

# Dinga Dinga Disease Uncovered: A Call to Act Fast Against Uganda's Puzzling Health Crisis.

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## Abstract

In early 2023, Uganda reported a novel illness known as "Dinga Dinga Disease" (DDD), characterized mainly by uncontrollable body tremors, primarily affecting women and girls in the Bundibugyo district. This exploratory article examines the disease's symptoms, epidemiology, and potential causes, drawing parallels to the historical "Dancing Plague" of 1518. DDD presents with excessive shaking, high fever, extreme weakness, and feelings of paralysis, severely impacting mobility and daily activities, yet it remains self-limiting with no reported fatalities. The article highlights the urgent need for a clear case definition to facilitate effective surveillance and public health interventions amidst other concurrent health crises in Uganda, including outbreaks of mpox and a mysterious "Disease X" in the neighboring Democratic Republic of the Congo. Community impact is profound, with significant social and economic challenges arising from the disease's incapacitating effects. Ongoing investigations by local health authorities, supported by World Health Organization, aim to uncover the etiology of DDD and implement necessary public health measures. The need for collaborative efforts in research, resource allocation, and community engagement is emphasized to address this emerging health threat and safeguard vulnerable populations.

**Key words:** Dinga Dinga Disease (DDD), Tremors, Epidemiology, Public Health Uganda

## INTRODUCTION

In the early months of 2023, a novel illness known locally as "Dinga Dinga Disease (DDD)," interpreted as body tremors disease or "dancing disease" surfaced in Uganda. This mysterious disease which mainly affects women and girls was first identified in the Bundibugyo district of Uganda. Its

enigmatic nature has attracted the attention of health authorities, researchers and affected communities [9].

The symptoms of Dinga Dinga, especially the uncontrollable shaking or tremors reminiscent of the “Dancing Plague” or “Choreomania” of 1518, have raised significant concerns among health professionals and researchers. The most distinctive symptom is excessive shaking of the whole body, which severely impacts patients' mobility and can lead to temporary paralysis, especially when attempting to walk or stand. These episodes of tremors can last for hours and are accompanied by other symptoms such as fever, persistent headaches, cough, runny nose, and general body pain leaving the victims completely incapacitated, [2], [6].

There is a striking similarity between Dinga Dinga and the historical Dancing Plague; a dance epidemic of 1518. During the 1518 outbreak in Strasbourg, France, uncontrolled bizarre dancing led to exhaustion and, in some cases, death. The cause of that unintentional dancing phenomenon remains uncertain, with theories ranging from ergot poisoning to mass psychogenic illness. Similarly, while the exact cause of Dinga Dinga is still under investigation, there is speculation about both physical and psychological factors [4], [8], [5].

In addition, the emergence of DDD strikes amid a series of other health crises in Uganda which has faced an outbreak of a new strain of mpox (monkeypox) that resulted in several deaths. Also, the Democratic Republic of the Congo (DRC), which borders Uganda, has recently experienced a deadly wave of a mysterious illness dubbed “Disease X.” This unknown pathogen claimed over 400 lives, sparking fears of a potential global epidemic. Some authorities suspect that Disease X is connected to malaria because majority of affected patients in the region tested positive for the mosquito-borne illness. The recurring outbreaks in Uganda and neighboring regions should provoke a scientific research commitment towards African continent [1], [10], [11].

### **Current Situation and Health Response**

As of now, over 300 cases of Dinga Dinga have been reported in Bundibugyo district, predominantly affecting women and girls. Although neighboring areas are unaffected by DDD, the concentration and burden of cases raises concerns about potential broader transmission. Fortunately, there have been no reported deaths, and the disease is believed to be self-limiting, typically resolving within a week.

Despite the absence of a definitive cure, medical treatment focuses on alleviating symptoms. While some advocate that the disease is self-limiting, health professionals emphasize the importance of seeking care from medical facilities rather than relying on unverified treatments. Reports indicate that patients get better after the administration of antibiotics however the suspicion is tilted towards a viral aetiology, [3]. Could this be that the antibiotics handles secondary bacterial infections while the viral aetiology may be self-limiting ?

### **Overview of Dinga Dinga Disease**

Dinga Dinga disease is characterized by a series of distressful symptoms, including:

- Excessive Shaking: A hallmark of the disease, leading to significant adversity.
- High Fever: Patients experience elevated body temperatures that can be debilitating.
- Extreme Weakness: Many report an overwhelming sense of fatigue.

- **Feeling of Paralysis:** Some individuals describe an inability to move or perform regular activities, which impacts on daily activities of living.

The demographics exposed to this disease—primarily women and children—raise additional concern regarding the social implications of the outbreak in vulnerable communities and this is particularly alarming as it may even be more hazardous than the coronavirus,

The case definition for Dinga Dinga is crucial in identifying and monitoring potential cases during the outbreak. While specific detailed case definitions for Dinga Dinga disease may not be widely available, a typical case definition for an emerging infectious disease can include the following elements:

### **Possible Case Definition for Dinga Dinga Disease**

**Clinical Criteria:** Using the element of symptoms

Patients may typically present with a combination of the following:

- Excessive body shaking or tremors (often described as resembling "dancing")
- High fever
- Extreme weakness
- Feeling of paralysis
- Additional symptoms may include headache, rash, joint pain or as reported.

With time, as more symptoms are recorded these can be categorized into major and minor criteria.

**Epidemiological Criteria:** Using element of recent exposure

- Patient with a history of recent travel to or residence in Bundibugyo district or an affected area in Uganda where Dinga Dinga cases have been reported.
- Contact with individuals showing similar symptoms.

**Laboratory Criteria:** Using diagnostic testing.

- Confirmation of disease may include laboratory tests to detect the pathogens.
- Serological tests or molecular diagnostics, if available, can identify the causative agent once it is characterized.

**Classification of Cases:** Based on the criteria above, cases may be classified as:

**Confirmed Case:** A patient who meets the clinical criteria and has laboratory confirmation of the disease.

**Probable Case:** A patient who meets clinical criteria with a history of exposure but lacks definitive laboratory confirmation.

**Suspected Case:** A patient exhibiting clinical symptoms consistent with Dinga Dinga disease without confirmed exposure, [12].

### **Importance of Case Definition**

Establishing a clear case definition is essential for:

- A. **Effective Surveillance:** To identify and report cases accurately.
- B. **Resource Allocation:** To ensure that healthcare resources are directed to areas that need them most.

C. Public Health Intervention: To implement control measures effectively and prevent further spread of the disease.

### **Etiology of DDD**

The exact cause is still unclear but there are speculations that this could be a viral infection or something related to environmental elements. However, as of now, no definite agent has been found. Dinga Dinga is still under investigation, with health authorities scrambling to uncover its etiology. Samples have been sent to Uganda's Ministry of Health for further analysis. While, some think it could be due to physical or psychological causes, however, this is only theoretical. So, the cause is still uncertain,[3], [7].

### **Community Impact and Call for Action**

The ongoing outbreak has significant implications for the community. The episodes of uncontrollable shaking hinder individuals from completing daily tasks, leading to social and economic challenges, as many are unable to work or care for their families during illness. The lack of a clear diagnosis has created a sense of fear and uncertainty among the population.

Local health authorities and the government are actively working to provide necessary care and conduct research to understand the disease better. However, the continuing uncertainty about its cause and transmission presents a significant challenge for public health interventions. Ongoing research and proper medical care are essential to ensure the health and safety of the affected population.

### **Initial Investigation and Response**

Health authorities in Uganda have initiated investigations into the Dinga Dinga outbreak using the following methods:

- Surveillance: Increasing surveillance in the Bundibugyo district and surrounding areas to monitor the spread of symptoms and potential cases.
- Public Awareness Campaigns: Educating communities about recognizing symptoms and encouraging timely medical intervention to minimize complications.
- Sample Collection and Testing: Health officials are collecting samples from affected individuals to determine the disease's causative agent and understand its transmission dynamics.

### **The Impact on Bundibugyo District**

The emergence of Dinga Dinga disease has placed considerable strain on the local healthcare system in the following dimensions:

- Healthcare Resources: Clinics and hospitals in Bundibugyo are being challenged to accommodate the rising number of patients, with limited resources available for diagnosis and treatment.
- Community Reaction: Fear and anxiety have spread through local communities, making it essential to address misinformation and promote public health practices to ensure calm and cooperation, [1], [4].

### **Potential Causes and Research Needs**

As of now, the exact cause of Dinga Dinga disease remains unknown, prompting urgent research initiatives. Factors to consider include:

- **Possible Viral Origins:** The symptoms suggest a viral infection, similar to other known diseases, but further investigation is required to identify the specific virus.
- **Environmental Influences:** Researchers are looking into whether local environmental factors—such as climate, wildlife interactions, or agricultural practices—could contribute to the emergence of this mysterious illness.

### **Government and International Support**

The Ugandan government is collaborating with international organizations to address this public health crisis. These efforts include:

- Capacity Building:** Enhancing local healthcare capabilities to manage and treat potential infectious diseases effectively.
- Global Health Partnerships:** Engaging with global health bodies to secure resources for research, testing, and treatment protocols.

### **WHO's Recommended role in Emerging Dinga Dinga**

1. **Monitoring and Surveillance:** The WHO closely monitors disease outbreaks globally through its Global Outbreak Alert and Response Network (GOARN) and works with national health authorities to track the new disease; Dinga Dinga.
2. **Guidance and Recommendations:** They provide guidance on case definitions, surveillance strategies, and best practices for detection and response to help health authorities manage the outbreak effectively.
3. **Research and Collaboration:** The WHO often collaborates with local and international health organizations, universities, and research institutions to study the disease's characteristics, mode of transmission, and treatment options.
4. **Public Health Advisories:** The organization issues public health advisories and updates to inform healthcare workers and the public about the disease, its symptoms, and preventive measures.
5. **Support for Healthcare Systems:** In cases of disease outbreaks, the WHO provides technical and logistical support to healthcare systems in affected countries to improve their capacity to respond.

## **CONCLUSION**

The emergence of Dinga Dinga disease represents a significant challenge for Uganda's health authorities and affected communities. As investigations continue, early detection and community engagement play pivotal roles in controlling this outbreak. As researchers strive to uncover the mystery surrounding Dinga Dinga, the need for vigilance, prompt response, and supportive healthcare measures remains critical. It is essential for the Ugandan government, healthcare professionals, and international partners and WHO authorities to work collaboratively to fully understand this enigmatic disease and protect the health of those at risk, particularly vulnerable populations such as women and children. The ongoing narrative of Dinga Dinga serves as a reminder of the unpredictability of emerging diseases and the importance of public health preparedness in confronting such challenges. As Dinga Dinga disease is still under investigation and evolving, the case definition may be refined over time as more

data become available. For the most accurate and up-to-date information, health authorities and the [12] will continue to provide guidance as the situation develops.

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