



Nederlandse Voedsel- en Warenautoriteit
Ministerie van Landbouw, Visserij,
Voedselzekerheid en Natuur

Risk assessment

Harmful external characteristics in dogs and cats

Lodi Laméris

On behalf of the Animal Welfare and Animal Health Cluster

Office for Risk Assessment and Research (BuRO)

Netherlands Food and Consumer Product Safety Authority (NVWA)

A brief introduction

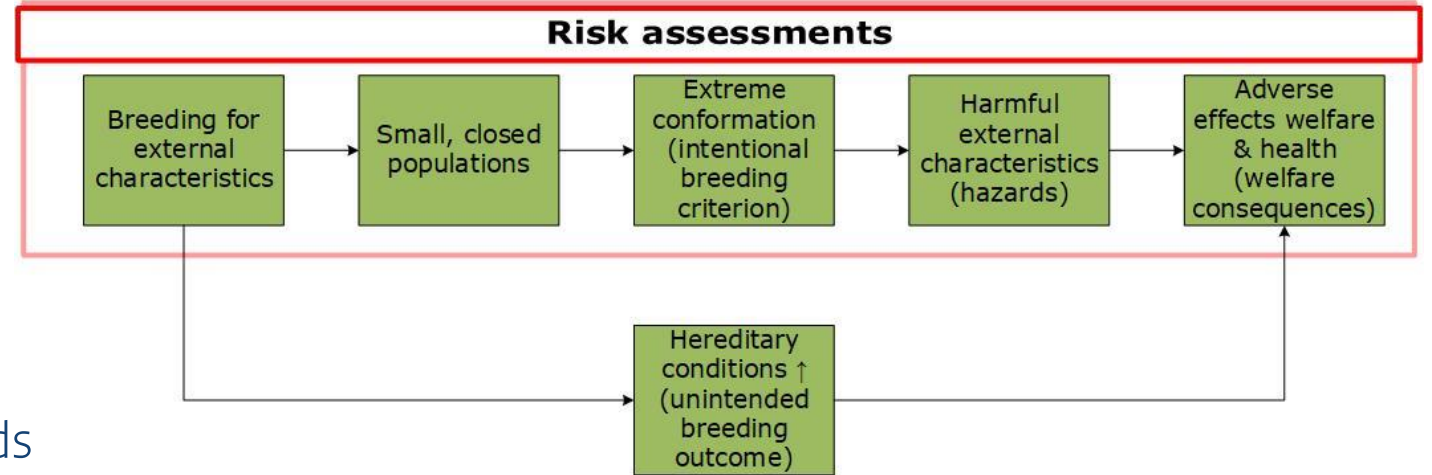
- Background
 - Small animal veterinarian
 - Risk assessor and advisor on animal welfare
 - PhD candidate in animal welfare
 - Recent work includes the risk assessments on harmful external characteristics in dogs and cats
- Office for Risk assessment & Research (BuRO)
 - Independent part of the Netherlands Food and Product Safety Authority (NVWA)
 - Advises the NVWA and the Ministries of Agriculture and Health
 - Focus areas include animal welfare, animal health and food safety



Why did we perform this risk assessment?

- Increasing welfare concerns caused by continued selection on appearance
- Policy questions about harmful external characteristics in dogs and cats
 - Which characteristics impair welfare?
 - To what extent do they impair welfare?
 - How can these characteristics and their welfare consequences be assessed objectively?
- **Aim:** scientific risk assessment to support policy development

What did we assess?



- External characteristics rather than breeds
 - Characteristics resulting from selection for appearance
 - Externally visible characteristics associated welfare consequences for the affected animal
 - Hereditary disorders not directly related to appearance were excluded
-
- Scientific literature was used as the primary evidence base, supplemented by Expert Knowledge Elicitation (EKE)
 - Independent experts (min.5) with relevant scientific and professional expertise

Brief methodology of the risk assessments

Step 1: hazard identification

- Literature review: longlist of external characteristics
- EKE: prioritisation based on expected welfare impact and occurrence in the population

Step 2: hazard characterisation

- Literature review: potential welfare consequences associated with external characteristics
- EKE: prioritisation of welfare consequences
- EKE: estimation of welfare impact and prevalence

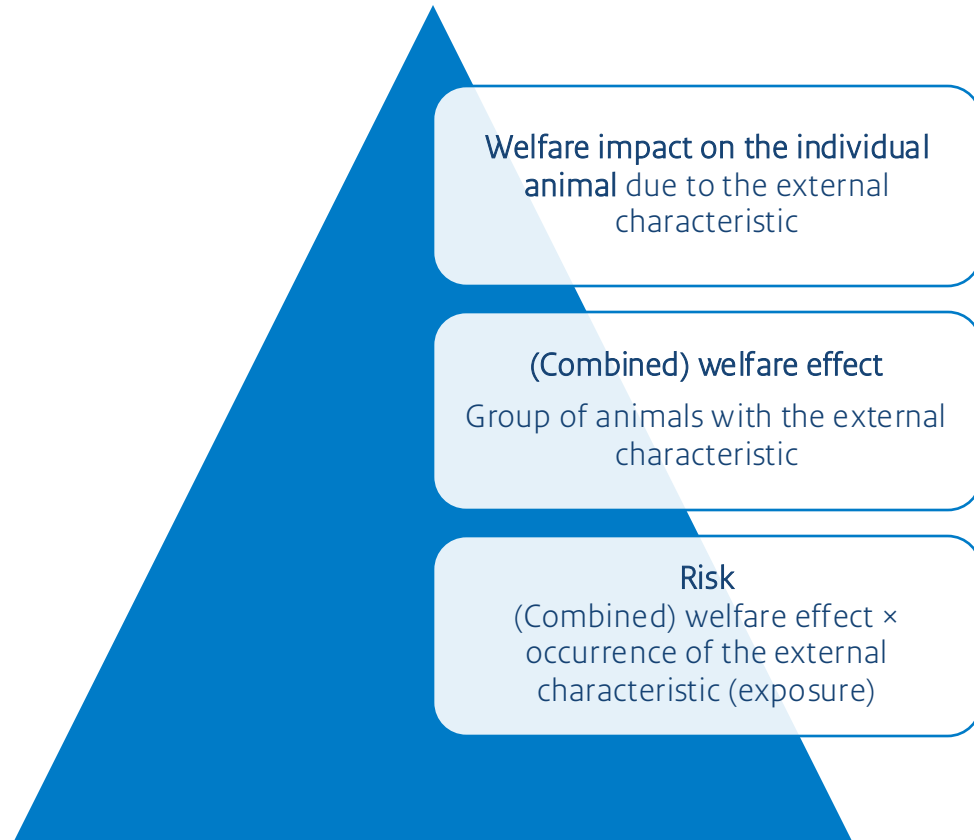
Step 3: exposure assessment

- (Grey) literature: overview of available data on dog and cat population sizes in the Netherlands
- EKE: estimation of the number/proportion of animals with the external characteristic in the Dutch population

Step 4: risk characterisation

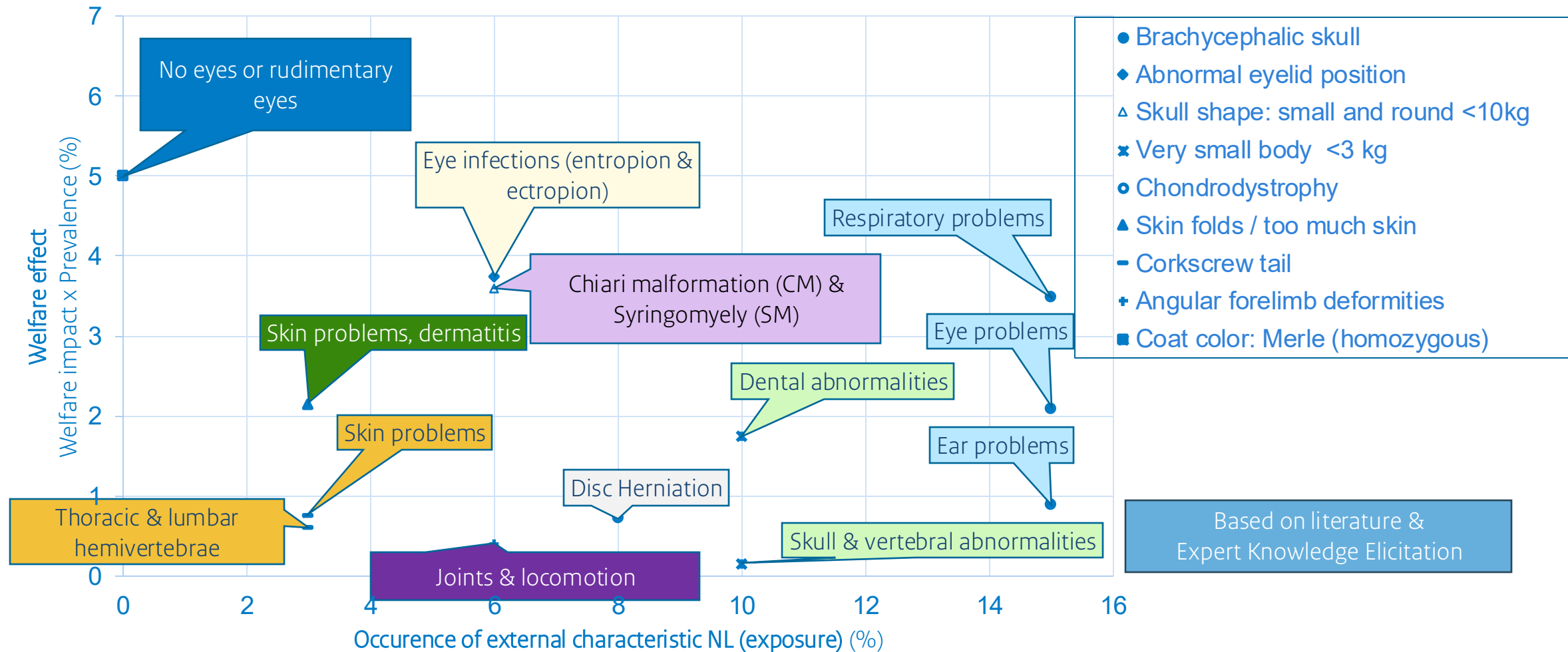
- Risk = Welfare effect (step 2) × probability of the external characteristic (occurrence of the hazard) (steps 1 and 3)

Three levels of information

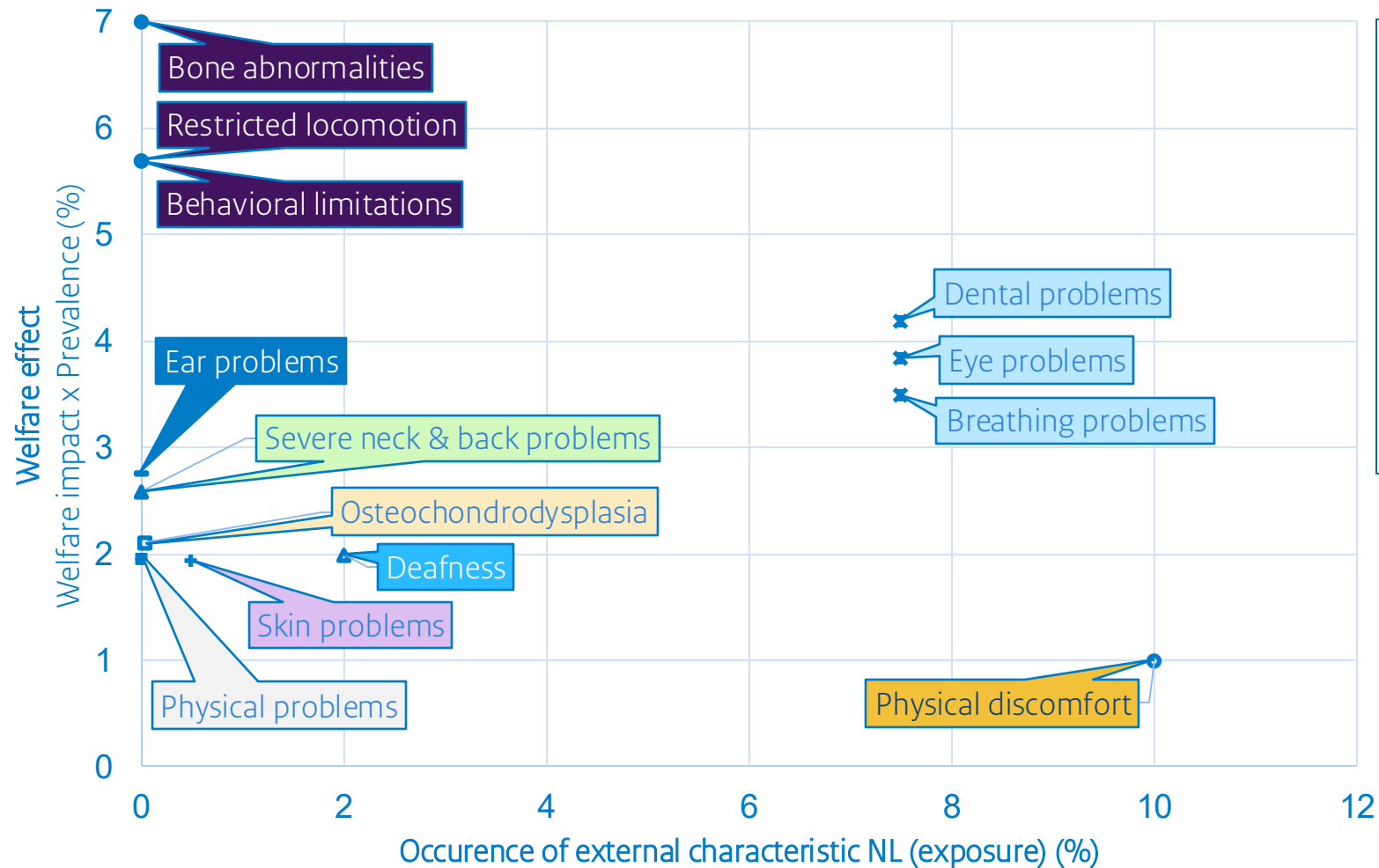


Picture generated with OpenAI

Results - Risk matrix for dogs



Result - Risk matrix for cats



- ✕ Brachycephalic skull
- Long (woolly) hair
- ▲ White coat (with blue eyes)
- + Lack of coat
- ▣ (Forward) Folded ears
- ▲ Dwarfism / short-leggedness
- Abnormal tails
- (Backward) Curled ears
- Shortened & crooked forelegs

Based on literature & Expert Knowledge Elicitation

Methodological considerations and limitations

- A certain underestimation of risk
 - The longlist included more external characteristics with potential welfare impact
 - A maximum of three welfare consequences per external characteristic was included
 - Prevalence was estimated only for the most common impact level, without accounting for variation
 - Only welfare consequences with a high impact score (≥ 5) were fully assessed
 - Remaining uncertainty
 - Limited Dutch prevalence and exposure data
 - Reliance on expert estimates where empirical data were lacking
 - Expert uncertainty generally low to moderate
 - Main uncertainty quantitative rather than qualitative
- The direction of bias is mainly conservative, while the main remaining uncertainty concerns the magnitude of the risks rather than whether the prioritised characteristics impair welfare.



Nederlandse Voedsel- en Warenautoriteit
Ministerie van Landbouw, Visserij,
Voedselzekerheid en Natuur

Thank you for your attention

Interested in the full risk assessments in English?

Please contact me:

I.lameris@nvwa.nl