

VETERINARY INFORMATION SYSTEM

Computers have become essential tool in almost every field of research and applied technology. The advent of computers allows us as Veterinarians to enter, analyse and store vast amount of data on animal health, production and management, so also be able to adequately handle the administrative responsibilities.

Computer in Veterinary Medicine has been of great value in Veterinary Education, Veterinary Informatics, Veterinary practice, Research as well as Agro-Veterinary consulting services.

Veterinary Information System (VIS) is thus a mechanism for gathering, analysing and transmission of data necessary for the organization and management of Veterinary services as well as Veterinary research. The VIS is useful for the improvement of animal production and control of animal diseases in relation to animal health and public health.

Uses of VIS

1. Assessment and evaluation of need which must be satisfied, this may be individual, corporate, institutional or organizational
2. To plan actions and access the financial resources required
3. Verification of how resources are put to use.
4. Evaluation of results obtained, comparing them with expectations and thus assess the efficacy of the services.
5. Dissemination of data obtained, to government, international agencies, breeder organizations, investors, farmers and the general public at large.

Nature of VIS

1. Epidemiological: this involves the whole body of knowledge concerning health status of animal and the human population including the various interactions therein.
2. Zootechnics: this involves animal population data, including animal nutrition, breeding methods and patterns.
3. Food production/safety/security: this involves the various pathways for transformation/commercialization of food of animal origin.

4. Managerial: this involves human, structural and economic resources available for field, laboratory and administrative activities as well as the operations involved in Veterinary Services.
5. Legislative: this involves principles, law, regulations, decrees etc. regulating the activities of Veterinary Services.
6. Bibliographies: these are technical, scientific documentation such as references, data, papers etc. available on Veterinary Services.

Veterinary Public Health Information System (VPHIS)

The requirements of the Veterinary Public Health (VPH) concerning information centres on the collection of appropriate epidemiological data and other Public Health related information. This is to enable the unit carry out its responsibilities which includes surveillance of food-borne/zoonoses diseases (occurrence and causes) affecting humans, and taking appropriate control measures. The VPHIS is thus important to enable the VPH units do the following:

- a) Collect valid epidemiologic and related Public Health data for each of data producing and data generating centre.
- b) Classify and record the data in an electronic form (database) so that up to date information is accessible when needed.
- c) To analyse and evaluate the information collected, process such as a report and recommendation for problem-solving and decision making.
- d) To disseminate information to all possible users of the information locally, regionally and internationally.

Components of VPHIS

There are 2 sub-systems integrated in the VPHIS;

- i) The Database sub-system
- ii) The knowledge-base sub-system

The integration of the empirical data (from a database sub-system) with the appropriate knowledge-base sub-system is crucial to any problem solving VPHIS. The knowledge-base sub-system is designed to capture pre-existing literature base knowledge electronically and to provide access to such knowledge in a fast and efficient way to assist problem-solving and

decision-making task. Such knowledge will normally be obtained from books, journals, reports, proceedings etc. The knowledge based system is updated to provide the most current information.

Primary Sources of Information

The VPH unit can generate empirical data by:

- a) Surveillance: this involves inspection activities on food safety (food production systems); food processing and marketing activity.
- b) Appropriate periodic or special surveys. Hospitals and Diagnostic Laboratories often serve as first sites where key zoonotic diseases are reported. Field Veterinarians (mainly from the Ministry), private sector (farms or food establishments) may also serve as provider of useful information.

Secondary Sources of Information

- a) Report from literature such as annual government report, trade and agricultural productivity report, publications and proceedings dealing with health report pertinent to the state or country.
- b) Public sector: by providing avenue of information so that public or consumer will have information of Veterinary Public Health importance
- c) International or regional sector: report from the World Health Organisation (WHO), FAO etc.