Planning, organisation and administration of veterinary public health activities

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Summary: Advice is given on how to set up a veterinary public health programme, drawing on recommendations of the World Health Organisation (WHO). Trichinellosis control is used as an example of planning procedures.

KEYWORDS: Disease control - Public health - Trichinellosis - Veterinary services - Zoonoses.

INTRODUCTION

There is no doubt that many animal-related problems which negatively affect human health and economy exist in all countries of the world, including zoonoses, food-borne diseases, pollution of the environment from animal sources, etc. In some countries, veterinary public health (VPH) programmes/projects have not been started yet, or exist on a very limited basis. One of the many reasons for this unfortunate situation is that veterinary services must cope with animal health problems, such as control of rinderpest, while finance, manpower and other resources are lacking for other activities.

Veterinarians should be well educated also in those disciplines of veterinary medicine which have direct bearing on human health, particularly in surveillance, prevention and control of zoonoses and food-borne diseases, food hygiene, animal-related environmental health problems, etc. In some countries, veterinary skills and knowledge in the protection and improvement of human health have not yet been fully utilised, despite the many VPH problems affecting health and economy. There are many reasons for this, including the lack of public health veterinarians adequately trained in methods of planning and implementing national veterinary public health programmes/projects.

This article provides information on various VPH activities, on preliminary planning, usefulness of primary health care (PHC) and health systems research (HSR), on execution of programmes/projects, location of VPH units within the ministerial structure, organisation and administration. The paper relates experience of constraints and shortcomings in the planning and implementation of VPH programmes.

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PURPOSE AND SCOPE

VPH is a component of public health devoted to the application of veterinary skills, knowledge and resources to the protection and improvement of human health (5).

VETERINARY PUBLIC HEALTH ACTIVITIES

Far from being mutually exclusive, the following areas of activity are often interrelated (2).

The major VPH activities in animal production include:
- control and eventual eradication of specific zoonoses;
- prevention of occupational hazards and diseases connected with live animals and their products in both rural and urban environments, e.g. communicable diseases, traumas and allergies;
- establishment of diagnostic, surveillance and information systems for the above and the production of vaccines and other biologicals as required;
- control of animal populations which may serve as disease reservoirs or be noxious (this category includes domestic, synanthropic and wild animals).

Specific activities in veterinary food hygiene include:
- prevention and control of zoonoses and other diseases transmitted by food of animal origin;
- inspection of food premises, their operation and products, including processing, storage and distribution;
- ante-mortem and post-mortem inspection of meat and poultry;
- prevention of chemical residues in food, including veterinary drug residues;
- supervision of the hygiene aspects of food export and import;
- cooperation with epidemiological services in surveillance, the collection, evaluation and distribution of data, and dissemination of information;
- participation in investigations of disease outbreaks.

The following VPH activities are connected with the environment:
- control of zoonoses of environmental origin (e.g. anthrax, histoplasmosis from bat and bird habitats, salmonellosis from water contamination by farm effluents);
- control of vertebrate and invertebrate vectors of zoonoses;
- safe collection and disposal of dead animals, condemned meat and of other animal wastes, and the control of environmental pollution in animal settlements and animal industries;
- preservation of urban and rural environments, by controlling wild animal and bird populations (e.g. fox, dog, cat, rat, mouse, pigeon and seagull);
- use of animals to monitor environmental hazards;
- zoonoses control in non-production animals, e.g. surveillance and control of infections in wildlife and pests.

**Biomedical research** comprises:
- development of improved diagnostic procedures and research on the production of biological products;
- ecological and epidemiological research on reservoirs of infection;
- comparative medicine and biology;
- reproductive physiology;
- laboratory animal medicine.

**Emergency actions** include intervention and preventive measures in outbreaks of exotic diseases and natural and man-made disasters.

VPH activities also have **social applications**, as in the use of companion animals in aiding persons with mental illness and the improvement of man-pet relationships.

**PRELIMINARY PLANNING**

It is necessary to select the most pressing problems from the list of suggested VPH activities, and to incorporate these into plans for a VPH programme. Programme planning consists of:
- identification of the problems and establishment of priorities and objectives;
- establishment of requirements, regulations, etc. to incorporate in VPH legislation;
- implementation of the above legislation by all concerned, e.g. farmers, food producers, food industry and many others;
- establishment of governmental control facilities (including legislation) to check implementation of the legislative requirements by agriculture, the food industry, the general public, etc.;
- establishment of services to perform practical activities in VPH (e.g. surveillance, prevention and control of zoonoses and food-borne diseases), including field and laboratory services;
- promotion of community-based activities and public education;
- continuing education and training of personnel;
- promotion of follow-up activities, laboratory services and research related to the programme.

In planning VPH activities, the responsible authorities should bear in mind that even excellent field techniques and managerial rules may be insufficient for a programme to achieve success. Elements which must be taken into consideration at the planning stage are:
well-adapted and effective field techniques and technologies
management techniques and capability
programme structure
adequate personnel
appropriate legislation
funding
international technical cooperation.

VPH activities should be developed in conformity with the principles of primary health care (5). There is a particular need for:

community participation
intersectoral, intrasectoral and interprofessional cooperation, coordination and collaboration
international collaboration
transfer and adaptation of appropriate technologies for use under local conditions and circumstances.

Above all, VPH programmes must be accepted as policy at the highest governmental levels, and so become an integral part of the overall social and economic development plan for a nation.

Experience has shown that the most serious constraints to developing an effective VPH programme at the national level are (1):

lack of adequate means of assessing the magnitude of the social and economic consequences of zoonoses, food-borne diseases and other VPH problems for national health and economic development;

absence of the necessary infrastructure for field and laboratory operations;

lack of public health veterinarians and other related professionals adequately trained in methods of planning and implementing national VPH programmes;

lack of mechanisms at the national level to effectively identify and mobilise all available resources in different sectors for use in VPH programmes;

insufficient funds from national, international and private sources to initiate or continue even well-defined and justified projects or programmes.

One of the most critical parts of a national programme is the continuing education and training of staff. This needs special attention in many countries, particularly where personnel are to be prepared for innovations and technology transfer. Programmes of continuing or in-service training need to be considerably strengthened, calling for increased, mutually advantageous cooperation between educational institutions and field services. Coordination with other sectors is also essential for implementing the future programme. Many attempts at such cooperation have failed because one or more of the major components of a VPH programme or project was not clearly defined.
At this stage it is important and essential to answer the following questions: what is to be done, why, where, when and how should it be undertaken?

HEALTH SYSTEMS RESEARCH

Health systems research (HSR) refers to the application of relevant scientific disciplines, including social studies, to obtain information which will assist selection of the most appropriate structure, organisation and function of human and animal health systems, to achieve the best results at the lowest cost (11).

Properly used, HSR may become a prerequisite and a management tool for designing, executing and evaluating VPH programmes involving interdisciplinary and intersectoral cooperation, and participation by the community (11).

Correctly employed, HSR assists managers in elucidating problems of coordination, in improving the quality of services delivered, optimising resource allocations and ensuring an interdisciplinary approach. It also assists in identifying objectives, gauging available options and necessary constraints, selecting appropriate measures and adopting the right model simulations when no clear formula can be applied. Knowledge can be generated to improve planning, organisation and operation of the health system, and to uncover ways in which the health system and the community may work together to solve problems.

HSR techniques can be employed to encourage and strengthen collaboration and coordination among the various veterinary sectors, and between medical and veterinary administrations and other agencies in the prevention and control of zoonoses and food-borne diseases and in other VPH programmes.

Some of the major activities and objectives of HSR in VPH identified at a recent meeting (11) include:

- assessing health needs related to zoonoses, general animal health and the hygiene of food and other animal products by measuring morbidity and mortality rates and the extent of microbiological and physical contamination;
- determining (in terms of feasibility, quality and cost) the conditions for and the effects of alternative patterns and strategies of animal health care in contributing to human health;
- elucidating the needs and availability of health resources including manpower, facilities, equipment, supplies (including drugs) and knowledge;
- analysing management problems (including programme planning, administration and regulation) so as to achieve greater managerial efficiency, particularly identifying resources in different sectors and methods for their mobilisation, as well as constraints and methods to overcome these at the institutional, social and personal level;
- selecting the best ways of encouraging community participation;
- indicating the need for intersectoral action in analysing relevant health problems, and proposing solutions related to animal health and the hygiene of animal products;
analysing and developing those approaches to both professional and public education which are most suited to health care;

- monitoring and evaluating the effects of animal health and product hygiene programmes, by analysing their structure, operation and outcome.

Another WHO Meeting on HSR (8) recommended the examination of:

- modern procedures for planning national and international programmes for the surveillance and control of zoonoses and food-borne diseases arising from animal products;

- development and organisation of intersectoral cooperation in the surveillance and control of these diseases;

- problems which hamper close cooperation between various agencies, services, professions, etc. (particularly between medical and veterinary services) and methods of overcoming these;

- optimum surveillance and control of these diseases under different socio-economic, natural and other conditions;

- the actual role of veterinary services in primary health care and rural development within the context of a comprehensive health programme;

- health services organisation and management aimed at reducing human health risks due to animals and animal products in large urban agglomerations;

- the socio-economic consequences of zoonoses and food-borne diseases at national and international levels;

- evaluation procedures for assessment of the effectiveness of programmes;

- determining and implementing the best educational and training approaches in veterinary public health at undergraduate and postgraduate levels, as well as education of the general public.

VETERINARY PUBLIC HEALTH ORGANISATION

There is no consensus on the most appropriate location for VPH units within the ministerial structure of a country. Options include agriculture or livestock ministries or health ministries. Each has its own merits and demerits which may vary considerably from country to country. Thus, the decision as to the most appropriate ministerial placement for a VPH unit must be left to the country concerned (1).

The Joint FAO/WHO Expert Committee on Veterinary Public Health (5) which met in 1974 recommended that where a veterinary public health unit does not already exist, or where all veterinary services are not under the health administration, such a unit should be established within the Ministry of Health at the national level. However, recent experience gained in a number of countries has led to reconsideration of this recommendation, particularly because intersectoral cooperation was hampered by the tendency for individual services (e.g. veterinary services at the Ministry of Agriculture and the VPH service at the Ministry of Health) to develop operational functions independently of each other. At a WHO regional workshop in 1983 (10),
participants reported that the establishment of VPH units within the national veterinary service in ministries of agriculture had proved to be very successful, especially where the veterinary services as a whole were oriented towards public health.

Where the veterinary services are not part of the Ministry of Health, which is the situation in most countries, it is essential that the parent ministries, such as the ministries of agriculture or livestock, pay adequate attention to the consumer aspects of animal disease control and food hygiene.

Whatever structural location is selected, the VPH unit must be properly provided with professional staff and equipment. It should be responsible for planning and preparing VPH programmes within the country, and it should also be responsible for executing specific programmes either solely or jointly with other government departments, as appropriate. Arrangements must be made for effective inter-ministerial liaison where more than one ministry is involved in a VPH programme.

With respect to VPH organisation, it is important to distinguish between programmes aimed at the development of VPH service structures (including the VPH unit), manpower and facilities, and those aimed at the control or elimination of specific zoonoses or other animal-related health hazards.

Obviously, the two types of programme are interlinked. Thus, the establishment of animal carcass and waste disposal services, or of continuing education and training for field and laboratory staff, require clear objectives and targets with respect to facilities and human resources. They are more general in scope than disease-oriented control programmes. They call for continuing and steadily increasing financial input to maintain facilities and personnel. In contrast, disease-oriented programmes generally require transient input until the objectives are met. They are often preferred in situations of financial constraint. Well-planned disease-oriented programmes may attract support from donor or lending agencies. Specific disease-oriented programmes should evolve into more extensive activities, strengthening the VPH infrastructure (including the VPH unit) (1).

Viewed according to their different patterns of organisation, VPH programmes may be divided into three categories (1):

Local programmes operating at the community level (without professional services)

The community should designate a person responsible for hygiene with respect to animals and animal products. This person should cooperate closely with primary health care workers and should be familiar with general preventive measures, including aspects of meat and milk hygiene. Adopting simple guidelines consisting of 5 to 10 essential measures of prevention and control, the responsible community worker locates the resources at community level and proceeds according to a simple work plan. District officials should be informed or trained on how to advise communities to proceed.

Once these steps have been taken, the community may ask the administrative service at the district or provincial level to help with the implementation of the more specific measures described below.

Local programmes supported by national services

The government elaborates guidelines to be followed by the animal and human health specialist at an appropriate administrative level (i.e. district veterinary officer
or livestock development officer). Responsible officers at an appropriate (e.g. district) level should organise a zoonoses control committee which can help communities, on request, to formulate local action plans. These may include:

- simple epidemiological surveys
- education and information tools and procedures for personal hygiene
- vaccination and treatment programmes
- disease control in animal replacement schemes
- animal movement restrictions
- other general disease prevention measures (e.g. vector and food control).

Peripheral governmental services should be prepared to assist the communities of local cooperative projects regarding:

- diagnostic services
- meat inspection
- vaccine supply (including cold chains)
- improvements in milk and meat hygiene, animal waste disposal and rendering
- education
- adequate treatment of human patients.

Peripheral governmental services should report regularly to the central administration on the progress of community initiatives. Moreover, these governmental services should elaborate suggestions for national VPH programmes.

Comprehensive national programmes

National programmes should be structured as follows:

Step 1: Governments should identify and officially appoint, with the agreement of the ministers concerned, a national programme director who would also serve as secretary of an inter-ministerial executive committee. In many countries the director of national veterinary services (Chief Veterinary Officer) has been entrusted with these functions, since most of the activities of the programme fall under the responsibility of this office.

Step 2: The national director prepares a comprehensive national plan (formulated as a programme document) specifying the objectives. Already at this stage of planning, close cooperation is essential between various sectors (e.g. agriculture, health, education and natural resources) at various administrative and political levels (e.g. province, district and particularly community levels). The plan may describe a programme which is staggered over a number of years. It should preferably include an initial phase of self-reliance, with recognition of the fact that, where resources are limited, wider geographical and technological expansion may depend, at least in part, on international technical cooperation. The plan should also cover the final (i.e. maintenance) phase.

Step 3: Legal provisions are made if they do not exist, or existing provisions are modified to allow smooth and effective programme implementation.
Step 4: Once the programme is formulated and legally acceptable, it must be endorsed at the highest possible political level by all ministers involved so that funds, staff, facilities and materials are properly allocated. Where larger national development plans exist (e.g. for economic, health, rural, environmental or industrial development), it is essential that a national zoonoses control programme becomes part of such plans.

Step 5: An institutional framework is established, which includes important information and education components.

Step 6: Programme execution and evaluation according to a plan of work and set targets (1).

PLANNING AND IMPLEMENTATION OF VETERINARY PUBLIC HEALTH PROGRAMMES

EXAMPLE OF A TRICHINELLOSIS CONTROL PROGRAMME

Trichinellosis control should follow practices established for other disease control programmes by utilising government veterinary and medical services, and through the enactment of appropriate legislation. A special organisation for trichinellosis control is generally unnecessary, although it may be necessary to establish a specific unit to coordinate and supervise activities.

A specific trichinellosis control programme may be justified in a country because of the magnitude of the problems (public health, agricultural and economic) brought about by the disease, given a political will to introduce more efficient control measures and the need to remove obstacles to the export of pigs and pork products.

The main administrative and decision-making process should flow through the veterinary services. There are many advantages in this, namely, experience of other animal disease control programmes, availability of laboratory services, staff training, career structures and long-term contracts for staff within existing divisional and regional activities. Although the person responsible for the programme would be the director of the veterinary services, cooperation with medical services is desirable, especially epidemiological, health education, laboratory and clinical services.

It should be stressed here that veterinarians must extend their attention to the various species of wild animals known to be involved in transmission of the disease concerned. This will include the organisation of surveys and surveillance activities, evaluation and dissemination of data, examination of wildlife species destined for human and animal consumption, recognition of hazardous types of food products and culinary dishes prepared from these animals, and the organisation of education for the general public and special groups (hunters, owners of restaurants and other catering establishments, etc.). Special attention must be paid to the availability of wildlife meat inspectors in areas where the need exists, and to cooperation between veterinary and medical services in conducting surveys and surveillance.

Stages in developing the programme

It is necessary for the medical and veterinary services to conduct preliminary investigations in order to obtain basic epidemiological data relating to a disease: its prevalence and geographical distribution within the country; the process of transmission; the animal species, food products and culinary dishes involved, etc.
At the same time, it is necessary to gain the interest and potential involvement of medical, public health, veterinary, animal husbandry and wildlife specialists, the meat processing industry, catering bodies, consumers' associations, tourist agencies and others. A team should then be formed to take responsibility for the planning, implementation and evaluation of the programme and to investigate the possibility of obtaining resources. Adequate resources must include the necessary funds, and administrative and operational facilities.

The second stage involves detailed programme planning, while the third stage comprises implementation of the control programme which must also provide for continuous monitoring and assessment of control activities so that they may be adjusted when necessary during the programme.

**Prerequisites for an effective programme**

The *identification* phase requires:

- the availability of staff and facilities to conduct surveys in order to establish the need for the programme;
- the collection and evaluation of experience from countries with similar social and economic conditions.

The *programme preparation* phase requires:

- elaboration of a detailed project document including techniques, personnel requirements and training needs, details of the necessary equipment and supplies, an institutional framework, plans to strengthen laboratory services, a plan of work, a means for progress reporting and evaluation, etc.;
- the preparation of new legislation or the updating of existing legislation;
- provision of the necessary funds.

The *implementation* phase involves:

- arranging cooperation and coordination between and within sectors;
- ensuring that national scientific institutions carry out relevant research and transfer appropriate technology to the field programme;
- arranging community participation;
- arranging adequate monitoring and regular surveillance (continuing surveys) in order to maintain an evaluation of the programme and to provide periodical cost/benefit analyses.

**Programme preparation**

The programme should be formulated in such a way that crucial components and actions can be identified easily by high-level decision-makers in the government, e.g. at the ministerial level. An excellent example which could be used is the *UNDP Programme and project manual* (3), which gives a simple, straightforward and effective procedure for programme planning.

The description of a comprehensive national programme for the control of trichinellosis should include the following detailed sections:
Preamble

This will summarise the main elements of the programme, the phases for its implementation, the budgetary requirements and the intended effects.

Special considerations

This section should refer to national and international recommendations or decisions. Within a country, the relevant sections of the national plan for social and economic development (health care, veterinary care, animal husbandry, international trade, etc.) must be referred to. The expected benefits of a national trichinellosis control programme and its connections with other components of the national plan must be clearly shown. The contribution to primary health care and to a "Global strategy — health for all by the year 2000" should be mentioned and justified.

Resolution WHA 31.48 of the Thirty-first World Health Assembly on "Prevention and control of zoonoses and food-borne disease due to animal products" (9) contains strong recommendations for member states to accelerate their efforts to control major zoonoses and food-borne diseases, and consequently it should be mentioned in this section.

Objectives

A primary objective may include eradication in a selected area. This may be possible when the parasite is transferred from pig to man, and under advanced animal husbandry and veterinary care.

An alternative objective would be to reduce the existing level of transmission in both human and animal populations through a number of measures, including:

- effective meat inspection
- effective treatment of pig carcasses
- special health and hygiene education
- effective examination of wildlife destined for human consumption.

Background and justification

This section should contain clear-cut data to demonstrate the magnitude of the trichinellosis problem in the country and also the benefits likely to accrue if and when disease incidence is substantially reduced.

Institutional framework

With a few exceptions, as stated above, there is usually no need to establish a specific structure for a trichinellosis control programme. Nevertheless, the existing services must be strengthened in both human resources and facilities, including reference laboratories, laboratory services and meat inspection which would include trichinelloscopy (or any other type of pork examination), examination of wild animals for Trichinella, special supervision of pork processing plants, supervision of the hygienic conditions of pig farming (feed hygiene, heat treatment of garbage, sanitation, facilities for data collection and dissemination, etc.).

All relevant contributing components in the existing national structure must be clearly identified. If an inter-ministerial organ for zoonoses already exists, it should
obviously include trichinellosis among its interests. Within the existing veterinary administration, the veterinary officers responsible for animal diseases (including zoonoses) and those officers responsible for meat inspection should be given specific tasks with regard to the surveillance, prevention and control of trichinellosis.

At a lower administrative level, the most decisive components of day-to-day operations must be also clearly defined and described.

If necessary, connections with international institutions outside the country such as WHO Collaborating Centres, specialised laboratories, etc., should be described, together with the extent of their contribution to the national trichinellosis programme.

**Plan of work**

The description of the activities in this section should clearly assign responsibilities, functions and activities to each component of the institutional framework. The work plan should be presented in tabular form, and should describe the major activities in their expected sequence, for example:

- in-service training
- introduction of pork examination, including sampling techniques, etc.
- introduction of wildlife examination
- introduction of improvements in pig husbandry aimed at preventing trichinellosis occurrence
- introduction of an improved reporting system to include data from both veterinary and human medicine sources
- improved laboratory examination techniques
- supervision of meat hygiene in relation to trichinellosis control
- establishment of a national system for public education in self-protection against trichinellosis
- provision of improved legislation.

**Project organisation and management**

Lines of communication, supervision and reporting should be described in this section as well as general considerations within the overall programme. With some exceptions, an existing pattern would be used, but it must duly reflect the special responsibilities, functions and activities emanating from the trichinellosis control programme.

**Project costs and funding**

Budgetary provisions should be calculated realistically and as accurately as possible since the total will be the basis of a cost/benefit analysis for the entire project, and is thus crucial for a governmental decision as to whether or not the programme should be implemented.

It should be remembered here that a trichinellosis control programme is always long-term, and therefore an adequate budget should be secured for both the initial and maintenance phases.
Programme execution

Organisation phase

This phase should consist of at least the following actions:
- nominating responsible authorities at all levels (and if necessary providing the required mandates);
- nominating executive committees (advisory bodies) where required, e.g. where a special trichinellosis control organisation is to be set up;
- nominating a coordinating committee where required;
- assigning personnel;
- securing the necessary equipment, facilities, material, transport, etc.;
- providing an appropriate mechanism for budgetary transactions;
- starting in-service training;
- establishing appropriate inter- and intrasectoral contacts;
- establishing appropriate contacts between the personnel involved in the programme, and information systems for use within the programme and for other purposes.

Operational phase

Methods of work should consist of at least the following:
- executing the plan, following the steps defined in the planning stage;
- regular meetings of the personnel and (where appropriate) of the executive and coordinating committees;
- collecting and evaluating information from individual working groups, and preparing regular reports;
- providing regular information to higher authorities, other interested agencies and the public (e.g. through the publication of newsletters);
- systematic monitoring and evaluation of programme implementation at all management levels (followed by programme revision if necessary);
- programme completion;
- cost/benefit analysis;
- follow-up.

Evaluation, monitoring, assessment and adjustment of programmes

It is not sufficient simply to plan and implement programmes and policies. Adjustments must be carried out as and when required. For this reason, programme and policy implementation needs to be monitored and assessed.

There should be continuous evaluation in order to correct and improve actions, rendering the programme more relevant, more efficient and more effective. Evaluation
implies judgement based on careful assessment and critical appraisal of given situations. It should consist of specification of the particular subject for evaluation, information support, verification of relevance and assessment of efficiency, effectiveness and impact. The report contains conclusions and proposals for future action.

The evaluation process should clearly indicate whether or not the programme is relevant to the political, social and economic situation, and to the overall socio-economic planning process in the country. Ways of increasing this relevance should be suggested, noting particularly whether the process is clear, well understood by those who have to apply it, and properly applied; and, if not, whether this is due to a lack of suitable personnel, guidelines, training, funds, etc. Appropriate ways of correcting the situation should be indicated, for example, with regard to staffing and mechanisms for ensuring the proper development and application of the programme. The progress report could state whether the programme has been developed and applied at the pace required, in the manner conceived, and throughout the selected geographical areas. To assess efficiency, it is necessary to consider other ways of carrying out the programme more economically, for example, with better laboratory procedures or fewer personnel.

The effectiveness of the programme is assessed from its results. If the objective of the programme is to reduce the incidence of trichinellosis, effectiveness will be expressed in terms of the annual incidence at the time of evaluation as compared with the annual incidence at the beginning of the programme.

In assessing impact, one must ask whether the programme has resulted in an improvement in overall health, socio-economic situation and quality of life.

**Collaboration between physicians and veterinarians**

Collaboration, coordination and cooperation should be ensured throughout the periods of planning, implementation and evaluation. This will consist of at least the following aspects:

- Physicians should be informed about the presence of trichinellosis in pigs and other animal species in the area (fox, bear, seal, etc.) destined for human consumption. A list of categories of persons especially at risk because of their food habits and occupations should be prepared jointly by physicians and veterinarians.

- Physicians should be informed of new developments in the epidemiology of trichinellosis, such as “unusual” modes of transmission.

- Veterinary laboratories should be accessible to physicians, e.g. for examining biopsy material for *Trichinella* and for serological tests.

- Physicians should be involved in health education programmes organised by veterinary services. The combination of these programmes for trichinellosis with other programmes for meat and/or food-transmitted zoonoses (taeniasis/cysticercosis, toxoplasmosis, brucellosis, salmonellosis, etc.) has obvious advantages.

- Veterinary services should be involved in the epidemiological investigation of all instances in which cases of human trichinellosis occur (2).
CONCLUSION

Planning aids are very useful (e.g. an objectives tree and a logical framework for programme planning) and would assist the development of comprehensive plans without overlooking important components. Full details of such aids are available (1, 7), as are details of the organisation and management of food hygiene programmes (1, 4).

Major veterinary public health activities are: surveillance, prevention and control of zoonoses; food hygiene; surveillance, prevention and control of food-borne infections and intoxications; environmental health; surveillance, prevention and control of environmental hazards originating from animal-related sources and reservoirs; biomedical research; comparative medicine and biology; laboratory animal medicine; the use of animals in the treatment of some human health problems; and the improvement of man-animal pet relationships.

There is no consensus on the most appropriate location for veterinary public health units within the ministerial structure of individual countries. Options include placement in agriculture or livestock ministries or in health ministries. The Joint FAO/WHO Expert Commitee on Veterinary Public Health which met in 1974 recommended that where a veterinary public health unit does not already exist, such a unit should be established within the Ministry of Health at the national level (5). However, experience over the years has shown that establishment of veterinary public health units within the national veterinary services in ministries of agriculture has proved to be very successful, especially where the veterinary services as a whole are oriented towards public health.

Veterinary public health units are responsible for the planning and preparation of VPH programmes within a country. It is important to distinguish between two categories of programmes: those for the development of VPH service structures (including the VPH unit), human resources and facilities, and those for the control or elimination of specific zoonoses or other animal-related human health problems. The VPH unit should be responsible for the planning and execution of specific programmes either solely or jointly with other government departments, as appropriate. It should advise other bodies in the planning and execution of their own VPH activities.

Arrangements must be made for effective inter-ministerial liaison where more than one ministry is involved in a VPH activity.

Veterinary public health programmes and projects should be developed in conformity with the principles of primary health care (PHC), and high priority should be given to: community participation; inter- and intrasectoral collaboration, coordination and cooperation; international collaboration; and the transfer and adaptation of appropriate technologies for use under local conditions and circumstances.

VPH programmes may be divided into three categories according to their pattern of organisation: local programmes and schemes initiated and sustained by the community without the help of professional services; local programmes technically supported through specialised national services; and comprehensive national programmes involving resources in different sectors.
The programmes should be well prepared. They should be formulated in such a way that crucial components and actions can easily be identified by high-level decision-makers in governments.

The most serious constraints to the development of effective VPH are: the lack of mechanisms to assess the magnitude of the social and economic consequences of zoonoses, food-borne diseases and other VPH problems in the national health and economic development; the lack of professionals adequately trained in methods of planning and implementing VPH programmes; the lack of mechanisms to identify and mobilise all available resources; and the insufficient funds from national, international and private sources to initiate and continue even well-defined and justified projects.

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PLANIFICATION, ORGANISATION ET GESTION DES ACTIVITÉS DE SANTÉ PUBLIQUE VÉTÉRINAIRE. – Z. Matyás.

Résumé: L’auteur conseille une méthode pour établir un programme de santé publique vétérinaire, à partir des recommandations de l’Organisation Mondiale de la Santé (OMS). Le cas du contrôle de la trichinelle est présenté à titre d’exemple pour les procédures de planification.

MOTS-CLÉS : Contrôle des maladies - Santé publique - Services vétérinaires - Trichinelle - Zoonoses.

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PLANIFICACIÓN, ORGANIZACIÓN Y ADMINISTRACIÓN DE LAS ACTIVIDADES DE SALUD PÚBLICA VETERINARIA. – Z. Matyás.

Resumen: El autor formula consejos sobre la manera de establecer un programa de salud pública veterinaria, basándose sobre las recomendaciones de la Organización Mundial de la Salud (OMS). El control de la triquinosis sirve de ejemplo para ilustrar los métodos de planificación.

PALABRAS CLAVE: Control de enfermedades - Salud pública - Servicios veterinarios - Triquinosis - Zoonosis.

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REFERENCES


