

EPIDEMICS - PART ONE

WHO Concerned at New Ebola Strain

November 30, 2007

Reuters

GENEVA (Reuters) - The World Health Organization expressed concern on Friday about the emergence of a new strain of the Ebola virus that has infected 51 people and killed 16 in western Uganda.

The outbreak, announced by U.S. and Ugandan health officials on Thursday, is in Bundibugyo, near the border with Democratic Republic of Congo.

Genetic analysis of samples taken from some of the victims shows it is a previously unknown type of Ebola, making it the fifth strain, they said.

"We do not yet know yet exactly the lethality of this virus because we haven't tested all the samples," WHO spokesman Gregory Hartl told a news briefing in Geneva.

"But, obviously, anytime we're looking at Ebola and a new strain of Ebola, this presents a new challenge. So we're very concerned."

Ebola is a hemorrhagic fever, meaning it can cause internal and external bleeding. Victims often die of

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muscle pain and nausea.

It is known to infect humans, chimpanzees and gorillas.

Ugandan health officials have said the new strain appears to be relatively mild, but Dr Tom Ksiazek of the U.S. Centers for Disease Control and Prevention said it was not yet clear whether this was the case. He said experts need to check to see how many diagnosed patients are still alive.

Patients with the new strain showed some clinical symptoms, including vomiting, that differed from the usual ones, Hartl said.

"We are very concerned about this because it does not present (clinically) in exactly the same way as other Ebola strains," he said.

Health officials are trying to trace all possible cases in order to test them and isolate them if necessary, he added.

(Reporting by Stephanie Nebehay; Editing by Jonathan Lynn and Kevin Liffey)

<http://uk.reuters.com/article/healthNews/idUKL306688220071130>



Ebola Outbreak Spreading

December 2, 2007
South Africa

The Ebola outbreak that has killed 18 people in western Uganda appears to be spreading, officials said on Sunday (2 Dec 2007), as authorities examined a sample taken from a dead patient in the south of the country. Government officials told AFP that the disease, which flared in September (2007), had spread to 3 new zones in the impoverished Bundibugyo district near the border with the Democratic Republic of Congo.

Virologists were meanwhile examining a sample taken from a suspected victim who died overnight in the Mbarara region, 160 km southeast of the affected district. Health officials said several dozen medics and support staff had fled Bundibugyo when their co-workers became infected with the virus in an outbreak that has already killed 18 people and infected 61.

Virologists were also investigating an isolated patient in the neighboring Port Portale district as well as the fatality in Mbarara. "There are fears that the disease has spread," said a top health ministry official who requested to remain unnamed. "We are waiting for the results from the samples," he said of the 2 cases that have spread panic in

the east African nation. The disease, which is fatal in 90 percent of cases, is spread by contact with body fluids, primarily blood.

Meanwhile, epidemiologists and virologists are in Bundibugyo district to try to trace backwards the source of the virus as part of a campaign to avoid future outbreaks. Authorities say the outbreak was an unknown strain, after analysis was done on tissue samples at the laboratories of the Atlanta-based Centers for Disease Control and Prevention. Known Ebola sub-types usually attack capillaries and blood vessel linings, draining the body of blood through openings, leaving the patient to die in shock, doctors say. But the new Uganda subtype, which provokes high fever, kills victims without much loss of blood.

http://www.news24.com/News24/Africa/News/0,,2-11-1447_2231444,00.html



HIV Infection on the Rise

By Jane Nafula, Kampala

2 December 2007
The Monitor

THE Uganda Aids Commission has reported an increase in the number of people who are contracting the HIV virus in the country.

The Director General of the Commission, Kihumuro Apuuli said the new infections have continued to increase despite measures put in place to contain the spread of the disease.

The new infections are high among married couples involved in extra marital affairs and fishing communities.

"Aids has naturally picked up and Uganda is seeing evidence of the spread of the disease among older adults. The centre of gravity of new infections, have moved upwards to above 30 years and it is high among the married couples and fishing communities," he said.

The national figures of new infections have increased from 132,000 people in 2005 to over 135,000 people last year.

"This means that we are not on top of reducing the infections," Dr Kihumuro said. He said if Uganda continues to register new infections like it has done over the last three years, the epidemic will continue to outstrip the response. He was briefing journalists about the World Aids Day.

Dr Kihumuro said although the national prevalence rate stands at 6.4 percent, the prevalence is as high as 38 percent in fishing communities and 48 percent among married couples and people who are cohabiting.

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AFRIKAN SPIRITUALITY

THE BAKONZO/BAMBA'S TRADITIONAL RELIGION, BELIEFS AND CONCEPT OF LIFE AFTER DEATH

The Bakonzo and Bamba are Bantu people. They form an ethnologically amalgamated mountain human society. They are the indigenous inhabitants of Mountain Rwenzori found in western Uganda with a portion of it projected across to the Democratic Republic of Congo.

The Bakonzo and Bamba have their own distinctive culture, customs, traditions and way of life. Right from the ancient times, the Bakonzo and Bamba have lived their lives fitted with the knowledge of secular affairs and opinionated with spirituality. This paper is intended to provide an explanation showing how the Bakonzo/Bamba community has always practiced traditional religion, held beliefs and attitudinal concept of life after death. This paper also indicates that rooted into the depth of spirituality and spiritualism, the Bakonzo and Bamba community lived in remarkable peace, tranquility, harmony and social progress.

Bakonzo/Bamba's Divinity/Religion

In its contextual meaning, the word "Divinity" means being divine or godhood. Then, religion is defined in two ways; it is a belief in the existence of a god or gods, who has/have created the universe and given man a spiritual nature, which continues to exist after the death of the body. The second definition is that, religion is a particular system of faith and worship based on such a belief (as stated above). The best examples of religions to be cited in here are: Christians, Buddhist, Hindu and Islam religions. At this point, it should be made clear that before the coming of the oriental and Euro clergymen, who introduced Islam and Christian religions to Uganda in general and to Rwenzori areas in particular, the Bakonzo and Bamba were already religious people, who practiced their own religion.

Nyamuhanga – The Supreme Spiritual Entity

In the Kikonzo religious tradition, Nyamuhanga was (and is) believed to be the highest spirit. He is believed to be the one who created the Bakonzo/Bamba ancestral parents. He is also believed to be the creator of the universe (in this case Rwenzori is the universe). He was (and still he could be) highly respected to the extent that his name could not (or cannot) be mentioned anyhow and at will.

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PUBLISHER: KIWANUKA LEWIS

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Published monthly and freely by BHSN for the African Traditional Herbal Research Clinic



The traditional shrine as a symbol of our cultural history

For example, if someone carelessly mentioned it while inside the house, that someone would be evicted from the house within which the name is mentioned. The way of eviction would be religiously conducted by compelling that "sinful person" pass through the backdoor to exit the house. Nyamuhanga was and is superior god within the Bakonzo belief in godhood. Some other Bakonzo, and many of them, believe that, Nyamuhanga had a godson called Kithasamba.

Hanji – An Angel Like Spirit

As in the Christian faith there is belief of the existence of attendant spirits called angels, within the Bakonzo and Bamba traditional religion there is belief in the existence of divine attendants or messengers who are also spirits.

One of these spirits is that called HANJI. It is believed that the main divine task of Hanji is to name creatures created by Nyamuhanga the almighty spirit. In comparison with the Biblically supported faith, Hanji can be likened to Gabriel, an archangel known to be the bringer of good news and comfort.

The Category of Good Attendant Spirits in the Bakonzo/Bamba Traditional Religion

Truly, the Bakonzo/Bamba have no sacred writing e.g. the Koran or Bible, which serve as scriptures of their traditional religion. And due to lack of such sacred writing, categorizing particular items of their religious faith cannot be made with ease. However, in this paper, attempt is made to categorize some of the known spirits. With this attempt, what is being talked under this subtopic are the good attendant spirits, and they are as follows:

1. **Nyabibuya.** This spirit is believed to be responsible for causing general good things to happen especially when worshipped and prayed to.
2. **Nyabingi.** This spirit, in its goodness, is believed to bring riches to people. It could be worshipped and prayed to (even now some do worship and

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FEATURED ARTICLES

World's Greatest Epidemics Collide 2010

CHRISTOPHER ELIAS AND M. D'ARCY RICHARDSON

November 29, 2007

SEATTLE POST-INTELLIGENCER

The scenario is all too familiar. In a rural town in Tanzania, a young woman is diagnosed with HIV. Although she will receive antiretroviral treatment to keep her healthy, what she doesn't know is that HIV's silent partner, tuberculosis, may quickly kill her.

That woman is not alone. Today, two of the world's deadliest infectious diseases, HIV/AIDS and TB, have collided, creating a condition that is more lethal and more difficult to diagnose and treat than either disease individually. Without intervention, TB kills people with HIV with merciless speed. It is the single-greatest killer of people with HIV, causing more than 50 percent of AIDS deaths in some countries. Yet only a paltry number of people with TB worldwide are being tested for HIV, and even fewer people with HIV are screened for TB. This represents a colossal failure of policy, health systems and science, translating into immeasurable human suffering, substantial economic losses and political instability in places hardest hit by the dual epidemic.

Global estimates of extensively drug-resistant (XDR) TB are steadily increasing. As of October 2007, XDR-TB has been confirmed in 41 countries, up from 17 countries in March 2006. While TB has never completely gone away, why has this ancient scourge returned with a vengeance? The answer: HIV/AIDS. Despite the well-known and deadly synergy between the two epidemics, the world is still doing much too little to address the complicated issues of the intertwining diseases, a matter of life and death for the 40 million people living with HIV/AIDS.

Until now, HIV and TB research and funding have proceeded along largely independent tracks, but that needs to change. Developing better diagnostic and screening tools, expanding laboratory testing for drug-resistant TB, scaling up crucial infection control measures, and developing effective medications are challenges that must be met by a more well-funded and coordinated research response.

Consider that the most widely used diagnostic tool for TB is 120 years old and detects as little as one-fifth of TB infections in people co-infected with HIV. Waiting times to confirm a TB diagnosis are more than six weeks in some countries, if the diagnosis can be made at all. The last new TB drug was developed more than four decades ago. Within sub-Saharan Africa, only South Africa has the capacity to diagnose XDR-TB. An outbreak there recently caused the deaths of 98 percent of those with XDR-TB within weeks, all of whom had HIV.

With additional research, we can find solutions. The Bill & Melinda Gates Foundation, the Global Fund to Fight AIDS, TB and Malaria, the U.S. government and other donors are stepping up their support. But addressing the dual epidemic of TB and HIV requires a multipronged approach that optimizes current health care practices, reduces pervasive societal discrimination against people with HIV and TB and coordinates investment and action with an ambitious research strategy.

While we wait for new diagnostics and drugs, much can still be done to improve the chances of survival for many of the world's co-infected people. Strengthening laboratory systems, improving access to and use of essential supplies and drugs and educating communities to reduce the dual stigma that keeps so many people with HIV and TB from seeking timely care all must be pursued vigorously. Universal access to TB testing for HIV-positive individuals and HIV counseling and testing for people with TB must be implemented worldwide.

In Tanzania, where PATH (Program for Appropriate Technology in Health) is supporting TB/HIV service integration, more than 90 percent of TB patients are screened for HIV at project sites, giving them a greater chance for early diagnosis and treatment or for HIV prevention if they test negative. Providing TB and HIV

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Continued from page 4 – World's Greatest Epidemics Collide 2010

services within the same health care facility also improves co-infected people's access to those important services.

The World Health Organization's Global Plan to Stop TB 2006-2015 calls for \$6.7 billion in funding for TB/HIV control in affected countries over the next 10 years. Let's hope that the money is found to support both the research of new tools and the bolstering of current practices. "If not," says Dr. Mohammed Makame, PATH's TB/HIV project director in Tanzania, "defeating TB and TB/HIV will be a dream that will take ages to realize."

Christopher Elias, M.D., is president of PATH. M. D'Arcy Richardson is technical director of PATH's TB program.

http://seattlepi.nwsourc.com/opinion/341672_aids30.html



Continued from page 2 – HIV Infection on the Rise

Dr Kihumuro said the fishing community is one of the vulnerable groups where HIV prevalence is high because they are very mobile, and tend to have casual sex with multiple sexual partners.

<http://allafrica.com/stories/200712031166.html>



Capital has Severe HIV Epidemic, Report Finds

By Maggie Fox, Health and Science Editor

November 26, 2007

WASHINGTON (Reuters) - Washington, D.C., has the highest rate of AIDS in the United States, and more babies are born with the AIDS virus in Washington than in other U.S. cities, according to a report released on Monday.

People living in Washington also are not getting tested for HIV and show up with advanced infections that progress quickly to AIDS, the report by city health officials found.

The report found that Washington, with a population of around 600,000 people, has a rate of 128 AIDS cases per 100,000 people in 2006, compared with a national rate of 14 cases per 100,000. The city accounted for 9 percent of all pediatric AIDS cases in the United States during 2005.

"The District's rate for newly reported AIDS cases is higher than rates in Baltimore, Philadelphia, New York

City, Detroit and Chicago," the report said.

Of the 12,428 people infected with HIV in Washington, 80 percent are black, the report found. More than 8,300 had fully progressed to AIDS and 224 died of AIDS in 2006.

"Heterosexual contact in the District is the leading mode of HIV transmission at 37 percent of newly reported infections, while nationally men who have sex with men lead new transmissions," it said.

The report, the first to look at the HIV epidemic in Washington specifically, found that nearly 70 percent of all people with HIV developed full-blown AIDS within a year, which means they were diagnosed years after having been infected. This compares with 39 percent nationally.

Dr. Shannon Hader of Washington's Department of Health said the report does not examine why Washington is hit so hard by the human immunodeficiency virus.

A LITTLE OF EVERYTHING

"We have a lot of transmission going on among heterosexuals, we have a lot of transmission going on with men who have sex with men and we have a lot of transmission among injecting drug users," Hader said in a telephone interview.

Washington has a unique status among U.S. cities. When it was established as the U.S. capital, it was kept apart from states and put under congressional management, although it has an elected mayor and city council.

Hader said the city has adopted a policy of routine HIV testing, which means people should get the test whenever they get a check-up or visit an emergency room. Currently, people usually have to specifically ask to be tested for HIV.

Hader said the city aimed to reduce mother-to-child transmission of HIV to zero by 2009 with better testing and treatment of pregnant women. Women who take HIV drugs around the time of delivery are far less likely to transmit the virus to their babies.

Chip Lewis of the Whitman-Walker clinic, an HIV treatment center in Washington, said the report shows the need for universal HIV testing.

"This is a 100 percent preventable disease," Lewis said by telephone. Yet one in 20 adults in Washington has HIV and one in 50 has AIDS, he noted. "HIV and AIDS has really become a disease that grows in areas of poverty. There is lots of poverty in the District," Lewis said.

The United Nations estimates that 33 million people are infected with the AIDS virus globally, about a million of them in the United States.

<http://www.reuters.com/article/idUSN2643072020071126?sp=true>



FEATURED ARTICLES

Ebola Virus could be Synthesised

Sylvia Pagà Westphal, Boston

17 July 2002

The technique used to create the first synthetic polio virus, revealed last week, could be also used to recreate Ebola or the 1918 flu strain that killed up to 40 million people, experts have told New Scientist.

What is even more worrying is that there are easier ways of recreating microbes. You can simply add key genes to a close relative. The key in all cases, is knowing the genetic sequence. That raises fundamental questions about the wisdom of publishing the genomes of deadly pathogens on the internet (see New Scientist magazine, 20 July, p 7).

To recreate polio, the team at Stony Brook University in New York bought bits of its sequence from companies that make any piece of DNA to order. At the moment, only short stretches of DNA can be custom-made, so the team had to assemble the genome, which is about 7500 base pairs long, by stitching together sequences of about 70 base pairs. When copies of the genome were made into RNA in a quick lab reaction and put into a vial full of cellular components that mimic a human cell, out came perfectly formed viral particles.

Dramatic as it sounds, this was no scientific tour de force. All the steps are routinely followed in thousands of labs worldwide. That means anyone armed with the knowledge of a virus's sequence, some science training and a few common tools could recreate the virus in a test tube. "What is shocking to people is that, suddenly, it's a reality," says Eckard Wimmer, leader of the team.

Vaccine freeze

The report will not affect the World Health Organization's campaign to eradicate polio, officials said on Friday. "It's not an 'Oh my God' situation," adds Wimmer, who is a member of a WHO committee on the containment of polio samples held around the world. "They know that getting rid of the polio virus in all the freezers in the world will be too hard."

But it does mean that vaccine stocks will have to be

maintained when vaccination ceases, he says. That's supposed to happen in 15 years, though this is already looking doubtful.

The real worry is that bioterrorists could use the method to recreate viruses such as Ebola and smallpox. Experts have been quick to point out that this would be much harder than making polio.

Its genome is relatively easy to assemble because it is so small. And the virus's way of hijacking cells' resources is also simple. An RNA copy of the genome is enough to set off the cascade of events leading to the production of viral particles. That is not how most viruses work: with Ebola or smallpox, for instance, replication requires key viral proteins as well as the genome.

Ebola from scratch

But this obstacle has already been overcome. In January, scientists reported they had made Ebola using "reverse genetics". They took the virus's genome plus pieces of DNA coding for the key viral proteins and added them to cells.

Once made, those proteins kick-start the replication process. The team got their genome from the virus itself. But since the Ebola genome is only slightly larger than polio's, there is no reason why it too cannot be assembled from scratch.

Or take the 1918 influenza virus, fragments of which have been recovered from preserved tissue samples. The sequences of three out of eight gene segments have already been published, and two more have been sequenced and will probably be published this year, says Jeffery Taubenberger of the Armed Forces Institute of Pathology in Washington DC.

It will take a couple of years to finish sequencing the remaining three, but after that anyone could use reverse genetics to bring it back, he says.

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Long shot

Recreating smallpox by painstakingly assembling its genome would be more difficult than polio or Ebola because its sequence, at around 185,000 base pairs, is much longer.

But it could be done, says Lev Sandakhchiev, a smallpox expert and head of Russia's Vector biodefence lab in Siberia. "I am sure scientists may do it sometime," he told New Scientist.

So how do you stop this happening? Right now, the companies making DNA molecules such as the ones used to recreate the polio virus do not check what their clients are ordering. "We don't care about that," says a technician at a company that ships DNA to more than 40 countries around the world, including some in the Middle East.

Vicious tweak

And even if all orders were monitored to make sure nobody is trying to make, say, smallpox, it would not be enough. Instead of trying to assemble a genome, you could simply take a closely related cousin and change the key portions of its sequence to those of smallpox.

Such cousins include camelpox and the easily obtained vaccinia virus. Bacteria resembling anthrax could also made this way. And if you are going to go to all this trouble, why not tweak the virus while you're at it? New Scientist magazine revealed last year (13 January 2001, p 4) that scientists experimenting with mousepox had created a far deadlier strain.

All this means that restricting access to dangerous pathogens and certain kinds of equipment will not stop determined bioterrorists. It does not even matter if a virus has been totally eradicated. All that is needed to bring it back is knowledge of its sequence and, in some cases, of what it needs to make more copies of itself.

<http://www.newscientist.com/article/dn2555.html>



AIDS and Ebola Found To Use Same Mechanism To Spread In Body

December 1, 2001

WASHINGTON (Reuters) - The viruses that cause AIDS and Ebola, two deadly, contagious and highly feared diseases, spread through the body using the same mechanism, U.S.-based researchers said on Friday.

The researchers, led by Dr. Paul Bieniasz of the Aaron

Diamond AIDS Research Center at New York's Rockefeller University, said they hoped their finding might lead to the discovery of new drugs to help treat HIV and Ebola infections.

Their study, published in the December issue of the journal Nature Medicine, shows HIV and Ebola use a protein called Tsg101 to bud from the cells they infect.

Both viruses hijack cells, inject their genetic material, and turn the cells into little virus factories. New copies of the virus "bud" from the cells in one of the steps of this process, before going in search of new cells to infect.

As both HIV and Ebola bud, Tsg101 attaches to the virus and helps it to emerge from the cell, the researchers reported.

They said it might be possible to design a drug that interferes with this process. That would presumably prevent the spread of the virus in an infected person.

"It's remarkable to see two such different viruses share a common budding mechanism," Bieniasz said in a statement.

"This may present a new target for drugs to treat HIV and Ebola infection, and our research team has begun working on drug discovery based on this research."

To confirm the study findings, the researchers genetically engineered a hybrid of HIV and Ebola, and a hybrid of HIV and the Tsg101 protein.

Both engineered viruses were able to infect new cells, they said.

There is no cure for either HIV or Ebola infection. Ebola causes a hemorrhagic disease that kills 70 percent of its victims within days.

<http://www.rense.com/general17/aidsandEbola.htm>



500,000 Lagosians HIV Positive

By Olumide Bajulaiye, Lagos

4 December 2007
Daily Trust (Abuja)

Lagos State Government at the weekend confirmed that over 500, 000 Lagosians, including 100, 000 children, are HIV positive.

The state Commissioner for Health, Dr. Jide Idris gave the figure at commemoration of the World AIDS day, saying that the figure represents 3.3 percent of the popu-

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FEATURED ARTICLES

Study uncovers a Lethal Secret of 1918 Influenza Virus

by Terry Devitt

January 17, 2007

In a study of nonhuman primates infected with the influenza virus that killed 50 million people in 1918, an international team of scientists has found a critical clue to how the virus killed so quickly and efficiently.

Yoshi Kawaoka, a professor of pathobiological science in the UW-Madison School of Veterinary Medicine, meets with assistant scientist Shinji Watanabe (at right) in one of the Kawaoka's research labs to discuss Watanabe's research on Ebola virus genes. Kawaoka is one of the world's premier virologists and researchers of influenza and Ebola viruses. At far left is Zejun Li, a postdoctoral fellow in pathobiological science who is studying the influenza virus.

Writing this week (Jan. 18) in the journal *Nature*, a team led by University of Wisconsin-Madison virologist Yoshihiro Kawaoka reveals how the 1918 virus — modern history's most savage influenza strain — unleashes an immune response that destroys the lungs in a matter of days, leading to death.

The finding is important because it provides insight into how the virus that swept the world in the closing days of World War I was so efficiently deadly, claiming many of its victims in the prime of life. The work suggests that it may be possible in future outbreaks of highly pathogenic flu to stem the tide of death through early intervention.

The study "proves the 1918 virus was indeed different from all of the other flu viruses we know of," says Kawaoka, a professor in the UW-Madison School of Veterinary Medicine and at the University of Tokyo.

The new study, conducted at the Public Health Agency of Canada's National Microbiology Laboratory in Winnipeg, Manitoba, utilized the 1918 flu virus, which has been reconstructed by researchers using genes obtained from the tissues of victims of the great pandemic in a reverse genetics process that enables scientists to make fully

functioning viruses.

"In 1918, the existence of viruses had barely been recognized. In fact, the influenza virus wasn't identified until 1933. Thanks to recent technological advancements, we are now able to study this virus and how it wreaked havoc around the globe," explains Darwyn Kobasa, research scientist with the Public Health Agency of Canada and lead author of the new study. "This research provides an important piece in the puzzle of the 1918 virus, helping us to better understand influenza viruses and their potential to cause pandemics."

By infecting monkeys with the virus, the team was able to show that the 1918 virus prompted a deadly respiratory infection that echoed historical accounts of how the disease claimed its victims.

Importantly, the new work shows that infection with the virus prompted an immune response that seems to derail the body's typical reaction to viral infection and instead unleashes an attack by the immune system on the lungs. As immune cells attack the respiratory system, the lungs fill with fluid and victims, in essence, drown.

The mechanisms that contribute to the lethality of the virus were uncovered by University of Washington researchers using functional genomics, a technique in which researchers analyze the gene functions and interactions. Learning more about the virulence mechanisms of the 1918 flu virus may help researchers understand how to keep the virus from causing such a severe immune response.

"This study in macaques, combined with our earlier research showing the host response in mice infected with the 1918 flu, suggests that the host immune response is out of control in animals infected with the virus," says Michael G. Katze, professor of microbiology at the University of Washington in Seattle, who led the functional genomics portion of the new study and led the previous mouse-based study. "Our analysis revealed potential mechanisms of virulence, which we hope will help us develop novel antiviral strategies to both outwit

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the virus and moderate the host immune response."

The same excessive immune reaction is characteristic of the deadly complications of H5N1 avian influenza, the strain of bird flu present in Asia and which has claimed nearly 150 human lives, but has not yet shown a capacity to spread easily among people.

"What we see with the 1918 virus in infected monkeys is also what we see with H5N1 viruses," Kawaoka says, suggesting that the ability to modulate immune response may be a shared feature of the most virulent influenza viruses.

In the new study, conducted in a high-level biosafety laboratory (BSL 4) at the Public Health Agency of Canada's National Microbiology Laboratory, seven primates were infected with the reconstructed 1918 virus. Clinical signs of disease were apparent within 24 hours of infection, and within eight days, euthanization was necessary. The rapid course of the disease mirrors how quickly the disease ran its course in its human victims in 1918.

Upon infection, the virus grew rapidly in the infected animals, suggesting the agent somehow sets the stage for virulent infection. "Somehow, early in infection, this virus does something to the host that allows it to grow really well," says Kawaoka. "But we don't know what that is."

Knowing that the virus does something early in infection to trigger such a devastating immune response may provide biomedical researchers with clues about how to intervene and stop or mitigate the virus' potentially lethal effects, Kawaoka says.

"Things may be happening at an early time point (in infection), but we may be able to step in and stop that reaction."

In addition to Kawaoka, authors of the new Nature paper include Darwyn Kobasa, Steven M. Jones, Hideki Ebihara, Friederike Feldman, Judie B. Alimonti, Lisa Fernando, Yan Li and Heinz Feldman of Canada's National Microbiology Laboratory; Kyoko Shinya of Japan's Tottori University; John C. Kash and Michael G. Katze of the University of Washington; John Copps of the Canadian Food Inspection Agency's National Centre for Foreign Animal Disease; and Yasuko Hatta, Jin Hyun Kim, Peter Halfmann and Masato Hatta of UW-Madison.

The new study was supported by the Public Health Agency of Canada, the Japanese Ministries of Education, Culture, Sports, Science and Technology,

and private grants to Kawaoka

<http://www.news.wisc.edu/13360>



Ebola Recombinant in Uganda?

Commentary, Recombinomics

December 2, 2007

Samples arrived at CDC's Biosafety Level 4 labs in Atlanta on Monday [26 Nov 2007]. By Tuesday [27 Nov 2007], Ksiazek said, it was apparent this was not a typical Ebola virus. Dr. Stuart Nichol, a CDC special pathogens team leader, said some molecular tests for Ebola were coming back negative, when another type of test came back positive. The CDC lab was then able to extract a small fragment of the virus' genome. "It looks, based on this, like it's a new species of Ebola," Nichol said Friday evening.

Previously, there were only 4 known types of Ebola. The Sudan and Zaire species were discovered in 1976. A strain called Reston was identified in 1989 among monkeys imported to a lab in Virginia. And in 1994, the Ivory Coast strain was identified. Depending on the strain, the death rate varies. Ebola-Zaire kills about 80 percent of its victims, while the Sudan strain kills about 50 percent, Ksiazek said. Ebola Reston is not lethal for humans.

The above comments describe a new species of Ebola that is spreading along the west coast of Uganda, just east of the Democratic Republic of the Congo. The description of the new species sounds like a recombinant. Recently homologous recombination was described for Ebolavirus. These recombinations may have led to prior human outbreaks involving the Zaire species. Ebola is negative sense RNA virus. Prior to the report of Ebolavirus recombination, homologous recombination in negative sense RNA viruses was discounted, although recombination in positive sense RNA viruses including coronaviruses was widely accepted. However, since both negative and positive sense virus use the same base pairing rules to replicate, using one strand as a template for the other strand, the rationale for the distinction remains unclear.

Similarly, homologous recombination in influenza, another negative sense RNA virus, has been discounted, although clear examples of recombination are present in the influenza sequence database. Examples include long stretches of genes, short clusters, and single nucleotide polymorphisms.

Continued on page 10

Continued from page 9 – Recombinomics Commentary

Moreover, Zaire ebolavirus and influenza H5 envelope genes share a 18 BP region of identity, raising the possibility of recombination between the two negative sense RNA viruses. The identity in H5 traces back to the first H5N1 sequences, from a chicken in Scotland in 1959, although most of the H5 identities are in low path H5, which is transported and transmitted waterfowl, including waterfowl in Africa.

The current Ebola outbreak is near the Rift Valley and Lake Victoria, regions with significant biodiversity and potential co-infections and recombination.

The envelope sequence of the new Ebola species would be of interest.

http://www.recombinomics.com/News/12020701/Ebola_Recombination_Uganda.html



Kibaale Cuts Off Links with Bundibugyo Over Ebola

By Francis Mugerwa

The Monitor (Kampala)
5 December 2007

AUTHORITIES in Kibaale District have barred residents from going to neighbouring Ebola infested Bundibugyo District.

This was disclosed by the Kibaale Resident District Commissioner, Hajji Ali Mutawe, on Tuesday.

"We have stopped residents from traveling to Bundibugyo where they may contract Ebola," Mr Mutawe said.

He said the directive is a precautionary measure aimed at protecting locals from being infected by the viral disease.

Ebola is a highly contagious disease that has so far claimed the lives of over 18 people though other independent sources estimate the number to be higher.

Kibaale residents regularly travel to the affected area mainly for business. The two districts border Lake Albert.

The fishermen on the landing sites of Kitebere, Kabukanga, Ndaiga move across the lake and sell their fish in Bundibugyo District.

Ntoroko landing site which is located in Bundibugyo, is less than 20 kilometres from Kitebere village.

The District Director for Health Services, Dr Dan Kyamanywa, said medics worry that if residents move uncontrolled to and from the affected district, there are chances of contracting the epidemic that could wreck havoc in the district.

"For preventative purposes, we do not want any boat to move from our landing site to Bundibugyo. We have also stopped boats coming from Bundibugyo," Dr Kyamanywa said.

Hajji Mutawe said the directive is effective till the situation normalises. "We shall lift the ban if the disease is controlled," Mr Mutawe said.

Ebola is transmitted by a virus. It causes hemorrhagic fever that is often fatal to humans.

There is no carrier state because the natural reservoir of the virus is unknown and the manner in which the virus first appears in a human at the start of an outbreak has not been determined.

However, researchers say the first people become infected through contact with an infected person.

<http://allafrica.com/stories/200712041140.html>



Continued from page 7 - 500,000 Lagosians HIV Positive

lation, which is lower than the South West zonal average.

Dr. Idris added that four million Nigerians are currently living with the HIV virus, with more than one million children infected, and a national prevalence rate of 4.4 percent.

He stated that the United Nations AIDS Agency UNAIDS estimated that 39.6million people worldwide are living with HIV including 2.3million children.

According to Idris, in 2006 alone, 4.3million people were infected with the virus. The commissioner further stated that the world AIDS campaign slogan which is Stop AIDS: Keep the Promise, appeals to governments, policymakers and regional health authorities, to ensure that they meet the many targets that had been set in the fight against HIV/AIDS, especially the promise of universal access to HIV treatment, care, support and prevention services by 2010.

<http://allafrica.com/stories/200712040381.html>



Mulago gets Ebola Case

By **TABU BUTAGIRA, HUSSEIN BOGERE & JOSEPH MUGISHA**

December 4, 2007
Monitor Online
KAMPALA/BUNDIBUGYO

Experts believe infection originated from dead goat

UGANDA's main referral hospital, Mulago has received its first Ebola patient since the deadly viral disease broke out in Bundibugyo District in August.

Dr Yonah Kule, an employee of the International Air Ambulance (IAA), who contracted the highly communicable hemorrhagic fever while treating patients at Bundibugyo hospital last week, was admitted at Mulago at the weekend.

"Yes, he (Kule) is in our isolation unit and he is fair now," Dr Edward Ddumba, the director of Mulago hospital told Daily Monitor yesterday; disapproving local press reports - a day earlier - that the infected medic had been secluded in a room at the Ministry of Health headquarters.

Dr Ddumba said precautionary measures had been taken by placing the doctor in an "Isolation Unit" so that he would not get in contact with other people. The virus has so far killed 18 people, with six more new cases recorded and some medical workers placed under quarantine.

In one week, the rate of infection has risen to 58, an increment attributed to free human movement and people's ignorance of the disease since September.

Most staff and patients at Mulago were unaware of an Ebola case in their midst although Dr Ddumba said they had prepared for any eventuality.

"We have sufficient capacity to handle that (Ebola emergencies)," he said by telephone. But in Bundibugyo, the epicenter of the contagion, under-resourced and overstretched health workers at the district hospital and Kikyoo health centre IV were grappling with the increasing number of Ebola cases.

Dr Sam Zaramba, the commissioner for health services said that by 1:30pm yesterday, the cumulative number of Ebola infections registered since August had risen to 62 while deaths from the epidemic had remained at 16.

But a source within the ministry said the number of fatalities, including those in communities that are not recorded at health units was 31 and that epidemiologists had so far confirmed 62 out of 80 suspected Ebola cases

as positive.

Bundibugyo RDC Samuel Kazinga, who heads the district Ebola Taskforce, said yesterday eight health workers - two doctors and six senior clinical officers - had contracted Ebola, causing acute shortage of medical personnel, especially for other general medical services since medics available are pre-occupied with managing Ebola cases.

However, seven doctors from international bodies like WHO, Unicef, Afrinet and MSF-France were reported to have arrived in Bundibugyo to strengthen the teams there.

Yesterday, the African Field Epidemiology Network Scientists (Afenet) meeting at the second scientific conference in Kampala announced that they were dispatching a team of experts to the Ebola trouble spots but did not specify the number.

"We intend to keep our team there for about two weeks for a start," said Dr David Makanga, the executive director adding, "But this will depend on the situation on the ground. They could even stay longer".

And the UPDF last Thursday sent a medical team to Bundibugyo to bolster the response operations.

The Defence and Army Spokesman, Maj. Felix Kulayigye, said yesterday the team headed by Col. Apollo Musunguzi, the director of Public Health in the army comprises of doctors and nurses.

However, one of the army medics is said to be down with Ebola.

Eighty expatriates, seconded by various global institutions and foundations are expected to arrive in the country this week to trace the details of the unique Ebola strain, Dr Zaramba said yesterday.

No sex

Health experts say the incubation period for Ebola virus ranges from two to 21 days, depending on the strain and this could mean that it is only safer for people living in affected regions not to have unprotected sex since infected persons, may in the early days of infection, not show the known Ebola symptoms of measles-like body rash, high fever, red eye, vomiting and bleeding through body orifices.

Goat origin

Dr Zaramba said a group of epidemiologists who have pitched camp in Bundibugyo are investigating clues that the first person to contract Ebola in the district or index case as is called in medical jargons, consumed meat of a dead goat and conclusive findings of this inquiry are not expected to be ready immediately due to strict onerous laboratory test rules.

Continued on page 12

"It is true the index case ate a dead goat but we do not know what killed the goat," Dr Zaramba said. "The suspicion is that the goat could have been bitten by a Columbus Monkey or other such wild animals".

It emerged yesterday that frightened urban dwellers in Bundibugyo town many of who do not have palm gloves, have stopped receiving bank notes for fear of contracting Ebola.

http://www.monitor.co.ug/artman/publish/news/Mulago_gets_Ebola_case.shtml



Preparation and Use of Hyperimmune Serum for Prophylaxis and Therapy of Ebola Virus Infections

Kudoyarova-Zubavichene NM, Sergejev NN, Chepurnov AA, Netesov SV

State Research Center of Virology and Biotechnology Vector, Koltsovo, Russia.

To obtain hyperimmune serum appropriate for the treatment of filovirus infection, methods were developed to immunize nonsusceptible animals with live Ebola (EBO) virus preparations. Immune plasma with high ELISA and neutralization-specific antibody titers was obtained by multiple immunizations of sheep and goats with preparations of live EBO virus. Goat immunoglobulin was prepared by Cohn's method and tested on guinea pigs, using an EBO virus strain that is highly pathogenic for guinea pigs.

Prophylaxis with these immunoglobulins within 48 h after infection was effective in challenge experiments, with a log₁₀ prophylaxis index as high as 1.92±0.52. Other studies have shown that equine anti-EBO virus immunoglobulins worked well in baboons. The goat immunoglobulins were also tested in preclinical trials on laboratory animals; after being positively evaluated, they were administered to volunteers in clinical trials for biologic safety and reactivity, and they were administered to researchers suspected of becoming infected with EBO during their experimental work. These immunoglobulins may be useful for the emergency treatment of persons accidentally infected with EBO.

PMID: 9988187 [PubMed - indexed for MEDLINE] J Infect Dis. 1999 Feb;179 Suppl 1:S218-23.



EDITORIAL

5 December 2007
New Vision (Kampala)

MEDICAL workers at Bundibugyo Hospital have either fled or are down with the deadly Ebola disease that has ravaged the western district since August, killing close to 20 people by this week.

While it is unethical for the medical personnel to leave their patients at the mercy of God, the despicable front page picture in The New Vision of Tuesday speaks volumes about the facilities available to handle contagious diseases like Ebola. The picture showed a woman without any protective gear attending to a suspected Ebola patient. A team from the Ministry of Health headquarters that is in the district should be ashamed that no simple protective wears like gloves could be provided to those attending to their sick relatives. This demonstrates how sick our health service system is. No wonder that the medical personnel had to desert the patients immediately the strange disease was diagnosed as Ebola. The death of Dr. Matthew Lukwiya due to Ebola in 2,000 is still fresh in our minds.

Ebola has been recurring in Uganda and the neighbouring countries like the Democratic Republic of Congo (DRC) and Sudan for the past decade or so. THERE was an Ebola outbreak in the DRC in September. As such, there should have been no excuse for the ministry not to have in stock the very basic protective gear when Ebola was next door. The lack of preparedness by the ministry demonstrates lack of planning by the responsible department.

Since Ebola has become common in Uganda, the ministry should ensure that health units are equipped with the basic facilities to enable the medical workers safely discharge their duties during epidemics.

The ministry should also adopt a proactive rather than a reactive approach in handling emergencies by strengthening its disease surveillance system. It should immediately launch a public campaign on the prevention and management of Ebola. It should also disinfect all homes of the Ebola victims as a standard practice to ensure total eliminate of the virus.

<http://allafrica.com/stories/200712060083.html>



COME BACK TO YOUR ROOTS

Doctor Dies of Ebola in Mulago Hospital

New Vision (Kampala)
5 December 2007

A medical doctor and four health workers, who treated the first Ebola patients in Bundibugyo, have died of the disease. Dr. Jonah Kule, the medical superintendent of Kikyo Health Centre, succumbed on Tuesday night. He had been quarantined at Mulago Hospital.

Senior clinical officer Joshua Kule, senior nursing officer Rose Bulimpikya, matron Peluce Tabiita and another nurse not yet identified died yesterday in Bundibugyo Hospital, according to senior clinical officer James Agaba.

In a statement yesterday, the health ministry said the number of Ebola cases had shot up to 91, after seven new cases had been recorded. The death toll has risen to 24. This includes Bundibugyo businessman, Maipeni Muliwabyo, who died on Tuesday. Eight of the Ebola cases are health workers.

Contrary to guidelines by the health ministry to immediately bury the victims, Kule's remains will be taken to his home in Bundibugyo today and buried there. The Director of Mulago Hospital, Dr. Edward Ddumba, said precautionary measures had been taken and there was no risk of infection from the body.

Bundibugyo chief administrative officer, Elias Byamungu, said Kule could have been infected when he went to investigate deaths which locals had attributed to witchcraft. The Bakonjo had accused the Bamba of bewitching them.

"I warned Dr. Kule, but he insisted saying: 'Let come what may. I must go down and investigate what is killing the people'. He investigated and he wrote a report. That report is helping the authorities," said Byamungu, who sounded depressed.

Kule becomes the second medical doctor to die from Ebola in Uganda through contact with patients. The first, Dr. Matthew Lukwiya, died in Lacor Hospital in 2000 during the first ever outbreak of the disease in Uganda. In Kasese, a teacher who works in Bundibugyo, has been admitted at Bwera Hospital in Kasese with suspected Ebola.

"We have not yet confirmed if it is Ebola, but he complains of headache, joint pain, fever, chest pain and bleeding from the nostrils. We have isolated him," the hospital's medical superintendent, Dr. Yusuf Baseke, said

He appealed for protective gear for the hospital staff to be able to handle Ebola cases.

Meanwhile, health ministry sources said yesterday experts from the US-based Centers for Disease Control and Prevention (CDC) and the Ministry of Health were assembling the Ebola-testing machine at the Uganda Virus Research Institute in Entebbe. Eight pathogen experts from the CDC also arrived in the country on Tuesday. The equipment was brought this week and is expected to be operational by the beginning of next week.

The machine will make testing for Ebola and other haemorrhagic viruses faster, and intervention quicker. Currently, samples have to be sent to laboratories in South Africa and the US, causing delays. The Ebola outbreak in Bundibugyo was only confirmed on November 29 after initial tests turned out to be negative, according to the health minister Dr. Stephen Mallinga.

The Bundibugyo Ebola strain is said to be different from any other known strain.

It is characterised by high fever, abdominal pain and diarrhoea and not so much internal and external bleeding.

Kabarole

The authorities at Buhinga Regional Hospital in Kabarole district said some patients had fled, fearing to contract Ebola. One of the patients who fled was a woman who had been put in isolation at the hospital after she vomited blood. She was classified as an alert case, though the results of her test had not yet come back. Radio stations in Fort Portal ran announcements for anybody who spots the woman to alert the authorities.

The Fort Portal Catholic Diocese, where a 13-year-old boy died from suspected Ebola on Sunday, has warned people to stop self-medication. The health coordinator, Sr. Euphrasia Masika, advised people to seek help from the nearest health units as soon as they suspect they may have contracted the disease. She warned that concealing the disease minimised their chances of getting cured.

Mbarara

Residents of Mbarara town have stopped their traditional culture of greeting with a hug and a handshake, fearing to contract Ebola. They have resorted to waving at each other.

This followed the death of a woman who was vomiting blood at Mbarara University Hospital. The woman was from areas near the hospital.

The Ministry of Health took samples of her blood for testing and buried her body immediately as a precautionary measure.

The management of all the banks in the town have

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Continued from page 13- Doctor Dies of Ebola

instructed their staff to wear protective gloves before handling money from clients.

At Stanbic Bank, manager Enid Natukunda said it was the bank's obligation to protect its staff. "They are all supplied with gloves. We cannot take chances," Natukunda said.

Make-shift eating places have been hit hardest by the scare as patrons abandoned them, fearing contact with other people. Two Ebola taskforces have been set up at Mbarara Hospital.

(Anne Mugisa, Bizimungu Kisakye, Kyomuhendo Muhanga, John Thawite and Matthias Mugisha)

<http://allafrica.com/stories/printable/200712060017.html>



A Tribute to Dr. Kule

When I teased him whether this was not Marburg or Ebola, he flashed his trademark smile and said: "No my friend, its some form of malaria or pneumonia but you know our local people easily get alarmed"

Bernar Sabiti

Daily Monitor
December 7, 2007

It was my first time to travel to Bundibugyo District, and the reality that I found was different from what I had thought. My journey there was part of my work as a radio journalist with Straight Talk Foundation, a health communication NGO that mainly targets adolescents and young adults.

From Fort Portal, we embarked on a rough murrum road that quickly reminded me of my native Kisoro. Little did I know that I was destined to meet the warmest, kindest person I have ever met in my lifetime.

I visited Nyahuka Health Center IV, a few miles from Bundibugyo town, last month where I found a composed, jolly fairly elderly man. "You are very welcomed to Bundibugyo. My name is Dr. Jonah Kule", he said with a broad smile. After we exchanged pleasantries, he took my colleague and I to his office, despite his busy schedule of attending to hundreds of patients who were waiting in the wards. From the maternity wing to the pediatrics ward, he was both the consultant and operation physician. I wondered why, with the scarcity of doctors in the country, he had left the luxury of Kampala and decided to work in a place that doesn't even have electricity.

"It's the passion for my people" he proudly told me, adding; "I certainly could have gotten a job anywhere, but you see I am the first Mukonzo Doctor in the whole of Bundibugyo, and there is no way I could have declined to serve my people. No one wants to serve here," he said.

Meanwhile, he was signaling to me to hurry up because he was being called to go to the mountains to attend to a 'strange' disease that was killing people. When I teased him whether this was not either Marburg or Ebola, he flashed his trademark smile before telling me, "No my friend, its some form of malaria or pneumonia but you know our local people easily get alarmed."

At the end of the interview, I asked Dr. Kule which song he wanted me to play for him when I got back on air. With a broad smile, he answered; "Olubula by Haggai Bwambale."

When I go the heart breaking news that Dr. Kule had succumbed to Ebola in the middle of the night of Tuesday December 4 at Mulago Hospital, I couldn't help but wonder how Mother Nature could be so unfair. I asked a mukonzo colleague of mine to explain to me the meaning of the work Olubula, and she told me it means "heaven", adding that the artiste of the song is a local gospel musician based in Kasese District. No doubt, Dr. Kule joins Dr. Matthew Lukwiya as one of the most patriotic people this country will ever produce. He will be harshly missed by the people of Bundibugyo – a population he so candidly served, but more so, his young widow and five daughters.

May his soul rest in Eternal peace.



Bird Flu Continues to Threaten Humans, FAO Director-General Warns

Food and Agriculture Organization of the United Nations (Rome)

NEWS
4 December 2007

The FAO Director-General warned in a speech that "the spread of avian influenza typifies the potential emergence of major health crises with an increased risk of pathogens travelling over large distances in very short time periods, favoured by globalization and climate change."

Continued on page 15

Continued from page 14 – Bird Flu Continues to Threatens Humans

With avian influenza prevention and control programmes being in place for almost four years, many countries have been able to contain or even eradicate the disease. Almost all countries have implemented emergency programmes and have reinforced their health and veterinary services. Despite the immense efforts undertaken by countries and the international community to prevent and control the H5N1 virus, countries are still facing major challenges.

Remaining risks

"The highly pathogenic H5N1 virus continues to circulate in some regions of the world, causing the introduction or reintroduction of the disease in other countries. Extensive outbreak areas remain, particularly in countries where the virus is endemic, with the attendant risk of the emergence of a pandemic virus," Dr. Diouf said.

"We are still uncertain as to the precise role played by wild birds. There are real risks of viruses emerging against which current vaccines provide no protection. Another major problem is the cost of long-term control programmes and how to finance them. Finally, there is still the difficulty of controlling the illegal movement of products and live animals."

Robust animal health systems directed by well-equipped veterinary services and supported by a clear political commitment are the key elements for successful avian influenza control campaigns, the FAO Director-General stressed.

Poultry production systems will have to improve biosecurity and hygiene measures in order to prevent virus spread throughout the production chain. "We need a global framework of action that carefully considers the possible adverse social and economic consequences that those changes might bring, especially on the poorest populations and on the livelihoods of backyard poultry keepers," Dr. Diouf said.

More health crises

The FAO Director-General warned that the international community will have to prepare for other major health crises coming from the animal kingdom.

"The acceleration of international trade will continue, as will climate change, and their impact on ecosystems is already causing the spread of vector-borne diseases into hitherto untouched regions," he said. "Rift Valley Fever, Bluetongue virus and West Nile Fever are instances of this for insect-borne diseases. But the spread of other epizootic diseases such as Foot-and-Mouth and African Swine Fever are, like avian influ-

enza, other examples that are linked to the intensification of production systems and to the increase in commercial movements, whether controlled or not."

"Most of the health crises that have occurred in the last ten years have been related to diseases that are transmittable to humans and that have originated in developing countries. Clearly, therefore, the investments that are required to improve health systems need to focus on prevention at source - in animals - and in the countries of the South."

A total of 60 countries in Asia, Europe and Africa have been affected by bird flu since 2003, of which 26 countries have experienced outbreaks in 2007. Except for a few outbreaks in wild birds, most of the confirmed outbreaks have been in domestic poultry, including chickens, turkeys, geese, ducks and quails.

In partnership with national veterinary services, the World Organization for Animal Health (OIE) and the World Health Organization (WHO), FAO has played a lead role in combating avian influenza. With FAO's assistance, more than 130 countries have been able to adopt appropriate prevention and control measures.

<http://allafrica.com/stories/200712041166.html>



1918 Flu Hemorrhagic Symptoms Similar To Ebola

<http://www.journals.uchicago.edu/CID/journal/issues/v31n6/000949/000949.text.html>

Excerpt:

The course of disease during fall 1918 was often swift. Convalescence in survivors was protracted, with fatigue, weakness, and depression frequently lasting for weeks [3, 2023]. Symptoms presented suddenly: high-grade fever and rigors, severe headache and myalgias, cough, pharyngitis, coryza, and in some cases epistaxis. Some patients had mild illness and recuperated without incident. Other patients were stricken quickly and severely, with symptoms and signs consistent with HEMORRHAGIC pneumonia, and died within days and sometimes hours. Autopsies revealed inflamed hemorrhagic lungs. Still other patients with more typical flu developed severe superinfection with bacterial pneumonia, resulting in death or a laborious recovery. Unusually lethal, Spanish flu was also distinct in killing what was typically the cohort least vulnerable to influenza, 20- to 40-year-olds.

The disease's incidence, severity, and pattern of spread baffled laypeople and experts alike [3, 4, 20, 21]. Doctors debated possible pathogens, with no final consensus:

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FEATURED ARTICLES

Four Epidemics Hit the Country

By Tabu Butagira & Emmanuel Gyezaho, Kampala
Daily Monitor, 5 December 2007

AS the country grapples with the deadly Ebola outbreak in western Uganda (green area on map), medics are struggling to contain a rising spate of meningitis and bubonic plague in West Nile, cholera in Hoima and Buliisa, and yellow fever in the northern district of Kitgum.

The Minister of State for Primary Healthcare, Dr Emmanuel Otaala, announced the simultaneous contagions during a press conference in Kampala yesterday moments before he rushed to Parliament - where he outlined the contingency plans put in place by the government to scuttle the further spread of the highly communicable Ebola hemorrhagic fever. Parliament heard that Nebbi District (red area on map) is facing the brunt of a plague outbreak, while suspected cases of meningococcal meningitis have been reported in Arua District.

Dr Otaala stunned the House when he said suspected cases of hepatitis had been recorded in Kitgum District (yellow area on map) on top of the yellow fever, adding that "my ministry is doing everything it can to handle the situations."

In a follow up interview, Mr Patrick Anguzu, the Arua District health officer (blue area on map) said the re-emergence of meningococcal meningitis that has been on a low key since July 10, had killed 27 people out of 255 registered cases.

"The most affected areas are Arivu Subcounty in Vurra County and parts of Upper Madi (constituency)," Mr Anguzu said on phone yesterday.

Dr Sam Zaramba, the director general of health services, had earlier said medics in West Nile region had been put on high alert over the meningitis epidemic, which claimed at least 65 lives among over 2, 000 infected persons when the disease struck in December 2006 to March this year.

At the time, the government with support from the World Health Organisation and MSF - France, under-

took partial mass vaccinations in Arua, Koboko, Yumbe, Moyo and Nebbi districts, but this time round, it is counties like Vurra in Arua, which were not covered during the immunization that are registering the renewed infections.

At the press conference, Dr Otaala attributed the incessant occurrence of plague in Nebbi along the frontier line with the DR Congo, to the primitive culture of the indigenous people "where men sleep on beds while women sleep on the floor."

"The people mainly affected are women because in that district (Nebbi), women only come up on the bed (for sex)," Dr Otaala said, at the Media Centre in Kampala.

"The flea (that causes plague) can only jump up to six inches (high) and (that means) if everybody was sleeping on a bed, there would be no plague in this country," Dr Zaramba said in a separate interview.

Plague is usually transmitted to humans through a bite of a flea from an infected rodent host, mainly rats and squirrels and occasionally through handling of infected animals, according to online medical publications.



Daily Monitor, Wednesday December 5, 2007

Continued on page 17

Continued from page 16 – Four Epidemics Hit the Country

Dr Zaramba said the ministry had dispatched medics to investigate reports of the plague outbreak in Nebbi, amid reports that the disease has reportedly affected between 25-30 residents.

Referring to the Nebbi incidences, Dr Zaramba added; "It is disheartening to see that a section in Uganda's society can let women sleep on the floor while men sleep on beds". Common symptoms of plague include; high fever, chills, headache, bulged armpit lymph nodes and swollen glands.

Dr Zaramba said the ministry had also sent personnel to Kitgum in the Acholi Sub region to establish if the suspected contagion there is truly yellow fever or hepatitis as is being suspected. The cholera cases so far registered in Hoima District are among fishermen in Butiaba; at Wanseko landing site in Buliisa and Panyimur in Nebbi.

In his statement to Parliament on Ebola, Dr Otaala said his ministry was in dire need of Shs6 billion to contain the disease. But MPs questioned the government's responsiveness to epidemics outbreak, with speaker after speaker querying why the government did not announce the outbreak of Ebola on August 20 when its first case was reported.

"When we wanted money for Chogm, we passed it without problems," said Kapelebyong MP Johnson Malinga. "Now here is a minister lamenting that they want Shs6 billion." "We need urgent financial resources," said Bundibudyo MP Jane Babiha. "Volunteers are withdrawing because they haven't been paid. This is a life and death matter. We want to see money in the districts as soon as possible."

<http://allafrica.com/stories/200712041101.html>



Continued from page 15 – 1918 Hemorrhagic Symptoms Similar to Ebola

Pfeiffer's bacillus (presumed cause of influenza since the 1889-1890 pandemic but rarely isolated from 1918 victims); Yersinia pestis (because of migrating laborers from China, the site of pneumonic plague outbreaks in 1910-1917); Streptococcus species, Streptococcus pneumoniae, and Staphylococcus species (cultured from specimens from patients with Spanish flu); and a hypothesized "filtrable virus" (based on experiments that produced an infectious filtrate after removing known microorganisms) were all suggested as possible etiologies. Popular explanations included the foul atmosphere conjured by the war's rotting corpses, mustard gas, and explosions; a covert German biological

weapon; spiritual malaise due to the sins of war and materialism; and conditions fostered by the European conflict and overall impoverishment.

During the fall, the disease moved swiftly through US cities. Acute absenteeism among critical personnel strained industrial production, government services (e.g., sanitation, law enforcement, fire fighting, postal delivery), and maintenance of basic infrastructure (e.g., transportation, communications, health care, food supply) [3, 22, 24]. Given the incomplete disease reporting, inaccurate diagnoses, and circumscribed census practices of the day, morbidity and mortality figures are conservative estimates [3, 19]. Twenty-eight percent of Americans became ill, and there were 550,000 deaths in excess of what is normally expected during influenza season [3]. The case-fatality rate associated with Spanish flu has been estimated at 2.5% [20], but this rate more likely represents the experience of the developed world. Africa and Asia had fall death rates an order of magnitude higher than those of Europe and North America (e.g., India, 42,006,700 deaths per 1,000,000,000 populations; England, 490 deaths per 100,000 population) [19].

Also:

<http://www.uwosh.edu/departments/biology/1918FLUSHORS/Spanishflu.html>

Vaccine and Supply 1918 Project The Flu Family Flu Facts There is Evidence that the Spanish Flu Did have Hemorrhagic Symptoms 1918 Influenza Video Resources PBS ...

www.uwosh.edu/departments/biology/1918FLUSHORS/Spanishflu.html - 10k - Cached - Similar pages

and

<http://www.whale.to/v/spanish.html>

There is evidence that the Spanish Flu did have hemorrhagic symptoms. Vickie Menear, MD and homeopath, was doing some research on Flu for her class at Hahnemann Homeopathic College, Albany, California, when she ran into a great deal of literature that supports this possibility. I called her and she said that if you had questions, she'd be happy to answer them. Again, Email me and I'll give you her phone number. In the meantime, let me quote some of her source material. If you are interested in following up this new "lead" on the Spanish Flu epidemic, this is a good place to start. Here are the references:

1. **THE PLAGUE OF THE SPANISH LADY:** The Influenza Pandemic of 1918-1919 by Richard Collier, Atheneum Publishing, New York, 1974

Page 8: "If there was anyone at Devens (the Army base) who could be depended upon as a pillar of strength, it

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Continued from page 17-1918 Hemorrhagic Symptoms Similar To Ebola

was this safe of Johns Hopkins. But when he saw the wet lungs of influenza pneumonia in the fall of 1918, the pillar trembled. "This must be some new kind of infection...or plague."

Dr. Menear has a list of other books and articles supporting the hemorrhagic symptoms of the Spanish Flu. Should you want the list published here, on OUTBREAK, I'll be happy to call her and get it sent to you. She also has information on *Crotalus Horridus* being utilized as a remedy during the pandemic.

I can only note that the symptoms of the 1918 "influenza" and the Ebola of 1995, have marked similarities.

My percentages of homeopathic remedies used versus traditional medicine (drugs) during 1918 influenza come from an article that appeared in Homeopathy Today, January, 1990. It was the following and I'll quote:

"Dean W.A. Pearson of Philadelphia (Hahnemann College) collected 26,795 cases of (1918) influenza treated by homeopathic physicians with a mortality rate of 1.05 percent while the average old school (traditional medicine/drugs) mortality was 30 percent."

Update: 3-19-5

I want to be sure that people know my theory that a H5N1 pandemic strain sustaining human-to-human transmission might cause hemorrhagic symptoms in some has grounding in good science. Case history background of previous virulent pandemic strains can give us some insight into how a future pandemic strain might act, however, scientific data is also imperative to uphold my theory of hemorrhagic symptoms in an avian influenza human outbreak.

This resource does back up the history of hemorrhagic symptoms in the 1918 flu and also explains the mechanism for such symptoms.

It is not my intent to scare people about a possible coming outbreak. I simply look at all of the data on the subject and make personal judgment on what may or may not occur in the future should the virus become pandemic. It is my belief that people should have as much information as possible which would enable them to plan ahead. I think that there would be much more "fear" if people woke up and found themselves in the middle of an outbreak. If people have advance warning they will be better prepared to act. People who are aware of possibilities can spend time researching the data and arriving at their own conclusions.

Just as the cytokine reaction in SARS did cause

hemorrhagic symptoms in some cases, virulent pandemic strains of influenza, like the Spanish Flu also cause the inflammatory cytokines in the lungs and the hemorrhagic pneumonia.

"These viruses were also more pathogenic, not simply because they were associated with increased levels of in vivo replication but also because they stimulated massive increases in the responses of inflammatory cytokines in the lungs of infected mice. The mice infected with HAsp-containing virus had increased recruitment of leukocytes to the sites of lung infection and had severe hemorrhage resembling the hemorrhagic pneumonia associated with human infections during the 1918?C1919 pandemic."

Hope the information helps,

Patricia A. Doyle, PhD

dr_p_doyle@hotmail.com

<http://www.rense.com/general63/ebola.htm>



Angola Says At Least 77 Die in Acute Fever Outbreak

March 18, 2005

(Reuters) -- At least 77 people, most of them children, have died in northern Angola after an outbreak of a disease the World Health Organization (WHO) suspects to be acute hemorrhagic fever, officials said on Friday [18 Mar 2005].

They have ruled out the Ebola virus -- a type of hemorrhagic fever and one of the world's deadliest diseases -- but are urging people to avoid travel to Uige, about 140 miles north of Luanda.

Most of the city has been affected, but some areas are worse hit than others. We ruled out Ebola on Monday," Health Ministry spokesman Carlos Alberto said.

Diplomatic sources in Luanda said they understood the airport in Uige had been closed.

Jose Caetano, a WHO spokesman in Angola, said most of the victims were children with symptoms including fever, vomiting and diarrhea. He said at least 77 of the total of 83 people believed infected had died.

The situation is now under control. Our problem is trying to get the sick to go to health centers. We are trying to encourage people who feel any of the symptoms to get medical attention as quickly as possible," he told Reuters in Luanda.

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Continued from page 18 – Angola Says 77 Die in Acute Fever Outbreak

Caetano said Angola's limited laboratory facilities had hampered identification of the disease and that samples had been sent to the U.S. Centers for Disease Control in Atlanta and the Pasteur Institute of Dakar in Senegal.

He said the 1st case had been detected in November [2004].

Alberto said a specialized medical team was already on the ground in Uige and a national commission had been created to respond to the outbreak.

Reuters



Angola's Ebola-Like Illness Targets Children

March 18, 2005
The Scotsman

An Ebola-like mystery ailment that has killed at least 39 people in Angola over the past 3 months is primarily targeting children under 5 years of age, the UN health agency said today.

While the disease in Angola's northern province of Uige has still not been identified, health officials believe it is an acute haemorrhagic fever related to the Ebola virus, said Dick Thompson, spokesman for the World Health Organisation. But unlike Ebola, which tends to predominantly affect the adult population, 4 out of 5 cases of this new ailment have been children, Thompson said.

"With Ebola, the age distribution is generally quite different than what we are seeing here," he said. "But we are not ruling Ebola out. We are not ruling anything out." The symptoms of the virus -- including vomiting, bloody discharge and high fever -- are similar to those for Ebola and dengue fever, according to the World Health Organisation.

Angolan officials have put the death toll at 64.



FG Warns on Lassa Fever Pandemic

By Ruby Rabi, Abuja

Daily Trust (Abuja)
4 December 2007

The Federal Government has sounded an alert on Lassa fever which has claimed many lives in the country.

Minister of State for Health, Mr. Gabriel Aduku said the spread and impact of the sickness needs to be checked to forestall crises.

He was speaking at a media sensitisation workshop for the regional conference on Lassa Fever by Lassa Fever Stakeholders Forum due to hold this week.

Aduku said although the Federal Ministry of Health had signed a Memorandum of Understanding (MoU) with the Chinese government in 2004, there was an urgent need to step up efforts in ensuring steady supply of drugs for treatment of the ailment, provision of functional laboratory services as well as the development of an effective and affordable vaccine for Lassa fever.

The minister emphasised preventive measures which includes keeping clean environment, avoiding indiscriminate bush burning and eating of rodent, the carriers of the virus.

He said that the Federal Ministry of Health had designated three federal tertiary health institutions as centres of excellence for the control and management of the disease. According to Aduku, the Irrua Specialist Teaching Hospital, Edo State; University of Maiduguri Teaching Hospital, Borno State; and the Federal Medical Centre Owerri, Imo State needed to be strengthened through facilities upgrade.

Chief Medical Director, Irrua Specialist Teaching Hospital, Professor Godwin Akpede disclosed that the conference is aimed at developing capacity towards containing the challenges of the epidemic in the West African sub-region.

The disease is contagious and could be spread through exposure to the urine or faeces of the rodent (rat) and infected persons.

<http://allafrica.com/stories/200712040078.html>



Lassa Fever Claims 5,000 Lives Yearly, Says FG

By Onwuka Nzeshi

4 December 2007
This Day (Lagos)

The Federal Government has expressed concern over the poor attention paid to lassa fever epidemic that has been ravaging the country, saying the acute viral illness with

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NIH Criticized for Flawed Review of Biosafety Lab

By Jocelyn Kaiser

ScienceNOW Daily News
29 November 2007

An expert panel today slammed a draft study by the U.S. National Institutes of Health (NIH) on the risks of a proposed high-security biology laboratory in Boston, rejecting it as "not sound and credible." The harsh review suggests that NIH has more work ahead before the half-completed \$178 million lab can operate at the highest security level.

The proposed Boston University lab in the city's South End, which has \$128 million in NIH funding, will include biosafety level 4 (BSL-4) facilities for studying deadly pathogens such as Ebola virus and Lassa fever. In response to lawsuits filed by opponents who think densely populated downtown Boston isn't an appropriate site for the lab, NIH conducted a study of alternative sites outside Boston and of worst-case scenarios in the unlikely event of a pathogen escape ([Science](#), 11 August 2006, p. 747). The agency released a draft report in July that found the risks were quite low: No more than about 100 people would die if, say, Ebola or the Rift Valley fever virus got out into the community. The state of Massachusetts then asked for an independent review by the National Research Council (NRC).

The NRC panel found numerous problems. One is that NIH failed to consider highly transmissible agents such as avian influenza and SARS. The 11-member panel also faulted the modeling--for example, NIH didn't adequately consider uncertainties about how quickly some pathogens move through the population. And the NIH study gives short shrift to issues of environmental justice, such as the higher risks to AIDS patients living in the South End. If the report were an article submitted to a scientific journal, "we would have rejected this," said panelist Gigi Kwik Gronvall of the University of Pittsburgh Center for Biosecurity in Baltimore, Maryland, in a press call.

Boston University environmental health expert David Ozonoff, a critic of the lab, isn't surprised by the review. "It just wasn't a good report," he says. In a statement, NIH says it will consider the NRC review along with other comments on the draft. Construction on the lab will continue, but the pending risk assessment could delay the resolution of federal and state lawsuits opposing operation of its BSL-4 suites.

Meanwhile, three other new BSL-4 labs funded by NIH

are moving along without major opposition. All have environmental impact statements, but apparently they did not draw as much scrutiny as NIH's study on the Boston lab.

<http://sciencenow.sciencemag.org/cgi/content/full/2007/1129/1>



Food Selling Banned Over Cholera

7 December 2007
The Nation (Nairobi)

Food hawking has been banned in parts of Siaya District following an outbreak of cholera in the area.

The outbreak reported early this week has led to three deaths, while six people were treated and discharged.

More than 46 people are receiving in-patient treatment in different health centres in the district.

The Provincial Administration has also ordered the residents to dig pit latrines and adhere to high standards of hygiene.

The Siaya medical officer of health, Dr Elizabeth Okoth said the cholera outbreak was due to lack of clean water, failure to observe hygiene and feasting in gatherings. (KNA)

<http://allafrica.com/stories/200712061235.html>



Measles Kills 50 in Kaduna

By Reuben Buhari, Kaduna

This Day (Lagos)
5 December 2007

No fewer than 50 children have died in Zaria, Kaduna State, due to an outbreak of measles in the past three days. Of the lot, one Mallam Magaji Garba of No. 56 Sarki Street lost seven of his children to the epidemic.

Medical experts in the state yesterday said it was the worst case to be recorded in the area in a very long time.

In Jushi, a settlement in Zaria, Garba who spoke in Hausa to THISDAY said: "It is true that we have lost seven children to the epidemic. They all died within three days of the outbreak in our area. I have never seen a worst case

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bleeding and death in severe cases has been claiming an average of 5,000 lives annually since the epidemic first hit Nigeria in the 1980s

Minister of State for Health, Mr. Gabriel Aduku said the spread and impact of the sickness needed to be checked to forestall a situation where it would overwhelm the population in the near future.

Aduku who spoke at a media sensitisation workshop to herald the Regional Conference on Lassa Fever due to hold this week, said although the Federal Ministry of Health has made some efforts and signed a Memorandum of Understanding (MoU) with the Chinese government in 2004, there was an urgent need to step up efforts in the area. This, he said, would ensure steady supply of drugs for treatment of the ailment, provision of functional laboratory services as well as the development of an effective and affordable vaccine for lassa fever.

He recalled that some years ago the Federal Ministry of Health designated three federal tertiary health institutions as centres of excellence for the control and management of the disease. According to Aduku, the three centres namely the Irrua Specialist Teaching Hospital, Edo State, University of Maiduguri Teaching Hospital, Borno State and the Federal Medical Centre, Owerri, Imo State needed to be strengthened through an update of their facilities to contain the disease.

He, however, assured the Lassa Fever Stakeholders Forum, conveners of the regional conference of government's continued support in the task of combating Lassa fever in the country.

Chief Medical Director, Irrua Specialist Teaching Hospital, Professor Godwin Akpede disclosed that the conference is aimed at developing capacity towards containing the challenge of the epidemic in the West African sub-region, delineate the constraints militating against success in the efforts to reduce the prevalence, incidence and mortality arising from the disease and developing strategies for the control and eradication of the disease.

Lassa fever was first encountered in the 1950s, while the virus was identified in 1969.

The virus is named after Lassa, the town in Borno State, North Eastern Nigeria where the first case of the disease occurred. Since then some states in Nigeria such as Edo, Borno, Nasarawa, Plateau, Ebonyi and Imo have suffered ravages of the epidemic.

It is endemic to Nigeria, Sierra Leone, Guinea and Liberia. The disease, said to be spread by rats, are how-

ever, found throughout West Africa and the actual geographic range of the disease may be more extensive as evidence of the infection has also been found in the Central African Republic, Congo, Mali and Senegal.

<http://allafrica.com/stories/200712040242.html>



Continued from page 20 – Measles Kills 50 in Kaduna

of this disease in my area and some people are even moving away from here."

Similarly in Kofar Doka, investigations revealed that children get infected within hours of the outbreak of the disease.

Mustapha Shehu, who resides behind the Zaria prison in Kofar Doka, told THISDAY that the community had so far recorded 10 cases of the epidemic out of which three had died.

At the Institute of Child Health, Ahmadu Bello University Teaching Hospital, Kwarbai in Zaria, a lot of the patients observed at the hospital were seen to have symptoms of the disease -- high fever, rashes on their body and loss of appetite.

A mother, who had brought her two-year-old daughter to the hospital with the complaint that she had fever and rashes on her body, was informed by the doctor that her daughter had died of measles before she got to the hospital.

The mother, Asiya Garba, amidst tears said: "We could not sleep last night so I decided to bring her to the hospital so that she can get the necessary medical attention. I got to the clinic and bought the card only to be told that I have been backing a lifeless baby."

The National President, Residents Doctors Association, Dr. Bature Seidu, said he was surprised that the outbreak could be at this time of the year as the weather was a bit cold.

He said there were reports of the epidemic, adding that members of the association were putting in their best to reduce the number of deaths as well as ensure that the spread was curtailed.

According to him, the number might be higher especially in the rural areas as most of the people living in the areas had not reported the cases to the appropriate authorities.

A matron at the Nigeria College of Aviation Technology, Zaria, Mrs Hajara Yahaya, who spoke to THISDAY said the clinic had never recorded such cases in over 15 years.

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"It may be attributed to either poor immunisation or poor nutrition." According to her, immunisation is very important because it can boost the immunity of children against the epidemic.

She appealed to the authorities to ensure stiffer penalties for parents who deliberately refuse to immunise their children.

She also claimed that the disease was claiming the lives of children in rural areas due to the absence of medical facilities and the nature of habitation pattern in the villages.

When THISDAY called at the Commissioner for Health, Dr. Peter Yari's office, an official said he was out of the country.

A source at the Kaduna State Ministry of Health disclosed that the state government was aware of the problem.

He said the ministry was taking steps to combat the epidemic, adding that the requisite drugs were presently being sent to all hospitals and primary health care centres across the state.

<http://allafrica.com/stories/200712050222.html>



Continued from page 3 –The Bakonzo/Bamba Traditional Religion

pray to it) whenever one felt they needed riches and blessings.

3. **Mughobolya.** Something similar to the above, this spirit was responsible for dispensing good fortunes. It would always be worshipped and prayed to when one needed to obtain good luck.
4. **Mutundi.** This spirit was responsible for taking care of cultivated plants especially food crops. It was believed that, when worshipped and prayed to, good crop yields would be obtained.
5. **Kalisya.** This spirit was believed (and it is believed) to e having authority over wild animals. In this regard, it would be worshipped and prayed to by those who pursued wild animals for food – especially accustomed hunters.
6. **Omulemberi (Omusaaka).** This was a spirit believed to take care of the family. It would be worshipped and prayed to for defence and protection of families.

Dangerous Spirits

As much as there were (or there are) good spirits, there were also bad ones categorized as dangerous spirits. Examples of such dangerous spirits are:

1. **Lhushenge.** This spirit was dangerous in a manner that it would not allow women to conceive. Whenever it would be detested that the spirit had made a woman fail to conceive, some sort of petition would be made with a sacrifice offered. A white goat would be sacrificed and a solemn oath made that if the victim (woman) conceived, when the baby is born would be named after that spirit Lhushenge.
2. **Endyoka.** This is believed to be materially represented by a “water”snake. If one wanted to avoid the dangers caused by Endyooka, one had to sacrifice a black sheep and black hen or to reserve them at home.
3. **Kihooni.** This spirit in its badness, would cause wounds to people and would make women remain “stuck” in their menstruation. This danger would be reversed only when Kihooni was worshipped, prayed to, and sacrifice is offered to him (it).

Sacred Places of Worship and Religious Rituals

Unlike some religions, which have sacred buildings like churches, mosques, synagogues, or Temples for congregational worship, the Bakonzo/Bamba had/have particular geographical features, which served/serve as sacred places of worship and religious rituals.

At a domestic/homestead level, some rooms in the houses are reserved as places of worship.



Bank Staff now Wear Gloves over Ebola

December 7, 2007
Daily Monitor

Most cashiers at Stanbic and Centenary banks in Mbarara town are wearing gloves while on duty following an Ebola outbreak in the neighbouring Bundibugyo. Cashiers at Umeme have also been given gloves. The Director General of Health Services, Dr. Sam Zaramba, said the cumulative number of infections had risen to 91 with a total of 20 deaths. The deadly disease spreads through contact with an infected person.



FOOD FOR THOUGHT

The road to **Good Health** is not **Straight**.
There is a curve called **Immunization**,
A loop called **Illness**,
Speed bumps called **White doctors**,
Red lights called **Tablets**,
And falls called **Side Effects**.

BUT

If you have a spare called **Culture**,
An engine called **Traditional knowledge**,
Insurance called **Faith**,
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Mission Statement

Our aim at **The African Traditional Herbal Research Clinic** is to propagate and promote the awareness in Afrikan peoples at home and abroad of their health, biodiversity, history and cultural richness. We gather pertinent information on these issues and disseminate these freely to our people in Uganda, the rest of the continent, and anywhere in the Diaspora where Afrikans are located.... One of the main ingredients for increasing poverty, sickness, exploitation and domination is ignorance of one's self, and the environment in which we live. Knowledge is power and the forces that control our lives don't want to lose control, so they won't stop at anything to keep certain knowledge from the people. Therefore, we are expecting a fight and opposition to our mission. However, we will endeavor to carry forward this work in *grace and perfect ways*.

“Where there is no god, there is no culture. Where there is no culture, there is no indigenous knowledge. Where there is no indigenous knowledge, there is no history. Where there is no history, there is no science or technology. The existing nature is made by our past. Let us protect and conserve our indigenous knowledge.”



CALENDAR OF EVENTS

SPECIAL EVENT: CLINIC OPENING

PLACE: AFRIKAN TRADITIONAL HERBAL RESEARCH CLINIC

TIME:

Afrikan Traditional Herbal Research Clinic
1175A Mukalazi Road, P.O. Box 29974
Bukoto, Kampala, Uganda East Africa
Phone: +256 (0) 41 530 456
Email: clinic@blackherbals.com

ADDRESS CORRECTION REQUESTED

Herbs of the Month

Warburgia Ugandensis

Warburgia ugandensis is a spreading evergreen tree 4.5-30 m tall, 70 cm in diameter, bark smooth or scaly, pale green or brown, native to Uganda, Democratic Republic of Congo, Ethiopia, Kenya, Tanzania, and Swaziland. The fruit is edible and all parts have a hot peppery taste. The leaves and seeds are sometimes used to add flavour to curries. Traditionally, the dried bark is commonly chewed and the juice swallowed as a remedy for stomach-ache, constipation, toothache, cough, fever, muscle pains, weak joints and general body pains. It is also effective in powdered form for treating the same diseases. Fresh roots are boiled and mixed with soup for the prevention of diarrhea and other gastrointestinal disorders. The inner bark is reddish, bitter and peppery and has a variety of applications. It provides treatment for the common cold, tuberculosis, asthma, bronchitis, pneumonia, emphysema influenza and other respiratory diseases.

Kola Nut

A tea of the kola nut regulates circulation and cardiac rhythms and acts diuretically on the heart. It improves the appetite and lessen the desire for liquor. It relieves stomach aches and can stop diarrhea as well as purging the body of poisons. It relieves fatigue and malaise. In lab tests, scientists found that extracts of bitter kola halt replication of the Ebola virus.

Prunus Africanus

Bark preparations are used by the Zulu people to treat intercostal pains and elsewhere in Africa as a purgative and a remedy for stomach pains.



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