

# EXAMPLES OF INDICATORS



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# WHO ARE WE?

- Ethologists – we study animal behaviour
- Discipline: applied ethology or farm animal welfare science
- Department of Animal Science, AU-Foulum

## Key words:

**Lene:** housing of farrowing sows and pigs

**Mette:** transport of pigs – sows and weaners



# Indicator – what does it mean?



In sows, skin lesions is an indicator of fighting – during housing, transport and lairage



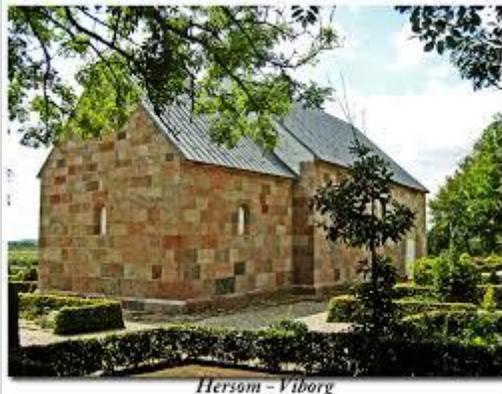
# How religious are the Danes?



The REAL answer is complex and can be discussed for years – can we approach it in a quick way?

Can we find an indicator – something that tells us about the situation in a quicker way?

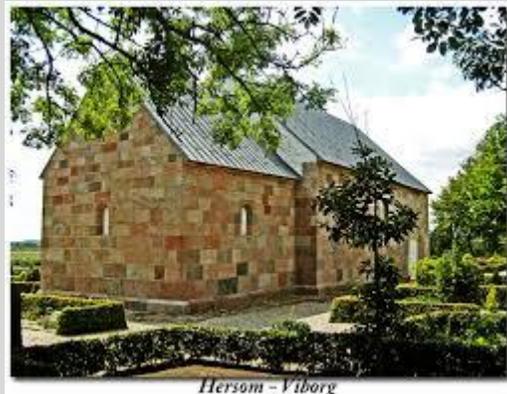
How often do Danes go to church?



# How religious are the Danes?

## How valid is the indicator?

- How well is the match between church visits and religiousness?



## How reliable is the indicator?

- Can we trust people's answers?

## How feasible is the indicator?

- How long time does it take to get this information?
- Is it possible in practice?

Same challenges, strengths and weaknesses apply when we talk about indicators for another complex concept – animal welfare

# Skin lesions in sows



## How valid is the indicator?

- How well is the match between skin lesions and fighting?

## How reliable is the indicator?

- How easy is it to count skin lesions?

## How feasible is the indicator?

- How long time does it take to get this information?
- Is it possible in practice?



# Farrowing housing and management

## Review of literature and EU directive

- Biology and needs of pigs
- Legal requirements
- **Welfare indicators for each focus area**
- Inspiring examples



EURCAW-Pigs – January 2020 – version 1.0  
Review on farrowing housing and management

### Review on farrowing housing and management

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# FIVE FOCUS AREAS FOR INSPECTION:

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Space and freedom to move



Comfortable climate



Litter size and competition



Nest building and exploration



Mutilations



# EXAMPLE OF INDICATORS: "LACK OF SPACE AND/OR LARGE LITTER SIZE"

Insufficient space at the udder during suckling bouts

=> Stable teat order is disrupted

=> Piglets must fight to get access to their teat

Scientific studies show that teat fights are associated with:

- Teat lesions
- Facial lesions
- Lesions on carpal joint of piglets



Indicators



Photo: Kobek-Kjeldager, AU

Fact sheets with indicators for each of the five focus area can be found on the web page for EURCAW-pigs

# Climate control and space allowance during transport



EURCAW-Pigs – January 2020 – version 1.0  
Review of climate control and space allowance

## Review of climate control and space allowance during transport of pigs

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- Complex area – in principle covering pigs at all ages (focusing on slaughter pigs)
- Short/long
- Challenges to welfare are many and complex
- Degree of control limited
- Inspections cannot take place when vehicle is moving
- Scientific attention – much less than on-farm
- Quality of indicators not documented to the same degree - **Animal Transport Guides**
- **We need indicators**

# Climate control and space allowance during transport

## Dead on arrival

## Scoring method

Death is indicated by cessation of breathing and absence of a pulse (cardiac arrest). All animals which are found dead on the floor in the truck or die during unloading are considered dead on arrival.

### Pigs found dead on arrival



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Reference: adapted Animal Transport Guides <http://www.animaltransportguides.eu/>



European Reference Centre for Animal Welfare Pigs

Indicator factsheet – Climate control

## Dead on arrival

The



### What does dead on arrival indicate?

- Among many other reasons, death during transport has been associated with lack of space, i.e. high stocking density during transport.
- Losses can be reduced when increasing the available space per pig.
- Thermal stress (heat and cold) can ultimately also result in death. 
- Space allowance and temperature are connected: high stocking density is a risk factor for overheating, i.e. especially in combination with high temperatures the risk for mortality is increased.



# How can indicators be used during welfare control ?

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During communication with the farmer

- Guide attention to problem areas/welfare risks on the farms
- A tool to channel information from controller to farmers and vice versa
- As a management tool for farmers for self- assesment

For risk based welfare control

- Farms with high level of specific indicators => more frequent visits by welfare control

For setting treshold levels for compliance with Directive

- Calibration is important

For bench marking

- Between farms
- Between Member States



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