

# FOOD SAFETY NEWSLETTER

WHO REGIONAL OFFICE FOR  
AFRICA

FOOD SAFETY NEWSLETTER

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**INFOSAN**

**INTERNATIONAL FOOD SAFETY  
AUTHORITIES NETWORK**

**Overview of INFOSAN in Africa**



World Health  
Organization

REGIONAL OFFICE FOR

Africa

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## References:

Baltazar, M., A. Ngandjio, et al. (2015). "Multidrug-Resistant Salmonella enterica Serotype Typhi, Gulf of Guinea Region, Africa". Emerging Infectious Diseases 21(4).

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# Status of National Codex Capacity in WHO African Region

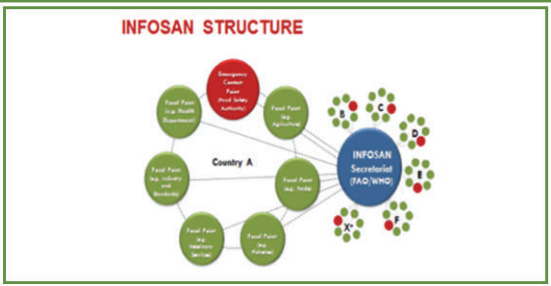
The trend shows that 7 out of 34 countries surveyed have in place a Codex Contact Point, National Codex Committee (NCC), Technical Committee (TC), Regular Meetings of NCC and TC(s) and National Food Standards based on Codex standards (Table 1). Full report- Coming soon!

Table 1: National Codex Capacity 2014/2015

National Codex Capacity 2014/2015	Nov 2014 / Apr 2015
No. of Countries with NCCP, NCC, TC(s), regular NCC meeting & national standards based on Codex standards overall	7/34 (21%)

## INFOSAN in Africa: Important now more than ever!

- The theme for World Health Day 2015 was Food Safety.
- The WHO Regional Director for Africa, Dr Matshidiso Moeti has called upon governments to prioritize food safety, and specifically noted that food safety can be enormously improved by implementing alert mechanisms and early warning systems.
- INFOSAN functions as such a system and therefore governments in the African Region should prioritize participation in this important network and designate an INFOSAN Emergency Contact Point as a first step.



Active INFOSAN “membership” means that: 1) a Member State (MS) has officially designated an INFOSAN Emergency Contact Point (ECP) from the national government authority responsible for coordination during a food safety emergency; and 2) the ECP has registered on the INFOSAN Community Website <https://extranet.who.int/infosan/en/registration>



Table 2: INFOSAN Focal Points in the African Region, 2012 - Present

National Codex Capacity 2014/2015	June 2015	December 2014	December 2013	December 2012
Ms with at least one INFOSAN FP designated and registered on the INFOSAN Community Website	20/47 (43%)	18/47 (38%)	12/47 (26%)	9/47 (19%)

As a result of World Health Day 2015, active INFOSAN membership in Africa has increased from below 20% to nearly 50% (Table 1). This promising trend is a reflection of Dr Moeti’s message, and targeted and collaborative efforts made by the INFOSAN Secretariat and WHO staff in the Regional and Country Offices.

# Safer Food For All (SFFA) in WHO African Region

SFFA represents an integrated, holistic, multisectoral, multidisciplinary, cost-effective and sustainable approach to improving food safety and empowering small and medium sized food businesses in Africa. Three Modules for Regulators, Businesses and Consumers. Coming soon!

## Outbreaks of Foodborne Diseases in Africa countries

### Cholera

*Vibrio cholerae*, the bacterium that causes cholera caused 55 812 illnesses and 709 deaths in 13 countries from January to May 2015. Eating food or drinking water contaminated with the bacterium was responsible for the cases and deaths in the African Region. Figures 1 and 2 are curves depicting the trend of the cases and deaths caused by cholera during this period.

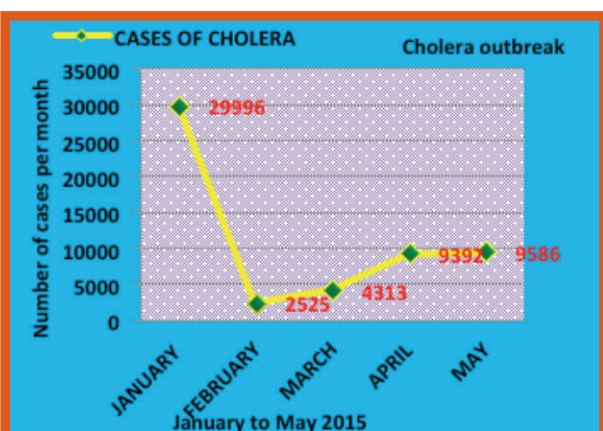


Figure 1: Curve of Cholera Cases

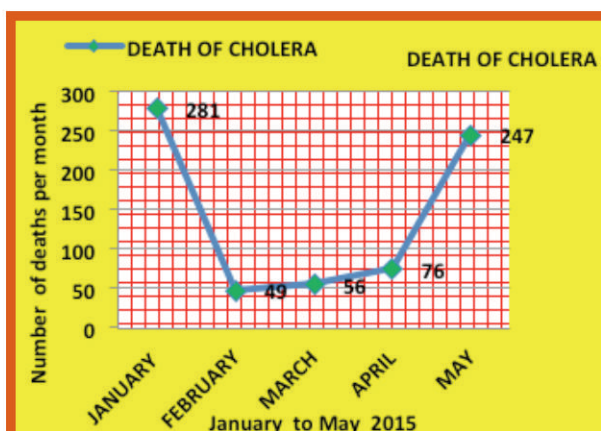


Figure 2: Curve of Cholera Deaths in 13 countries

The number of cases and deaths dropped in February but started increasing in April and May 2015. There is still 'great uncertainty' of the real impact and prevention of cholera in the Region. The trend of the cases and deaths uncover significant gaps in the food safety management system in the African Region. Moreover, the cases and deaths reported are just tips of the iceberg as there are many cases and deaths that are not reported due to weak foodborne disease surveillance systems. Cholera was largely eliminated from developed countries by implementing effective food safety management systems over many decades but it still remains a significant cause of illness and death in many African countries. Today, sub-Saharan Africa bears the brunt of global cholera burden. This data reminds us that the region is broadly affected by many cholera cases and outbreaks with potential to spread across borders. Amid the limited resources and weak health care systems, many African countries face the multiple challenges of improving surveillance, cholera treatment, access to basic health care, to list but a few.

## Typhoid Fever

Typhoid fever, caused by *Salmonella enterica* serovar Typhi (*S. Typhi*), continues to be a public health problem in many countries in the WHO African Region. *S. Typhi* has caused 19 824 illnesses and 9 deaths in 4 countries from January to May 2015. Although not much data from sub-Saharan Africa has been published, it seems clear that typhoid is disproportionately affecting many countries in the Region. Risk factors include eating unsafe food or drinking unsafe water contaminated with *S. Typhi* as a result of inadequate food safety management system. Figures 3 and 4 are curves depicting the trend of the cases and deaths caused by typhoid fever during the reporting period.

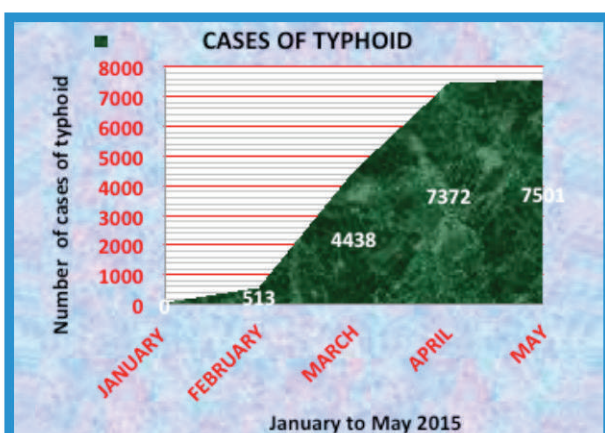


Figure 3: Curve of Typhoid Cases in 4 countries

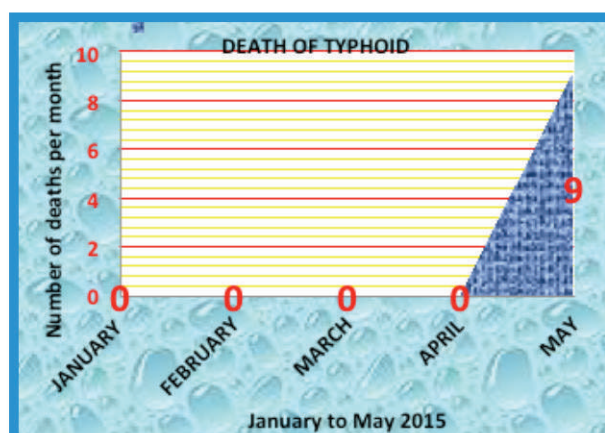


Figure 4: Curve of Typhoid Deaths in 4 countries

Typhoid cases increased in four countries from February to May 2015. While there was no death reported from January to April, 9 deaths were reported in May. This means that treatment of *S. Typhi* should not be the only solution because there are lot of challenges. Firstly, lack of effective diagnosis often leads to inappropriate treatment and management of infections. Secondly, the emergence and spread of strains of *S. Typhi* having multiple resistances to available antibiotics (antibiotic resistance) has been a major burden to health care systems (Baltazar, Ngandjio, et al., 2015). The increasing impact of antibiotic resistance has reduced effective treatment options for the disease, increased treatment costs and subsequently, increased the risk of complications and death. There is also a link between antibiotic use and the emergence of resistance.

This is caused by mutations in a bacteria's genome or by acquiring bits of deoxyribonucleic acid (DNA) from other bacteria that are already resistant to a particular antibiotic. Bacteria that cause typhoid fever are closely related to other *Salmonella* and *E. coli* that are often found in the food chain.

It was recently reported that antibiotic resistance is now an epidemic and affecting African countries. In addition, a multi-resistant clone of *S. Typhi*, named H58 is spreading worldwide from its initial spot in the Indian subcontinent to affect some countries in the African Region (Nature Genetics, 2015). Given the importance of information on disease incidence for targeting control measures, improved food safety management systems and effective surveillance systems should be included in the public health priorities of all Member States.

## Avian Influenza (Bird Flu)

Avian Influenza (Bird Flu) outbreaks have occurred in several countries in Africa. Data for two countries from January to May 2015 recorded 1 071 278 cases with 102 667 deaths of poultry. The risks of transfer of the H5N1 strain of highly pathogenic avian influenza (HPAI) to humans in the Region remain high. Figures 5 and 6 are curves depicting the trend of the cases and deaths of poultry caused by H5N1 in two countries during the reporting period.

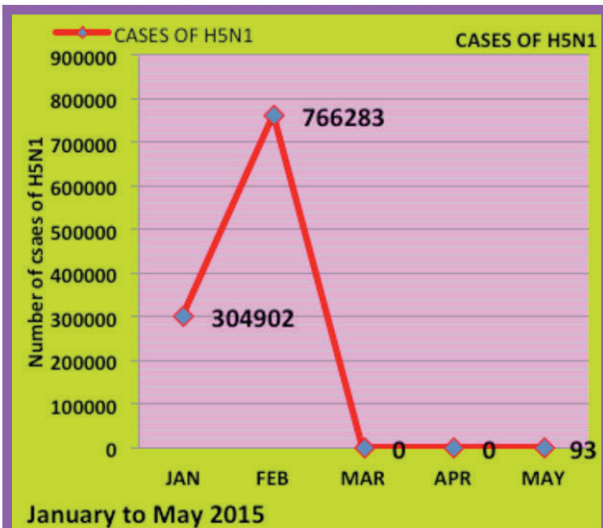


Figure 5: Curve of H5N1 cases in 2 countries

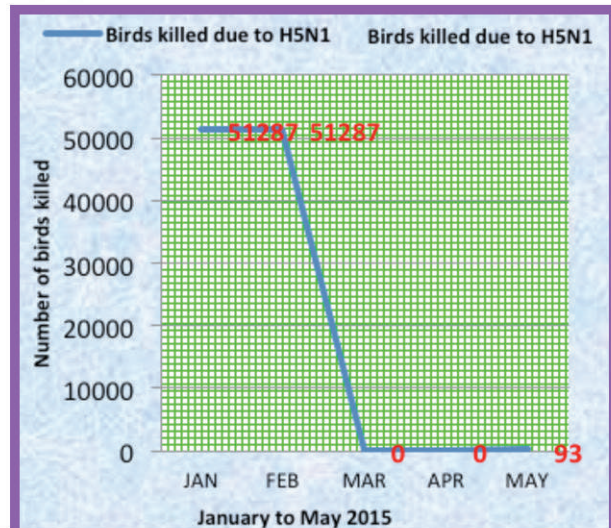


Figure 6: Curve of H5N1 Poultry killed in 2 countries

The number of cases and culling of poultry due to H5N1 started in January and increased in February. The cases and deaths dropped and flattened to zero in March and April but started increasing again in May. Several factors are responsible for inhibiting the progress towards the elimination of H5N1 virus in the Region. For example, the unregulated informal poultry reared and sold a high proportion of poultry

under unhygienic and other non-food safety compliant conditions that afford little or no protection from influenza viruses. In addition, regulatory, enforcement and supporting institutions services are weak. Changes are needed in the poultry sector to implement the “farm-to-plate” concept covering production, transportation, and marketing to the dining table of the consumer.

In most cases there are little or no linkages between the public and inspection, enforcement, monitoring and surveillance systems and as a result, only a partial picture of disease or infection status is provided. Consequently, the capacity for systematic outbreak investigation and early warning is inadequate; thus disease investigations and tracing systems are unlikely to identify the exact source(s) of infection.

The level of commitment within the poultry sector (public and private), towards the elimination of viruses is weak. Usually the fear of H5N1 does not necessarily translate into concrete plans for virus prevention, control and elimination. Several interventions for the type of measures needed to prevent, control and eliminate H5N1 from value-chain are half-hearted until producers regard the virus as a major threat to their livelihoods and economic devastation.

There is a need to operationalize the Avian Influenza Plan of Action through the following: countries to carry out feasibility study on institutional analysis, identify gaps to properly direct capacity building; countries to develop and implement a farm registration and quality

assurance scheme for timely traceability of poultry products and guarantee the safety of food products; countries to urge poultry businesses to upgrade physical poultry production, transportation and marketing facilities; increase their knowledge, awareness and sensitization on H5N1 HPAI through workshops and extension services; countries to implement food safety certification including tracing of poultry products scheme to compel producers meet their obligations; countries to develop and implement poultry sector review and zonal profiles, based on ecosystems-health approach, with the aim to produce a description of the population at risk, according to the epidemiologically appropriate zone and farming category; countries to develop and implement a mapping system of poultry movement and modeling of poultry population dynamics; countries to strengthen national Codex committee activities, which is a multisectoral health platform to promote public-private sector dialogue partnership; and strengthening Biosecurity Good Practices, through establish benchmarks and standards.

# Tracking other foodborne diseases

From January to May 2015, 56 cases and 12 deaths of cows due to Anthrax in four countries have been recorded (Figures 7 and 8). Other foodborne infections including Anthrax, Bovine spongiform encephalopathy (BSE) (zoonotic), chemical food poisoning, antimicrobial resistance etc, usually go undiagnosed and unreported, except when they are linked to a serious outbreak.

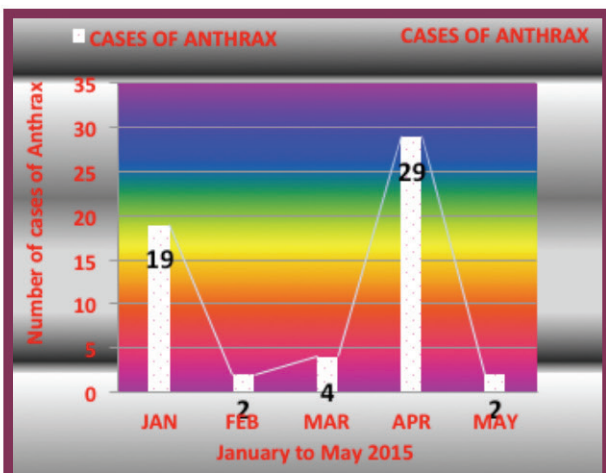


Figure 5: Curve of Anthrax cases in 4 countries

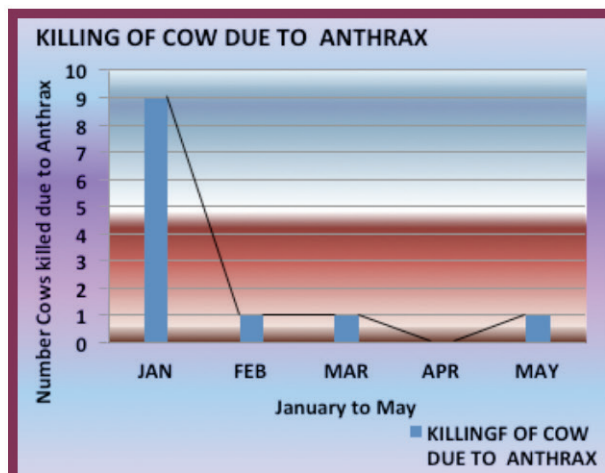


Figure 6: Curve of cow death from Anthrax in 4 countries

To get more information about these infections, WHO/AFRO in collaboration with headquarters has started epidemiologic surveillance studies with selected countries in the Region through projects funded by the WHO Advisory Group on Integrated Surveillance of Antimicrobial Resistance (AGISAR), Global Foodborne Infections Network (GFN) as well as FAO, OIE and WHO tripartite collaboration. The first set of results of these studies on antimicrobial resistance is expected to be published in early 2016.