DESIGN OF A WELFARE PROTOCOL TO ASSESS A GROUP OF HORSES

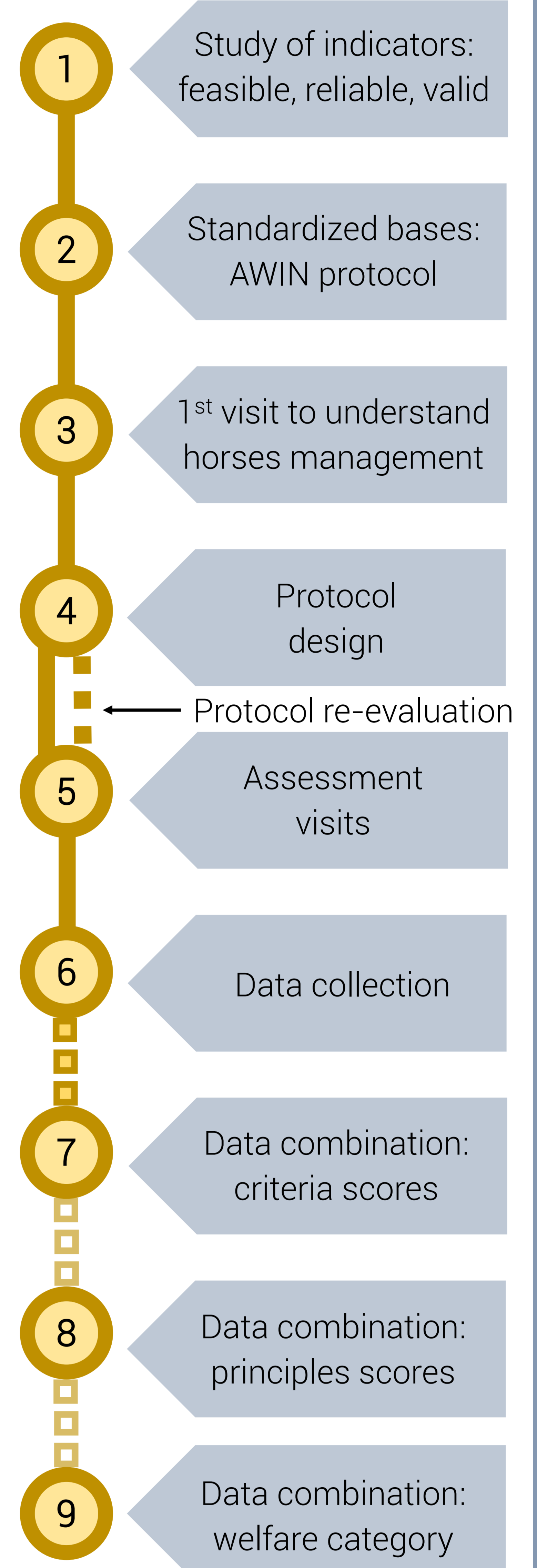Martí Sarrà Ferrer — June 2017

INTRODUCTION AND AIMS OF THE PROJECT

Animal welfare is a multidimensional concept defined as a state of complete mental and physical health where the animal is in harmony with its environment. The public interest in welfare has constantly grown in the last few decades, so the EU has developed a project called Welfare Quality® to standardize some bases in order to assess the animal welfare. Due to this multidimensionality, it is meaningful to use multi-criteria aggregation systems to obtain an overall welfare score with environmental-based and specially animal-based indicators.

The aim of the project is to assess the welfare of Guàrdia Urbana horses (Barcelona) through a protocol based on the AWIN welfare assessment protocol for horses. Moreover, it will be interesting to find a relation between stereotypic behavior and the time of the day

MATHERIAL AND METHODS

34 housed male horses in Guàrdia Urbana's box stall, 3 of which are male geldings. 21 of them were selected for this study
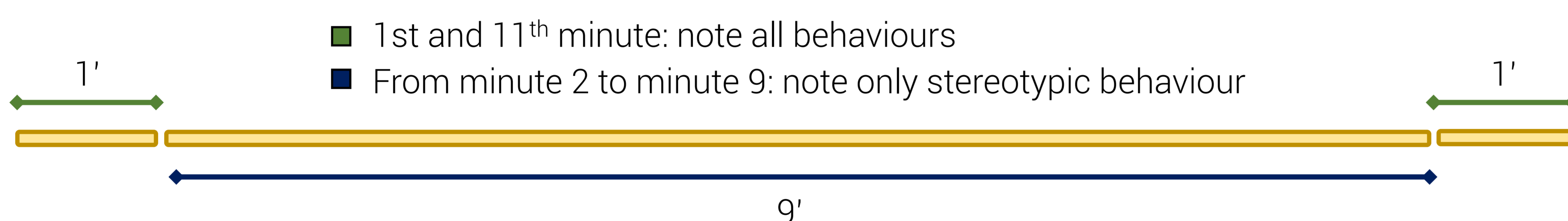
Stalling conditions:

6-8 times/day — ad-libitum — 30 min to 2h/day — 2 times/week

Protocol - Applied 6 times

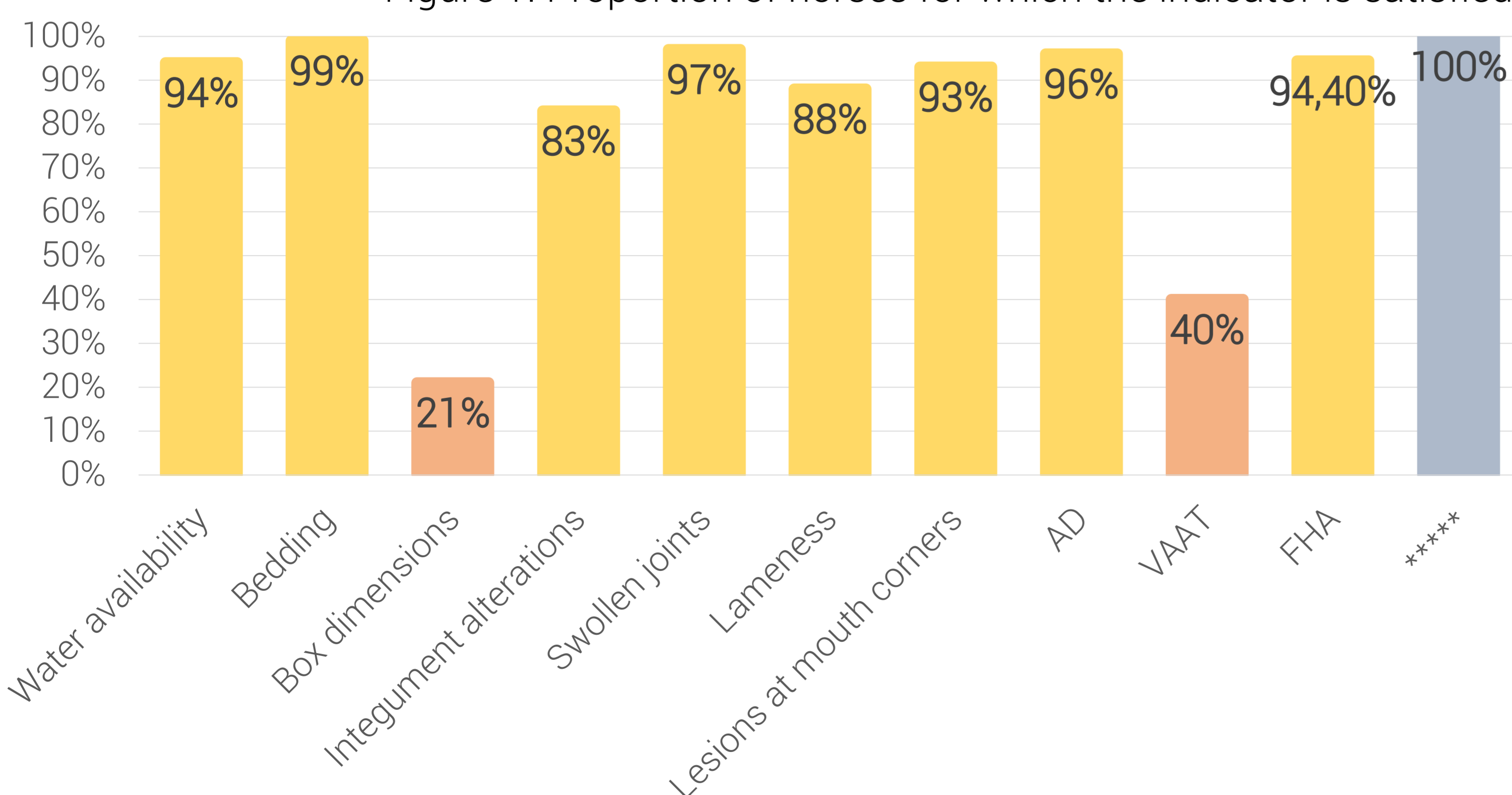Table1. Indicators used to asses horse's welfare

Body condition score	Water availability	Bedding
Box dimensions	Integument alterations	Swollen joints
Lameness	Hair coat condition	Signs of hoof neglect
Lesions at mouth corners	Social interaction	Stereotypies
Relationship human-animal (AD)	Relationship human-animal (VAAT)	Relationship human-animal (FHA)

Stereotypies - Applied 4 times

- ■ 1st and 11th minute: note all behaviours
- ■ From minute 2 to minute 9: note only stereotypic behaviour

1' — 9' — 1'

HOW TO REACH A WELFARE CATEGORY

1. Study of indicators: feasible, reliable, valid
2. Standardized bases: AWIN protocol
3. 1st visit to understand horses management
4. Protocol design
   ← Protocol re-evaluation
5. Assessment visits
6. Data collection
7. Data combination: criteria scores
8. Data combination: principles scores
9. Data combination: welfare category

PROTOCOL RESULTS

Figure 1. Proportion of horses for which the indicator is satisfied

- Water availability: 94%
- Bedding: 99%
- Box dimensions: 21%
- Integument alterations: 83%
- Swollen joints: 97%
- Lameness: 88%
- Lesions at mouth corners: 93%
- AD: 96%
- VAAT: 40%
- FHA: 94,40%
- *****: 100%

***** = Body Condition Score, Hair coat condition, Signs of hoof neglect, Social interaction, Stereotypies

RESULTS ON STEREOTYPIES

Data collected: 84 observations of 11 minutes

→ In 83 of them any stereotypic behavior was observed (98,8%).

→ Aerophagia was observed in one horse (1,2%) who already entered the group with this stereotypic behavior.

CONCLUSIONS

Nowadays it is not possible to determine a welfare category for a horse group, so further investigation is needed.

Guàrdia Urbana horses reach the maximum score (100%) in 5 indicators and in 8 others a score between 100% and 80% is achieved

Welfare Quality protocols are a dynamic tool and must be adapted for every one situation

1. AWIN. 2015. AWIN welfare assessment protocol for horses.

2. Wageningen UR Livestock Research. 2011. Welfare Monitoring System – Assessment protocol for horses – version 2.0.