



# Ensuring colostrum for all piglets

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[https://sites.centerit.dk/Teamsites/svineprod/Generelt/Foredrag%20-%20PLANCHER/Foredrag\\_udland\\_oevrige\\_moeder/Engelsk/Stalde%20og%20milj%C3%B8/2020/FT,%20Peter%20Theil,%20ensuring%20colostrum,%20pattgriseliv%202\\_0.pptx?web=1september2020](https://sites.centerit.dk/Teamsites/svineprod/Generelt/Foredrag%20-%20PLANCHER/Foredrag_udland_oevrige_moeder/Engelsk/Stalde%20og%20milj%C3%B8/2020/FT,%20Peter%20Theil,%20ensuring%20colostrum,%20pattgriseliv%202_0.pptx?web=1september2020)

STØTTET AF

**Svine**afgiftsfonden





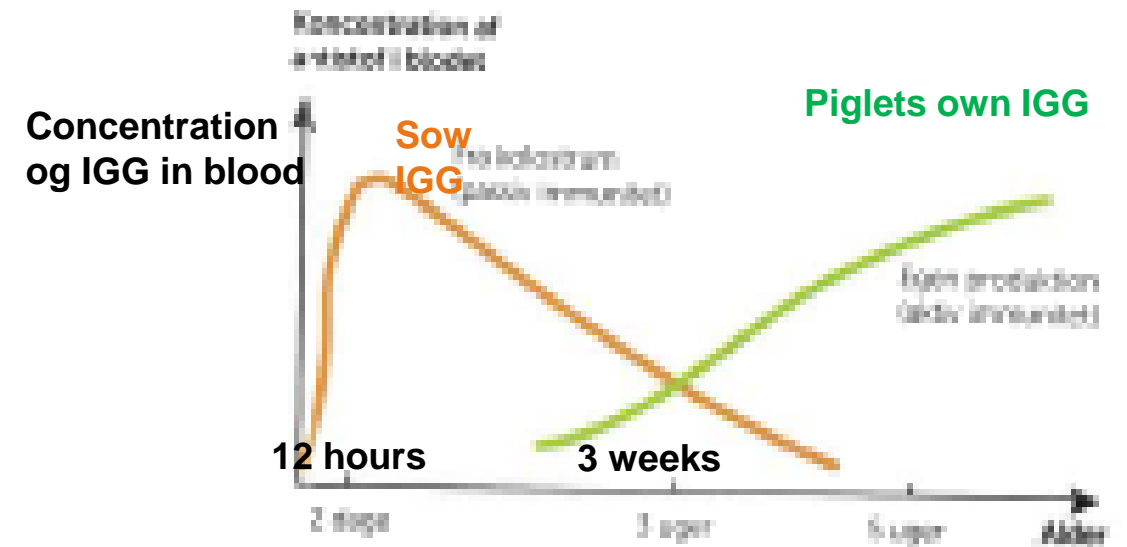
# What is colostrum?

- Antibodies = IGG
- Energy
  - Lactose (sugar)
  - Fat
  - Protein = Casein
- Water (75 %)



# Maternal antibodies = IGG = Immuno-Globulin-G)

- Maternal antibodies protect the piglets against disease the first weeks of life
  - Until the piglets produce antibodies themselves
- The level of IGG in colostrum drops during the first day
  - Maybe the amount of colostrum increases the first day?
  - Expect 7 liter of colostrum from each sow
  - After 24 hours the sow produces SOW MILK



# Antibodies = IGG = ImmunGlobulin-G)

- All gilts and sows has enough IGG in colostrum
  - Also gilts and sows having MMA
- But it is not all piglets that drink enough colostrum
  - Small cold piglets does not drink colostrum
- Some gilts have not been exposed to all diseases in the farrowing unit
  - That is why you may see yellow diarrhea in gilt litters
  - This also explain "sodeksem" in gilt litters
  - Shakers = "Rystesyge".

Yellow piglets with yellow diarrhea





## It all starts at birth

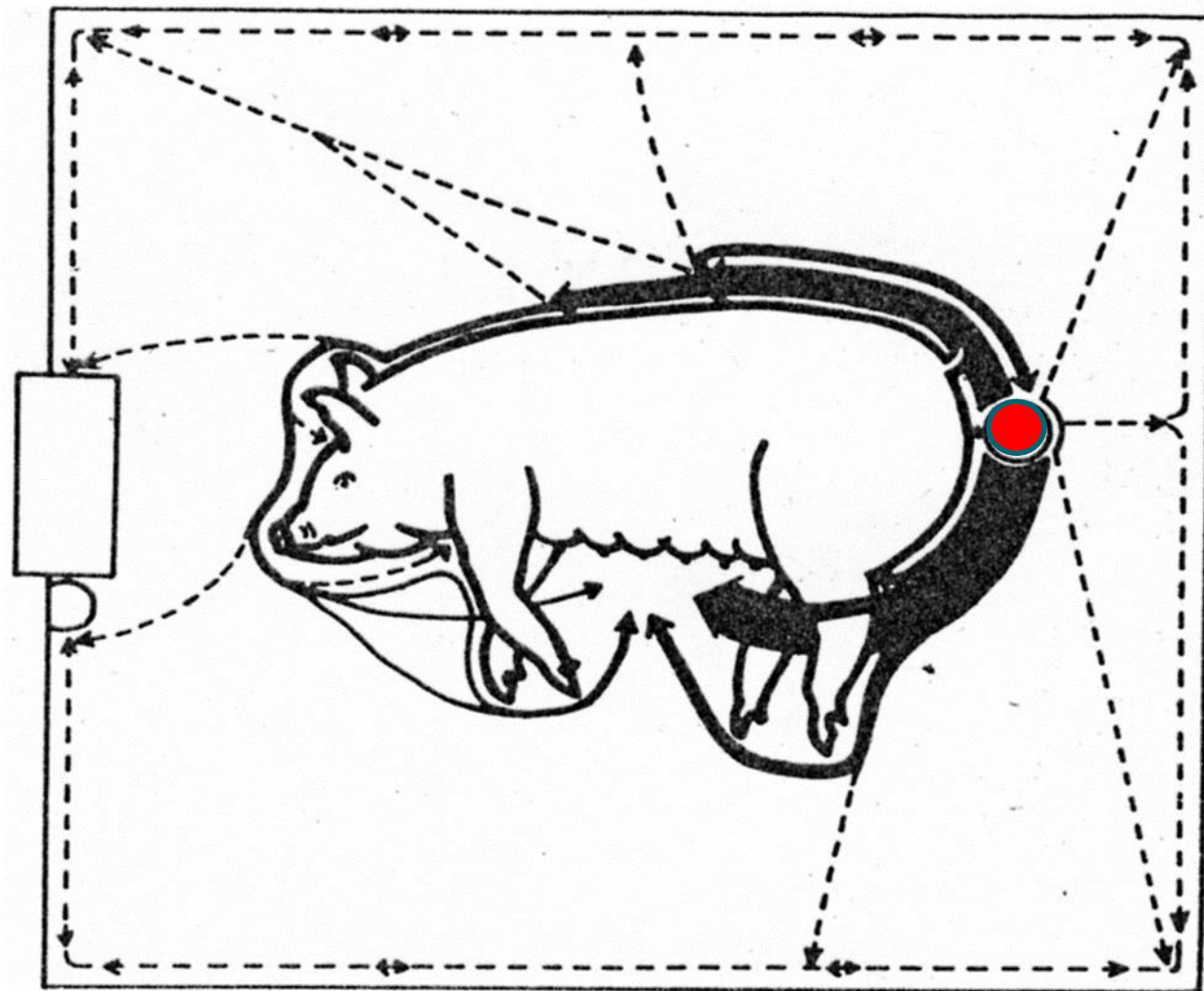
The piglet need energy.  
Or it will die tomorrow!  
The piglet need IGG.  
Or it will die in some days





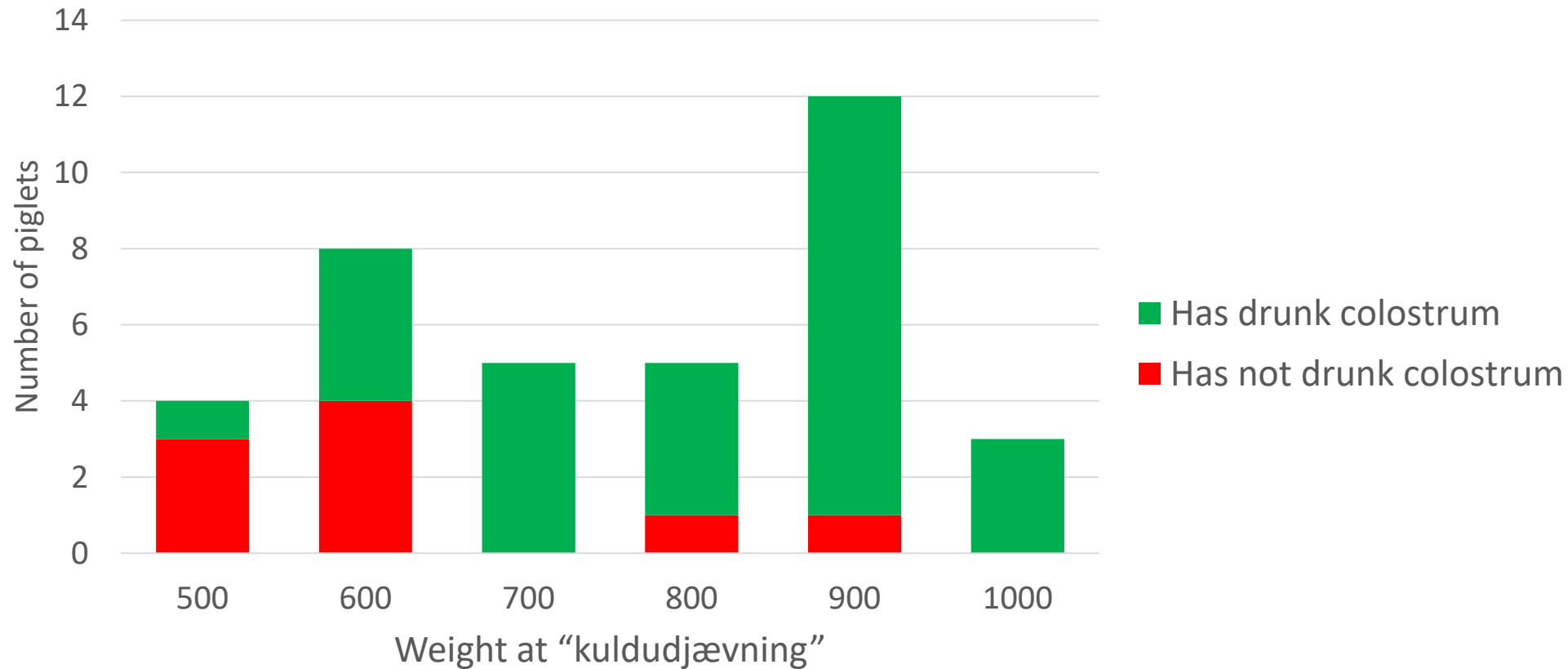
# Challenges to a new-born piglet

- All piglets are cooled at birth
  - They loose 2-3<sup>0</sup> C in a moment
- All piglets need energy
  - To move and to be warm again
- All piglets need IGG
  - It take some days to be ill
- The piglet must find a teat
  - Most go direct. 10 minutes
  - Some follow the back. 40 minutes
  - Few go along the wall. It can take hours
- The piglet has competition
- There are often many large piglets in the litter



Bünger 1983

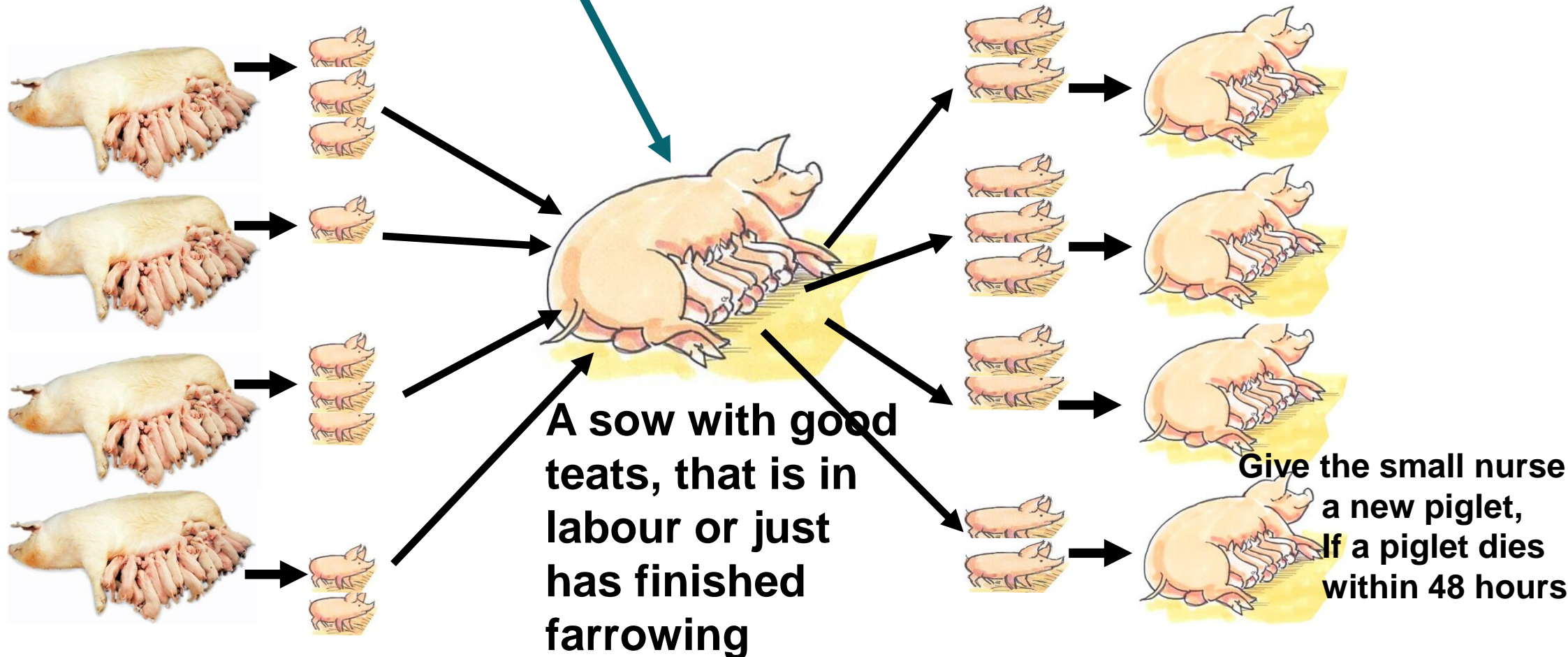
## Some of the smallest piglets do not drink colostrum before "kuldudjævning"



# EARLY SMALL NURSE

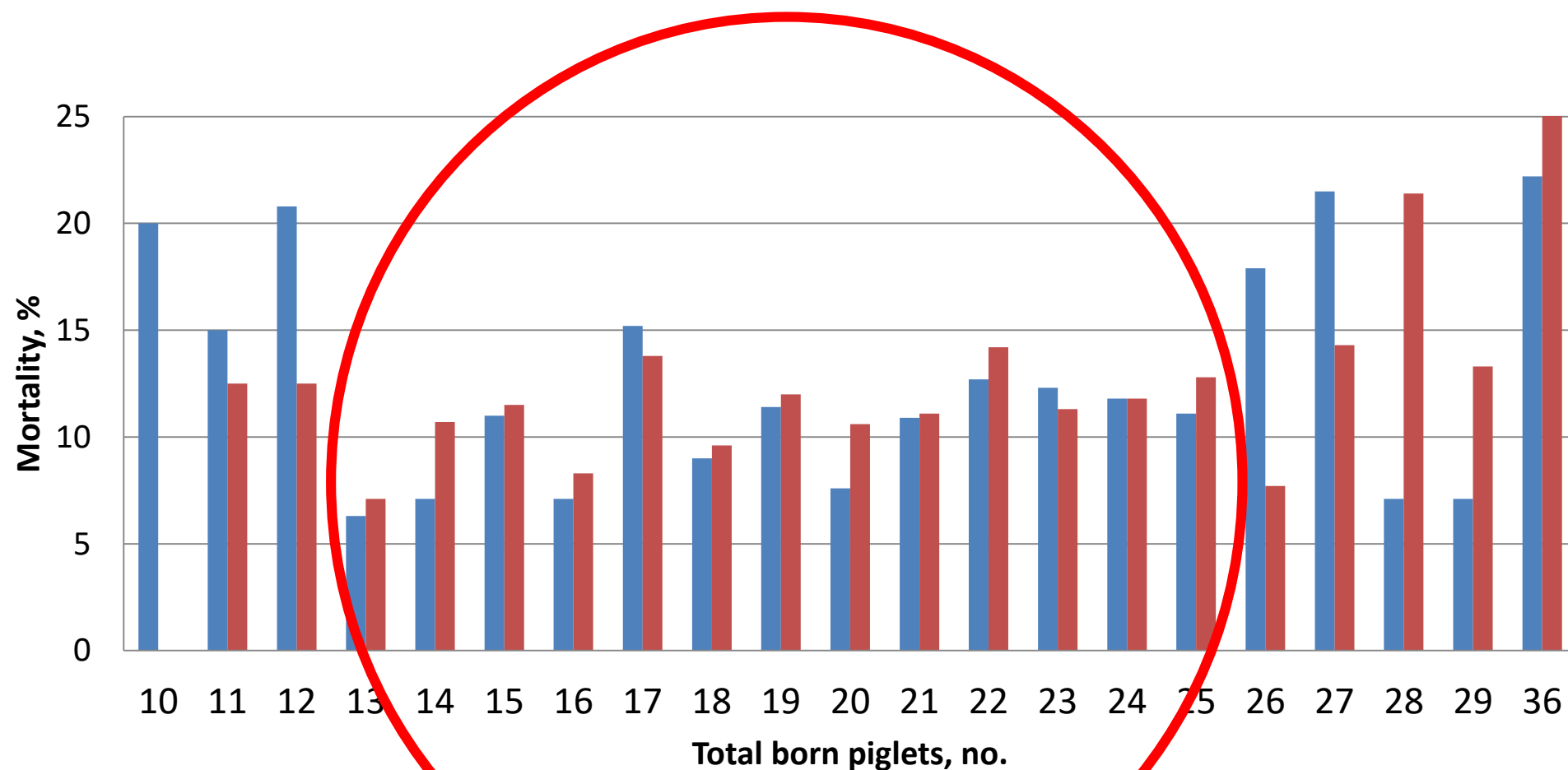
Collect 14 small new born piglets

The piglets from the small-nurse are taken to farrowing sows to get colostrum. They can be moved to 2-step nurses, if they have had colostrum

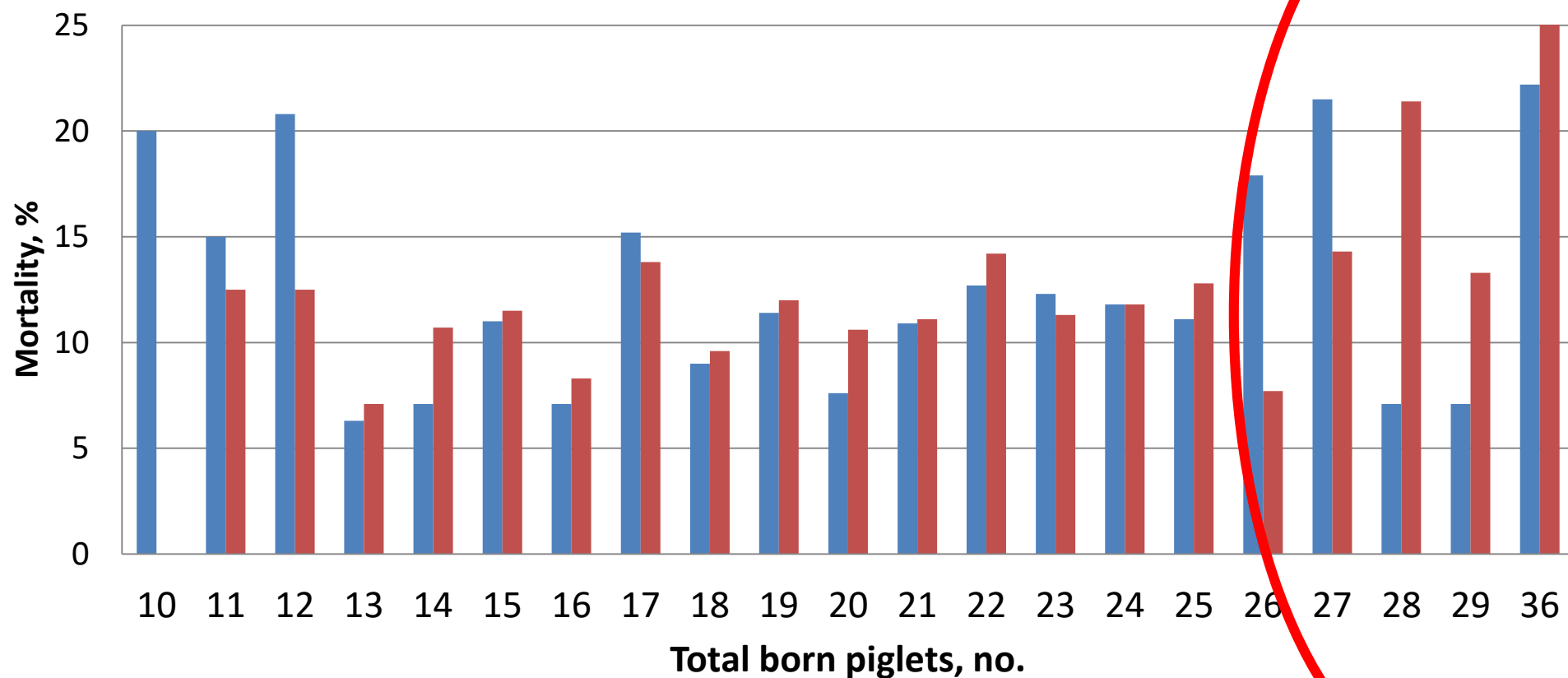




# The first- and the last-born piglet has the same mortality



The **first-** and the **last-born** piglet has the same mortality.  
Maybe we have a challenge with the largest litters?





# There is too little energy in colostrum

- The piglets need at least 200 ml/kg of colostrum to survive
- Piglets on average drink 500 ml
- The average sow produces 7 liter of colostrum in the first 24 hours
- => 14 piglets use all colostrum!



- Solution
- Move the first-born large piglets to a "amme-so" = nurse-sow
- The nurse sow produces more milk
- Thus the large piglets get what they need. Then the late born piglets and the small piglets get enough colostrum

## Conclusion: Bad news

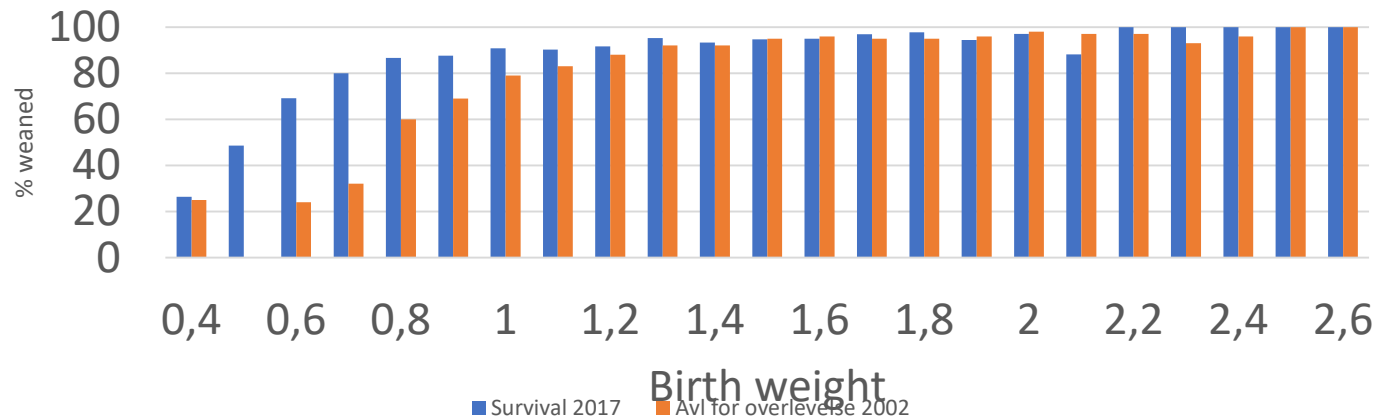
- A cold piglet will give up searching for colostrum
- It did not help cold piglets to warm them in a heat box
- It did not help piglets to give them energy from a bottle
- => You must keep the small piglets warm after birth
  - Piglets born on a warm floor
  - Straw behind the sow
  - Help to get to a teat saved 2 % more piglets
  - Taken to an early small nurse
  - Split-milking
- Then the piglet will drink colostrum on its own





## Conclusion: Good news

- Small piglets weighing 400, 500, 600 or 700 gram has much better survival today than 10 years ago
  - Give a piglet weighing just 500 gram a chance
- All sows produce enough colostrum
- The last-born piglets will have enough IGG with the colostrum
  - But the last-born piglet will not always get enough energy
- Colostrum need to come from the herd, but not from own mother
  - "Tidlig mindsteamme" = early small nurse sow
  - "råmælksbank" to small piglets = colostrum in the freezer



Survival in 2002  
and in 2017

# Ensuring GOOD colostrum for all piglets. 1

- Before the gilt (polt) is mated
  - Be sure, that the gilt has been exposed to all diseases in the farrowing unit
- Before the gilt farrows
  - Be sure that the gilt has been vaccinated to diseases that may affect the piglets
- Before the sow farrow
- Feed 3,4-4,1 FEso/day from transfer to the farrowing unit and until farrowing begins
  - Trials at Aarhus university indicate, that this gives the best colostrum production





## Ensuring GOOD colostrum for all piglets. 2

- During farrowing
  - Help weak piglets to the teats
  - Put a mark to the first-born large piglets. They are the first to go to nurse sows
  - Take the smallest piglets to a "mindsteamme" = small nurse sow, which still produces colostrum
  - Adjust litter size more times each day
- After farrowing
  - Do "splitmalkning" = split nursing
  - Adjust litter size by transferring large piglets to the nurse sows ="ammesøer"



# TAK og husk!

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