



The Role of Veterinary Services in Food Safety

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The Role of VS in FS Titles

Task of Vet. To reach FS
Biological Hazards
Chemical Hazards
VS activities at farm level
VS activities at abattoir level
OIE objectives
Animal Welfare



The Role of Veterinary Services in Food Safety

What are the most common tasks of Veterinarians ?

Every body knows that Veterinarians are people who are responsible for

Animal Health & Welfare

Physical Examination of animals

Surgical operations

Vaccinations



The Role of Veterinary Services in Food Safety

Food safety needs:

Shared responsibility & strong co-ordination
farmers & consumers, Industry & traders and

Codex Alimentarius

for risk assessment and management



The Role of Veterinary Services in Food Safety

Veterinary Services and their Vets. have
a leading role
in the safety of foods of animal origin in
many countries of the world



The Role of Veterinary Services in Food Safety

Food borne diseases affect hundreds of millions of people around the world. The globalization of trade in animals and food has made food safety an international issue



The Role of Veterinary Services in Food Safety

**The world needs
an integrated approach
from the farm to the final consumer**

**To reach the control of risks
in every stage of the food chain**



The Role of Veterinary Services in Food Safety

O.I.E. – F.A.O. – W.T.O.
Codex Standards and Guidelines
objective and transparent
scientific analysis
& assessment of risks from foods
to reach control



Biological Hazards

The factors which contribute to the increase of biological hazards in foods are related to:

Changes in farm practices

Intensive rearing of animals

Increase in consumption of meat

Globalization of food trade

Urbanization

Changes in lifestyles



Biological Hazards

The factors which contribute to the increase of biological hazards in foods are related to:

International travel

Preference for fresh and undercooked foods

Eating food prepared outside the home

**Demographic changes with increased
proportion of old and immunosuppressed people**

Environmental pollution from unsafe disposal of animal manure



Emerging & Re- emerging Biological Hazards

1. Enterohaemorrhagic E.coli 0157:H7
2. Salmonella enteritidis
3. Salmonella typhimurium DT104,
(which is resistant to five antibiotics for human)



Emerging & Re-emerging Biological Hazards

4. Campylobacter jejuni
5. Listeria monocytogenes
6. Cryptosporidia
7. Cyclospora
8. Trematodes
9. Bovine Spongiform Encephalopathy (BSE)



Chemical Hazards

1. **Veterinary drugs residues**
2. **Persistent organic pollutants (dioxins)**
3. **Natural toxic substances, cyanogens, solanine**
4. **Natural toxins: paralytic, diarrhoeic, neurotoxic and amnesic shellfish poisonings**



Chemical Hazards

5. Indirect food additives, i.e. detergents, disinfectants, lubricants
6. Heavy metals, i.e. lead, mercury, copper, cadmium, radioactive isotopes
7. Pesticides, insecticides, fungicides, herbicides
8. Direct food additives, i.e. preservatives, flavorings, anticaking agents, vitamins, minerals, etc.



Veterinary activities at the farm level

The presence of a Vet. on the farm is the key to an integrated approach and will ensure that animals and animal products sent to slaughterhouses or dairies are free from disease



Veterinary activities at the farm level

- Good Hygienic Practices GHP
- Safe use of veterinary drugs,
disinfectants, insecticides and herbicides
- Safe waste disposal
- Epidemiological surveillance programmes
for zoonotic diseases & food borne pathogens
- Protection of animal health and welfare – 5 Freedoms



Veterinary activities at the farm level

Residue control programmes

Identification & registration of animals

The issue of certificates for animals which will be moved from the farm

Monitoring and reporting of the animal health situation



Veterinary activities at the farm level

Supervision of the record keeping
of all the activities at the farm, including:
name and address of their suppliers
the feed quality control
the recording of the batches of feeds received



Veterinary activities at the Abattoir level

Checks and assessments of :

- The effects of the transport on the animals
- The health data from the farm of origin
- The identification of the animals
- Any previous treatments they have received
or which were given to other animals on the farm of origin



Veterinary activities at the Abattoir level

Checks and assessments of :

The level of cleanliness at time of arrival

The clinical examination (Ante-mortem)

(Post-mortem)

inspection detection of macroscopically visible
pathological changes or other abnormalities

Veterinary judgments for removal of any lesions, which
may be present or total condemnation of carcass



Veterinary activities at the Abattoir level

Checks and assessments of :

Supervision of the implementation of:
(GHP), (GMP), the HACCP

Samplings for the residues control,
Microbiological testing of carcasses
General sanitary condition of the slaughterhouse



Veterinary activities at the Abattoir level

Checks and assessments of :

Responsibility for record keeping and the communication of PM findings to the farm veterinarian

Veterinary Services for any necessary actions and to meat processing establishments, cold stores and traders as well as any information required for the traceability of the products they will produce or distribute



OIE's Objectives

Transparency: ensure transparency in the global animal disease situation

- **Scientific information: collect, analyse and disseminate veterinary scientific information**

- **International solidarity: encourage international solidarity in the control of animal diseases**



OIE's Objectives

Sanitary safety: safeguard world trade by publishing health standards for international trade
In animals and animals products

Promotion of veterinary services: improve the legal framework and resources of national Veterinary Services

Food safety and animal welfare: to provide a better guarantee of food of animal origin and to promote animal welfare through a science-based approach



Animal Welfare 5 Freedoms

- **Freedom from Hunger and Thirst**
- **Freedom from Discomfort**
- **Freedom from Pain, Injury or Disease**
- **Freedom to Express Normal Behaviour**
- **Freedom from Fear and Distress**



Risk Assessment
with Scientific
Support

Inspection Audit Surveillance
Biosecurity & Biosafety

Animal Health

Animal Welfare

Animal Feeding

Veterinary Drugs

Traceability
Animal Identification

Food Safety

ADFCA is going to implement
Animal Identification and Registration System
in Abu Dhabi



The Role of Veterinary Services in Food Safety

Further Readings:

1. OIE website Animal Health Code
2. FAO
3. USDA
4. Review

What Do We Feed to Food-Production Animals?

Amy R. et al 2007

Environmental Health Perspect. 2007 May; 115(5): 663–670



Thanks 4 Listening

