

Raised Without Antibiotic (RWA)

The Danish pig experience

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STØTTET AF

Svineafgiftsfonden



What is SEGES?

The farmers' own Advisory & Research Organization

- About 650 employees in SEGES
- Annual turnover is one billion DKK = 133 million EURO
- Part of the **Danish Agriculture & Food Council**

The Pig Research Centre is one of the units of SEGES

Who am I?

Veterinarian in 1982 (DVM)

- PhD 1989
- Dipl. ECPHM 2009

2 years in general practice at the countryside

6 years at the Veterinary University in Copenhagen

- Research in diseases of pigs (PhD) and horses

30 years in pig disease R&D for the pig industry

The overall challenge

To ensure a *cost-efficient* pig production
with a **minimal use of antibiotic**

The main driver

- The risk of development of ***antimicrobial resistance*** (AMR) jeopardizing human health and animal health
- In Denmark, **MRSA** is the driver

Status of Zinc Oxide by June 2017

The EU Commission:

**Medical Zinc Oxide (2,500-3,000 ppm)
must be banned in 5 years or less**



BIG challenge for weaning of healthy pigs!

RWA is initiated by Danish Crown



Customer and consumer demands

Started in 6 pig farms on the Isle of Bornholm in **2015**

What is RWA?

- Pigs never treated with antibiotics in their live (birth to slaughter)
- Only fed plant based feed (milk can be included)



IT'S ALL ABOUT FOOD

PURE PORK

ALL NATURAL PORK
RAISED WITHOUT ANTIBIOTICS

Born and raised
on Danish family farms
by dedicated and experienced farmers with a high
focus on animal welfare

IT GOES THROUGH LIFE WITHOUT BEING
GIVEN ANY ANTIBIOTICS OR GROWTH
PROMOTANTS, AND IT IS ALL-VEGETARIAN
FED AT ALL STAGES OF GROWTH

Danish experiences with RWA

1. The first herds on the Isle of Bornholm
2. Approx. 50 herds with RWA production


General comments from the sow herds

All are focused at all times and remain 100% consistent
in terms of the daily routines with hygiene and biosecurity

All farmers have strived to:

- Ensure that all experiences are shared between all employees
- Ensure a solid back-up during weekends and in case of illness, thus making the experiences accessible at all time

General initiatives and focus areas

- Optimal and continuous **high hygiene** in the stables
- High level of hygiene when managing the pigs
- **Infection control** (all-in-all-out-production and changing foot wear)
- Using **vaccines**
- **Feed adjustments**, especially in the weaner section – level of protein 
- Evaluating the individual pig (every time – next step?)
- **Infection-reducing** medicine instead of antibiotics (NSAID)
- **Increased age at weaning** (one herd)

Four-year research project (2017-2021)

Focus on solving RWA-challenges

Several work packages

1. Manual (how to optimize RWA production)
2. Diagnostics (the cause of disease)
3. Microbiome and resistance
4. Testing new initiatives (feeding and management)



We ask the farmers & VETS

Danish Crown, KU, SSI, DTU and SEGES

RWA today

Approx. 50 herds related to Danish Crown

On average, approx. 75% of the production is accepted as RWA in the individual herds – large variations among herds

What do the RWA-producers say?

The biggest challenges with RWA

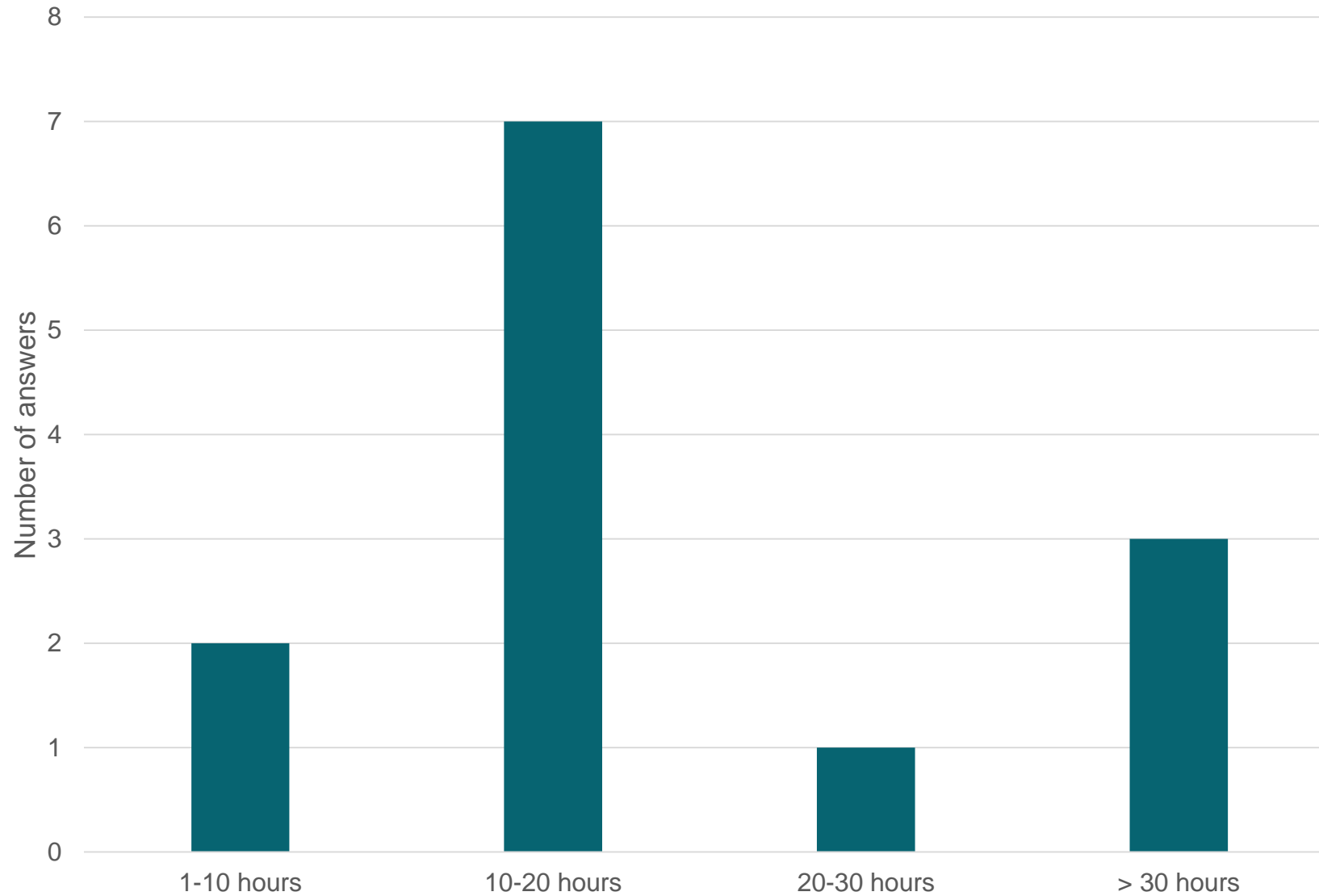
Economical:

1. Extra labor
2. Costs for handling diseases

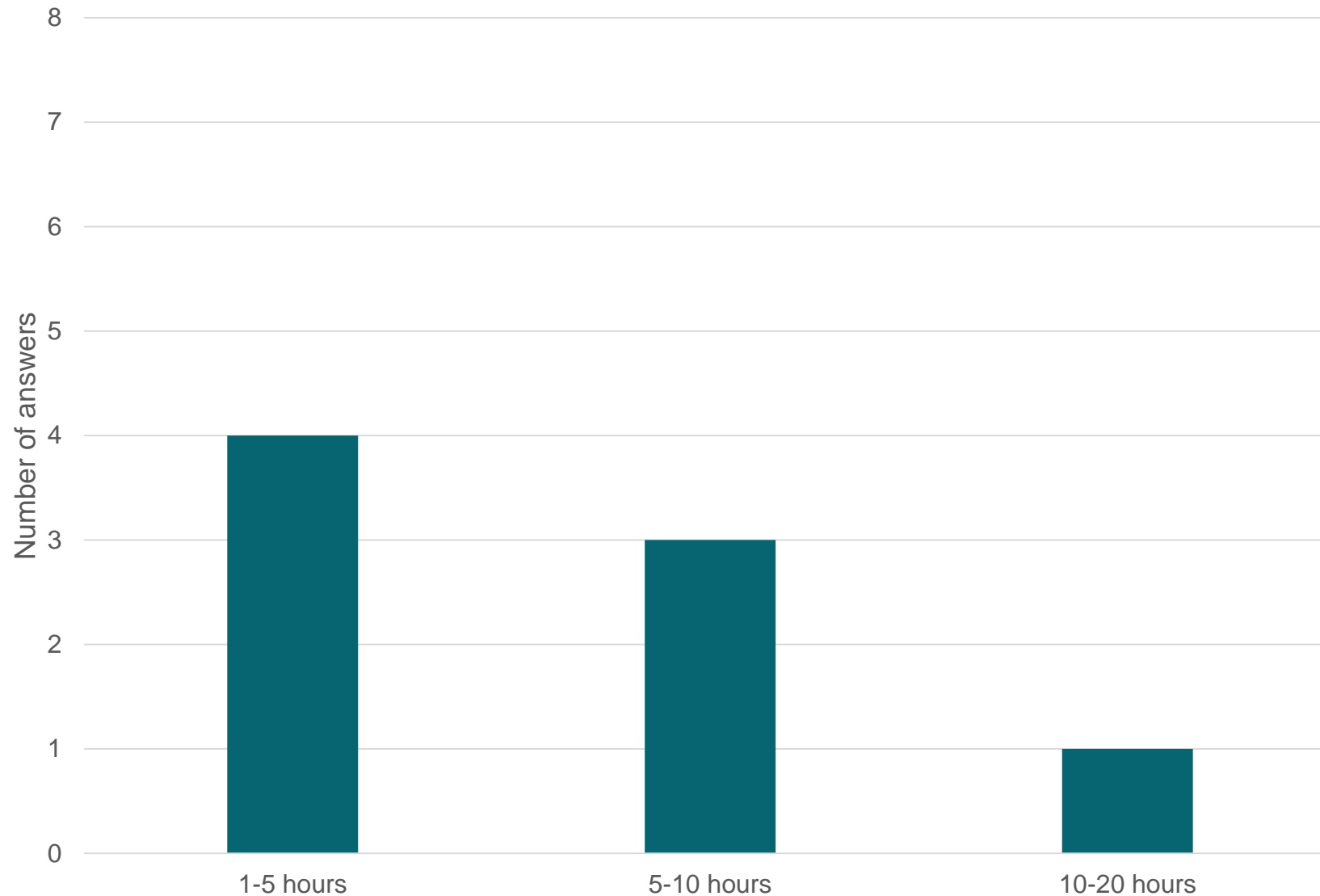
A new learning process:

1. Looking at ALL pigs
2. When to act?

Increased working hours (hours/week) – integrated herd



Increased working hours (hours/week) – finishers

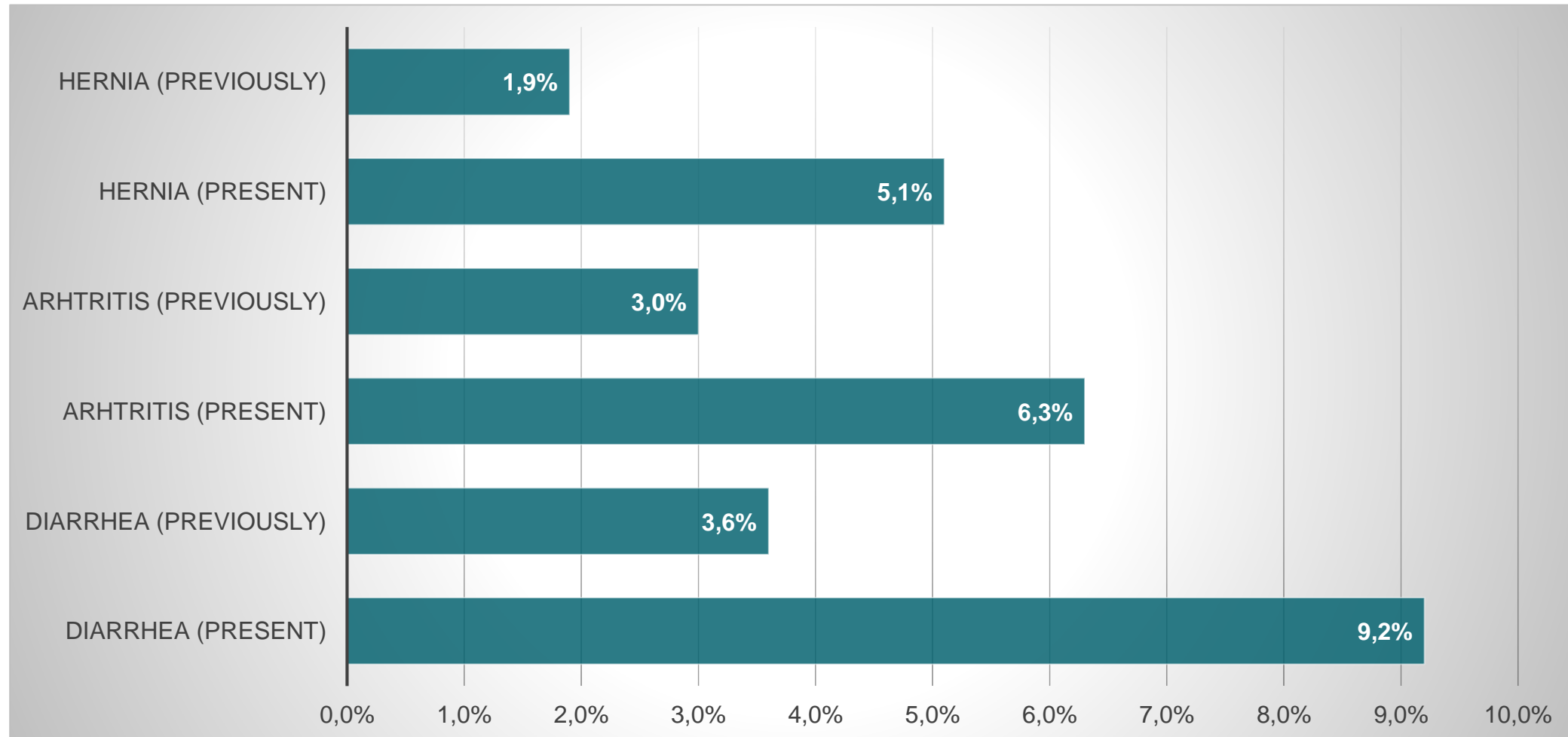


Health-related challenges

- Piglets: Hernia, diarrhea, arthritis
- Weaners: Hernia, diarrhea
- Finishers: Hernia, diarrhea, lameness



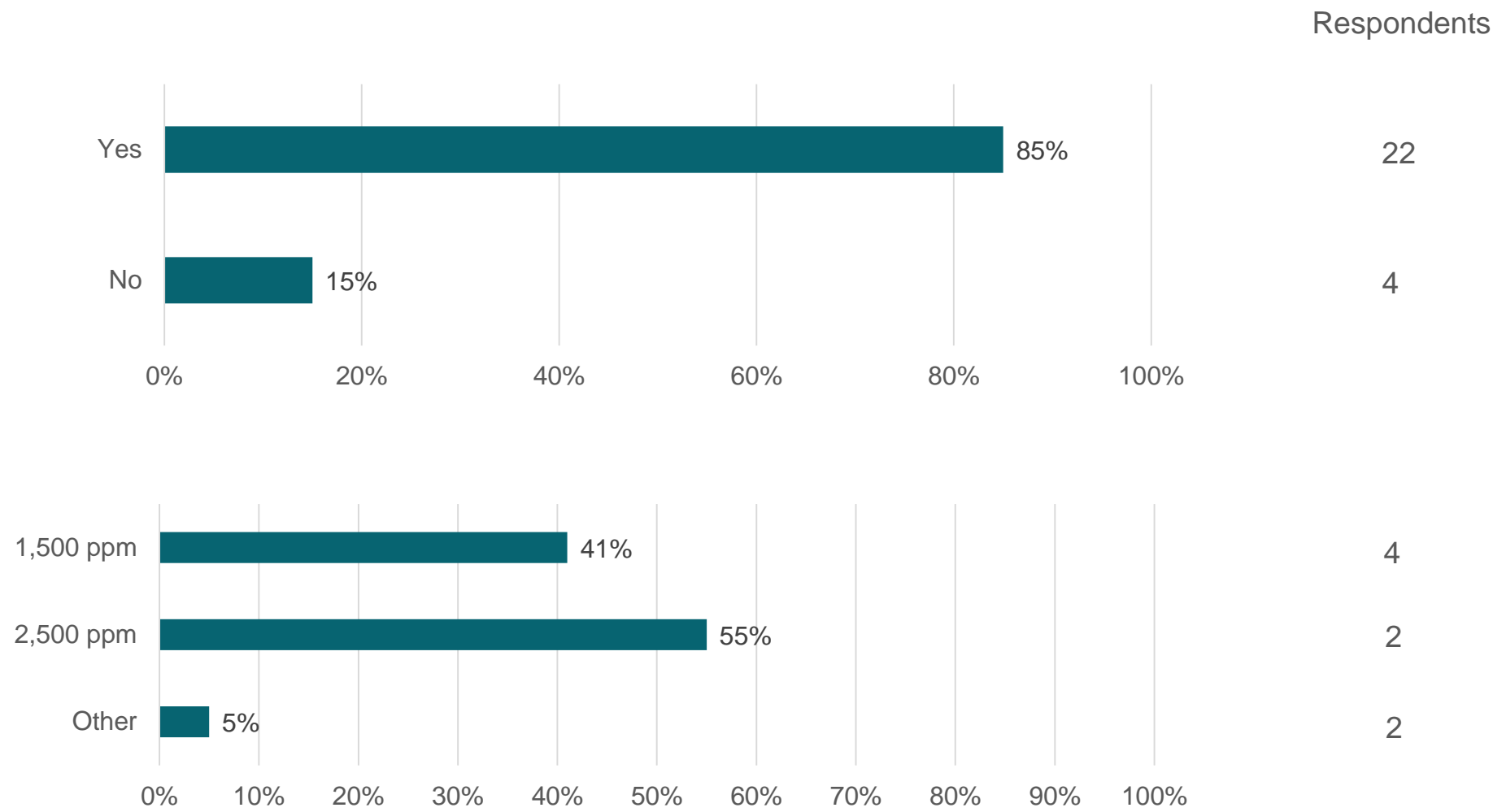
Prevalence of disease (previously and present)



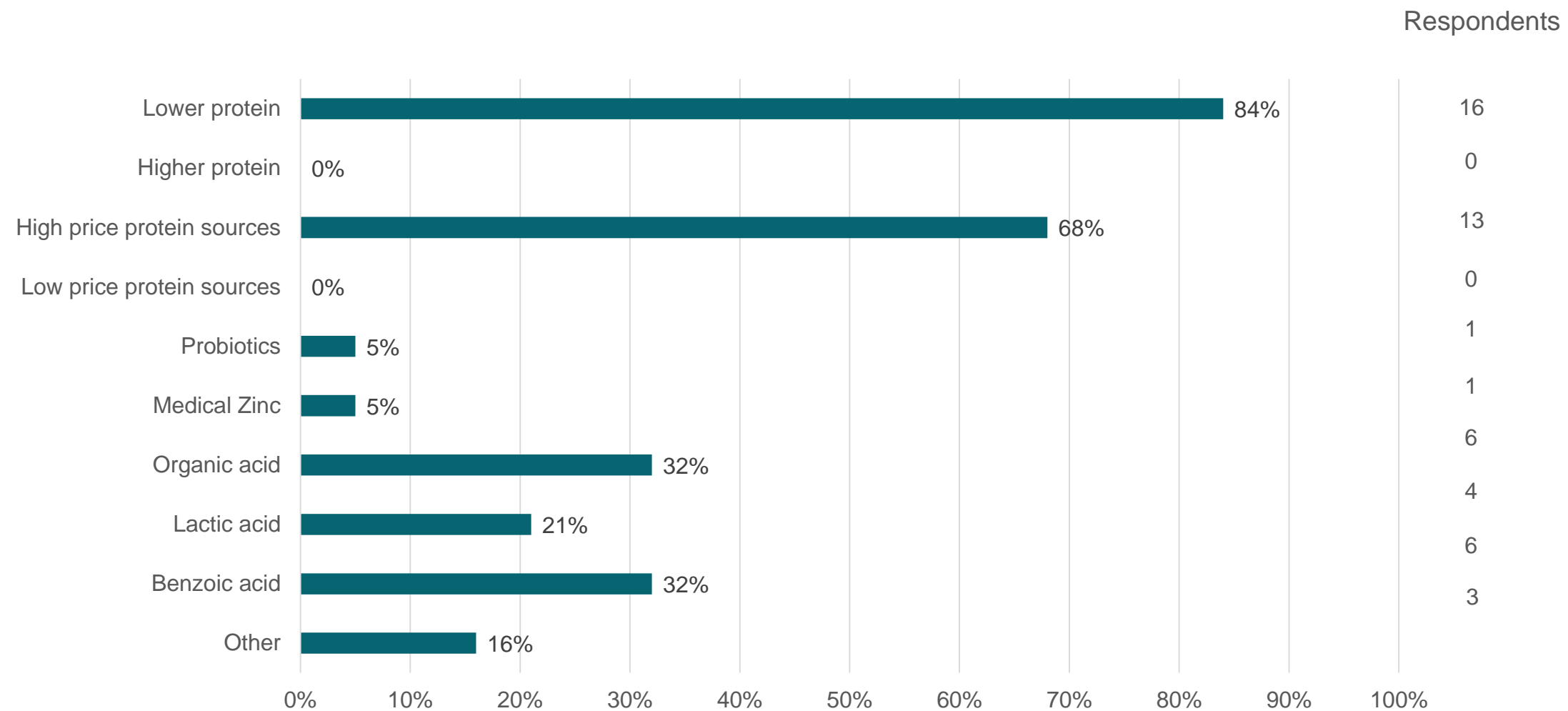
News vaccines when changing to RWA

- Regular vaccines for: Lawsonia, Coli, PCV2
- Autovaccines for: Streptococci (only in few herds)

Use of Medical Zinc (to prevent post weaning diarrhea)



Changes in the weaner diet (73% of the herds)



Initiatives and changes

- Farrowing unit: Improved hygiene, new vaccines, feeding piglets
- Weaners: Improved hygiene, including drying up, all-in-all-out, feed, lower pig density
- Finishers: Improved hygiene, including drying up

RWA-producers conclude

- Constantly focusing on the pig
- Experiences are shared between **all** employees
- Feed adjustments (protein and additives)
- Improved hygiene including drying up = biosecurity
- Using vaccines

QUESTIONS?

