

# Consumer views on controlling production diseases in intensive production systems

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## Presentation overview

- Quick background (recap)
- Introduction to the survey
- Survey findings
  - Intensive animal production systems
  - Disease mitigation measures
- Recommendations



## Recap

- Previous research has demonstrated public concern, and a lack of knowledge, over modern farming methods
- Research gaps have been identified in relation to production diseases and their mitigation strategies
- Given the need to introduce these mitigation strategies it is important to first establish public acceptability of these



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## European Consumer Survey

- Informed by two systematic reviews and an industry stakeholder consultation
- Questions were asked in relation to:
  - Perceived risks and benefits, attitudes and concerns towards intensive production systems, trust in stakeholders, attitudes towards disease mitigation strategies and behavioural intention towards products from intensive animal production systems





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# Political Map of Europe



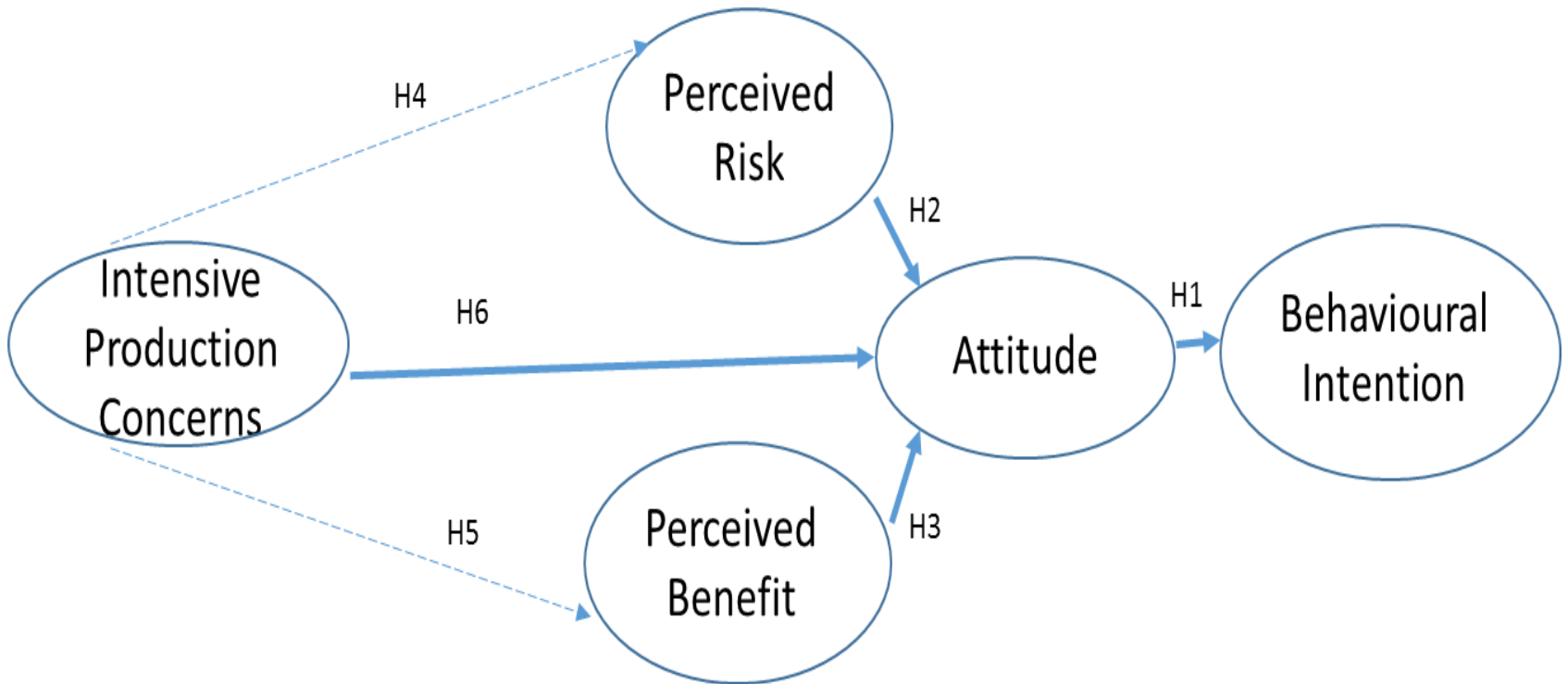
## Data analysis

- 2,330 were collected across the 5 countries and 3 survey versions
- Descriptive statistics were obtained and Kruskal-Wallis ANOVA used to establish cross-country differences
- Exploratory factor analysis was performed to create latent variables for further analysis
- Structural equation modelling (SEM) was used to explore the relationship between latent variables
  - Separate models were created for each of the three surveys (animal types)



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# SEM



## Results

- The majority of participants were unfamiliar with modern farming methods
- Intensive animal production systems were not viewed favourably
- All stakeholders in the food chain were perceived as responsible for ensuring animal health and welfare
  - The public and consumers were perceived as the least two responsible stakeholders
- Few benefits were perceived from intensive systems
  - These mainly related to greater protection for animals and economic benefits for producers and consumers



## Results

- The greatest concerns were related to antibiotic usage and resistance and food safety
- In relation to the disease mitigation strategies presented:
  - *Doing nothing* was consistently disagreed with
  - More proactive interventions were the most preferred, such as those to do with housing and enhanced hygiene
    - i.e. those that are more natural, humane and less invasive
  - Those that involved medicines, vaccination and feed supplementation were least preferred

## Results

- Results of the exploratory factor analysis reflect those of the descriptive statistics
  
- The model was supported by the data:
  - For each of the three animal types that model had average to good model fit.
  - Results of the multi-group SEM indicate that there are differences between countries

# Results



- Direct effects of the SEM for broilers, layer hens and pigs

|                          | <b>Broilers</b> | <b>Layers</b> | <b>Pigs</b> |
|--------------------------|-----------------|---------------|-------------|
| <b>Perceived benefit</b> |                 |               |             |
| Concern                  | -0.014          | 0.002         | -0.051*     |
| <b>Perceived risk</b>    |                 |               |             |
| Concern                  | 0.439***        | 0.552***      | 0.526       |
| <b>Attitude</b>          |                 |               |             |
| Perceived risk           | -0.308***       | -0.291***     | -0.277***   |
| Perceived benefit        | 0.468***        | 0.303***      | 0.336***    |
| Concern                  | -0.294***       | -0.177***     | -0.168***   |
| <b>Intention</b>         |                 |               |             |
| Attitude                 | 0.727***        | 1.008***      | 0.819***    |
| R <sup>2</sup> attitude  | 0.438           | 0.369         | 0.349       |
| R <sup>2</sup> intention | 0.291           | 0.417         | 0.325       |

## Conclusions

- Natural and proactive interventions
  - This reflects the findings from the systematic review
- The use of more reactive and “treatment-based” interventions were viewed as less acceptable.
  - Reassurances should be provided when used
- Providing farmers with a price premium was also a preferred mitigation strategy



## Communication conclusions

- Stakeholders need to be more proactive in terms of the information they are providing to the public.
- The public are heterogeneous in their preferences
- Greater supply chain co-ordination and co-operation should be used to ensure that all stakeholders are working together
- Independent assurance is important and stakeholders should be identified who could carry out this role.
- Case studies/ practice changes that would create public good will should be identified and communicated

## Questions to consider

- How can facilitate those who are concerned and would like to purchase higher welfare?
- How can we encourage those who utilise disassociation strategies, to eat less meat?
- How can we create a better connection between the public and modern agriculture?
- How can we foster a culture of communication and transparency between stakeholders?



Thank you!

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Any questions?