Questionnaire about implementation of the general requirements and hygienic, implementation of personal hygiene in poultry slaughterhouses in Khartoum state

The survey collected two types of data:

- 1. General observations pertaining to the surrounding sanitation and the sanitary conditions
- 2. Direct interviewing of top management personnel and workers separately

Table (1) Characteristics of the poultry slaughterhouses directors and poultry products (Interviewing of top management personnel)

Characteristics	n	%
Food hygiene training of employees		
Yes		
No		
Implementation of HACCP system		
Yes		
No		
Adoption of poultry meat product hygiene practice manual		
Yes		
No		
Developed poultry products storage procedures		
Yes		
No		
Developed personal hygiene procedures		
Yes		
No		
Developed cleaning and disinfection procedures		
Yes		
No		

%=percentage

Table (2) Poultry meat practices implemented in poultry slaughterhouses (Observation)

Poultry meat practices	Alv	vays	Som	etimes	N	Never		
	n	%	n	%	n	%		
Take and keeping full production data and								
provided upon request								
Follow appropriate personal hygiene practices								
Send poultry products samples to laboratory for								
bacterial testing								
Provide regular and hot water in all stages of								
production								
Provide lighting in the galleries of production								
Provide changing room, clothes, eating and								
bathroom facilities for of workers								
Use uniform for of workers(headscarf-bib								
leather-footwear with rubber-gloves)								
Provide health certificates, first aid unit and a								
periodic medical examination for of workers								
Provide necessary equipment for cooling or								
freezing								
cleaning the slaughterhouse and equipment								
immediately after slaughtering by disinfectants								
Complete separation between the sections and								
of workers movement a valuable one-way								
<b>Equipment made of metal stainless steel -easy</b>								
installation, cleaning and disinfection								
Work surfaces are washed and sanitized								

between uses			

Table (3) Selected items of HACCP prerequisite questionnaire and observations

Observed practices	F	Tull-	N	Iin.	N	Iaj.	No	n-
		C.	D.		D.		C.	
	n	%	n	%	n	%	n	%
Proper personal hygiene practices observed								
Staff observed with restrains and clean uniform								
Staff observed with infections restricted/excluded								
Staff observed washing hands as needed								
Slaughterhouse is far from residential, close to the								
source of live chickens, places of supply and								
distribution								
The floors must be hard, covered with heavy								
palette-easy to clean								
Walls made of materials (stone, lava blocks, bricks),								
concave does not allow the accumulation of waste								
Areas are properly ventilated, clean and maintained								
Small equipments and utensils are aired dried								
Machines and work surfaces should be easy to remove								
facilitate cleaning								
Use gloves/utensils as needed								
products are properly labeled and dated								
Cooling temperature of not more than 4 degrees Celsius								
Air-chilling during the cold period of not more than 4								
hours of slaughter								
Freezing temperature (-40) degrees Celsius inside								
freezing section								
Provide storing refrigerators of temperature (-18)								

degrees Celsius inside storing section				
Packaging materials used hygienically safe				

Full-C: full compliance, Min-D: minor deficiency, Maj-D: major deficiency, non-C: non-compliance.

Table (4) Assessment of respondent's food safety knowledge of workers in poultry slaughterhouses and processing plant (Interviewing of workers)

Statement	Agree		Disagree		No	idea
	n	%	n	%	n	%
Washing hands before work reduces the risk of contamination						
Using gloves during work reduces the risk of contamination						
Proper cleaning and handling of instruments reduces the risk of contamination						
All persons, including children, and adults are at equal risk for poultry meat poisoning.						
Typhoid can be transmitted by poultry meat						
Salmonella, campylobacter can be transmitted by poultry meat						
Brucellosis can be transmitted by poultry meat						
Hepatitis A,B virus are among the foodborne pathogens						
Staphylococcus, Clostridium botulinum are among the foodborne pathogens						

During infections disease of skin and eye, it is			
necessary to take leave			

Table (5) Assessment of respondent's food safety attitudes of workers in poultry slaughterhouses and processing plant (Interviewing of workers)

Statement	Agı	ree	Disa	agree	No idea	
Statement	(n)	%	(n)	%	(n)	%
Using gloves, lab coat (apron), masks, caps, is						
reducing risk of contamination						
Food handlers who have abrasions or cuts on						
hands should not touch meat without gloves						
Food hygiene training of workers is an important						
issue in reducing risk of contamination						
It is necessary to check the temperature of the						
refrigerator to reduce risk of contamination						
Health status of the of workers should be						
evaluated before employment						
Foodborne illnesses can have deleterious health						
and economic effects on the society						

Table (6) Assessment of respondent's meat hygienic practices in poultry slaughterhouses (Interviewing of workers)

Statement	N	ever	Re	ally	Som	etimes	Often		Always	
Statement	n	%	n	%	n	%	n	%	n	%
Do you use gloves during work?										
Do you wash your hands before										
using gloves?										
Do you wear apron during work?										
Do you use mask during work?										
Do you use cap during work?										
Do you wash your hands after you										
touch raw meat?										
Do you wash your hands after rest										
time when you come back to work?										
Do you eat or drink in your work										
Do you smoke in your work?										
Do you use the products of your										
working plant?										
Do you recommend the products of										

your working plant to others?						]
your working plant to others:						