What is Avian Influenza (Bird Flu)?

Highly pathogenic Avian Influenza, commonly called bird flu, is a serious disease affecting birds and in some cases human beings. There is a new strain of avian influenza called the H5N1 which is very infectious and has caused the death of millions of chickens and other birds around the world, with very high economic loss. It can also affect human beings and may result in death.

The bird flu virus is passed from one bird to another. This happens when birds come in contact with an infected bird or its droppings. Birds can also get the virus from water or places where infected birds have defecated.

Since 2003, there has been an increasing number of H5N1 avian influenza outbreaks in many countries in Asia, particularly in Cambodia, China, Indonesia, Laos, South Korea, Thailand and Vietnam. Outbreaks have also been reported in Europe, the Middle East, and Africa.

In Africa, eight (8) countries have reported cases of bird flu. They are Burkina Faso, Cameroon, Cote d’Ivoire, Djibouti, Egypt, Niger, Nigeria and Sudan.

While bird flu is primarily a disease of birds - from bird to bird, there have been reports of humans affected by the virus. As at 6 February, 2007, 272 human cases were reported in eleven countries with 166 deaths. Most of the affected people came from Asian countries such as China, Vietnam, Cambodia, Thailand and Indonesia. Human cases have also been reported in three African countries - Egypt, Djibouti and Nigeria.

There is no evidence to date of sustained human-to-human transmission - like the ordinary flu. However, the world is concerned that H5N1 could adapt to, and become easily transmitted among humans. Once this adaptation occurs, it will no longer be a bird virus; it will become a human influenza virus, which could cause a pandemic.
Avian Influenza

How the virus spreads

1. Waterfowl can carry H5N1 with few effects
2. Chickens are much more susceptible
3. They can pass it to humans who are in close contact

How the virus can spread to become a pandemic

H5N1 Virus is spread → Other birds are infected → Transmission from human to human could occur → Virus could mutate with human flu forming a new strain

Source: bbc.co.uk

Pandemic Influenza

Pandemic influenza (different from avian influenza) is a rare but recurrent event that has typically occurred every 10 - 15 years. It occurs when a human influenza virus emerges and starts spreading as easily and normally as the regular seasonal influenza (regular flu).

The last pandemic in 1968 killed approximately one million people. The 1918 pandemic was very severe, killing approximately 40 million people.

Pictures and Articles from the 1918 pandemic influenza (Spanish Flu)

Killer plague that shook the world with panic and death

Source: Google.com
GLOBAL OUTBREAK OF THE H5NI BIRD FLU
(As at 6 February, 2007)

HUMAN CASES OF BIRD FLU (As at 6 February 2007)

<table>
<thead>
<tr>
<th>Country</th>
<th>Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Cambodia</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>China</td>
<td>22</td>
<td>14</td>
</tr>
<tr>
<td>Djibouti</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Egypt</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td>Indonesia</td>
<td>81</td>
<td>63</td>
</tr>
<tr>
<td>Iraq</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Thailand</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>Turkey</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Vietnam</td>
<td>93</td>
<td>42</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>272</strong></td>
<td><strong>166</strong></td>
</tr>
</tbody>
</table>

Source: World Health Organization
Avian Influenza Situation in Nigeria

Nigeria was the first country in Africa to confirm the presence of bird flu. The virus was discovered on Sambawa farms (Igabi Local Government), Kaduna State on 8 January 2006 and confirmed by the OIE World Reference Laboratory at Padova, Italy, on 7 February 2006.

From one state in February 2006, the virus has continued its spread right across Nigeria. As at 6 February 2007, the virus had affected 55 Local Government Areas (LGAs) in 21 states and the Federal Capital Territory (FCT). Of even greater concern, the country recorded its first human case of Avian Influenza fatality on 17 January 2007 with the death of a 22-year old female in Lagos State.

Announcing the first human case in Nigeria at a press briefing in Lagos on 31 January 2007, Information and Communications Minister, Frank Nweke Jnr. cited a report of a 13-man team of Nigerian Virologist and Laboratory Experts that tests conducted using in-country laboratory facilities confirmed the AI fatality of the 22-year old female. The official report of the Federal Government of Nigeria was validated by the World Health Organization (WHO). The current status of AI in Nigeria is detailed in the matrix below.

<table>
<thead>
<tr>
<th>#</th>
<th>State</th>
<th>Local Government Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adamawa</td>
<td>Girei</td>
</tr>
<tr>
<td>2.</td>
<td>Anambra</td>
<td>Idemili North, Awka South</td>
</tr>
<tr>
<td>3.</td>
<td>Bauchi</td>
<td>Toro, Katagum, Tafawa Balewa, Municipal</td>
</tr>
<tr>
<td>4.</td>
<td>Benue</td>
<td>Otukpo</td>
</tr>
<tr>
<td>5.</td>
<td>Borno</td>
<td>Jere, Maiduguri Metropolitan</td>
</tr>
<tr>
<td>6.</td>
<td>Delta</td>
<td>Ugheli North</td>
</tr>
<tr>
<td>7.</td>
<td>Edo</td>
<td>Oredo</td>
</tr>
<tr>
<td>8.</td>
<td>Enugu</td>
<td>Nsukka</td>
</tr>
<tr>
<td>9.</td>
<td>Jigawa</td>
<td>Hadejia</td>
</tr>
<tr>
<td>10.</td>
<td>Kaduna</td>
<td>Igabi, Kaduna South, Kaduna North, Chikum, Sabongari</td>
</tr>
<tr>
<td>11.</td>
<td>Kano</td>
<td>Janguza, Gezawa, Kumbotso, Municipal, Ungongo, Gwale</td>
</tr>
<tr>
<td>12.</td>
<td>Katsina</td>
<td>Katsina Municipal, Malumfashi, Kankara, Daura</td>
</tr>
<tr>
<td>13.</td>
<td>Kwara</td>
<td>Illorin West</td>
</tr>
<tr>
<td>14.</td>
<td>Lagos</td>
<td>Ajah(Etiosa), Agege, Ojo, Ikorodu, Alimosho, Badagry,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ifako-Ijaie, Amuwo-Odofin</td>
</tr>
<tr>
<td>15.</td>
<td>Nasarawa</td>
<td>Akwanga, Kokona, Lafia</td>
</tr>
<tr>
<td>16.</td>
<td>Ogun</td>
<td>Ifo, Ijebu-Ode, Ode-Remo</td>
</tr>
<tr>
<td>17.</td>
<td>Plateau</td>
<td>Jos North, Jos South</td>
</tr>
<tr>
<td>18.</td>
<td>Rivers</td>
<td>Port Harcourt Municipal</td>
</tr>
<tr>
<td>19.</td>
<td>Sokoto</td>
<td>Kebbe, Bondiga</td>
</tr>
<tr>
<td>20.</td>
<td>Taraba</td>
<td>Ibi, Wukari</td>
</tr>
<tr>
<td>21.</td>
<td>Yobe</td>
<td>Nangere</td>
</tr>
<tr>
<td>22.</td>
<td>Federal Capital Territory (FCT)</td>
<td>Bwari, Municipal, Kuje</td>
</tr>
</tbody>
</table>

**21 States + FCT**  **55 LGAs**

Source: Avian Influenza Crisis Management Centre/FMARD/PACE
Avian Influenza Media Kit

Nigerian Situation

Federal Government’s Response
In 2005, the Government of Nigeria developed a National Emergency Preparedness and Response Plan (NEPRP). Following the outbreak of avian influenza in the country, the government put into motion actions for the prevention and control of the disease. Using the NEPRP as a basis, a Strategic Containment Action Plan was developed with support of international development partners.

An Avian Influenza Crisis Management Centre, jointly supervised by the Federal Ministries of Agriculture, Health, and Information and National Orientation, was set up to coordinate activities and disseminate information regarding the prevention and control of avian influenza in Nigeria. The Government also set up a Public Enlightenment Committee to implement a Communication Strategy and Action Plan.

The Federal Ministry of Health set up a Rapid Response Team to coordinate response activities and carry out active surveillance and case searching in collaboration with affected states to identify and isolate any possible human case.

The Federal Ministry of Agriculture also activated its Plan for the bio-containment of the virus and prevention of its spread through stamping out of infected birds, movement restriction of poultry, and enhanced bio-security measures nationwide.

The Government has instituted the following measures to control and contain the bird flu virus in the country:

- Surveillance
- Quarantine
- Depopulation
  (based on Standard Operating Procedures)
- Decontamination
  (based on Standard Operating Procedures)
- Relief
- Bio-Security at Farm Sites and Markets
- Capacity Building
- Public Enlightenment and Social Mobilization

Relief Scheme for AI Affected Poultry Farmers:
The Federal Government has set up a relief scheme for all poultry farmers whose birds might be infected with Avian Influenza. All poultry owners are highly encouraged to report cases of high mortality among their bird populations. Infected birds will be culled and adequate compensation paid for the culled birds at the rates indicated below. As at 31 January 2007, the Federal Government of Nigeria has completed relief payment to the 17 initially affected states at a cost of ₦163,331,586.00.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken</td>
<td>₦250</td>
</tr>
<tr>
<td>Duck</td>
<td>₦1,000</td>
</tr>
<tr>
<td>Goose</td>
<td>₦1,000</td>
</tr>
<tr>
<td>Turkey</td>
<td>₦2,500</td>
</tr>
<tr>
<td>Emu</td>
<td>₦10,000</td>
</tr>
<tr>
<td>Ostrich</td>
<td>₦20,000</td>
</tr>
</tbody>
</table>
Avian Influenza Media Kit

Nigerian Situation

Al Situation in Nigeria as at 2/2/2007

LOCATION OF SURVEILLANCE AGENTS IN NIGERIA

Source: FMARD
In Birds

The signs of avian influenza in birds vary and can be affected by the existence of other diseases, the age of the birds, the environment and the severity of the virus itself. In very severe forms the disease appears suddenly and birds die quickly, sometimes without showing clinical signs of the disease. Signs may include:

- Quietness and depression
- Loss of appetite
- Decrease in egg production
- Production of soft-shelled or shell-less eggs
- Profuse watery diarrhoea
- Combs and wattles may be swollen and become blue
- Swelling of the face, and skin under the eyes
- Reddening of the legs
- Laboured respiration
- Coughing, sneezing - nasal discharge
- Nervous problems - uncoordinated gaits
- Haemorrhages on the hock
- Sudden death without clinical signs
- Mass mortalities. It may start with a few deaths which may be followed by an outbreak, killing hundreds or thousands of birds each day.
**In Humans**

Initial AI symptoms in human include:
- High fever, usually with a high temperature and influenza-like symptoms.

Other reported early symptoms have also included:
- Diarrhoea
- Vomiting
- Abdominal pain
- Chest pain
- Bleeding from the nose and gums

There is currently no effective vaccine to protect humans against H5N1. However, some anti-viral drugs can help limit symptoms and reduce the chances of the disease spreading.

**Persons at Risk**

Anybody in direct contact with sick or dead poultry is at risk. One of the greatest risks of exposure to the virus is through handling and slaughter of live infected poultry. When handling live or dead birds, it is imperative to disinfect hands and surfaces with soap and water.

Persons particularly at risk of contracting avian influenza include poultry farmers, keepers and sellers, animal health service providers and disease control officers as well as children.

**Persons at Risk**
Controlling the spread of the HPAI in the bird population and preventing its spread from birds to humans are at the center of the control and containment plan of the Government of Nigeria.

In poultry, the control and containment strategy is a planning process with the following key components:

- **Surveillance** - searching for the virus to determine the source and extent of the infection and making sure that any outbreaks are investigated, samples tested by NVRI in Vom and feedback provided to the affected farm.
- **Depopulation** - sanitary disposal of dead and destroyed poultry and contaminated poultry products according to standard Operation Procedures.
- **Decontamination** - disinfection and decontamination of affected premises.
- **Bio-security at farm sites and markets** including the separation of species, keeping and environment clean, disinfecting all equipment, vehicles, dispose of dead birds properly and promptly, etc.
- **Relief scheme** - a motivational scheme to encourage poultry farmers whose birds might be infected with Avian Influenza to report cases of mortality among their birds. Infected birds will be culled and compensation paid for the culled birds.
- **Restocking** - helping to build the capacity of affected farms to expand bio-security measures and re-start poultry activities.

**In humans, containment involves:**

- **Surveillance.**
- **The rapid deployment of anti-viral drugs in the areas of possible transmission.**
- **Limiting people’s movement in affected area.**
- **Effective and accurate methods of diagnosis.**
- **Antiviral treatment such as the use of Tamiflu and Relenza.**
- **Prevention through information dissemination and promotion of specific behaviour change actions.**
- **Quarantine of affected persons.**
**Frequently Asked Questions**

**Q:** What is Avian Influenza or Bird Flu?

_A:_ It is a form of infection caused by a virus that affects birds (chickens, ducks, etc) and leads to their death. The virus (H5N1) strain which has been confirmed in Nigeria can also infect humans and may result in death if not well managed.

**Q:** How can someone become infected?

_A:_ Through contact with infected birds, their feathers, droppings or other waste and by eating infected chicken and eggs that are not well cooked. Symptoms include high fever (above 37.5°C), breathing difficulties associated with headache, body pains, cough and catarrh. The disease affects both adults and children equally.

**Q:** What action should be taken if it is suspected that a person is infected?

_A:_ Report immediately to the nearest health facility giving all information related to contact with or consumption of infected birds and their products.

**Q:** Can the disease be prevented?

_A:_ Yes, it can be prevented by the following precautions:

- Avoid contact with chickens, ducks or other birds, including their feathers, faeces and other waste in areas where the disease is known to exist.
- Wash hands with soap and water after any contact.
- Do not sleep near poultry.
- Be careful how you transport live or dead chickens, ducks or other poultry from one place to another even if you think your birds are healthy.

**Q:** What should one do if one comes across dead or sick poultry or birds?

_A:_ Do not touch them! To remove them from your surroundings, wear gloves, and wash hands with soap and water after contact.

- Report the case to the local veterinary authority or to the community leader immediately.

**Q:** Is it safe to eat chicken?

_A:_ Yes, it is safe to eat healthy chicken. Cook your chicken very well.

**Q:** Is it safe to eat eggs?

_A:_ Yes, if thoroughly cooked.

**Q:** Is there a vaccine against the disease?

_A:_ There is no specific vaccine for now. However there is a non-specific influenza Vaccine (not specific for the H5N1) which can be administered.
Avian Influenza and Children

Children have been heavily impacted. Children account for nearly half of reported human cases of avian influenza, according to data from six countries. They often care for domestic poultry by feeding them, cleaning pens and gathering eggs. Children often play with poultry as pets.

The secondary impacts of avian influenza are also hard on children. Families lose an important source of food and income when birds fall ill, die or are culled. When income drops dramatically, families sometimes can’t afford to send children to school, or pay for essential health services. The outbreak of avian influenza among poultry also affects nutrition of children. Poultry is an important source of protein for children and avian influenza outbreak among poultry will further deplete an already inadequate protein source available to many poor families.
Healthy Behaviours Against Avian Influenza

For Families and Communities
- Keep children away from sick or dead poultry and birds.
- Always wash your hands with soap after touching any poultry, eggs or bird meat.
- Do not slaughter, use or cook sick or already dead poultry or birds.
- Report cases of sick or dead birds to the nearest veterinary authority or your community leader.

For Traditional Leaders
- Closely monitor and report to the nearest veterinary authority any cases of sick or dead poultry or birds in your locality.

Inform the community:
- Not to slaughter, use or cook dead poultry or birds for food.
- To always wash hands with soap especially after touching any poultry, eggs or bird meat before eating.
- To minimize contact with sick or dead birds. This should apply especially to children.
- To cook poultry and eggs thoroughly before eating.

Always wash your hands with soap and water after touching any fowl, chicken, eggs or Bird

Cook eggs and chicken very well at a high temperature before eating

Culled from UNICEF Poster
Avian Influenza Media Kit

Role of the Media

The media is an important ally in the response to Avian Influenza because it is a critical source of correct information as well as an advocate for correct health behaviours.

Local media play a critical role in influencing the response of governments and public attitudes towards a possible pandemic. Media coverage promotes an understanding of the relevant issues or actions of the government. Accurate, up-to-date and informative reporting which focuses on solutions can help forestall confusion, mistrust, and even panic.

Public officials rely on the media to get their messages out before, during and after an outbreak, and media reporting establishes public confidence in the ability of the government to address an outbreak.

Journalists can clarify issues and misconceptions, and outline key preventive measures.

**Tips for Reporting Avian Influenza**

- Get the most updated and accurate information.
- Monitor developments on avian influenza very carefully and refrain from any reporting that creates unnecessary panic.
- Build a database of useful contacts.
- Report the facts.
- Localize the information.
- Keep the long-term picture in mind.
- Present a balanced perception of risk.
- Use interactive dialogue and formats.
- Visit the AI Crisis Management Centre for more AI information.

**Approach AI reporting with sincerity and a sense of nationalism.**

**Story Ideas:**

*Journalists can tell the AI story. Some areas for reporting and public education include:*

- Government relief payment to farmers and other economic issues.
- Avian influenza response and pandemic preparedness plans by government.
- The effect of bio-security measures on families (women, children).
- Management of psychological, socio-cultural and economic problems resulting from outbreak of avian influenza and depopulation of farms.
- AI and promotion of hygiene practices.
- Integrated disease surveillance: A sure way to control AI in Nigeria.
- The role of traditional and religious leaders in the control and prevention of AI in Nigeria.
AVIAN INFLUENZA: COMPENSATION AND RESTOCKING IN BAUCHI

By Uche Anunne

The ride from Bauchi to Toro is about forty minutes. Toro is one of the Local Government Areas (LGA) worst hit by the outbreak of Avian Flu in Nigeria in 2006. Poultry farmers in Toro have laterally been wrecked by the epidemic. Our guide to Toro was Muhammed Dahiru, the area Veterinary Officer for Toro Local Government Council. His friendly disposition and the near permanent smile on his face as the journey lasted appeared to have conspired with the weather to conceal the pains of Bauchi poultry farmers.

Our first port of call in Toro was Pierodex Global Resources one of the farms that was attacked by the flu. "It was terrible" recalled Joe Sarkis, the Chief Executive Officer of this one time huge chicken farm. "I have never seen that kind of thing in my life." Indeed it was a nightmare for the Lebanese chicken farmer who lost 2,676 birds within the first five days of infection and had an additional 6,574 birds depopulated by the Veterinary Services. In all, he lost 9,250 birds to the influenza. According to him, a female member of his staff is responsible for the catastrophe. She had hobnobbed with villagers at a local liquor drinking spot where infected birds were killed, roasted and sold. From that place, he feels she took the virus back to her workplace and the consequence was the annihilation of his birds.

The Federal Government of Nigeria's intervention saved Joe Sarkis's business from total ruin through the payment of compensation for the depopulated chickens at a rate of N 250 per chicken lost. "I am grateful to the Federal Government of Nigeria for the compensation," said Mr. Sarkis, while observing that the Government could still do more given the enormity of the disaster.
His counterpart, Alhaji Abdulrahman Lawal of Yankari Farms agrees. “We accept Federal Government’s compensation, it is better than nothing, although it is meager compared to losses incurred.” Yankari Farm lost 132,084 chickens to the flu and received compensation to the value of N18 million. However, Lawal wants government and its partners to consider paying a minimum of N 750 per chicken lost as this will help accelerate the process of restocking and restore hope. He believes that the outbreak of flu in Nigeria has taught Nigeria bird farmers some lessons on how to avoid a repetition of the experience and at worst, how best to handle such a situation. To him, caution is the watchword now and security measures are no longer to be taken for granted. He has demonstrated this by providing perimeter fencing for his farm.

But not everyone is pleased with the current compensation scheme. Danjuma Bello, the farm engineer of Dajiya Farms along Dass Road in Bauchi described government as being insensitive to the plight of poultry farmers in the State. According to him, N 250 per chicken is not good enough and unacceptable. “In addition to the loss of the chickens, we have about fifteen redundant workers that must be paid because we can not let our best hands go. We also can not re-stock because the Federal Government has not given us the go ahead to restock,” Bello expressed angrily.

A tour of the Dajiya farm premises attest to his anger. It is a desolate expanse of space and structures that used to be a beehive of activities. Every where was silent, except the occasional intrusion of noise from birds perching on trees or flying past. Inside the halls that used to house thousands of chicken hung electric bulbs, empty cages, tidy floors and no workers. “This is the reality here,” Bello groaned.

But the Director of Veterinary Services in Bauchi, Dr. Bala Musa Likeshi says the prevailing condition is temporary. He appealed to Mallam Danjuma and others who considered government as insincere and insensitive on the vexed issues of compensation and restocking to be patient. The Director also stressed that compensation is not buying off as government was not buying chickens from them, but only trying to compensate for the losses incurred. ‘The Yankari Farms in Toro and five others, including another in Tafawa Balewa Local Government Area have been compensated and this is the first batch and we are doing our best to ensure that every affected farmer is compensated,’ he emphasized and attributed the snag in full compensation payment to delay in release of funds by the Federal Ministry of Finance.

On the health implications of Avian Influenza, Dr. Bala Musa Likeshi observed that Nigeria is lucky not to have recorded any human infection considering how human beings and poultry co-habit, especially in rural areas, stressing “if you look at our society, especially in
the rural areas, many people are ignorant about the disease. Thank God we have not recorded any human casualty.” He admitted that he was scared for his health as he moved from one poultry farm to another to stamp out chickens.

But ignorance about Avian Influenza is being tackled in Toro through intensive public enlightenment campaign strategy which is yielding results. “That primary school students and families are learning how they can safeguard their lives is encouraging,” Dr. Likeshi says. He wants Nigerians to remain cautious and vigilant, noting that “we can’t say we are safe, especially in this part of the country where we have migratory birds from different parts of the world visiting annually.”

The fight against the control and prevention of Avian Influenza in Toro is proudly spearheaded by Alhaji Musa Abdullahi, Chairman of the Toro Local Government Council. In addition to public enlightenment activities, the Toro Local Government has procured disinfectant and other chemicals to treat affected chicken farms.

Between February and May this year, the avian influenza swept through Bauchi, a North Eastern State in Nigeria leaving in its wake 176,326 chickens dead, either through infection or depopulation by Agriculture extension workers and development partners.
Information Resources

Avian Influenza Crisis Management Centre
2 Cassandra Street, Maitama, Abuja
crisismgt@nigeriafirst.org
avianflu@nigeriafirst.org
Avianoutbreak@nigeriafirst.org
Contact: Mrs. Ayo Adesugba ayoadesugba@nigeriafirst.org 08055122485
Barr. Georgina Ehuriah geedelaw@yahoo.com

Federal Ministry of Agriculture and Rural Development
Federal Secretariat, Abuja
Contact: Dr. Junaid Maina junaidmaina@yahoo.com 08037044433
Dr. Mohammed Saidu (World Bank Component Coordinator) 08033139365

Federal Ministry of Health
Federal Secretariat, Abuja
Contact: Dr. A Nasidi nasidi@hotmail.com 08037006849
Dr. Shuaib Belgore (World Bank Component Coordinator) 08033144442

Federal Ministry of Information and National Orientation
Radio House, Abuja
Contact: Mr. C. K. Alabi kayckus@yahoo.com 08037071251
Mr. Babatunde Bello (World Bank Project Desk Officer) 08059699685

World Health Organization
United Nations House
617/618 Diplomatic Drive
Central Area District, Abuja
www.who.int/csr/disease/avian_influenza
Contact: Dr. L. K. Sadiq sadiq@ng.afro.who.int

UN Food and Agriculture Organization
United Nations House
617/618 Diplomatic Drive
Central Area District, Abuja
www.fao.org
Contact: Prof. Timothy Obi timothyobi@hotmail.com

Internet Information Resource
www.ifpm.org/influenza
www.fedlivestock.gov.ng

United Nations Children’s Fund-UNICEF
UN House, 617/618 Diplomatic Drive, Central Area District, Abuja
Contact: Christine Jaulmes - cjualmes@unicef.org 08034020879
MacArthur Hill - mhill@unicef.org 08035350981
www.unicef.org