A comparison of the delivery of veterinary services to small-scale and medium to large-scale poultry keepers in peri-urban Ghana

P.K. Turkson

Department of Animal Science, School of Agriculture, University of Cape Coast, Cape Coast, Ghana.
E-mail: kobbiecc@yahoo.com

Submitted for publication: 3 December 2007
Accepted for publication: 9 June 2008

Summary
The study compared assessments of animal health care delivery to small-scale and medium to large-scale poultry keepers in peri-urban areas in four regions of Ghana. Four hundred and one keepers were interviewed using a questionnaire. Significantly higher proportions of the small-scale and medium to large-scale keepers met their needs by themselves. The mean distances or times used in getting veterinary services were similar for both groups. Significantly higher proportions of medium to large-scale keepers said drugs and vaccines were available and getting help was easy. Staff attitude and effectiveness were perceived as good by significantly higher proportions of small-scale keepers. Equity and efficiency were generally poor, while drug costs were considered expensive by medium to large-scale keepers. The study concluded that generally, there were no marked differences in the way in which the two groups perceived the quality of service delivery and the findings did not support claims that small-scale keepers receive inadequate services.

Keywords

Introduction
The consumption of poultry products in developing countries has been growing at an annual rate of about 6%, leading to an increase in demand (23). Peri-urban agriculture is often associated with small-holder poultry production involving highly selected birds managed under relatively intensive conditions for the production of either meat or eggs (19). Small-holder farms are responsible for the production of the bulk of livestock produced in Africa (28). However, the absence or inadequacy of basic services such as disease control have made the productivity of small-holder poultry low throughout the developing world, compared with commercial poultry production (1, 12, 15), with small-holder poultry production being described as a ‘low input, low output’ system (20). A major cause of mortality and loss of production in such systems is disease (21).

There are reports that animal health care (AHC) services are biased towards the needs of commercial farmers and have neglected to address the production constraints of small-holder farmers (28), leading to calls for a different approach by livestock services to address the needs of small-holders (13). This is because the production systems are typically complex, varied and risk-prone, requiring small-holders to have diverse choices that enable them to exploit varied and unpredictable ecosystems (5, 22). It is argued that the state has failed to provide adequate services...
to small-holders (3, 7, 27) and that many of these farmers do not have access to animal health advice or veterinary drugs (17), especially in sub-Saharan Africa (13).

This paper presents the findings of a study that compared assessments of AHC delivery systems as perceived by small-holders and medium to large-scale poultry farmers in peri-urban areas in four regions of Ghana. The objective was to assess the quality of the current structure and process of the AHC system as perceived by these two groups. The findings will help improve delivery of AHC to poultry producers in peri-urban areas.

This paper is unique in comparing delivery of AHC services to small-scale and medium to large-scale producers to determine whether or not the differences seen are significant enough to support claims that the needs of the small-scale producers for AHC are not being met.

Methods

The approach adopted had been used elsewhere (18) and the main activity undertaken was a survey. Two categories of poultry keepers were used. In accordance with the official definition of a small-scale holding in Ghana (19), farmers who kept 2,000 birds or fewer were classified as small-scale keepers, while those with holdings containing over 2,000 birds were classified as medium to large-scale keepers.

Study areas

Peri-urban areas in four regions of Ghana were chosen: Ashanti Region (Kumasi Metropolitan Area and surrounding districts); Greater Accra Region (Accra and Tema Metropolitan Areas and Ga District); Central Region (Awutu-Efutu-Senya District); and Western Region (Shama-Ahanta East Metropolitan Area and surrounding districts). These regions are in the middle and southern parts of Ghana.

Animal health care was provided officially in all these areas by graduate veterinarians and veterinary technical officers who were staff in the Veterinary Services Directorate (VSD). The technical officers had attended the Pong Tamale Animal Health and Production College and had certificates in animal health. In addition, in Greater Accra Region, AHC was provided by the staff of seven private practices, and in Ashanti Region two private practices also provided services. In all these areas it was common knowledge that VSD staff were ‘moonlighting’, that is, providing private services unofficially (26).

Sampling procedure

The poultry keepers who were interviewed for this study were part of a larger sample of livestock and poultry keepers who were questioned as part of a study carried out by the author into client assessment of animal health care services in peri-urban Ghana (25). Livestock and poultry keepers in this larger study were identified with the help of staff from the Ministry of Food and Agriculture (MOFA). Also, animal owners visiting government or private veterinary clinics for assistance, or to purchase vaccines, were interviewed. The inclusion criterion was that a respondent kept poultry or livestock. The snowball technique was adopted, whereby farmers who were visited on their farms identified other livestock or poultry keepers in the area who were then visited and interviewed. The targeted numbers were 150 each for Ashanti and Western Regions and 300 each for Greater Accra and Central Regions based on the availability of enumerators (one each for Ashanti and Western Regions and two each for Greater Accra and Central Regions, each targeting 150 respondents). The final number of animal owners interviewed was 889, 401 of which were poultry keepers.

Survey instrument and administration

The instrument used was a questionnaire developed and tested in Cape Coast on 15 livestock and poultry keepers. The questionnaire (see Annex) had 25 questions (14 closed-ended, 11 open-ended) covering the socio-economic profile of respondents, animal demographics and management, services used and the providers, and indicators of the quality of animal health care services. The latter covered effectiveness, efficiency, accessibility, service quality, equity, staff attitude, technical competence, affordability and availability. Effectiveness was defined as how effective the veterinary services were in reducing mortality, disease, discomfort and dissatisfaction; efficiency was defined as how well the available resources were used to achieve desirable results; accessibility was defined as the ability of the individual to reach and obtain services; service quality was defined as the degree to which services met the client’s expectations; equity was defined as the fairness of the distribution of services; staff attitude was defined as the interpersonal skills demonstrated by staff; technical competence was defined as the knowledge, skills and actual performance of professionals; affordability was defined as the ability of clients to pay for services; and availability of services was defined as services being provided when needed. These definitions were provided in an attempt to standardise interpretations and minimise variations. Other indicators were whether clients’ needs were met and whether they were able to get help when needed.
Six enumerators were trained to administer the questionnaire. Pre-testing was done in Cape Coast after which two questions were dropped for lack of clarity. The questionnaires were administered in English or in the local languages (Twi, Fante or Ga-Adangme) for those with difficulties in the English language. The questionnaires were administered between July and August 2005. Each questionnaire took on average 45 minutes to complete.

Data analysis

The analysis presented in this paper involved only those respondents identified as poultry keepers (categorised into small-holders and medium to large-scale keepers). The responses to the closed questions were coded and stored using Microsoft Excel software. These were imported into Statistix® software (version 3.5, Analytical Software Inc., St Paul, MN, United States of America [USA]) and analysed using descriptive statistics. Significance tests were done at 95% confidence level using the $\chi^2$ test. The differences in means were compared using the 95% confidence intervals.

The responses to each indicator of quality of AHC were reclassified into two categories. For effectiveness, efficiency, accessibility, service quality, equity, staff attitude, and staff technical competence the answers of those who responded ‘very poor’, ‘poor’, ‘fair’ or ‘no idea’ were reclassified as ‘poor’, while the responses ‘good’ or ‘very good’ were grouped together as ‘good’. For service charge and drug costs, the responses ‘expensive’, ‘very expensive’ or ‘no idea’ were put together as ‘expensive’, while the responses ‘fair’ or ‘reasonable’ were classified as ‘reasonable’. For availability of drugs, vaccines or services, the answers of those who responded ‘unavailable’ or ‘sometimes available’ were combined into one group and reclassified as ‘unavailable’, while the responses ‘available’ or ‘always available’ were reclassified as ‘available’. The answers of those who said services were ‘unaffordable’, ‘fairly affordable’ or had ‘no idea’ were regrouped as ‘unaffordable’, and the ‘affordable’ group remained the same. The replies of respondents who said their needs were ‘poorly met’, ‘sometimes met’ or ‘fairly met’ were reclassified as ‘unmet’, while the replies of those who said their needs were ‘met’ or ‘very much met’ were put together as ‘met’. For ease of getting help, those who responded ‘difficult’ or ‘very difficult’ were grouped under ‘difficult’, while those responding ‘easy’ or ‘very easy’ were reclassified as ‘easy’.

Results

A total of 889 respondents were involved in a larger study, out of which 401 were poultry keepers. Of these, 62.3% were small-holders and 37.7% were medium to large-scale keepers.

Table I gives the background information for the respondents classified into small-scale keepers or medium-large scale poultry keepers.

The animal holdings for the two categories of respondents are given in Table II.

| Table I | Background information for small-scale and medium to large-scale poultry keepers using veterinary services in peri-urban Ghana |
| Variable | Small-scale (n = 250) | Medium to large-scale (n = 151) |
| Number | % | Number | % | $\chi^2$ | p |
| Region |
| Ashanti | 73 | 29.2% | 54 | 35.8% | 44.21 | <0.01 |
| Greater Accra | 71 | 28.4% | 79 | 52.3% |
| Western | 32 | 12.8% | 4 | 2.6% |
| Central | 74 | 29.6% | 14 | 9.3% |
| Education |
| None/Primary | 88 | 35.2% | 37 | 24.5% |
| Secondary | 95 | 38.0% | 58 | 38.4% | 6.71 | 0.03 |
| Tertiary | 67 | 26.8% | 56 | 37.1% |
| Management |
| Semi-intensive | 10 | 4.0% | 0 | 0% | 6.19 | 0.01 |
| Intensive | 240 | 96.0% | 151 | 100.0% |
| Major problems |
| Feeding | 144 | 57.6% | 108 | 71.5% |
| Diseases | 39 | 15.6% | 20 | 13.2% | 8.97 | 0.03 |
| Housing | 23 | 9.2% | 7 | 4.6% |
| Others* | 44 | 17.6% | 16 | 10.0% |

* Includes high mortality, lack of labour/finances/drugs/Know-how

| Table II | Descriptive statistics for poultry holdings for small-scale and medium to large-scale poultry keepers in Ghana |
| Number of birds on each holding |
| Small-scale keepers (n = 250) | Medium to large-scale keepers (n = 151) |
| Mean | 686 (a) | 11,080 (b) |
| Standard deviation | 270 | 26,840 |
| Median | 600 | 5,000 |
| 95% CI | 628-745 | 6,760-15,390 |

(a) & (b) means with different letter superscripts are significantly different. CI: confidence interval
The respondents indicated how easy it was getting help when needed and who the providers were. Their responses are presented in Table III.

Table IV gives the distances travelled and time used in getting help or medicine by the respondents.

Table V presents the results for the indicators of quality of service delivery used in this study.

When asked if they faced difficulty in getting help from the government veterinary services, 76.4% of the small-scale keepers and 82.8% of the medium and large-scale keepers...
said ‘no’, while 23.6% of the former and 17.2% of the latter said ‘yes’. The differences were not significant.

Asked whether they were willing to use a private veterinary clinic if one was set up in their locality, 93.2% of the small-scale keepers and 94.7% of the medium and large-scale keepers said ‘yes’, while 6.8% of the former and 5.3% of the latter said ‘no’. The differences were not significant.

With respect to satisfaction with veterinary services delivery, 50.8% of the small-scale keepers were either ‘satisfied’ or ‘very satisfied’, compared to 54.3% of the medium to large-scale keepers. The difference was not significant.

### Table V

Indicators of the quality of the delivery of veterinary services in peri-urban Ghana as perceived by small-scale and medium to large-scale poultry keepers

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Classification</th>
<th>Small-scale keepers (n = 250)</th>
<th>Medium/large-scale keepers (n = 151)</th>
<th>( \chi^2 )</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentage</td>
<td>Number</td>
<td>Percentage</td>
<td></td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Poor</td>
<td>123</td>
<td>49.2 %</td>
<td>91</td>
<td>60.3 %</td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>127</td>
<td>50.8 %</td>
<td>60</td>
<td>39.7 %</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Poor</td>
<td>135</td>
<td>54.0 %</td>
<td>106</td>
<td>70.2 %</td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>115</td>
<td>46.0 %</td>
<td>45</td>
<td>29.8 %</td>
</tr>
<tr>
<td>Equity</td>
<td>Poor</td>
<td>217</td>
<td>86.8 %</td>
<td>141</td>
<td>93.4 %</td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>33</td>
<td>13.2 %</td>
<td>10</td>
<td>6.6 %</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Poor</td>
<td>147</td>
<td>58.8 %</td>
<td>98</td>
<td>64.9 %</td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>103</td>
<td>41.2 %</td>
<td>53</td>
<td>35.1 %</td>
</tr>
<tr>
<td>Service quality</td>
<td>Poor</td>
<td>116</td>
<td>46.4 %</td>
<td>71</td>
<td>47.0 %</td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>134</td>
<td>53.6 %</td>
<td>80</td>
<td>53.0 %</td>
</tr>
<tr>
<td>Staff attitude</td>
<td>Poor</td>
<td>44</td>
<td>17.6 %</td>
<td>10</td>
<td>6.6 %</td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>206</td>
<td>82.4 %</td>
<td>141</td>
<td>93.4 %</td>
</tr>
<tr>
<td>Technical competence</td>
<td>Poor</td>
<td>41</td>
<td>16.4 %</td>
<td>24</td>
<td>15.9 %</td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>209</td>
<td>83.6 %</td>
<td>127</td>
<td>84.1 %</td>
</tr>
<tr>
<td>Affordability</td>
<td>Unaffordable</td>
<td>125</td>
<td>50.0 %</td>
<td>75</td>
<td>49.7 %</td>
</tr>
<tr>
<td></td>
<td>Affordable</td>
<td>125</td>
<td>50.0 %</td>
<td>76</td>
<td>50.3 %</td>
</tr>
<tr>
<td>Service availability</td>
<td>Unavailable</td>
<td>83</td>
<td>33.2 %</td>
<td>39</td>
<td>25.8 %</td>
</tr>
<tr>
<td></td>
<td>Available</td>
<td>167</td>
<td>66.8 %</td>
<td>112</td>
<td>74.2 %</td>
</tr>
<tr>
<td>Drug availability</td>
<td>Unavailable</td>
<td>85</td>
<td>34.0 %</td>
<td>26</td>
<td>17.2 %</td>
</tr>
<tr>
<td></td>
<td>Available</td>
<td>165</td>
<td>66.0 %</td>
<td>125</td>
<td>82.8 %</td>
</tr>
<tr>
<td>Vaccine availability</td>
<td>Unavailable</td>
<td>74</td>
<td>29.6 %</td>
<td>25</td>
<td>16.6 %</td>
</tr>
<tr>
<td></td>
<td>Available</td>
<td>176</td>
<td>70.4 %</td>
<td>128</td>
<td>83.4 %</td>
</tr>
<tr>
<td>Service charge</td>
<td>Expensive</td>
<td>68</td>
<td>26.4 %</td>
<td>28</td>
<td>18.5 %</td>
</tr>
<tr>
<td></td>
<td>Reasonable</td>
<td>184</td>
<td>73.6 %</td>
<td>123</td>
<td>81.5 %</td>
</tr>
<tr>
<td>Drug cost</td>
<td>Expensive</td>
<td>185</td>
<td>74.0 %</td>
<td>140</td>
<td>92.7 %</td>
</tr>
<tr>
<td></td>
<td>Reasonable</td>
<td>65</td>
<td>26.0 %</td>
<td>11</td>
<td>7.3 %</td>
</tr>
<tr>
<td>Getting help</td>
<td>Difficult</td>
<td>45</td>
<td>18.0 %</td>
<td>15</td>
<td>9.9 %</td>
</tr>
<tr>
<td></td>
<td>Easy</td>
<td>205</td>
<td>82.0 %</td>
<td>136</td>
<td>90.1 %</td>
</tr>
<tr>
<td>Client needs</td>
<td>Unmet</td>
<td>116</td>
<td>46.4 %</td>
<td>73</td>
<td>48.3 %</td>
</tr>
<tr>
<td></td>
<td>Met</td>
<td>134</td>
<td>53.6 %</td>
<td>78</td>
<td>51.7 %</td>
</tr>
</tbody>
</table>

**Discussion**

Small-scale systems can be contrasted to large-scale livestock production systems because the latter may be characterised as intensive commercial operations (11). Classifying production in terms of scale is said to be useful for distinguishing the systems used by poor urban livestock keepers from large-scale intensive urban livestock production systems (10).

The distribution of respondents on a regional basis showed that Western and Central Regions had significantly higher proportions of small-scale poultry keepers, whereas
Greater Accra Region had a significantly higher proportion of medium to large-scale poultry keepers. This finding supports reports that commercial poultry production in Ghana takes place mainly in and around urban centres, especially in Ashanti and Greater Accra Regions (2), which are more cosmopolitan.

Education provides the user with the knowledge base for evaluating whether he/she or a dependent (or an animal) requires treatment (9). The proportion of medium to large-scale keepers with tertiary education was higher. Education increases the managerial capacity of farmers and thus improves their ability to understand complicated information related to modern livestock production and their ability to determine the best management skills to use (6). Various authors have noted that the experience and education (both formal and informal) of small-scale farmers are important in influencing animal health decisions (14, 24).

A small proportion (4%) of the small-scale keepers used the semi-intensive system (Table I). The practicality of such a system for poultry in urban/peri-urban environments is doubtful and likely to involve only very small holdings. There are reports that backyard production systems (involving raising local chickens, often with the birds fending for themselves but being housed at night and given wheat bran) are practised in peri-urban areas (2). Such a system is categorised as ‘semi-intensive’, in contrast to ‘free-range’ where no housing is provided.

The major problems faced by the two groups of poultry producers were similar, but a higher proportion of the medium to large-scale keepers identified feeding as a major problem (Table I). Major constraints to peri-urban poultry production have been identified as availability, cost, and quality of feed (19). Animal health and availability of feed were identified as the main constraints to expansion by small-scale farmers in Accra and Kumasi (8).

The highest proportions of both small-scale keepers and medium to large-scale keepers met their needs by themselves (Table III). Although the highest proportions in both groups said it was the owner of the animal who treated most animals in their area, the difference between the two proportions was significant. In general, the small-scale keepers relied more on veterinarians for help. It may be that the higher educational status of the medium to large-scale keepers gave them confidence to handle issues on their own. The dependence of small-scale keepers on veterinarians was encouraging.

No significant differences were seen between the two groups of poultry producers at any of the five levels of satisfaction with service delivery (Table III). In spite of this, much higher proportions of medium to large-scale keepers said that their needs were met by themselves or that the owner of an animal was the one most likely to treat his animal (Table III). It has been observed that in cultures such as Ghana’s, where open criticism is unacceptable, satisfaction ratings are more positive (4) and could explain the seeming paradox in the finding above.

The physical distance from service providers for both large-scale and medium to small-scale semi-modern urban/peri-urban enterprises in developing countries is reported to be between 15 km and 20 km (29). Medium to large-scale keepers travelled farther to get to a veterinary clinic or technical officer, while small-scale keepers travelled farther to get medicine and took longer to get help (Table IV). However, the distances travelled and times used in getting veterinary services were not significantly different enough to indicate inadequacy of services or lack of accessibility by a particular group of poultry keepers.

For the indicators of the quality of service delivery, a significantly higher proportion of medium to large-scale keepers said drugs and vaccines were available (Table V). Although there was no significant difference in the proportions of the two groups indicating that accessibility was poor, a significantly higher proportion of medium to large-scale keepers said getting help when in need was easy. The source of such help was not ascertained, but it is likely to be self-help (Table III). The proportion of small-scale keepers who said effectiveness was good was significantly higher. Equity was perceived as poor and drug costs expensive by significantly higher proportions of medium to large-scale keepers. In general, there were not many differences between the two groups for the indicators used in this study.

It is reported that in some countries the focus is on larger commercial poultry production units – from which there is a greater demand for veterinary drugs and which can be serviced at lower transaction costs than small-holder poultry producers – and that outreach of animal health systems to the latter was appallingly low (16). We did not find any evidence to support this in Ghana. Rather, our findings may indicate problems in the delivery of veterinary services in general, not specifically related to the scale of operation. Some of the findings of this study might suggest that the perspectives of the keepers were more positive than anticipated. This might be attributed to cultural influences such as the unacceptability of open criticism (4). However, the use of enumerators who were not associated with VSD or MOFA provided enough neutrality, anonymity and openness for the findings to be credible.
In conclusion, this paper has shown that the delivery of services to small-scale keepers was not distinctly different from that for the medium to large-scale producers. It, therefore, does not support assertions that small-scale keepers receive inadequate services compared to large-scale keepers. However, what is needed is a general improvement in the delivery of veterinary services to meet the expectations of clients and help improve use of services and facilities.

Acknowledgements

I am indebted to Ms Afua Frimpong-Apau, Ms Shirley Obromah, Ms Mary Ehuray, Ms Maame Esi Inkoom, and Messrs Imoro Awudu and Seth Arthur for collecting the data from the field. A six-month Commonwealth Academic Fellowship spent in the Epidemiology Division of the Royal Veterinary College, University of London from January to July 2007 provided an opportunity for extensive literature search, for which I am grateful.

Annex

Questionnaire for livestock/poultry farmers

This survey is being conducted by the Animal Science Department of the University of Cape Coast as a project to provide information on veterinary services. All information given will be treated as confidential. Thank you.

1. Date of interview _________________________________
2. Location/district _________________________________
3. Major occupation _________________________________

4. Level of education: ( ) No school ( ) Primary / JSS / Middle
   ( ) Secondary / SSS / Tech / Vocational ( ) Post Sec. / Polytechnic / University

5. Which best describes you?
   Cattle farmer ( ) Small ruminant farmer ( ) Pig farmer ( ) Poultry farmer ( ) Others ( ) specify

6. How many of the following animals do you have
   Sheep ________ Goats ________ Cattle ________
   Pigs ________ Dogs ________ Cats ________
   Chicken ________ Others ________

7. Which of these below best describes your type of management?
   ( ) Let your animals roam about on their own at all times
   ( ) Confine during part of the day and release later to graze
   ( ) Confine at all times

8. Which of the following services do you use and who provides them? (Tick)
   Service Provider
   ( ) Deworming ____________________
   ( ) Spraying/bathing against ticks and other ectoparasites ____________________
   ( ) Vaccinations ____________________
   ( ) Castrations/surgeries ____________________
   ( ) Meat Inspection ____________________
( ) Diagnosis of diseases ____________________
( ) Sale of medicines/drugs ____________________
( ) Common treatments (for diarrhoea, general illness, etc.) ____________________
( ) Advice on health ____________________
( ) Other (specify) ______________________________________________________________

9. Who met most of your needs for animal health in 2004? Choose one
( ) Self medication
( ) Community livestock worker
( ) Veterinarian
( ) Other livestock farmers
( ) Technical officers
( ) Drug sellers giving advice also
( ) Other (specify) ______________________________________________________________

10. Who treats most of the sick animals in your locality/community? Tick one
( ) Nobody in particular
( ) Community livestock worker
( ) The owner of the animal
( ) Veterinarian
( ) Extension agent / Technical officer
( ) Non-governmental organisations’ personnel
( ) Other (specify) ______________________________________________________________

11. How easy is it to get help when your animals are sick?
( ) Very easy ( ) Easy ( ) Difficult ( ) Very difficult

12. How close (in km) is the nearest veterinary clinic? __________________________

13. How close (in km) is the nearest animal health technical officer or extension agent or community livestock worker? ________

14. How long (in hours) does it take to get help when your animal is sick? ____________________

15. How close (in km) is the nearest place to buy medicine for your animals? ____________________

16. How long (in hours) does it take to go to the nearest place where you can buy medicine for your animals? ________

17. Do you have any difficulty in getting help from a government veterinarian or veterinary technician?
( ) Yes ( ) No

18. If a private veterinary provider sets up a clinic in your location, will you be willing to use it?
( ) Yes ( ) No

19. What 3 major factors will encourage you to use private veterinary providers?
1. ______________________________________________________________
2. ______________________________________________________________
3. ______________________________________________________________

20. What 3 major factors will discourage you from using private veterinary providers?
1. ______________________________________________________________
2. ______________________________________________________________
3. ______________________________________________________________

21. Which of the list below will you rank as your number 1 problem? Choose one only.
( ) Housing of the animals/birds
( ) Diseases
( ) Feeding the animals/birds
( ) High mortality of animals/birds
( ) Lack of drugs to treat animals/birds
( ) Animals destroying other peoples crops
( ) Other (specify) ______________________________________________________________
22. Over the last 6 months, how often have you used a veterinarian, veterinary technical officer, veterinary laboratory or clinic for the following activities:

- Diagnoses of disease: 0 (   ) 1-5 times (   ) 6-10 (   ) 11-15 (   ) >15 (   )
- Advising on health: 0 (   ) 1-5 times (   ) 6-10 (   ) 11-15 (   ) >15 (   )
- Purchase of vaccine: 0 (   ) 1-5 times (   ) 6-10 (   ) 11-15 (   ) >15 (   )
- Vaccination: 0 (   ) 1-5 times (   ) 6-10 (   ) 11-15 (   ) >15 (   )
- Post-mortem: 0 (   ) 1-5 times (   ) 6-10 (   ) 11-15 (   ) >15 (   )
- Source for medicine: 0 (   ) 1-5 times (   ) 6-10 (   ) 11-15 (   ) >15 (   )
- Castration: 0 (   ) 1-5 times (   ) 6-10 (   ) 11-15 (   ) >15 (   )
- Surgery: 0 (   ) 1-5 times (   ) 6-10 (   ) 11-15 (   ) >15 (   )
- Meat inspection: 0 (   ) 1-5 times (   ) 6-10 (   ) 11-15 (   ) >15 (   )
- Bathing/spraying: 0 (   ) 1-5 times (   ) 6-10 (   ) 11-15 (   ) >15 (   )
- Other ( ________________________________________________________ )

23. How satisfied are you with the delivery of veterinary services to your farm/home?
   - Very dissatisfied (   )  Dissatisfied (   )  Fairly satisfied (   )  Very satisfied (   )

24. List 3 factors that you consider to hinder the effectiveness of the performance of veterinary services (start with the most important)
   1. ______________________________________________________________
   2. ______________________________________________________________
   3. ______________________________________________________________

25. What is your opinion of veterinary services delivery in Ghana, generally?

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Grading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness (How effective is the veterinary service in reducing mortality, disease, discomfort and dissatisfaction?)</td>
<td>Very poor (   )  Poor (   )  Fair (   )  Good (   )  Very good (   )  No idea (   )</td>
</tr>
<tr>
<td>Efficiency (How well are available resources used to achieve desirable results?)</td>
<td>Very poor (   )  Poor (   )  Fair (   )  Good (   )  Very good (   )  No idea (   )</td>
</tr>
<tr>
<td>Accessibility (Ability of the individual to reach and obtain services)</td>
<td>Very poor (   )  Poor (   )  Fair (   )  Good (   )  Very good (   )  No idea (   )</td>
</tr>
<tr>
<td>Service quality (Degree to which services meet the client’s expectations)</td>
<td>Very poor (   )  Poor (   )  Fair (   )  Good (   )  Very good (   )  No idea (   )</td>
</tr>
<tr>
<td>Equity (Fairness of distribution of services)</td>
<td>Very poor (   )  Poor (   )  Fair (   )  Good (   )  Very good (   )  No idea (   )</td>
</tr>
<tr>
<td>Staff attitude (Interpersonal skills shown by staff)</td>
<td>Very poor (   )  Poor (   )  Fair (   )  Good (   )  Very good (   )  No idea (   )</td>
</tr>
<tr>
<td>Technical competence of staff (The knowledge, skills and actual performance of professionals)</td>
<td>Very poor (   )  Poor (   )  Fair (   )  Good (   )  Very good (   )  No idea (   )</td>
</tr>
<tr>
<td>Charges for services rendered</td>
<td>Fair (   )  Reasonable (   )  Expensive (   )  Very expensive (   )  No idea (   )</td>
</tr>
<tr>
<td>Availability of veterinary drugs</td>
<td>Unavailable (   )  Sometimes available (   )  Available (   )  Always available (   )</td>
</tr>
<tr>
<td>Cost of drugs</td>
<td>Fair (   )  Reasonable (   )  Expensive (   )  Very expensive (   )  No idea (   )</td>
</tr>
<tr>
<td>Availability of vaccines</td>
<td>Unavailable (   )  Sometimes available (   )  Available (   )  Always available (   )</td>
</tr>
<tr>
<td>Affordability of services (Ability of client to pay for services)</td>
<td>Unaffordable (   )  Fairly affordable (   )  Affordable (   )  No idea (   )</td>
</tr>
<tr>
<td>Availability of services (When needed the services are provided)</td>
<td>Unavailable (   )  Sometimes available (   )  Available (   )  Always available (   )</td>
</tr>
<tr>
<td>Meeting the needs of clients for veterinary services</td>
<td>Poorly met (   )  Somehow met (   )  Fairly met (   )  Met (   )  Very much met (   )</td>
</tr>
</tbody>
</table>
La prestation de services vétérinaires aux éleveurs de volailles dans les zones périurbaines du Ghana : comparaison entre les petits élevages et les élevages de taille moyenne ou grande

P.K. Turkson

Résumé
Dans cette étude, l’appréciation portée par les éleveurs de volailles sur les prestations de services vétérinaires a été évaluée en comparant les petits élevages et les élevages de taille moyenne ou grande dans des zones périurbaines de quatre régions du Ghana. Au total, 401 éleveurs ont été interrogés par le biais d’un questionnaire. Quelle que soit la taille de l’exploitation, une majorité significative d’éleveurs s’occupent eux-mêmes des aspects sanitaires de leur élevage. Les deux catégories d’exploitations sont confrontées à des distances moyennes et à des délais d’attente comparables pour accéder aux prestations. Une majorité significative des éleveurs de taille moyenne à grande déclarent disposer facilement de médicaments et de vaccins et pouvoir obtenir de l’aide en cas de problème. Les petits éleveurs ont été significativement plus nombreux à qualifier de « bonnes » les attitudes des intervenants ainsi que leur efficacité. Les éleveurs de taille moyenne ou grande ont généralement estimé que l’équité et l’efficience étaient insuffisantes et les prix des médicaments trop élevés. Cette enquête conclut à l’absence globale de différences marquées entre les deux groupes quant à leur perception de la qualité des prestations de services de santé animale et apporte un démenti aux allégations selon lesquelles les services rendus aux petits éleveurs seraient insuffisants.

Mots-clés

Comparación de los servicios veterinarios prestados a pequeños productores avícolas y a productores de entre medio y gran tamaño en zonas periurbanas de Ghana

P.K. Turkson

Resumen
El autor describe un estudio en el que se comparó la valoración que los servicios zoosanitarios merecen a productores avícolas de pequeño tamaño, por un lado, y de dimensiones entre mediana y grandes, por el otro, en zonas periurbanas de cuatro regiones de Ghana. Se sometió un cuestionario a 401 granjeros. Una mayoría significativa de los pequeños granjeros, y también de los de tamaño mediano a grande, satisfacían sus necesidades por sus propios medios. Ambos grupos mostraban un promedio similar en cuanto al tiempo necesario para
obtener servicios veterinarios y a la distancia a la que éstos se hallaban. Un porcentaje significativamente mayor de los productores de tamaño mediano a grande declaró que podía obtener medicamentos y ayuda con facilidad. La actitud y eficiencia del personal zoosanitario fueron calificadas de “buenas” por un porcentaje significativamente mayor de pequeños productores, mientras que los de tamaño medio a grande consideraban “caro” el precio de los medicamentos e “insuficientes” la equidad y eficiencia de los servicios prestados. El estudio lleva a la conclusión de que, en términos generales, no hay marcadas diferencias en cuanto a la percepción que ambos grupos tienen de la calidad de los servicios prestados, ni tampoco razones para pensar, como a veces se afirma, que los pequeños productores reciben un servicio deficiente.

**Palabras clave**


---

**References**


