UC RUSAL and the fight against Ebola in the Republic of Guinea

August 2017
EBOLA
A GLOBAL 21ST CENTURY CHALLENGE

2014-2016

Ebola Outbreak challenged healthcare systems worldwide

EVD

The Ebola Virus Disease is an acute disorder with high mortality rate

1976

2014-2016 Ebola Outbreak most significant since first detection in 1976.

28,616

25%

90%

50%

AVERAGE MORTALITY RATE

PREVIOUS OUTBREAKS MORTALITY RATES

11,310

2014-2016 Figures registered in Guinea, Liberia and Sierra Leone according to WHO*

2015: USD 2.2bln loss

Economy threat: combined GDP loss of Guinea, Liberia and Sierra Leone. Food security, human resources and development of the private sector also threatened.

*Data: www.who.int/csr/disease/ebola/situation-reports/en/
Effective coordination and communication across the private, public and third sectors is vital to ensure the prevention of a further epidemic.
GUINEA
IN THE MIDST OF THE SPREAD OF THE VIRUS

December 2013
Initial EDV Outbreak detected in Guinea

August 2014
President Conde of the Republic of Guinea, announced a state of emergency due to the epidemic killing 377 people

Efforts to fight the epidemic in Guinea faced numerous obstacles, most importantly logistical issues associated with weak health systems and infrastructure.

Treatment resistance by local communities in Guinea was a further obstacle in fighting the epidemic.

Efforts to establish disease treatment centres following the initial outbreak of Ebola faced multiple challenges, delaying efforts to control the virus.

The virus was contained and ultimately eliminated. WHO declared Guinea free of Ebola virus after 42 days had passed since the last Ebola patient tested negative.

Since the virus was first detected in Guinea

3,358
REGISTERED CASES

2,088
REGISTERED DEATHS

December 2013

August 2014

December 2015

Since December 2013, the virus has spread throughout the region.
RUSAL, a leading global aluminium producer, is a significant player in the bauxite and alumina industry in Guinea and one of the country’s largest private sector investors.

As a leading social and economic driver in Guinea, the government awarded RUSAL in 2006 its status as a socially oriented company.

RUSAL commitment to creating shared value amongst all stakeholders has seen it invest in programmes focused on improving health and education standards within its areas of operation.

RUSAL’s unequivocal commitment to the country meant the company worked collaboratively with all stakeholders to help contain the spread of the epidemic.

RUSAL is the owner of Compagnie des Bauxites de Kindia (CBK) and Friguia Bauxite and Alumina Complex. The Company is also developing the Dian-Dian project.

CBK is one of the world’s largest bauxite deposits which has been managed by RUSAL since 2001. CBK accounts for about 30% of the Company’s total bauxite output. CBK’s annual production capacity is 3.3 million tonnes. CBK employs over 1,200 people.

Friguia production complex includes a bauxite mine, an alumina refinery and a railway network.

Dian Dian is the world’s largest bauxite deposit, with the Company being the owner of rights to develop this project.
RUSAL OPENING AN EPIDEMIOLOGY CENTRE IN GUINEA

50 days to build

RUSAL constructed the Centre for epidemic and microbiological research and treatment in the Guinean Kindia province.

The Centre was designed and constructed by RUSAL specialists with the assistance of Rospotrebnadzor scientists using up-to-date Russian engineering and medical equipment. All of the recommendations of the international aid organisations were taken into consideration.

62.5% recovery

Over the course of the EVD epidemic period, the Centre witnessed the best survival rate in Guinea: 62.5% of the Center’s patients diagnosed with EVD have recovered.

The Centre was commissioned as a medical institution of the Ministry of Health of the Republic of Guinea and was included in the Guinean national system of preventing the spread of Ebola.

$20m invested

At present, RUSAL has invested $20m in addressing the Ebola crisis in Guinea.
RUSAL has become the world’s first public company to implement a major construction project aimed at fighting the spread of the Ebola virus.
<table>
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<tr>
<th>Date</th>
<th>Event Description</th>
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<tr>
<td>April 2014</td>
<td>RUSAL became the first foreign company in Guinea to enter the fight against Ebola.</td>
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<td>October 2014</td>
<td>In Moscow, RUSAL and Rospotrebznadzor signed a Cooperation Agreement that committed the company to play a leading role in the treatment and prevention of the Ebola epidemic.</td>
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<td>March 2015</td>
<td>In Brussels, RUSAL convened a high level working group including Anna Popova, the Head of Rospotrebznadzor, and President Conde of the Republic of Guinea. At this meeting a joint programme was agreed to fight the further spread of the outbreak in West Africa.</td>
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<td>May 2016</td>
<td>In Geneva, in the presence of Margaret Chan, WHO Director General, with a representative of the Russian Federation to the United Nations in cooperation with the Ministry of Healthcare of the Russian Federation, ICC Russia and RUSAL, a roundtable on the theme: Russian vaccine against Ebola: prospects for joint activities took place. It was dedicated to the discussion on the Russian vaccine against Ebola and the possibilities of its application on the territory of the Republic of Guinea. At this meeting it was agreed between the Government of Guinea and the Government of Russia that the Russian vaccine Gum Evak-Kombi would be employed in-country to combat the epidemic.</td>
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In St. Petersburg, RUSAL arranged a roundtable discussion “The economic impact of epidemics: a case study of public–private partnership in the fight against Ebola”.


According to World Bank, a total of USD7 billion had been spent on the fight with Ebola, but questions remain how efficiently these funds were spent.

Delegates discussed a global strategy to be developed and put in place which will allow the international community to efficiently respond and provide help.

In Kindia, Guinea, RUSAL together with the Russian authorities opened modern laboratory facilities, which are designed for combatting highly infectious diseases. The new lab will be unparalleled in the region of West Africa in terms of its application of advanced technologies and its system of biosecurity.

The laboratory, built in cooperation with Rospotrebnadzor and its research units, was established as a part of RUSAL’s Centre for Epidemic and Microbiological Research and Treatment.

The lab was established to ensure a high degree of security when performing laboratory research and has Biosafety Level 3 according to international classification.
The Russian State Gamaleya Institute for Epidemiology and Microbiology in Moscow developed a vaccine against Ebola under the working directive of the President and obtained Russian state registration.

The two variants of the vaccine – named Gam-Evac Combi and Gam Evac – is the world’s first officially registered vaccine approved for clinical use for the prevention of the usually fatal hemorrhagic fever caused by the Ebola virus.

In July 2017, the first batch of 1,000 Ebola vaccine doses were sent from Russia to Guinea with the support of RUSAL to be administered at RUSAL’s Centre for epidemic and microbiological research and treatment.

Vaccination of volunteers began at the premises of RUSAL’s Epidemiology Center in Kindia region, Guinea.

Earlier testing of vaccine proved that the vaccine was effective.

Russian minister of Health Veronika Svorotsova:

“One hundred percent of vaccinated people have a high antibody titer to the causative agent. We have been monitoring the vaccinated individuals for five months now, and this titer has remained high for five months. The blood serum of those vaccinated completely kills and neutralizes the virus in laboratory conditions.”
RUSSIAN GOVERNMENT
SUPPORT INITIATIVES TO ASSIST GUINEA IN THE FIGHT AGAINST EBOLA

RUSAL has worked collaboratively with the Russian government to fight the epidemic in Guinea, including:

- Providing logistical support for the special anti-epidemic team of the Russian Rospotrebnadzor in Guinea.

- Helping to establish the Russian mobile laboratory in the Guinean territory.

- Obtaining the permission of the Ethics Committee of the Republic of Guinea to examine the biological material obtained in the country.

- Establishing the field military hospital for treatment of infectious diseases (FMH) for 200 beds, donated by the Russian Federation. RUSAL organized and funded the training of the qualified military medical staff operating FMH. During the epidemic, FMH provided more than 4,500 people with free and qualified medical aid.

- Delivering 39 tonnes of humanitarian relief and organised the system of the sanitary posts in the Conakry sea port.

- Convening scientific and logistical workshops in partnership with leading scientists of the Russian Federation, including academician V.V.Maleev, professor K.V.Zhdanov and facilitated Russian representatives to participate in international scientific congresses.
KEY STAKEHOLDERS
EFFECTIVE COORDINATION

Aid Charities

Ministry of Transport of the Republic of Guinea

Ministry of Cooperation of the Republic of Guinea

Provision of humanitarian aid to the Republic of Guinea

Ministry of Higher Education & Scientific Research of the Republic of Guinea

National Committee of the Republic of Guinea for the Fight against Ebola

Autonomous sea port of Conakry

Pasteur Institute (Kindia)

Medical Service of the Armed Forces of the Republic of Guinea

Suppling the field military hospital for the treatment of infectious diseases (FMH) to the Republic of Guinea
Selection and preparation of the site for the hospital
Deployment of the FMH
Selection and training of the FMH medical and technical personnel
Financing of the FMH activities at the initial stage
Deploying of sanitary posts in the territory of the autonomous Port

The General Staff of the Armed Forces of the Republic of Guinea

Who

Validation and integration of Rospotrebnadzor scientific and technical laboratory into the national system to fight against Ebola
Participation in international conferences (BRICS, Equatorial Guinea, etc.)
Carrying out of educational workshops to instruct the local staff in the fight against Ebola

Construction and equipping of CEMRT
Selection and training of the medical and technical personnel
Administrative and functional control of the CEMRT activities
Financing and procurement to support its activities
Procurement to support the Rospotrebnadzor laboratory functioning

WHO
Doctors Without Borders
Red Cross
Ethics Committee of the Republic of Guinea

Pasteur Institute (Kindia)
Today, thanks to the effective efforts of the international community, including Russia, the EVD has been contained and ongoing risk mitigated.

A new system, which will quickly and effectively share information and combine the efforts of international organisations, states and the private sector, is required at a global level to tackle such emergencies.

However, the possibility of a new EVD outbreak or other dangerous infection exists. It is impossible to predict when a new threat will emerge, however, the international community must work together to ensure a more effective response in the future.

In Guinea, RUSAL has demonstrated that it has the unique experience of a rapid response to emergencies by mobilising international and domestic resources and effectively interacting with the government and non-governmental organisations to provide assistance on the ground.
It is vital to record lessons-learned in light of the most recent epidemic to ensure more effective coordination to combat any future threats.
The cooperation continues!