



**NUGATA**.... *Food Safety & Trade Facilitating Solutions!!*



# Food Safety Fundamentals

Presented at the

NAFDAC / Nugata Consults Food Safety Training Workshop,  
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Oshodi

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# Workshop Objective



- Institutionalize mandatory baseline knowledge of food safety in food service outlets
- Highlight the importance of food safety and Good Hygienic Practice (GHP) in catering
- Emphasize the importance of training & retraining.



# Outline



- Introduction
- Why is Training Important?
- Legislations
- Food Safety Hazards
- Contamination
- How Do We Keep Food Safe?
- WHO 5Keys to Safer Food
- Conclusion



# Introduction



- Consumers have a right to expect that the food they eat tastes good, is safe, nutritious, and not a source of discomfort or illness.
- Food offered for sale to the public should be prepared and served in a hygienic manner to ensure that it is safe and prevents food borne illness.
- Food safety is the assurance that food will not cause harm to the consumer when prepared and/or eaten according to its intended use.
- Critical to achieving food safety are the environment & the food handler whose roles include:
  - ✓ Keeping themselves and the environment clean



# Introduction



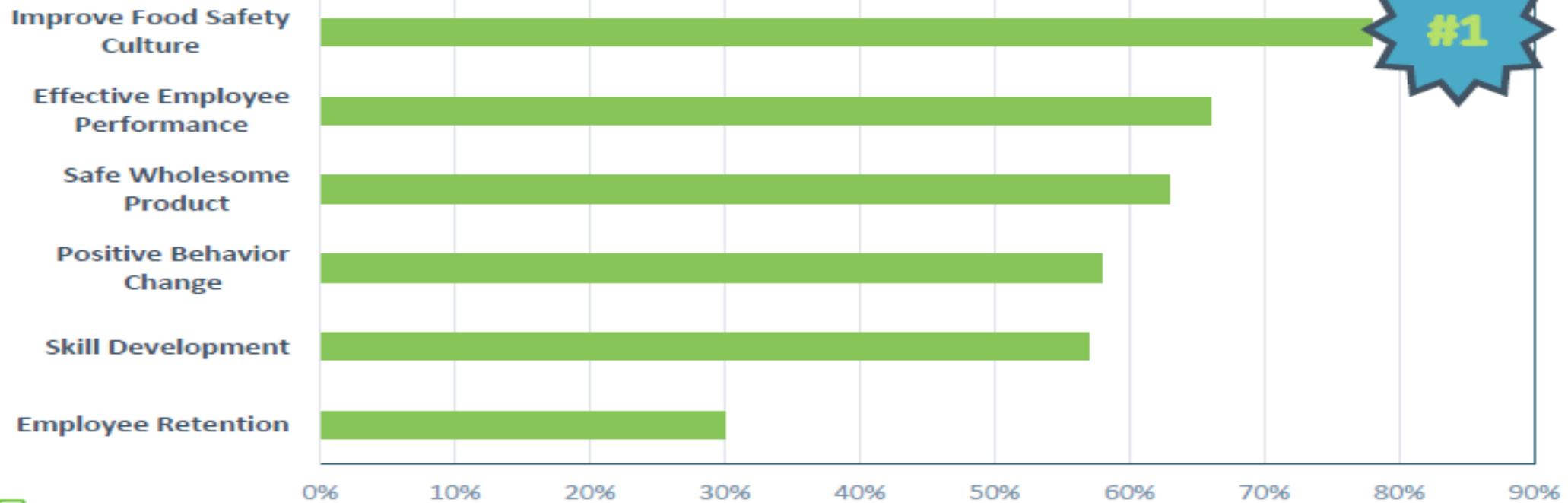
- ✓ Maintaining good hygienic practices e.g. hand washing before handling food & after using the toilet
- ✓ Understanding how the laws & regulations affect their work & following the rules and instructions for food safety in the work place
- ✓ Being alert to food safety hazards and preventing them
- ✓ Protecting food from contamination.



# Why Is Training Important?



## Most important training goals



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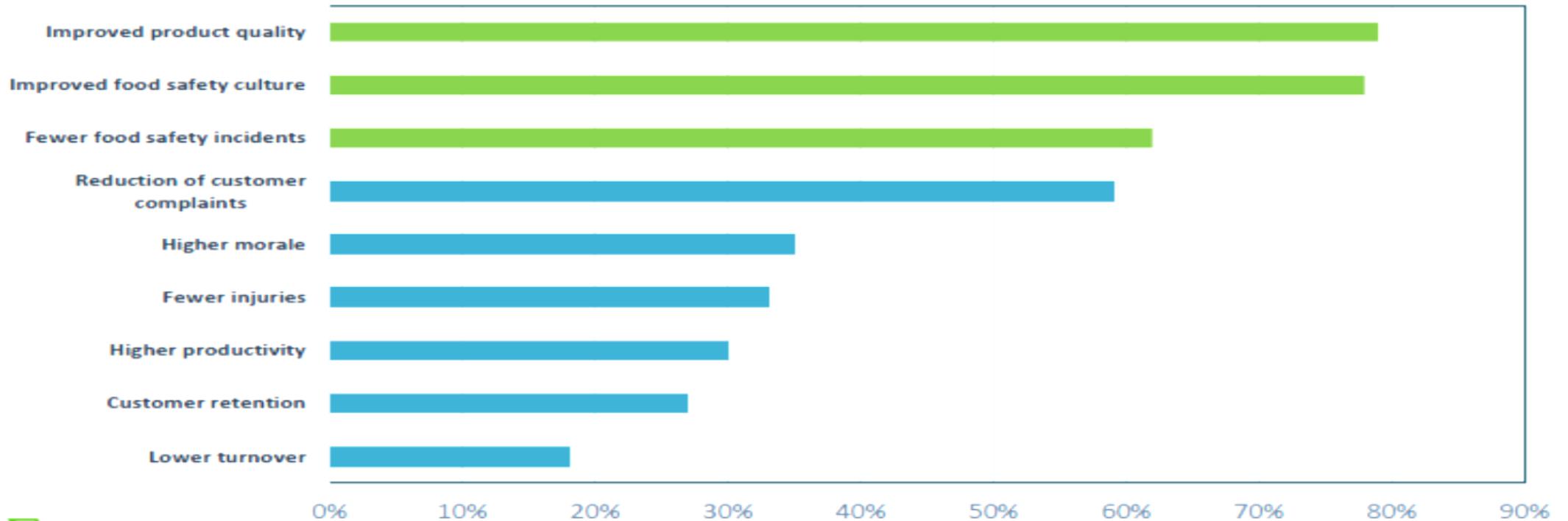
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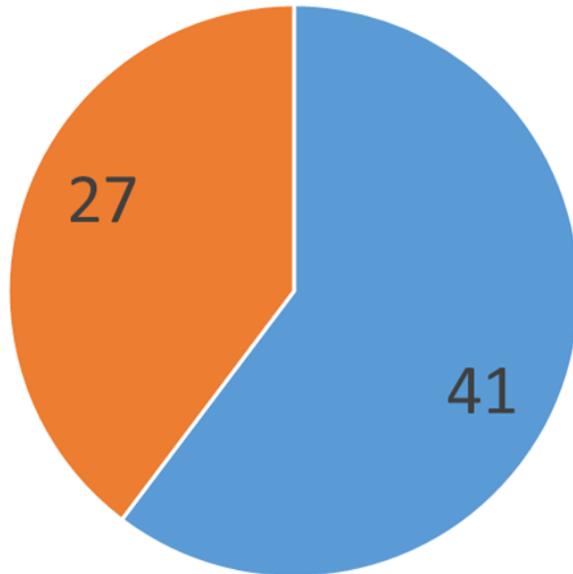
# What are the Benefits of Training?



## Benefits experienced from effective employee training

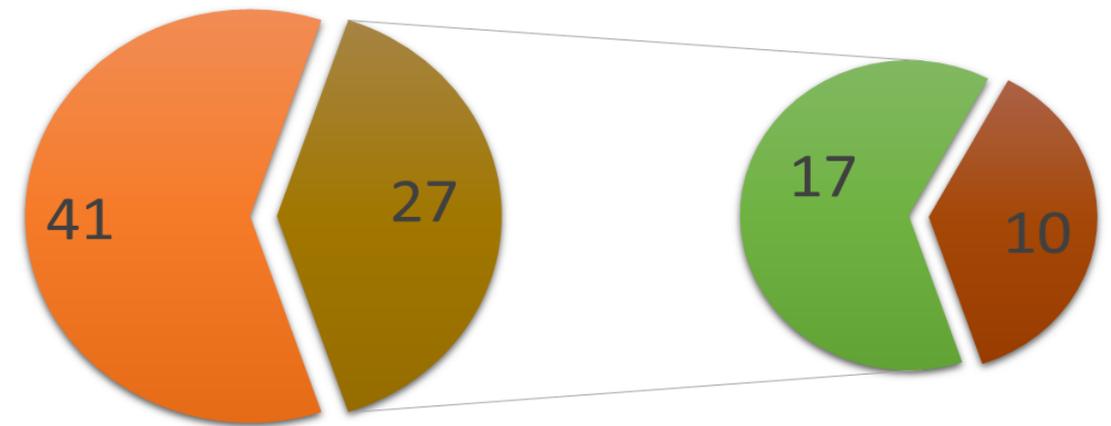


### 2015 FSO Workshop Invitation Showing Attendance



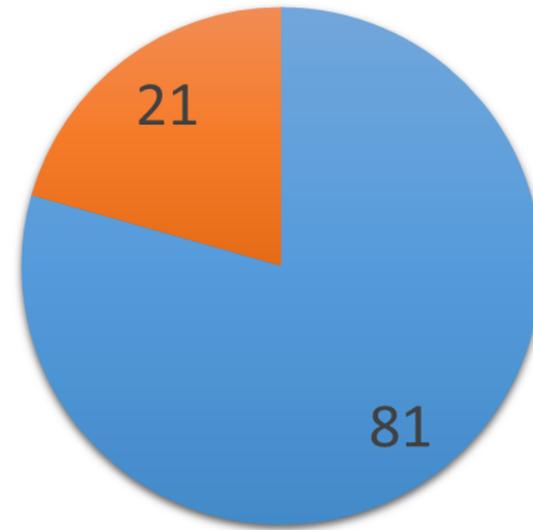
- FSOs Invited but did not attend
- FSOs that were invited and attended

### Comparison of 2015 and 2016 FSO Workshop Attendance



- FSOs Invited that did not attend workshop
- FSOs that attended but did not return in 2016
- FSOs that attended and are returning for follow up in 2016

### 2016 FSOs Workshop Invitation Response as at 22/11/2016



- FSOs Invited but did not register
- FSOs Invited and have registered



# Legislations



NAFDAC has the statutory role of **protecting consumers and public health.**

- The applicable NAFDAC laws are:
  - ✓ The Food and Drug Act No 35 Cap 150 LFN of 1974
  - ✓ The NAFDAC Decree No 15 of 1993 (now NAFDAC Act Cap N1 Laws of the Federal Republic of Nigeria (LFN), 2004)
- The applicable Regulations are:
  - ✓ The Draft Food Safety Regulations which gives food service operators guidance on NAFDAC requirements for food safety.
  - ✓ Prepackaged Food Labelling Regulations



# Laws



## *The Food & Drug Act No 35 Cap 150 LFN, 1974*

- Sections 1 (a)-(c): food must not contain harmful substance, be unfit for human consumption or consist in whole or in part of any filthy, disgusting, rotten or diseased substance
- Section 2: food must not be adulterated
- Sections 3 & 6 : food must not be manufactured, prepared, preserved, packaged or stored under insanitary conditions.



# Laws



## *The NAFDAC Act Cap N1 LFN, 2004*

- Empowers NAFDAC to regulate and control the importation, exportation, advertisement, distribution, sale and use of food, drugs, cosmetics, medical devices, chemicals and packaged water.
- Section 5(a)-(s) spells out the functions of the Agency.
- Section 24 (1) (a)-(f) spells out powers of an officer of the Agency to enter any premises where food is manufactured, prepared, preserved, packaged, stored or sold & examine any article, book, document or record relevant to his/her job etc.



# Regulations



## *The Draft Food Safety Regulations*

- Prescribes the minimum food safety requirements for preparing, processing, manufacturing, packaging, storing, transporting, distributing, handling and offering food for sale or supply to the consumer.
- The regulations cover premises; layout, design & construction; toilet & cloakroom facilities; water supply; Lighting & ventilation; waste disposal; personnel health; personnel policies & procedures; education & training; equipment; production & process control; storing food ingredients & food packaging materials; food temperature control; quality assurance systems; control of food hazards; handling food safety complaints etc.



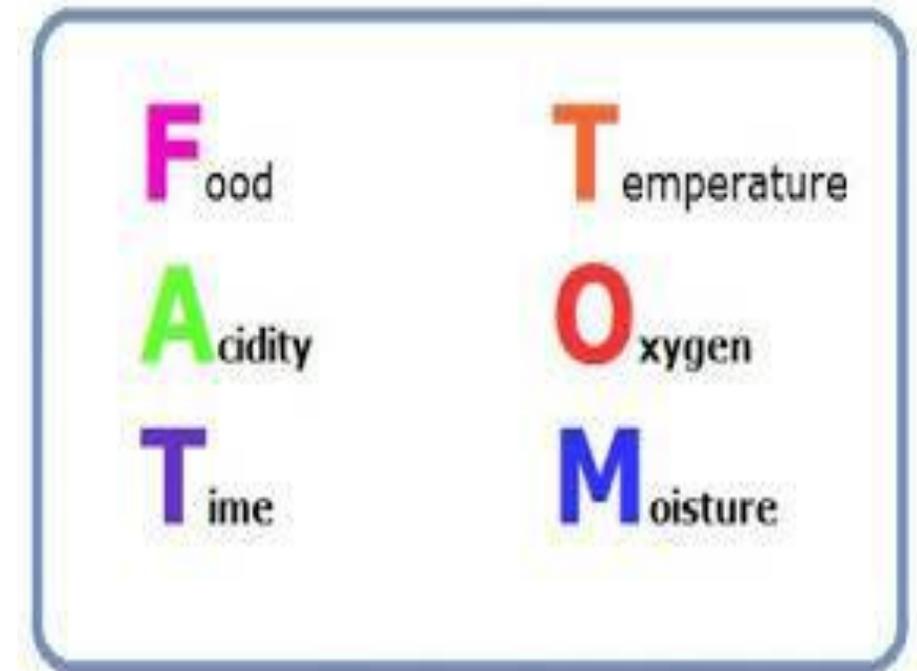
# Food Safety Hazards



- Biological: food poisoning bacteria, viruses, microscopic parasites
- Chemical: cleaning chemicals, industrial processing chemicals, agricultural chemicals, pesticides, pest baits etc.
- Physical: stones, scales from fish, bone fragments, insects, hair, jewelry, nuts & bolts from equipment, glass fragments etc.

# Food Safety Hazards

Microorganisms generally require food, acidity, time, temperature, oxygen and moisture in order to grow.  
Remember “FAT TOM”





# Food Safety Hazards



## Examples Of High Risk Foods:

- Cooked meat and fish.
- Gravy, stock, sauces and soup.
- Shellfish.
- Dairy products such as milk, cream and soya milk.
- Cooked rice.



# Contamination



- Direct Contamination: When a raw food touches a high risk food
- Indirect Contamination: When liquid or juices from a raw food drips onto a high risk food
- Cross contamination: When bacteria are carried, for instance by hands & utensils, from raw food to high risk food



# Prevention of Contamination



- Separate raw and cooked food always
- Use separate equipment for raw and cooked food
- Keep food covered until use
- Don't touch food with your hand unless absolutely necessary. Use utensils such as forks & tongs to move food
- Follow strict personal hygiene habits e.g. keeping clean, hand washing, keeping any cuts, boils etc. covered
- Do not eat, smoke or chew gum in food areas
- Remove food waste & rubbish frequently
- Keep food area clean. Clean & disinfect all equipment, utensil and other food contact surface after each food task
- Report signs of pest
- Store cleaning chemicals in secure, clearly labelled containers away from food

# How Do We Keep Food Safe?



# How Do We Keep Food Safe?





# WHO 5Keys To Safer Food



## 1.Keep Clean

- ✓ Wash your hands before handling food and often during food preparation
- ✓ Wash your hands after going to the toilet
- ✓ Wash and sanitize all surfaces and equipment used for food preparation
- ✓ Protect kitchen areas and food from insects, pests and other animals

## Why?

While most microorganisms do not cause disease, dangerous microorganisms are widely found in soil, water, animals and people. These microorganisms are carried on hands, wiping cloths and utensils, especially cutting boards and the slightest contact can transfer them to food and cause foodborne diseases

# WHO 5Keys To Safer Food

## 2. Separate Raw & Cooked

- ✓ Separate raw meat, poultry and seafood from other foods
- ✓ Use separate equipment and utensils such as knives and cutting boards for handling raw foods
- ✓ Store food in containers to avoid contact between raw and prepared foods

## Why?

Raw food, especially meat, poultry and seafood, and their juices, can contain dangerous microorganisms which may be transferred onto other foods during food preparation and storage.

# WHO 5Keys To Safer Food

## 3. Cook Thoroughly

- ✓ Cook food thoroughly, especially meat, poultry, eggs and seafood
- ✓ Bring foods like soups and stews to boiling to **make sure that they have reached 70°C**. For meat and poultry, make sure that juices are clear, not pink. Ideally, use a thermometer
- ✓ Reheat cooked food thoroughly.

## Why?

Proper cooking kills almost all dangerous microorganisms. Studies have shown that cooking food to a temperature of 70°C can help ensure it is safe for consumption. Foods that require special attention include minced meats, rolled roasts, large joints of meat and whole poultry.



**The ONLY way to know food  
has been cooked to a safe  
internal temperature is to use  
a food thermometer!**





# WHO 5Keys To Safer Food



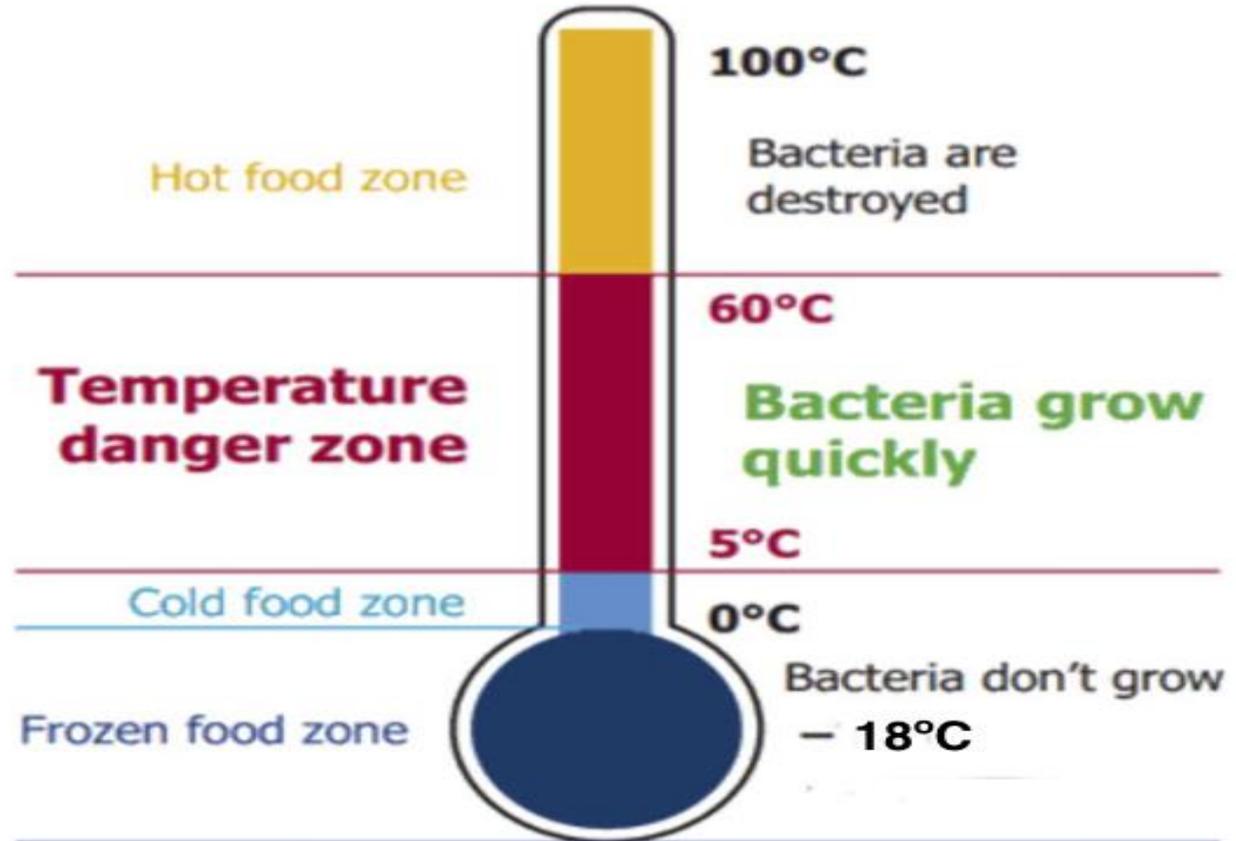
## 4. Keep Food at Safe Temperatures

- ✓ Do not leave cooked food at room temperature for more than 2 hours
- ✓ Refrigerate promptly all cooked and perishable food (preferably below 5°C)
- ✓ Keep cooked food piping hot (more than 60°C) prior to serving
- ✓ Do not store food too long even in the refrigerator
- ✓ Do not thaw frozen food at room temperature

## Why?

Microorganisms can multiply very quickly if food is stored at room temperature. **By holding at temperatures below 5°C or above 60°C, the growth of microorganisms is slowed down or stopped.** Some dangerous microorganisms still grow below 5°C.

- The temperature danger zone is between 5°C and 60°C, when it is easiest for harmful bacteria to grow in food
- Minimise the time that food spends at these temperatures in order to keep food safe
- Refrigerated food needs to be kept at 5°C or below
- Hot food needs to be kept at 60°C or above





# WHO 5Keys To Safer Food

## 5. Use Safe Water & Raw Materials

- ✓ Use safe water or treat it to make it safe
- ✓ Select fresh and wholesome foods
- ✓ Choose foods processed for safety, such as pasteurized milk
- ✓ Wash fruits and vegetables, especially if eaten raw
- ✓ Do not use food beyond its expiry date

## Why?

Raw materials, including water and ice, may be contaminated with dangerous microorganisms and chemicals. Toxic chemicals may be formed in damaged and mouldy foods. **Care in selection of raw materials and simple measures such as washing and peeling may reduce the risk.**

# When Food Safety Fails

When Food Safety Fails



Foodborne Illness



Food Poisoning or Foodborne Disease





# Food Poisoning



Food poisoning is commonly caused by:

- Bacteria (while many bacteria do no harm, few, referred to as pathogenic bacteria, are harmful & cause illness e.g. *Salmonella*, *Staphylococcus aureus*, *Clostridium botulinum*).
- Viruses
- Moulds
- Poisonous plants & fish
- Chemicals & metals



# Food Poisoning



## Where Do Pathogenic Bacteria Come From?

- Raw foods, especially meat, poultry, eggs, shellfish & vegetables
- People
- Air & dust
- Dirt & food waste
- Pests & pets



# Food Poisoning



## Factors That Contribute To Food Poisoning:

- Holding temperature
- Inadequate cooking
- Personal hygiene
- Contaminated equipment

## Most common symptoms of food poisoning:

- Abdominal pain
- Vomiting
- Diarrhoea
- Nausea
- Other signs include fever & headache. Food poisoning can be life-threatening



illustrations of.com #1080786



# Foodborne Disease



Foodborne Disease are passed unto humans by microorganisms carried by food or water e. g. *Campylobacter enteritis* which causes diarrhoea, *Escherichia coli* O157 (*E. coli*), typhoid, dysentery and a form of hepatitis

- Only a few of these organisms can cause disease
- Incubation period can be days, weeks or months
- Illness can last a day or so, or continue for years because the infection can invade the blood stream causing serious long-term health problems
- Symptoms of other FBDs include kidney failure or paralysis which can lead to death.



# Documentation



- A **documented food safety management system** must be in place to show how you manage food safety hazards in your business
- Write these procedures down, update them as necessary and retain them so they can be checked during food inspections.
- It helps you achieve a higher rating and meet the requirements of the law
- Training & retraining records must be kept.



# Conclusion



Food Service Outlets have a critical role to play in providing safe and nutritious food to the public. Therefore training and retraining to equip staff with adequate knowledge and skills to effectively perform their duties and meet NAFDAC food safety requirements is essential. Supervisors also need to monitor food handlers to ensure that they apply the knowledge gained from training programmes to their daily activities.

Safe food guarantees consumer confidence in the food supply system, promotes tourism, increases earnings and growth of your business and contributes to the health and well being of the nation.



**THANK YOU FOR YOUR  
ATTENTION!!**