in Lagos, Minna, Kaduna, in Nigeria and Buea, in Cameroon. A total of 315 questionnaires were accepted by personnel that indicated interest to participate, with signed consent forms from November 2013 to February 2014.

**Study/Research design:** This is a cross-sectional survey based preliminary study that is time limited, with the administration of the validated questionnaire with reliability Cronbach alpha > 0.8 [13] to respondents in the organization selected. The survey tool was administered by a single-blind approach, ensuring no direct contact between the researcher and the respondents. Hard copies of the questionnaires with consent forms were left with a senior staff who were the point of contact (POC) at locations.

**Data Collection:** Data from the target population was collected with the validated survey-questionnaire-tool. Only those questionnaires that are fully completed or with no more than four missing items, and in which respondents demonstrated knowledge or training of/on antiterrorism POE TTP, were accepted for analysis.

**Data Analysis:** Data collected were analyzed employing the Statistical Product and Service Solution (SPSS) statistical software (Base Grad Pack Shrink wrap version 21.0) for both descriptive and Scale Reliability, --Cronbach's alpha analysis.

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**Results and Discussion**

Of the 315 respondents that accepted the questionnaire, only 201 returned their filled survey tools and consent forms signed, 123 from Nigeria and 78 from Cameroon. Not all the returned questionnaires meet our criteria as stated in the methodology, therefore, of the 201 returned questionnaire, only 70 made the final cut and thus was the sample size for this study.

**Limitations of Study**

This is a time specific cross sectional study, limited to a specific target population of professionals involved in security between November 2013 and February 2014. Many of the Respondents approached were very resistant, not due to lack of interest, but for fear of possible reprisal despite assurance that no personal identification items would be obtained.

**Descriptive**

Seventy respondents made the cut and were selected. Of these seventy respondents, 72.9% (n = 51) were from Nigeria and 27.1% (n = 19), were from Cameroon. Of the 70 respondents from both countries, 77.1% identified themselves as being in the military, 20%, Point of Entry Homeland Security, 1.4% as police officers and 1.4%, being others. 78.6% of the respondents claimed to have combat experience, all respondents claimed to have had anti-terrorism and/or tactics, techniques and procedures (TTP) training or experience. Analysis, also showed, of the seventy, 85.1% claimed to have had TTP drills on BA detection or prevention of persons approaching the ECP.

**Q 1. Is it possible to have HBBA?**

		Respondents (in %) Response			Chi-Square Tests		
		YES	NO	NS	Value	DF	Asymp. Sig.(2-sideed)
Country	Cameroon (n = 19)	95%	0.0%	5.0%			
	Nigeria (n = 51)	92.9%	5.9% 4.3%	1.9% 2.9%	1.656	2	0.437
	Total (n = 70)						

**Table 1:** Respondents' response to the question if it is possible to have a HBBA.

NS = not sure;

Table 1 showed that there was no significant difference in response between respondents from both countries to the question, if it is possible to have HBBA, for which over 90% respondents in both countries affirmed that it is possible. These results is similar to those obtained from the first study conducted in Lagos, Nigeria [12] prior to the Ebola Virus outbreak, where over 85% of the security personnel had claimedthat it is possible to have a human borne with bioagent (HBBA).

**Q 2. What is the possibility that a terrorist carrying a BA will successfully breach our ECP undetected?**

		Respondents' response to question Q2 in valid %					Chi-Square Tests		
		NP	SWP	NEU	PO	VP	Value	df	sig.
Country	Cameroon (n =19)	42.1%	31.6%	10.5%	5.3%	10.5%	15.256	4	0.004
	Nigeria (n = 50)	34.0%	6.0%	2.0%	38.0%	20.0%			
	Total	36.2%	13.0%	4.3%	29.0%	17.4%			

**Table 2:** Respondents' response to question 2.

NP = Not Possible; SWP = Somewhat Possible; NEU = Neutral; PO = Possible; VP = Very Possible.

Table 2 shows a significant difference ( $p = 0.004$ ) between respondents' base on their country of origin with respect to how they perceive the possibility of a terrorist carrying a BA successfully breaching their ECP undetected. While 15.8% of the Cameroonians from Buea, claim that it is either possible or very possible, 58% of security personnel from Nigeria, think that their ECP is very vulnerable to a BA breach. Collectively, 46.4% of respondents from both countries either claim it is very possible or possible for a terrorist carrying a bioagent to successfully breach their country's ECP undetected.

The result obtained in this study from security personnel in Nigeria, where 58% claimed it is either possible or very possible for a successful breach of their ECP by a HBBA, is slightly similar to what was obtained from a prior study conducted in Lagos, Nigeria [12] where 50.9% had a similar perception. What could be responsible for the significant difference in the perceptions between the officers from Cameroon and Nigeria is unclear, as while 15.8% of those in Cameroon perceived it is possible, and 58% of those in Nigeria think the same ( $p = 0.004$ ).

In terms of specific TTPs, Table 3 indicates the respondents' perception about their various current TTPs and how these could be effective in the detection or prevention of a breach of their ECPs with a BA. Collectively, 65% of the respondents in this study believed their ECP TTP against BA breaching is either effective or very effective, however when analysed separately by country there was no significant difference between the responses of security officers in both countries (Table 3(a)). In terms of the effectiveness of either improvised explosive device (IED) or chemical, biological, radiological, and nuclear (CBRN) TTPs against BA at the ECP, over 74% of the respondents in the study collectively said their TTPs specific for IED or CBRN is either effective or very effective in preventing a breach of the ECP with a BA (Table 3 - b, c).

This answer, especially with those from Table 3b, is very disturbing, as IEDs are completely different from BAs and in no way would be possible to identify BA with metal detection techniques. The respondents' answers as presented in Tables 4, 5 and 6, further raises the questions as to the level of knowledge these security agents have or know about bioagents or bioterrorism prevention and detection.

Analysis of the data with respect to commonly employed ECP control or search procedures in Nigerian, Cameroon and other West African countries like the use of biometric automated tool system (BATS) and metal detectors, tend to indicate that while 94.7% of the respondents from Buea, Cameroon either agree or strongly agree with the statement that, "*BATS will be effective in preventing a breach at the ECP by a terrorist with a BA*", 88.2% of those from Nigeria had a similar perception ( $p = 0.016$ ). In terms of the use of metal detectors at the ECP to prevent or detect a breach by a human borne with a bioagent, 36.8% of respondents in Buea, Cameroon and 80% in Nigeria, either agree or strongly agree that this procedure will be effective ( $p = 0.006$ ) (Table 5).

Table 6 presents the respondents' response to determine their knowledge about BA, with 85.7% of the respondents' in this study claiming to agree or strongly agree with the statement that, "*every security personnel at the ECP is adequately knowledgeable about BA identification*". There was no significant difference in the percentage of respondents with respect to their country of location ( $p = 0.742$ ). On the statement, "*every security personnel at the ECP have devices that can effectively detect traces of BA borne on person*", there was a significant difference in the responses of security personnel based on their country of location. While 89.5% of those in Buea either agree or strongly agree, 74.5% of those in Nigeria claimed they have the devices to detect BA on person at the ECPs ( $p = 0.002$ ). From this study, 78.6% of the total respondents, either agree or strongly agree with the statement, that they have devices that can effectively detect traces of BA on a person.

On the effectiveness of immunization of security at the ECP, 72.9% of the security personnel in this study either agree or strongly agree with the statement that, "*the immunization of every security staff at the search area will assist in the detection of a terrorist with BA*". There was no significant difference in responses among the security professionals in terms of country ( $p = 0.583$ ). Results also indicated that 77.3% of the respondents in the study either agree or strongly agree with the statement that, "*the donning of protective gear will prevent the breaching of an ECP by a terrorist carrying a BA*".

Critical assessment of these results tend to tilt towards an inference, that these security personnel have little knowledge about BA or lack adequate thorough knowledge about bioagents or bioterrorism. The author tend to query the true knowledge about BA and bioterrorism by security agents in both Cameroon and Nigeria based on their responses as shown in Tables 3-6, with the percentage of respondents (over 50%), claiming that, the common search procedures like speed mitigation, the use of biometric or the use of metal detectors, will be effective in detecting a BA. These results tend to support the authors’ suspicion about the true knowledge of the security agents in both Cameroon and Nigeria about BA and BT.

		How effective is your ECP TTP against BA?					Chi-Square Tests		
		NE	SWE	NEU	EFF	VE	Value	df	sig.
Country	Cameroon (n = 19)	5.3%	26.6%	10.5%	15.8%	42.1%	1.023	4	0.906
	Nigeria (n = 50)	4.0%	20.0%	8.0%	26.0%	42.0%			
	Total (n = 69)	4.3%	21.7%	8.7%	23.2%	42.0%			
		How effective is your current IED TTP against BA at the ECP?					Chi-Square Tests		
		NE	SWE	NEU	EFF	VE	Value	df	sig.
Country	Cameroon (n = 19)	0.0%	0.0%	10.5%	63.2%	26.3%	12.333	4	0.015
	Nigeria (n = 50)	8.0%	16.0%	6.0%	24.0%	46.0%			
	Total (n = 69)	5.8%	11.6%	7.2%	34.8%	40.8%			
		How effective is your current CBRN TTP against BA at the ECP?					Chi-Square Tests		
		NE	SWE	NEU	EFF	VE	Value	df	sig.
Country	Cameroon (n = 19)	0.0%	21.1%	10.5%	52.6%	15.8%	11.681	4	0.020
	Nigeria (n = 50)	8.0%	6.0%	6.0%	28.0%	52.0%			
	Total (n = 69)	5.8%	10.1%	7.2%	34.8%	42.0%			

NP = Not possible; SWP = Somewhat possible; NEU = Neutral; PO = Possible; VP Very possible.

**Table 3:** Respondents’ response Construct 1.

NE = Not effective; SWE = Somewhat Effective; NEU = Neutral; EFF = Effective; VE Very effective.

A.		Speed mitigation will effectively prevent breaching of the ECP by SVBIED/VBIED						Chi-Square Tests		
		SDA	DA	NEU	AG	SAG	NS	Value	df	sig.
Country	Cameroon (n = 19)	0.0%	5.3%	5.3%	42.1%	47.4%				
	Nigeria (n = 51)	2.0%	3.9%	5.9%	43.1%	45.1%		0.459	4	0.977
	Total (n = 70)	1.4%	4.3%	5.7%	42.9%	45.7%				
<b>B. Speed mitigation procedure will effectively prevent The breaching of an ECP with a BA</b>										
Country	Cameroon (n = 19)	5.3%	13.7%	10.5%	31.6%	0.0%	0.0%			
	Nigeria (n = 51)	5.9%	13.7%	3.9%	45.1%	31.4%	0.0%	16.266	4	0.003
	Total (n = 70)	5.7%	24.3%	5.7%	41.4%	22.9%	0.0%			
<b>C. Direct external &amp; internal vehicle search will effectively prevent the breaching of the ECP by SVBIED/VBIED</b>										
Country	Cameroon (n = 19)	0.0%	5.3%	0.0%	15.8%	78.9%	0.0%			
	Nigeria (n = 50)	2.0%	2.0%	4.0%	34.0%	56.0%	2.0%	4.764	5	0.445
	Total (n = 69)	1.4%	2.9%	2.9%	29.0%	62.3%	1.4%			
<b>D. Direct external &amp; internal vehicle search will effectively prevent the breaching of the ECP with a BA</b>										
Country	Cameroon (n = 19)	10.5%	42.1%	26.3%	21.1%	0.0%	0.0%			
	Nigeria (n = 50)	4.0%	10.0%	2.0%	32.0%	52.0%	0.0%	28.355	4	0.000
	Total (n = 69)	5.8%	18.8%	8.7%	29.0%	37.7%	0.0%			

Construct 2: Extent of ECP TTP.

**Table 4:** SDA = strongly disagree; DA = Disagree; NEU = Neutral; AG = Agree; SAG = Strongly agree; NS = Not sure.

A.		Bats System Will Effectively Prevent The Breaching of an ECP By A Terrorist With an IED						Chi-Square Tests		
		SDA	DA	NEU	AG	SAG	NS	Value	DF	sig.
Country	Cameroon (n = 19)	0.0%	5.3%	10.5%	36.8%	47.4%				
	Nigeria (n = 51)	8.0%	2.0%	2.0%	32.0%	56.0%		4.616	4	0.329
	Total (n = 70)	5.8%	2.9%	4.3%	33.3%	53.6%				
<b>B. Bats system will effectively prevent the breaching of an ecp by a terrorist with a ba</b>										
Country	Cameroon (n = 19)	0.0%	0.0%	5.3%	78.9%	15.8%	0.0%			
	Nigeria (n = 51)	3.9%	2.0%	5.9%	33.3%	54.9%	0.0%	12.209	4	0.016
	Total (n = 70)	2.9%	1.4%	5.7%	41.7%	44.3%	0.0%			
<b>C. The use of hand metal detector during personal body search at the ECP will prevent a terrorist with an IED</b>										
Country	Cameroon (n = 19)	0.0%	5.3%	10.5%	68.4%	15.8%	0.0%			
	Nigeria (n = 51)	3.9%	0.0%	2.0%	52.9%	41.2%	0.0%	8.982	4	0.062
	Total (n = 70)	2.9%	1.4%	4.3%	57.1%	34.3%	0.0%			
<b>D. The use of hand metal detector during personal body will effectively prevent the breaching of the ECP with a BA</b>										
Country	Cameroon (n=19)	5.3%	31.6%	26.3%	26.3%	10.5%	0.0%			
	Nigeria (n = 50)	4.0%	8.0%	6.0%	28.0%	52.0%	2.0%	16.464	5	0.006
	Total (n = 69)	4.3%	14.5%	11.6%	27.5%	40.6%	1.4%			

**Table 5:** Respondents perception to current common search procedures.

SDA = Strongly disagree; DA = Disagree; NEU = Neutral; AG = Agree; SAG = Strongly agree; NS = Not sure.



A.		Every Security Personnel At The ECP Is Adequately Knowledgeable About BA Identification						Chi-Square Tests		
		SDA	DA	NEU	AG	SAG	NS	Value	DF	sig.
Country	Cameroon (n = 19)	0.0%	10.5%	5.3%	36.8%	47.4%				
	Nigeria (n = 51)	2.0%	9.8%	2.0%	25.5%	60.8%		1.969	4	0.742
	Total (n = 70)	1.4%	10.0%	2.9%	28.6%	57.1%				
<b>B. Every security personnel at the ECP have devices that can effectively detect traces of BA borne on person</b>										
Country	Cameroon (n = 19)	5.3%	0.0%	0.0%	68.4%	21.1%	5.3%			
	Nigeria (n = 51)	3.9%	11.8%	7.8%	19.6%	54.9%	0.0%	20.348	6	0.002
	Total (n = 70)	4.3%	8.6%	5.7%	32.9%	45.7%	1.4%			
<b>C. The immunization of every security staff at the search area, will assist in the detection of a terrorist with BA</b>										
Country	Cameroon (n = 19)	0.0%	15.8%	15.8%	52.6%	15.8%	0.0%			
	Nigeria (n = 51)	5.9%	9.8%	9.8%	47.1%	27.5%	0.0%	2.849	4	0.583
	Total (n = 70)	4.3%	11.4%	11.4%	48.6%	24.3%	0.0%			
<b>D. The donning of protective gear will prevent the breaching of an ecp by a terrorist carrying a BA</b>										
Country	Cameroon (n=18)	5.6%	16.7%	11.1%	50.0%	16.7%	0.0%			
	Nigeria (n = 48)	0.0%	4.2%	14.6%	31.3%	50.0%	0.0%	10.304	4	0.036
	Total (n = 66)	1.5%	7.6%	13.6%	36.4%	40.9%	0.0%			

Table 6: Respondents' knowledge level about bioagents identification on terrorist.

SDA = Strongly disagree; DA = Disagree; NEU = Neutral; AG = agree; SAG = Strongly Agree; NS = Not sure.

Q 3. Do you think there is a need for the modification of the ECP TTPs in other to enhance security against any human terrorist with biological agent?

		Respondents (in %) Response		Chi-Square Tests		
		YES	NO	Value	DF	Sig.(2-sided)
Country	Cameroon (n = 18)	44.4%	55.6%	13.214	1	0.000
	Nigeria (n = 48)	87.5%	12.5%			
	Total (n = 66)	75.8%	24.2%			

Table 7: Respondents response to the question about the possible need for modification of current ECP TTP.



Respondents from both countries had significant differences in their thoughts as to whether there should be a modification to the search procedures in their countries (Table 7). While 55.6% of the security officers in Buea border Town in Cameroon, felt there was no need for modification, 44.4%, thought otherwise. However, the reverse was observed from the security personnel from Nigeria, where the majority, 87.5%, believed there should be a modification of the country's search procedures and techniques to include training, education and device for bioagent so as to facilitate in the identification of terrorist with bioagent.

There were more security personnel in Nigeria from this study (87.5%) recommending the need for modifications of current ECP procedures, compared to the prior study [12], where only 57% of the security personnel stationed at the International Airport in Lagos, called for modifications of search procedures. In retrospect, the entry control point of Lagos was breached by the individual with the Ebola virus months after this study.

In the West Africa subcontinent, little is being discussed about the issues of BT or biosecurity or biocrime. The question is how many countries in the subcontinent have a national strategy to counter bioterrorism? What are the knowledge levels among policy makers, and especially security personnel who usually are the first responders to terrorist attack and the executing arm of the governments' strategy to combat terrorism? We can deduce from this limited study, like others [12,13], that there is still a need for education, training and policy change to bioterrorism and biosecurity for all security agents in the countries in the continent of Africa.

The threat of bioterrorism is real as many of these extremist terrorist groups are seeking means to acquire bioagents with the sole purpose of committing terrorist act, it has happened before and it very possible to occur again. In 2014 some countries in the West African region including Nigeria, reported the outbreak of the Ebola Virus disease. While some of the countries like Nigeria has been declared Ebola free, many other countries are still experiencing the dissemination of this virus [14], and records still exist of the dissemination of many other infectious agents via human travels.

### Conclusions

In conclusion, this study tends to show that security personnel in both Nigeria and Cameroon do agree that it is possible to have human borne with bioagents as terrorist, though officers from both countries differ in percentage when it has to do with the possibility of having the ECPs breached by a terrorist with a BA, just like the successful transportation of the Ebola Virus into Nigeria and the United States by two separate individuals from Liberia who knew they were infected with the virus in 2014. Results also showed that there is a need for training, equipping and education of security personnel and first responders about BA, and bioterrorism. The author duly recommend that, countries in the West African region, should like other advanced countries, commence the development of a national counter bioterrorism strategy, increase surveillance of biological agents via biosafety and biosecurity policies. There is also the need for frequent reassessment with modification of a country's port of entry search procedures and TTPs. The author also will recommend for more expanded studies subsequent to the Ebola epidemic in order to fathom the reason for significant difference in the responses between security personnel in Cameroon and Nigeria as reported in this study, so as to learn the best practices from both countries.

### Conflict of Interest

Author have no conflict of interest to declare.

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**Bibliography**

1. Dembek ZF, *et al.* "Epidemiology of Biowarfare and Bioterrorism". Chapter 3. In Dembek, ZF (senior editor) Textbook of Military Medicine: Medical Aspects of Biological Warfare. (2007): Published by the Office of the Surgeon General, U.S. Army. A TMM Publications, Borden Institute, Walter Reed Army Medical Center, Washington, DC.
2. Ashford DA, *et al.* "Planning against Biological Terrorism: Lessons from Outbreak Investigations". *Emerging Infectious Disease* 9.5 (2003): 515-519.
3. Field Manual 3-11. "Multiservice Doctrine for Chemical, Biological, Radiological, and Nuclear Operations", (2011).
4. Knobler SL, *et al.* "Biological Threats and Terrorism: Assessing the Science and Response capabilities: Workshop Summary". (2012).
5. Comolli V. "Boko Haram: Nigeria's Islamist Insurgency". Hurst & Company, London (2015).
6. Galamas F. "Profile Bioterrorism: Present and Potential Threats". *Comparative Strategy* 30 (2011): 70-93.
7. Middle East Media Research Institute (MEMRI). "Jihadi Chatter Online, Including on Social Media, About Using Ebola, Poisons As Weapon Against the U.S. and the West". Special Dispatch No 5854, of October 03, 2014.
8. Lynch DM. "The Cost of Amnesty: They Come to America II". (2013): Film. Distributed by TV36 OLLC.
9. Tucker JB. "Historical Trends Related to Bioterrorism An Empirical Analysis". *Emerging Infectious Disease* 5.4 (1999): 498-504.
10. Dudley JP. "Tularemia: A case Study In Medical Surveillance And Bioterrorism Preparedness". *Journal of Medical Chemical, Biological and Radiological Defense* 8 (2010): 17.
11. Department of States. Cameroon Travel Warning.
12. Alakpa GE. "Possibility of a Human with a Bioagent Breaching a Country's Point of Entry: Perceptions Security Officers at the Murtala Muhammad International (MMI) Airport, Lagos, Nigeria - Preliminary Report". *EC Microbiology* 1.4 (2014): 195-202.
13. Alakpa GE. "Perceptions of Military Personnel: Assessment of the Department of Defense's Counter Bioterrorism Measures at the Tactical Level for the Enhancement of Civil Security Leadership, Management, and Policy". Doctoral of Science Dissertation, New Jersey City University, NJ. USA (2015): 186.
14. World Health Organization. Nigeria is now free of Ebola virus transmission.

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