

Relationship between animal-based on-farm indicators and meat inspection data in pigs

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CPH Pig Seminar; February 1st, 2024

Introduction: meat inspection data



Introduction: meat inspection data



- Why?

Introduction: meat inspection data



EU Regulations 2017/625, 2019/627

VEJ nr 10380 af 16/12/2022 Vejledning om udøvelse af kødkontrol

- Why?

Introduction: meat inspection data

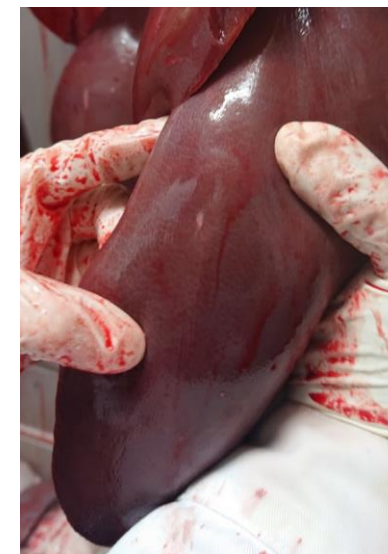


EU Regulations 2017/625, 2019/627

VEJ nr 10380 af 16/12/2022 Vejledning om udøvelse af kødkontrol

- Why? → detect potential health hazards

Introduction: meat inspection data



EU Regulations 2017/625, 2019/627

VEJ nr 10380 af 16/12/2022 Vejledning om udøvelse af kødkontrol

- Why? → detect potential health hazards
- What? → parts of carcass are inspected
- Who? → official controllers (vets, trained personal)
- When? → after slaughter

Introduction: meat inspection data



Meat inspection data and animal welfare



Better animal welfare is at the heart

At Danish Crown, we give high priority to animal welfare and ensure good animal welfare from farm to abattoir. [...]



Animal welfare assessment by use of secondary data?



Animal welfare assessment by use of secondary data?



Aim:

Understand relationship meat inspection : on-farm

Validate use of meat inspection data

Study design: farms



Farm A

Organic

50 sows

Slaughterhouse A



Farm B

Conventional

1400 sows

Slaughterhouse B



Farm C

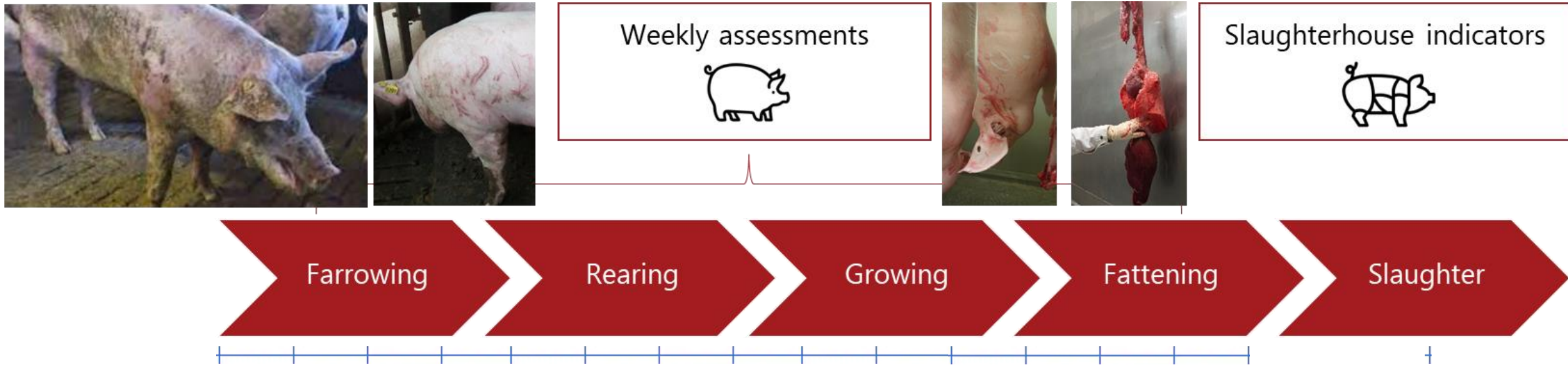
Conventional

60 sows

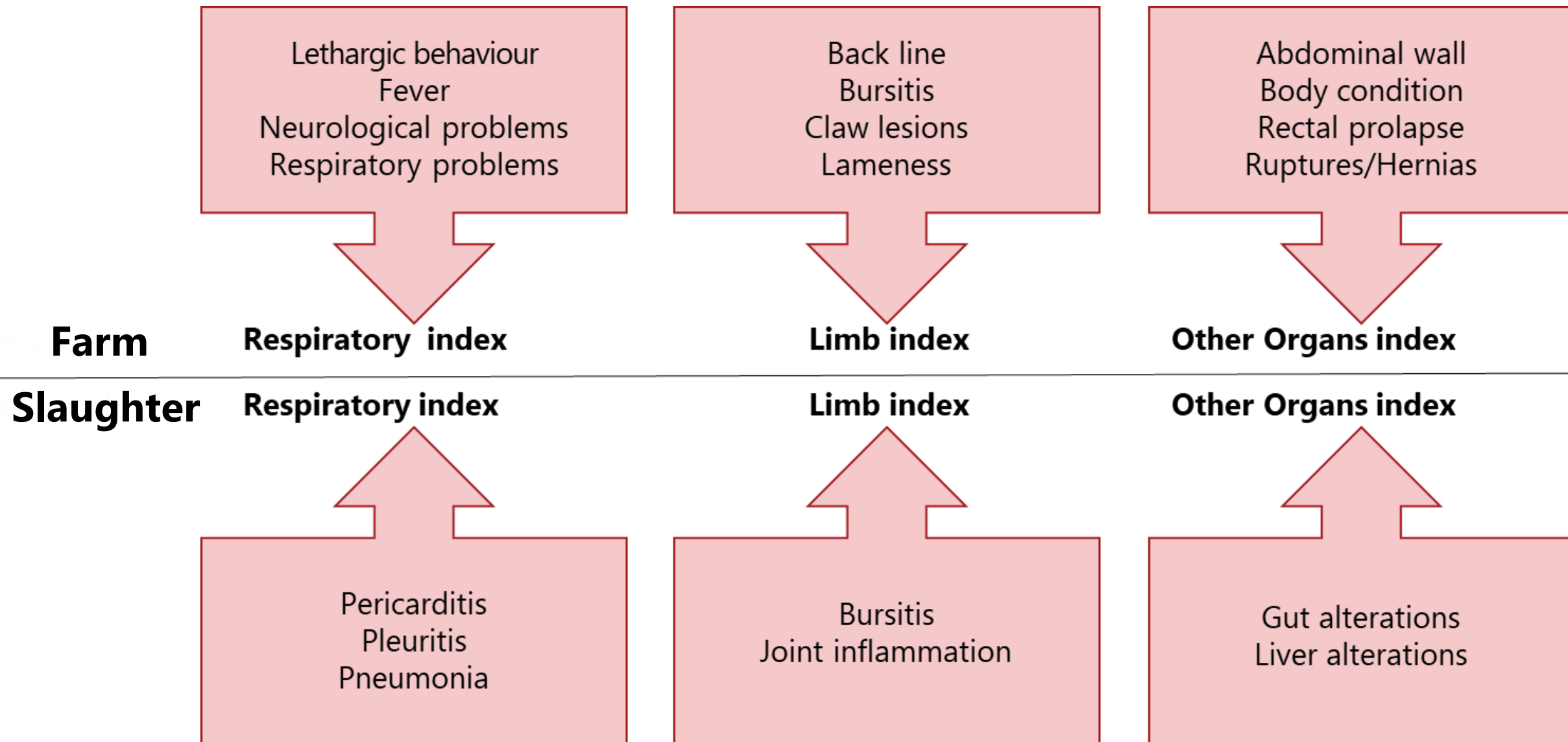
Slaughterhouse B

628 assessed pigs (on farm and slaughterhouse indicators)

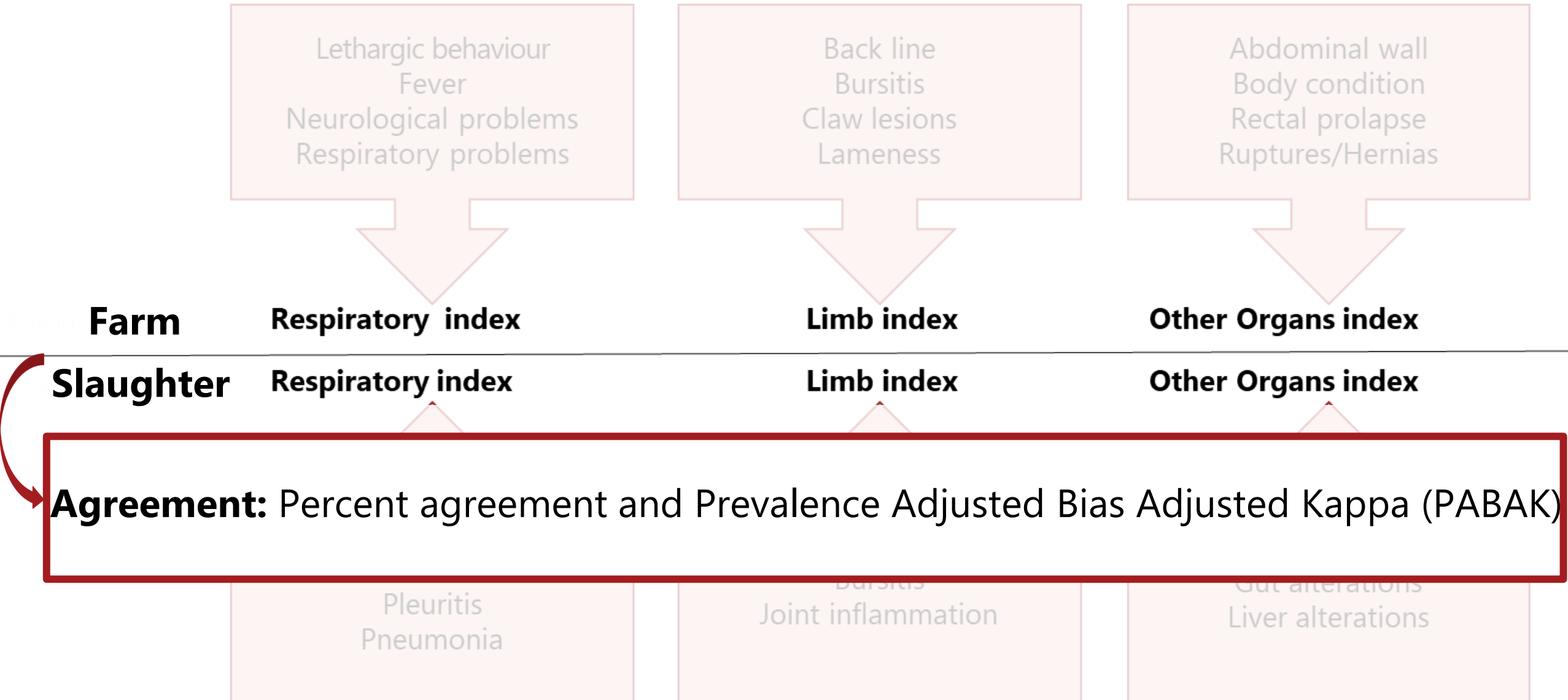
Study design: data collection



Study design: data collection and aggregation



Study design: data collection and aggregation



Results & discussion (part 1: agreement)

Production stage	Respiratory index		Limb index		Other Organs index	
	Percent agreement	PABAK	Percent agreement	PABAK	Percent agreement	PABAK
Farrowing (Week 1-4)	0.94	0.53	0.94	0.53	0.80	0.39
Rearing (Week 5-12)	0.89	0.05	0.91	0.06	0.85	0.15
Fattening (Week 13-30)	0.94	0.46	0.93	0.45	0.90	0.40

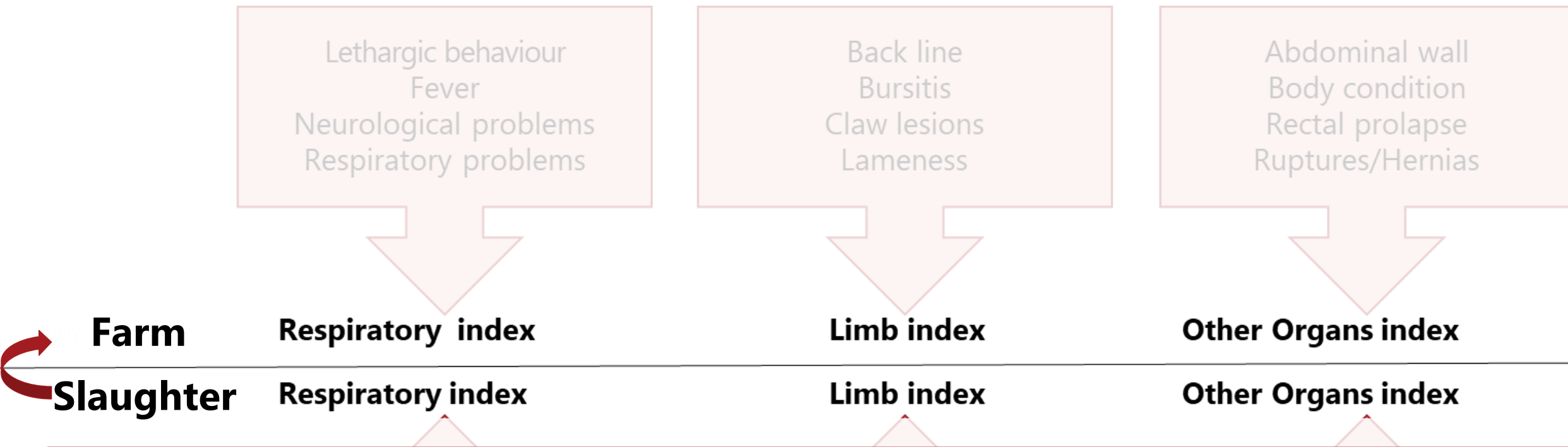
Good: PA > 0.95, PABAK > 0.60; Acceptable: PA > 0.90, PABAK > 0.40

Results & discussion (part 1: agreement)

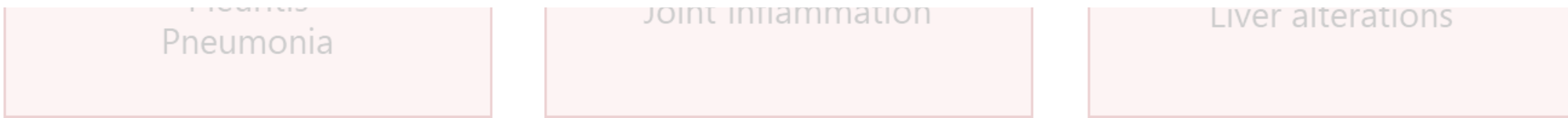
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Fattening (26 th week)	0.94	0.54	0.95	0.53	0.95	0.53
Fattening (22 nd week)	0.90	0.09	0.91	0.06	0.91	0.06

Good: PA > 0.95, PABAK > 0.60; Acceptable: PA > 0.90, PABAK > 0.40

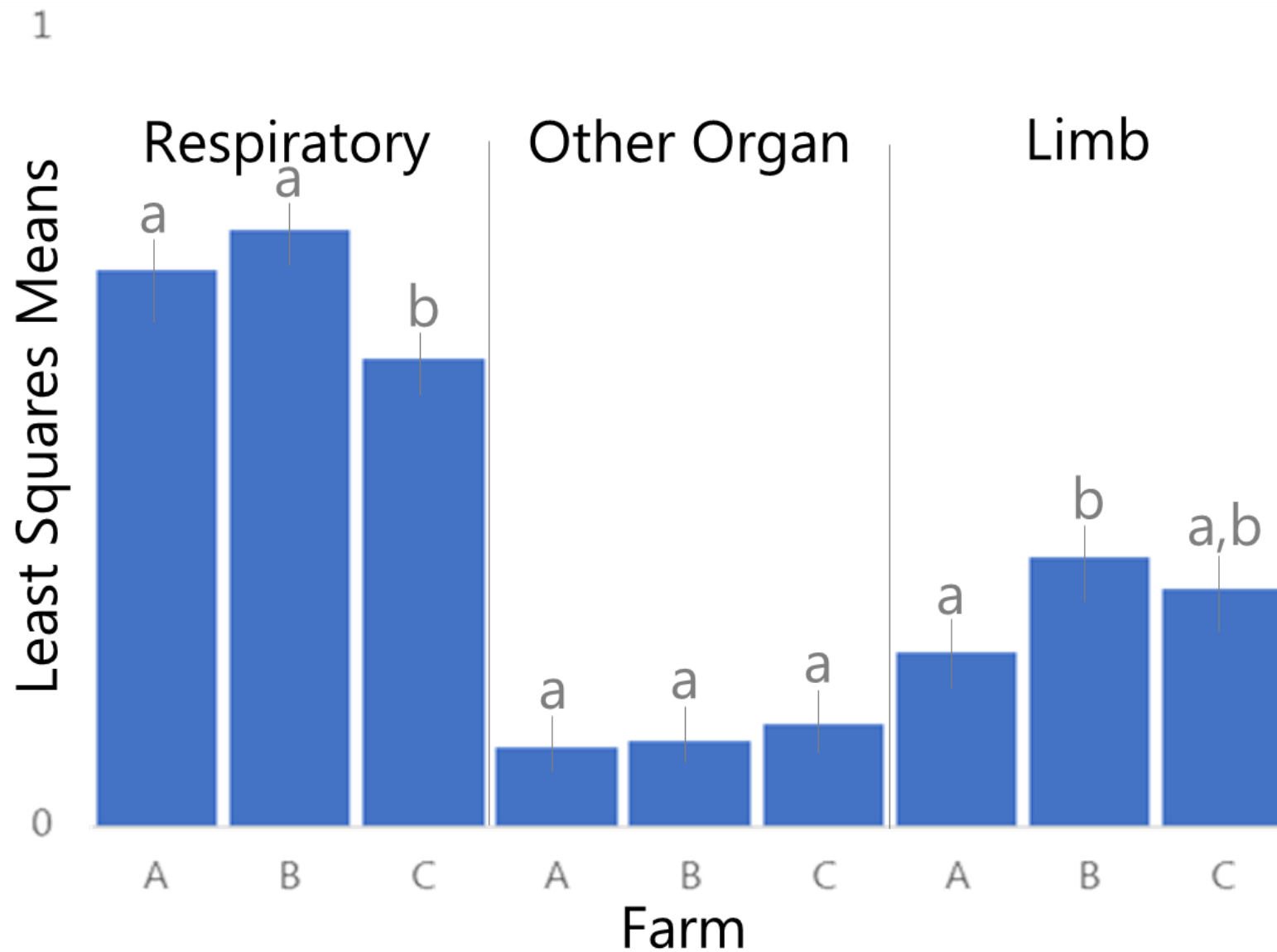
Study design: data collection and aggregation



Influence: Logistic regression: fixed effects Farm + Slaughterhouse index + e_r



Results & discussion (part 2: influencing effects)



Conclusion

- End of fattening: agreement slaughterhouse : on-farm
- Health issues in farrowing make pigs susceptible to diseases

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Witt et al. *Porcine Health Management* (2024) 10:8
<https://doi.org/10.1186/s40813-024-00359-9>

Porcine Health Management

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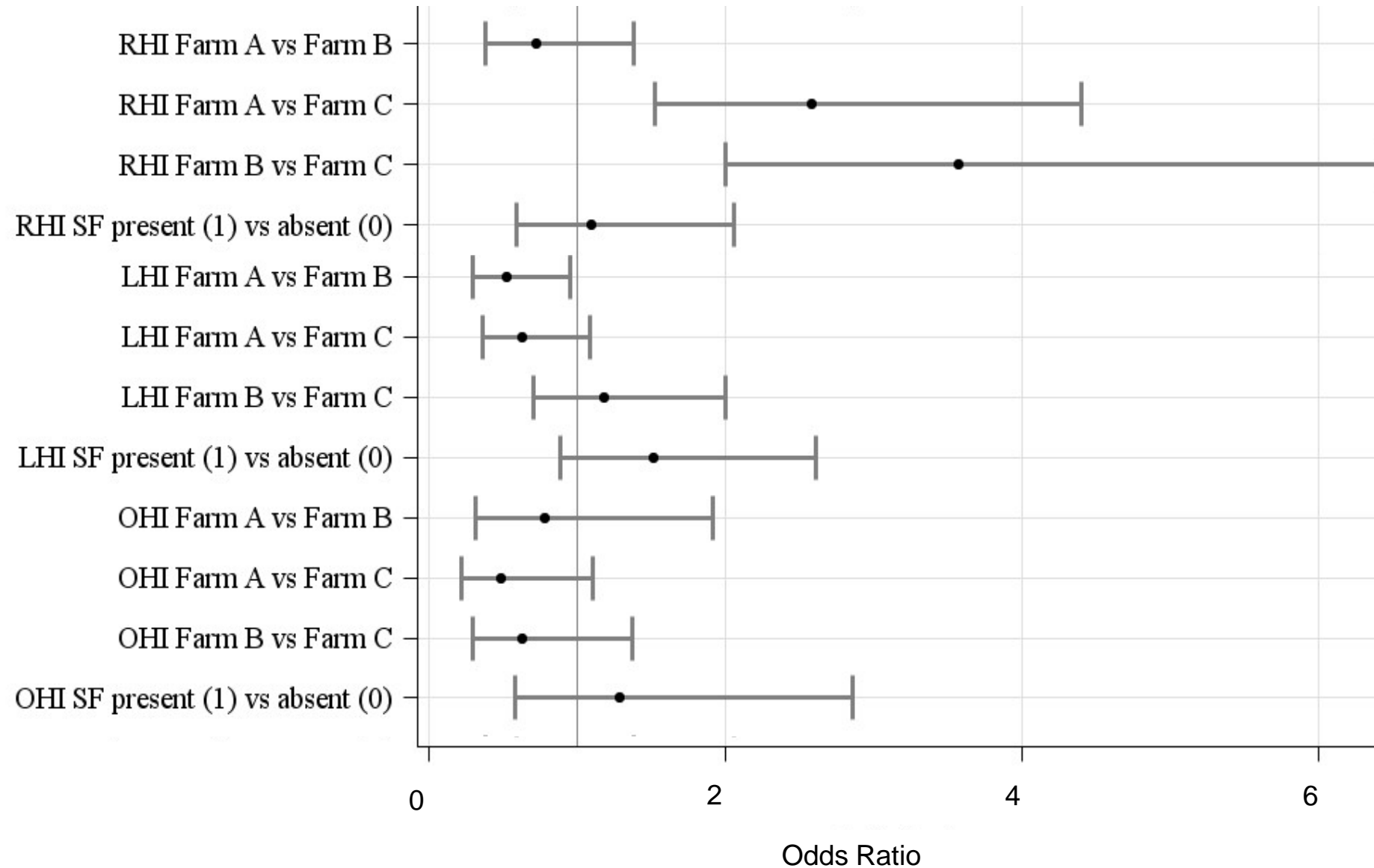
Relationship between animal-based on-farm indicators and meat inspection data in pigs



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Introduction: Health status and tail biting



Study design: data collection and aggregation

