

Truths and beliefs about questionnaire studies: Finnish cattle farmers don't bother for gifts

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Background

Questionnaires are widely used for data collection in veterinary epidemiologic research.

Non-response to questionnaires:

- reduces the effective sample size
- may introduce bias
- increases the costs of the study

Methods used to increase response rates are:

- benefit to respondent
- incentives
- precontacts
- reminders

Aims

- Investigate the factors that may elevate the response rate, such as
 - > the aim of the questionnaire: concrete (foot and mouth disease) vs. abstract (general risk assessment)
 - > the promise of a gift in return of responding (benefit to respondent)
 - > providing the questionnaire in the native tongue of the farmer (relevant in bilingual countries as Finland)

Methods

- Questionnaires directed to 2700 cattle farms (random sample (13-14 %) of Finnish cattle farms)
 - > all questionnaires in Finnish, although 5 % of the recipients had Swedish as native tongue. Swedish version was possible to order via email or SMS, and was available in the Internet
 - > concerned questions on the routines on the farms (e.g. on visits on the farm and biosecurity aspects)
 - > two kind of cover letters (both in Finnish and Swedish) telling about the aim of the research:
 - * 1350 told about foot and mouth disease (concrete)
 - * 1350 told about risk assessment (abstract)
 - > two kinds of reminders:
 - * 965 reminded about the questionnaire
 - * 965 reminded and promised a gift (Evira T-shirt) in return of responding
- The launching of the questionnaire was also announced in Finnish newspaper (Maaseudun tulevaisuus), which is a commonly read by farmers. The aim of the study, introduced in the newspaper, was general risk assessment.
- There was possibility to answer in the Internet

Results

- There were altogether 1217 responses and response-rate 45.5 %.
- Swedish speakers responded significantly ($p < 0.001$) less than Finnish speakers: response rate was 21.6 % among Swedish speakers and 46.8 % among Finnish speakers.
- The reminder increased the response-rate, it comprised finally 36 % of the responses (Fig 1)
- There were no difference in the response-rate depending on the information in the cover letter ($p > 0.8$).
- T-shirt did not increase the response rate: fewer responses ($p > 0.1$) were reached from farmers that were promised to get the gift.
- The cost of such a cheap gift (5,396 euros/gift, including t-shirt and postal costs) doubled the cost of a response.
- The questionnaire was answered in the Internet by 108 (9 % of respondents) farmers
- Eight farmers responded only due to the newspaper announcement (without receiving posted questionnaire)

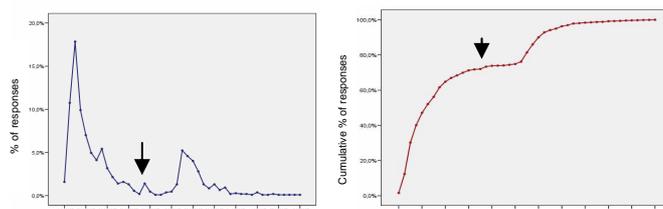


Figure 1. The arrival dates of the responses. Arrow indicates the date when the reminder was sent

Conclusions

- The threat of a disease, which is not present in the country, had the same impact in motivating to respond as general risk assessment purpose. Therefore, there is no reason to give details, which may have influence on the answers, in such a questionnaire studies. The influence of the cover letter information on the answers will be studied in details in the future.
- It is very important to send the questionnaires in the native tongue. The response-rate of Swedish speakers was significantly lower than Finnish speakers. When a similar kind of questionnaire study was done to Finnish pig farmers, the mother tongue of the recipient farmer were taken into account: Swedish speakers got the questionnaire in their native language. There the response-rate was higher among the Swedish speakers (our unpublished data).
- A cheap present does not motivate the farmers to respond. This finding is contrary to the result, that monetary incentives increase significantly the response rate (Edwards *et al.* 2002). However, there was no exact value for the given presents (Edwards *et al.* 2002) and therefore results are not conclusive for the effects of gifts.
- A reminder appeared to be an effective way to increase the response-rate
- The newspaper article seldom encourages farmers to participate to such a study.
- The Internet was not an effective way to gather data from and should not be used alone to collect information from the Finnish cattle farmers

References

- Edwards P., Roberts I., Clarke M., DiGuseppi C., Pratat S., Wentz R. & Kwan I. 2002. Increasing response rates to postal questionnaires: systematic review. *BMJ*. 324.

