



Factors in early life with effects on litter size in gilts

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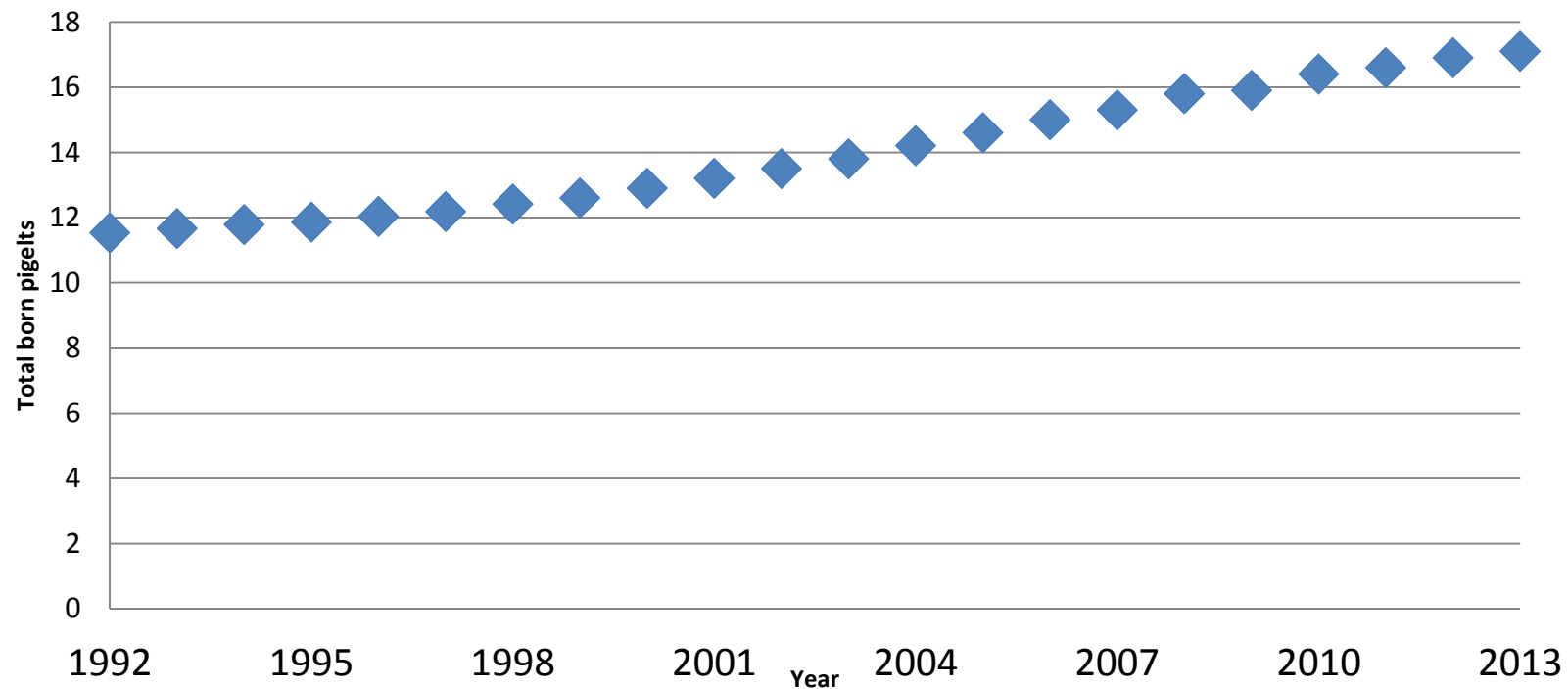
Development of litter size

600 Danish production herds

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- Does increase in fertility overrule the effect of early management?



Project set up

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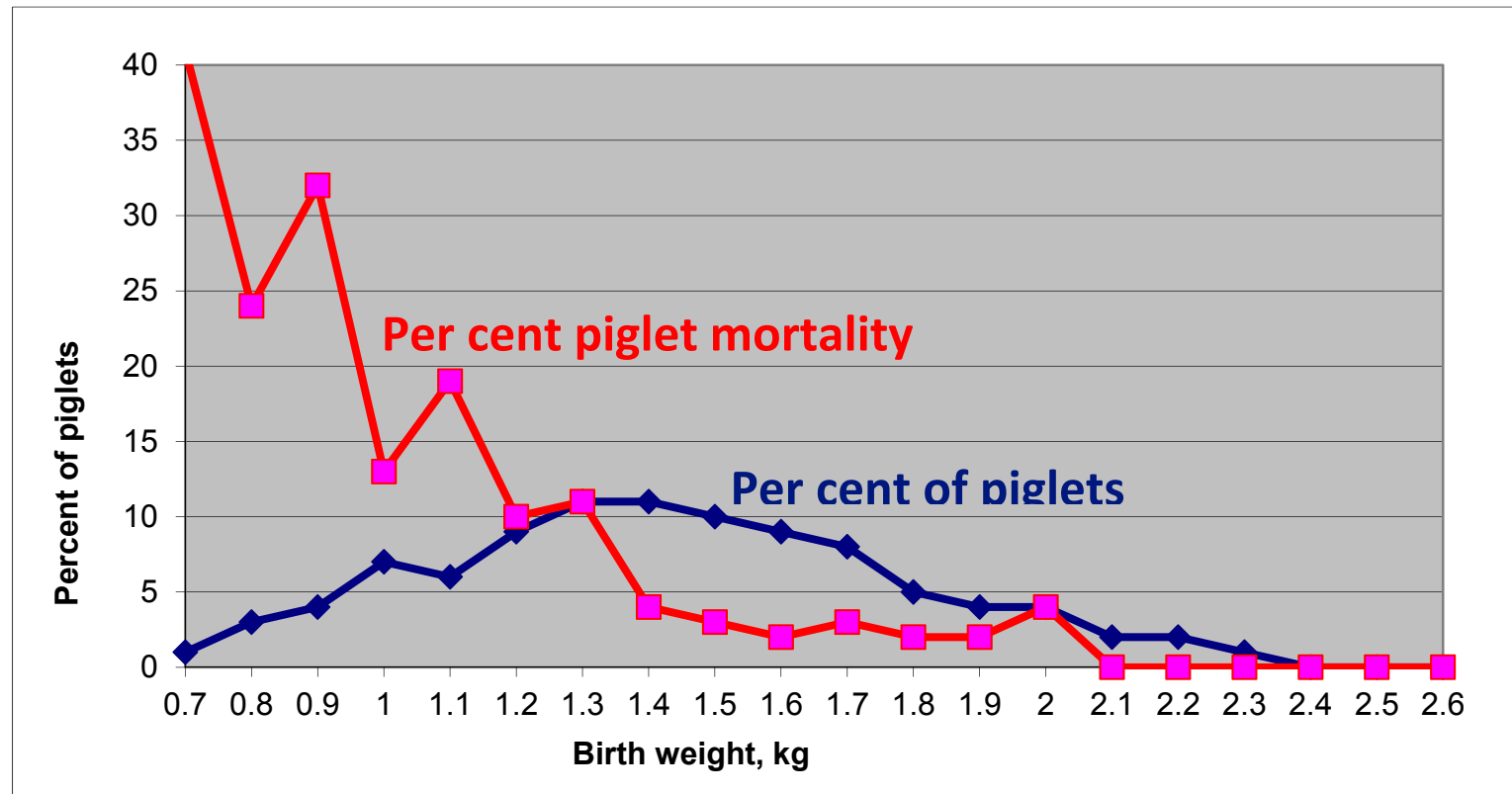
- **196 Y-sows farrowing 1,246 LY gilt piglets**
 - Litter size 15,9 total born piglets
- **Sow parity registered**
- **All piglets weighed and ear tagged at birth**
- **Piglets raised in litters reduced to 9 or 13 piglets**
 - Male piglets were transferred
 - Based on the dam having equal or odd sow number
- **1,096 piglets (88 %) were weaned**

- **Gilts were followed to 18 production herds**
 - Some gilts were sold to other herds and missed
- **Litter size in first litter was recorded**

Birth weights

Distribution of weight and postnatal mortality

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Problems of low birth weight piglets

- Low viability
- Low colostrum intake
- Low milk intake
- Low growth rate
- Small at weaning
- Late puberty?

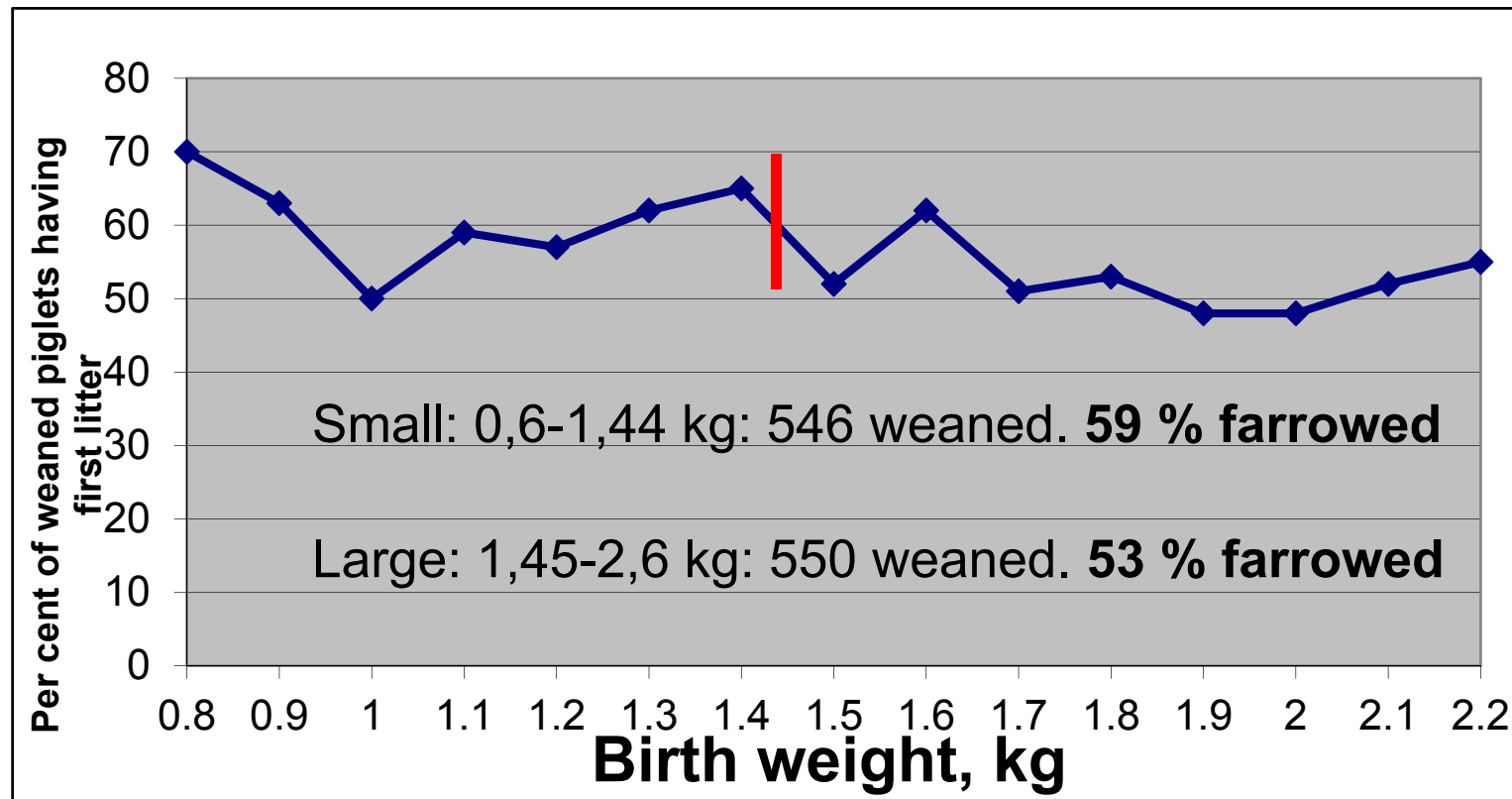
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Birth weight

Per cent farrowings in weaned piglets

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Problems of low birth weight piglets

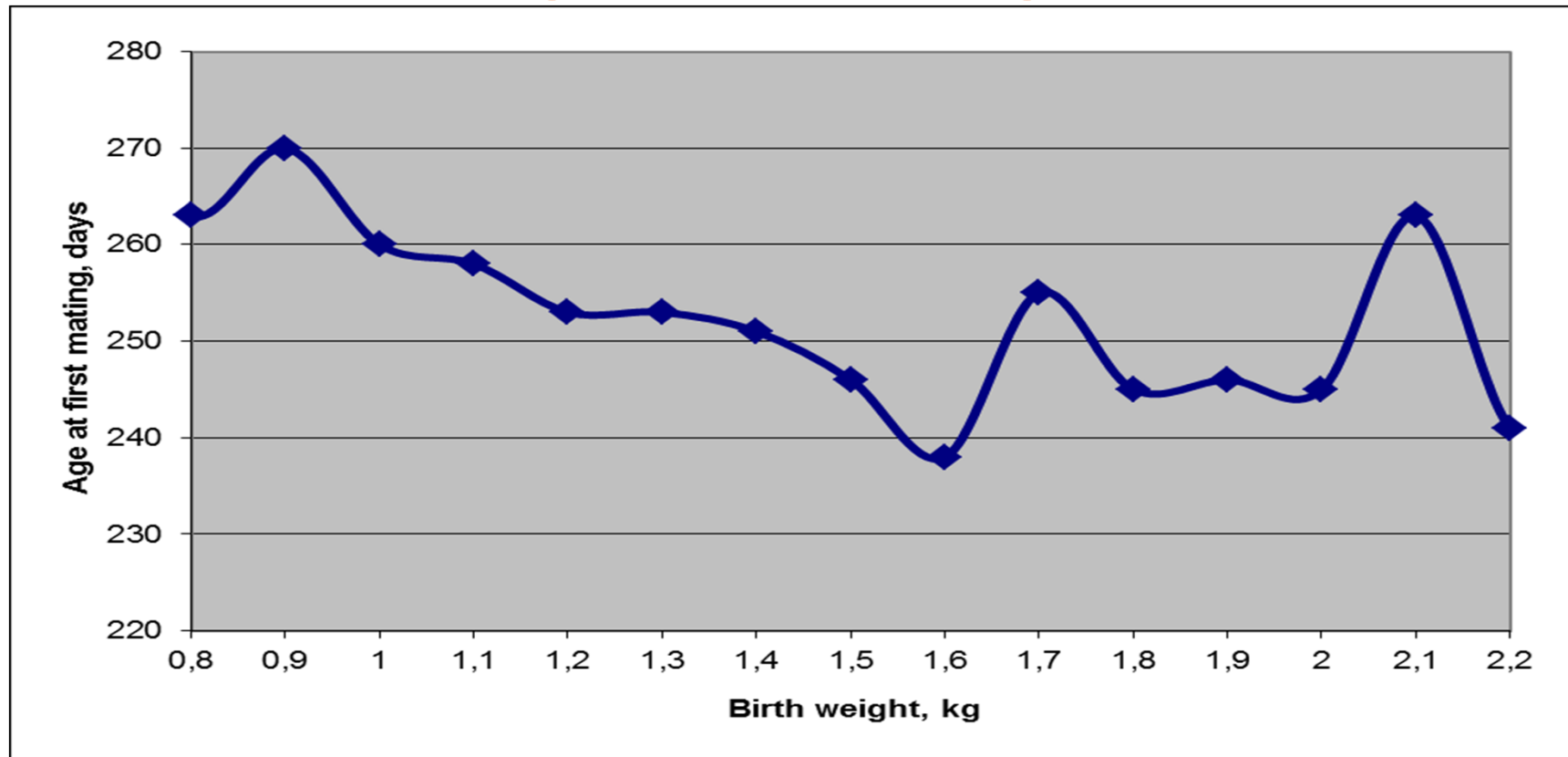
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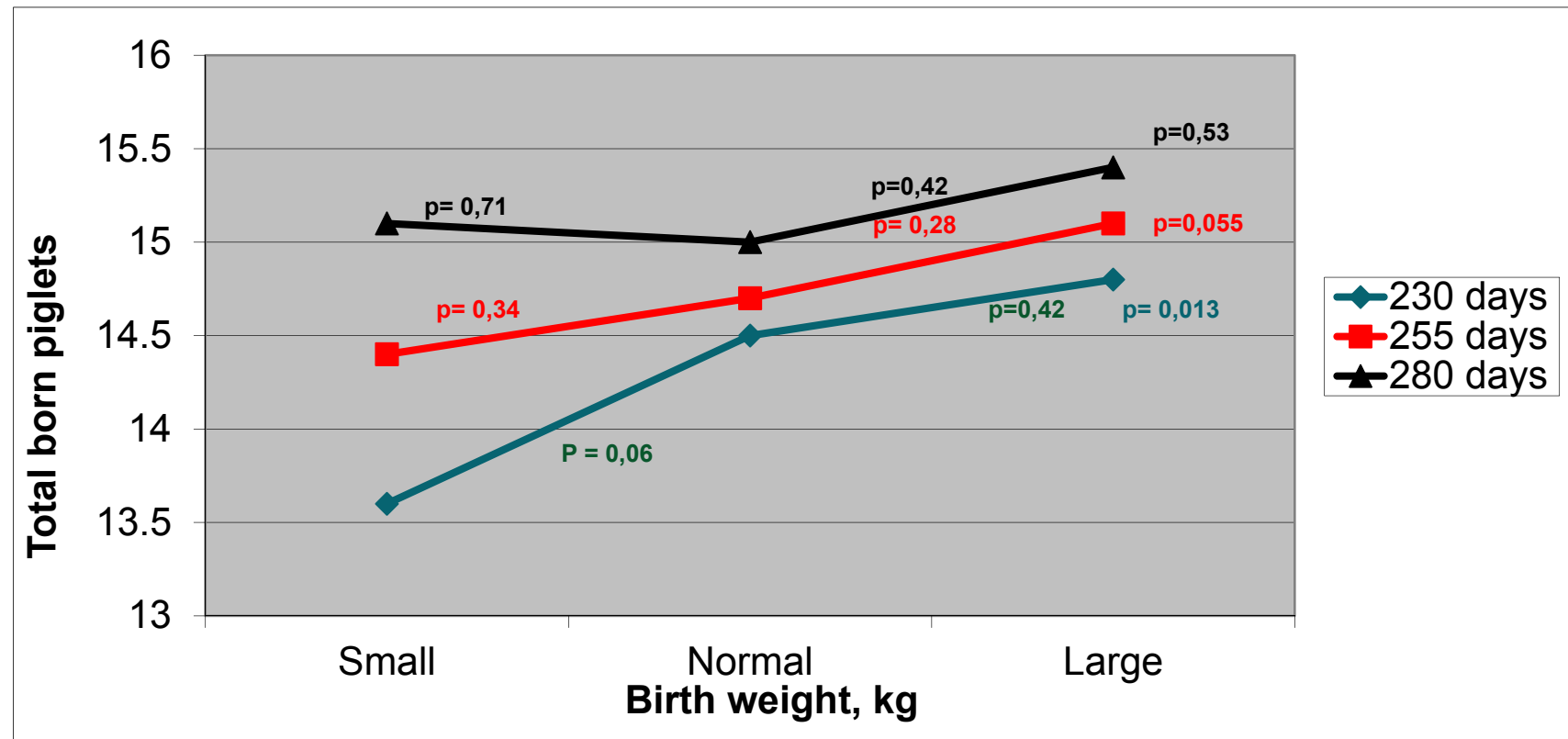
Birth weight Effect on age at mating

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Effect of birth weight on litter size

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Conclusions

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- **Low birth weight increases the chance of a farrowing**
 - Slow growth rate may be optimal
- **Birth weight does affect subsequent litter size**
 - The effect seems to be linear over birth weight
 - The effect may be affected by age/cycle number at mating
- **Gilts born to gilts and sows had the same litter size**
 - Despite gilt piglets being smaller
- **Litter size while the gilt was nursing did not affect fertility**





**Thank you for your attention
Questions?**

Birth weight in gilt and sow litters

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