

FAO of the UN, WHO and OIE with the collaboration of UNSIC and UNICEF

Background Paper

3.4 b Public and private sector roles in addressing animal health issues

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Summary

The recent HPAI crisis has highlighted that public veterinary services have not adapted to changing livestock sectors, in particular the dynamic and rapidly changing poultry sub-sector. This has provided an opportunity to review the state of the current international and national policies on public veterinary services, and how these services relate to the overall animal health system and the livestock sectors that they serve. The objective of such a review would be to identify the means of improving mechanisms to deal with the present HPAI crisis and future transboundary disease problems.

The paper outlines the need to go beyond the public veterinary services and incorporate the private animal health services in order to strengthen national **animal health systems**. To achieve this there are strong arguments for strengthening the relationship between public and private sectors involved in the poultry sector. A critical component of such a general strengthening process has to be a strong public veterinary service that through its organisational capacity (human and infrastructure) can provide vision, leadership and control in national animal health issues.

On the basis of the information presented the authors suggest that a number of actions need to be implemented to strengthen national animal health systems in order to make them more able to cope with transboundary disease control:

- Development of programmes to strengthen the public veterinary services (details of the elements to this programme can be found in the paper)
- Development of training programmes on "Leadership and vision for national animal health systems" (details of the elements to this programme can be found in the paper)
- Development of guidelines on cost sharing for HPAI control measures such as compensation funds and vaccination
- Regional and global engagement of the poultry private sector industries in discussions on animal health strategies, market mitigation measures, value chain biosecurity and social responsibilities.

Introduction

The traditional focus of international interventions on animal health has tended to be on public veterinary services. In past times this was about the development of a strong field presence and implementation capacity, a process that was halted during the 1980s when budgetary crises demanded a reduction in the size of the civil services in many developing countries. Many veterinary activities during this period were privatised and very different veterinary services developed. The recent HPAI crisis has highlighted that external criteria and internal public budgetary problems have created public veterinary services that have not adapted to changing livestock sectors and in particularly the poultry sub-sector which is the most dynamic and rapidly

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³ The authors acknowledge useful comments from Tony Forman, Jim Hancock, Nancy Morgan, Rommy Viscarra and Jan Slingenbergh during the preparation of the paper.

changing component of this sector. The HPAI crisis has provided an opportunity to review the state of the current international and national policies on public veterinary services and how these services relate to the overall animal health system and the livestock sectors that they serve.

The paper will first examine who are the main actors in setting the institutional environment in which animal health programmes operate. A brief analysis is presented of the context in terms of the poultry sectors and their development. Within this institutional environment and poultry sector development roles and responsibilities are suggested for these actors based on their relative strengths and weaknesses and public/private good theory. The analysis presented is used to draw conclusions and recommendations with regards to the need to strengthen both public and private sector animal health activities that make up a national **animal health system**. A strong animal health system would be led by the public veterinary services and would increase the probability of success of animal disease control programmes.

The Institutional Environment of an Animal Health System

The landscape within which people, governments, private sector, and other organisations interact, called the “institutional environment” which establishes the rules of the game, is set within a framework of public regulations, culture and private regulations. A priority focus, particularly with animal health, is placed on the importance of public regulation. In more developed countries, whilst public regulations are very important, increasingly, private regulation has a powerful effect on private organisations, the institutional environment, and the behaviour of individuals (see Henson, 2006). Certainly in the case of animal health, private implementation of control strategies can be an effective way of creating cost and risk sharing mechanisms (Rushton et al, 2007). Good examples would be the Canadian Structured Risk Management Approach (SRMA) (Burden, 2007) and the Brazilian FMD vaccination campaign (Dubois and Moura, 2004). In less industrialised countries, private regulation may be operating in a weak policy environment characterized by lack of implementation mechanisms for animal disease control.

Within the public sector, organisations influence animal health policy at different levels. At international level the OIE play a critical role in setting norms, standards and guidelines which form the foundations of international animal health policies. The *Codex Alimentarius* and OIE also establish standards and norms for products of animal origin. These roles have been strengthened by a WTO mandate on such issues. International discussions and dispute arbitration mechanisms on animal disease control measures, particularly those linked to trade-affecting outcomes, are available through the WTO’s Sanitary and Phytosanitary Committee (SPS). The benefit of these international standards and their application has been an improvement in transboundary disease control (Rushton, 2006).

Animal health measures are also influenced by private strategies, which are set at farm level by individual producers, at the company level by vertically integrated operations, or nationally by industry associations, that would include traders and processing companies. Their collective decisions to participate in measures such as surveillance and reporting, biosecurity and control measures, movement controls or vaccination are often the key to success in controlling disease. Producer or sector level associations have influence based on shared vision and formal agreements or peer pressure within looser groups. The aim in such associations is to improve operations and stabilise market environment, which may incorporate some components of disease control. Across the value chain, dominant actors may set strategies that essentially govern how these chains operate. Such a situation is found in strongly integrated companies and where dominant market actors such as large supermarkets are aiming for market share and sustainable growth. Important cross-border private sector coordination is also provided by regional or international industry affiliations, such as the ASEAN Federation of Poultry Producers or the recently conceived International Poultry Council.

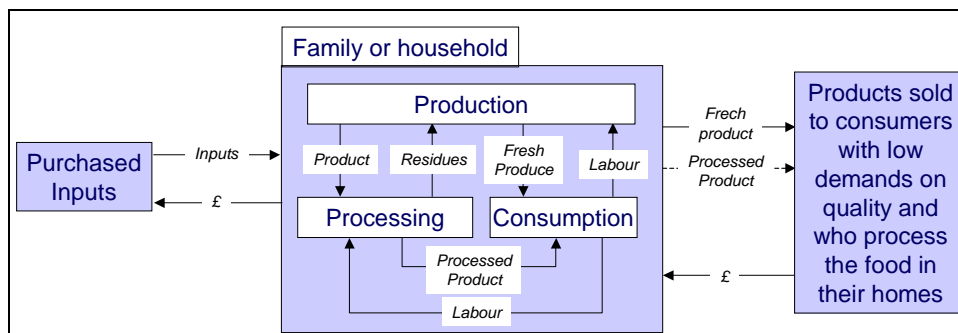
It is suggested that understanding the importance and potential linkages between public policies and private strategies in animal health control would be a good starting point when addressing a crisis such as the control of HPAI. In the context of public policy making, private strategies could be very influential in effectively realising the results of an animal health policy. Consequently, influencing and directing private strategy could be an innovative means of assisting the

implementation of public animal health policies, and hence an effective means of cost and risk sharing within society. However, to achieve this process it is argued that the official public veterinary services need the organisational capacity, both human and in terms of infrastructure and logistics, to provide vision, leadership and control on national animal health issues. A component of this leadership has to be the planning of the veterinary manpower needs for a country both in terms of skills and numbers and to cover both public and private veterinary services. Recent FAO analysis would suggest that many countries and even entire regions are not investing heavily enough in manpower and there are doubts about the quality of training offered (Rushton et al, 2006). In this way the mandate of the public veterinary services to define the overall rules and strategies is not compromised, but their ability to implement their vision is strengthened through recognising and embracing the role and importance of the private sector in various animal health actions.

The Context – Poultry Production and Value Chains

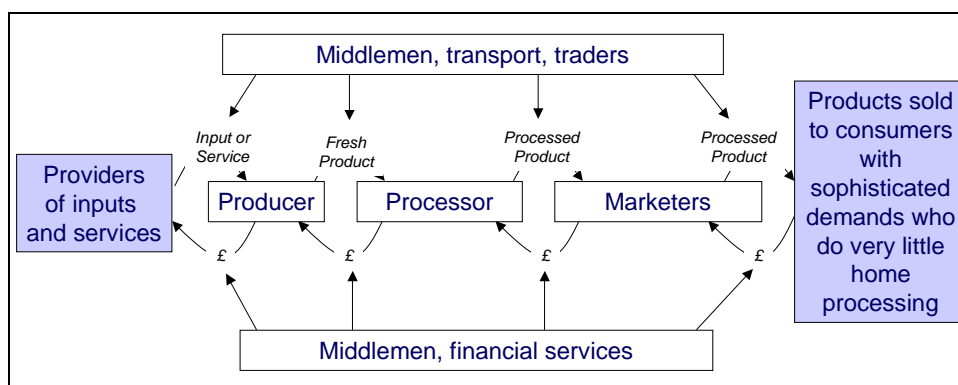
Over a relatively short period of time the world has gone from relatively simple food value chains to increasingly complex ones (Rushton et al forthcoming). In the simple food chains a high proportion of produce was either consumed in the farm household or in local and regional markets. In addition much of this food was processed within the household (see Figure 1). This process has been very rapid in the poultry sectors around the world, with the most rapid change occurring in the poultry sectors in developing countries.

Figure 1. Simple food value chains (from Rushton & Viscarra, 2006).



In the complex food value chains, that are becoming increasingly dominant in many parts of the world and in particular in poultry production, primary production has complex relationships with consumers through processing and marketing companies. The links in the chain are maintained by middle men, transport companies and finance groups. Where the value chains become integrated, i.e. owned and controlled by one company, the middlemen disappear. In addition, the consumer demands have become more sophisticated for processed food and food with zero risk of food-borne diseases (see Figure 2). These new value chains can also be global which have implications for animal disease control.

Figure 2. A schematic diagram of the increasingly dominant complex food value chains (Rushton & Viscarra, 2006)



The rapid development of poultry production systems and their associated value chains has created a benefit in terms of meeting the protein needs of growing urban populations throughout the world. This development has not been smooth and is still ongoing. In countries where the control of HPAI H5N1 has been particularly problematic there are areas that are densely populated in terms of humans, chickens and ducks. These areas also have a mix of production systems from integrated, industrial to backyard systems, and a majority of poultry products reaching consumers through live bird markets.

Therefore, the new poultry sector development has also created systems and movement that require different veterinary services, particularly public veterinary services that can regulate and monitor the poultry sector in order to reduce animal disease risks and control transboundary diseases.

Roles and responsibilities

The roles and responsibilities of public and private sectors in animal health service delivery has been investigated and discussed since the late 1980s initially by World Bank staff (Umali et al, 1992) and more recently by Leonard (2000, 2004) and Ahuja (2004). The latter author presents a useful analysis of the public and private good nature of animal health services and this has been used in the development of a list of roles and responsibilities of public and private sectors in animal health delivery. The lists are an attempt to open a discussion on roles of the public and private sector within an animal health system the following core public policies and roles are suggested:

- Surveillance (disease and the sector)
 - rapid response, minimise breadth/length of outbreak and reduce culling
- Border and movement control
 - prevention measure at the border
 - understand movements within sector to apply most cost-effective movement control before and during outbreak
- Coordination and direction of field disease control operations
 - compensation mitigates some effects of culling but not all
 - vaccination preserves birds but does not take away all market shock
- Monitoring of disease control measures
 - monitor progress in real time to decide when to modify field actions
 - zoning and compartments require a demonstrable capability to monitor
- Rehabilitation measures
 - large depopulation and movement control affect restocking
 - movement control affects market access
 - other actors besides producers are affected (but not compensated)
- Communication
 - balance risk for public health against producing a market shock
 - clear messages on effective and achievable disease control measures by sector

As outlined above governments are not the only actors in animal disease control; private sector are normally the implementers, beneficiaries, and risk takers in control measures and have core strategies and roles in effective HPAI control measures. The roles of the private sector within an animal health systems are suggested to be the following:

- Coordination, communication and cooperation with the public sector, critical within this are activities that correspond to surveillance. It is often forgotten that the frontline of the surveillance system are the producer who see and monitor their birds every day.
- Promote farm and local level biosecurity measures within the industry – effective self-policing
- Procurement and distribution of vaccines
- Transparency and honesty in disbursement of compensation funds

In the integrated, industrial poultry production systems and their associated value chains private animal health services have largely assumed the lead role in poultry health schemes, although in some countries such as the USA these have been encouraged and promoted through the public

veterinary services⁴. In the backyard systems poultry health has mainly been the domain of the individual producer as providing animal health services is not very profitable for the private sector and is very difficult for the public sector. The exceptions to this have been where NGOs have developed projects to support poultry development using poultry health as an entry point (see International Network for Family Poultry Development⁵ and Kyeema Foundation⁶). In the current poultry sectors across the world, and particularly where HPAI is problematic, many poultry are housed and processed in systems that can neither be called integrated nor backyard. In the FAO classification they would be described as sector 3 and some sector 2 producers (FAO, 2004). The veterinary services demanded and received by these producers is incomplete. This implies that while the integrated, industrial poultry systems are well covered by private animal health services, a very large number of poultry are in productions systems that are neither covered by public nor private animal health services.

It is suggested that the government, through the public veterinary services have to assume responsibilities in terms of regulating and monitoring movement and limiting risky practices. Through effective public-private sector engagement it should be possible to reduce risky practices, but it is recognised that this will probably require the state to occasionally, but consistently assume unpopular roles such as movement controls and general control measures. These are areas where public interest conflicts with individual interest. There are also opportunities for strengthening partnerships and in the process improving the animal health system. For example, public veterinary services would benefit from developing strategic linkages with the private poultry health services that work with the integrated, industrial systems. This could provide key data on poultry movements and productivity.

It is recognised that many of the roles and responsibilities described in this section for the public veterinary services are further complicated by decentralised systems of public service management. This should be recognised and be dealt with on a case by case basis.

Conclusions

In conclusion, animal health services for the poultry sector are provided by both the public and private veterinary services in nearly all countries. These services make up a national animal health system that services and supports the poultry sector in its day to day activities and future plans for development. The authors suggest that to strengthen the services provided by the animal health system support need to be provided to both the public and private veterinary services and discussions between public and private sectors involved in poultry production need to be encouraged and facilitated. For example setting public policy requires an understanding of the poultry sector, the dynamics of change within this sector and the private strategies that govern the sector. Preparedness plans for possible outbreaks (control and communication strategies) need to include policies, strategies and implementation of actions that will mitigate the impact of an announcement on HPAI and/or its presence. Such a response recognises that if markets are badly disrupted, the control of HPAI will be difficult if not impossible. Successful and cost-effective implementation requires coordination between public and private sector organisations.

The scope, scale and potential implications of the global poultry value chains and their associated infrastructure to monitor and support animal health and food safety work is without precedent. Today we are confronting interdependency of animal health concerns and needs with issues such as public health and medicine, economics, global trade and national and international security. The roles and responsibilities of public veterinary services would benefit capacity building in terms of human skills and numbers and infrastructure in order to lead animal health programmes. Such leadership would benefit from greater knowledge and cooperation with the private poultry sector to nurture effective national animal health systems.

⁴ see the National Poultry Improvement Plan at <http://www.aphis.usda.gov/vs/npip/>

⁵ <http://www.fao.org/ag/againfo/subjects/en/infpd/home.html>

⁶ <http://www.kyeemafoundation.org/news.php>

Recommendations

On the basis of the information presented the authors suggest that a number of actions need to be implemented to strengthen national animal health systems in order to make them more able to cope with transboundary disease control:

- Development of programmes to strengthen the public veterinary services in their role of:
 - Defining strategies and policies for the prevention and control of transboundary diseases
 - Defining animal health laws and regulations and the means to enforce them
 - Supporting and implementing surveillance, detection of outbreaks and response to transboundary diseases and crises
 - Assessment of the epidemiological situation in order to determine trends and early warning messages
- Development of training programmes on “Leadership and vision for national animal health systems” It is suggested that the programmes includes:
 - Managing decentralised public veterinary services
 - Development of regulations and their enforcement across complex value chains
 - How to assess the livestock sector’s current and future animal health needs in terms of research and development, manpower and skills
 - How to engage the private animal health services in the provision of data and information on nationally important livestock sectors
 - How to identify roles and responsibilities for animal health activities between the public and private veterinary services
 - Developing, implementing and managing contracts for animal health services
- Development of guidelines on cost sharing for HPAI control measures such as compensation funds and vaccination
- Regional and global engagement of the poultry private sector industries in discussions on animal health strategies, market mitigation measures, value chain biosecurity and social responsibilities.

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