



Ensuring colostrum for all piglets

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STØTTET AF

Svineafgiftsfonden



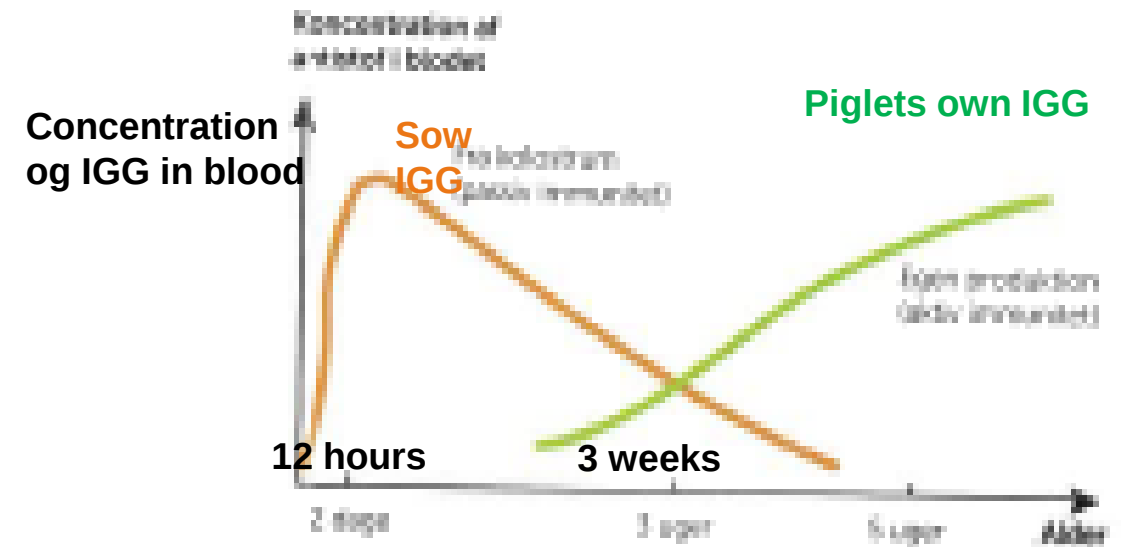
What is colostrum?

- 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



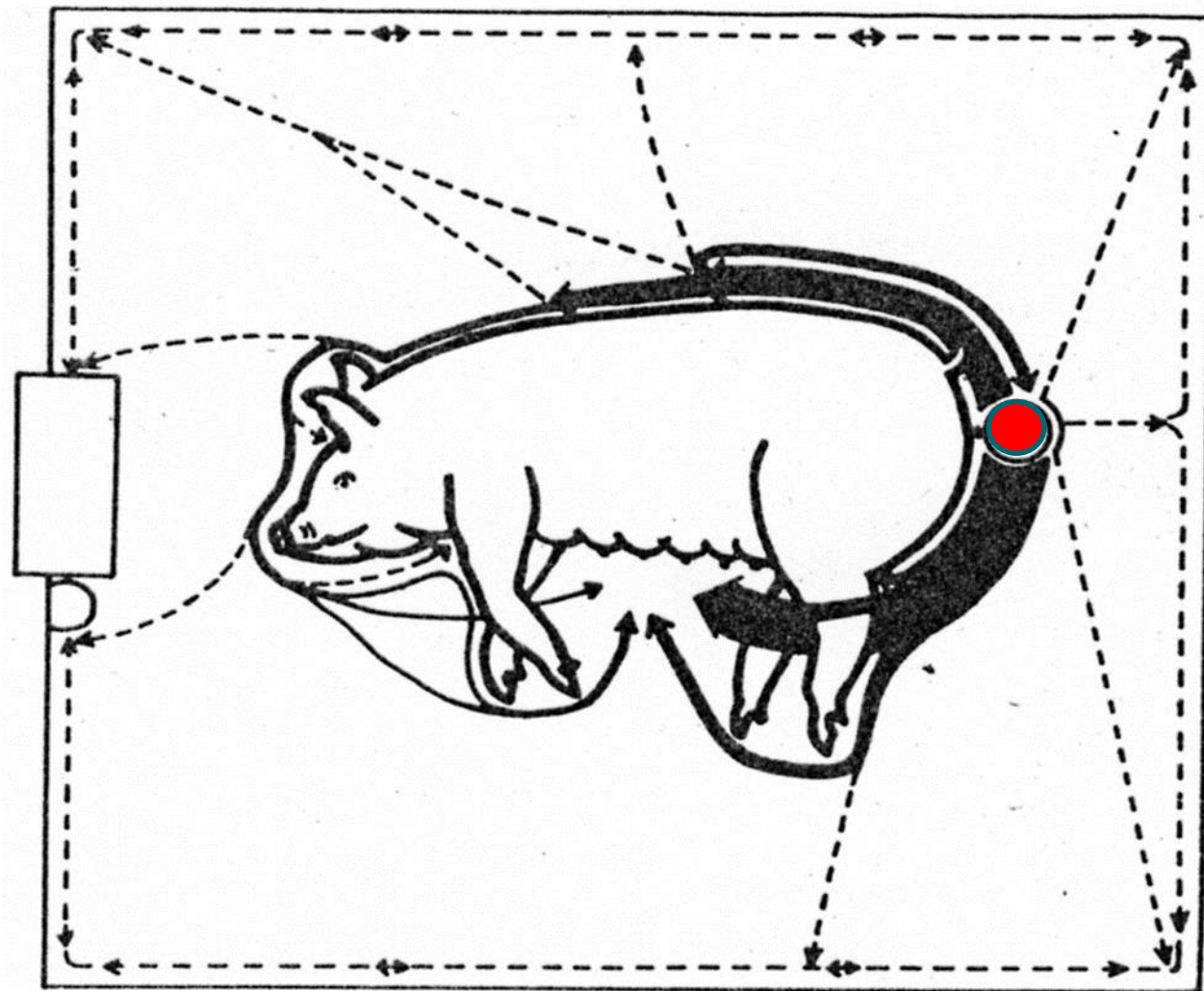
It all starts at birth

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



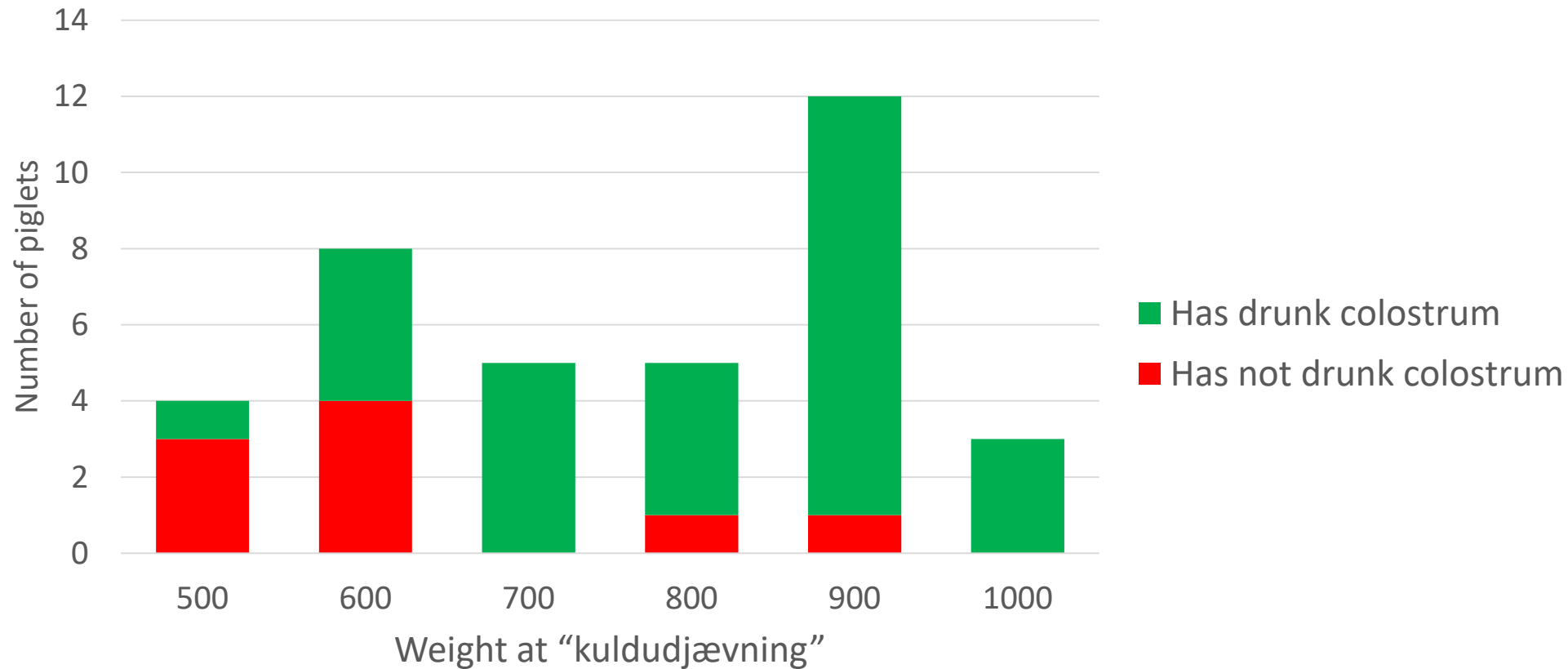
Challenges to a new-born piglet

- All piglets are cooled at birth
 - They loose 2-3° 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

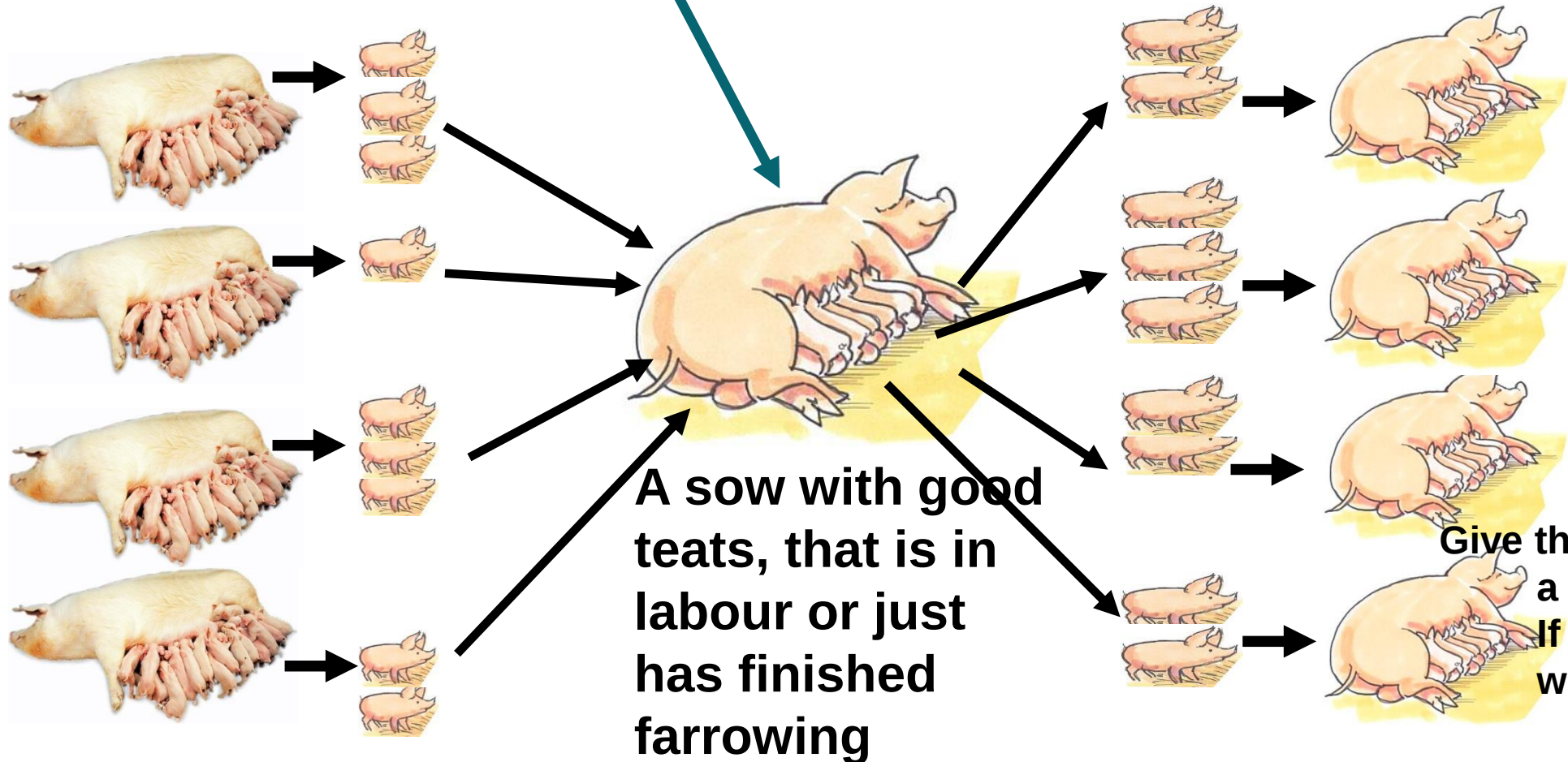
Some of the smallest piglets do not drink colostrum before "kuldudjævning"



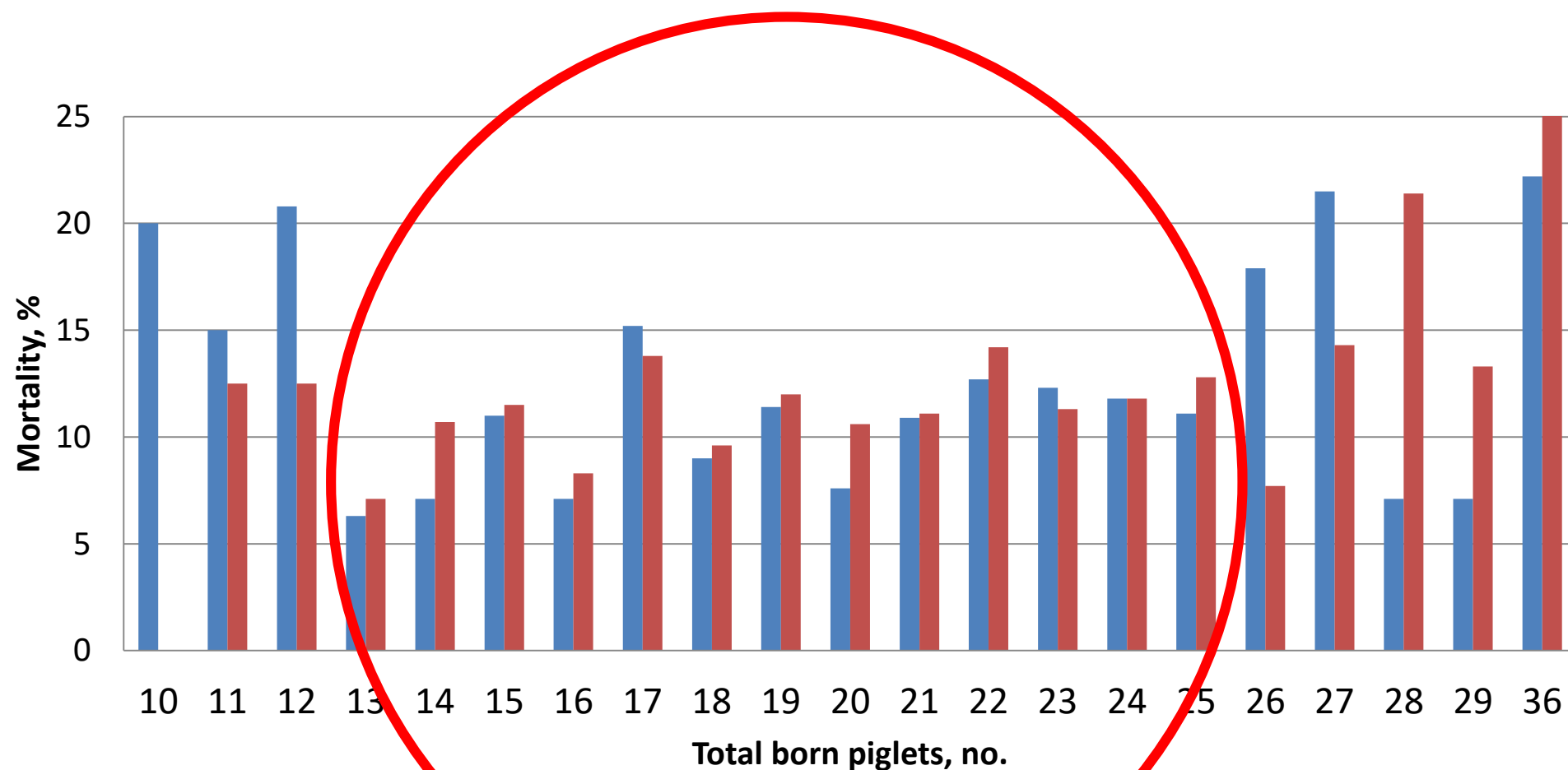
EARLY SMALL NURSE

Collect 14 small new born piglets

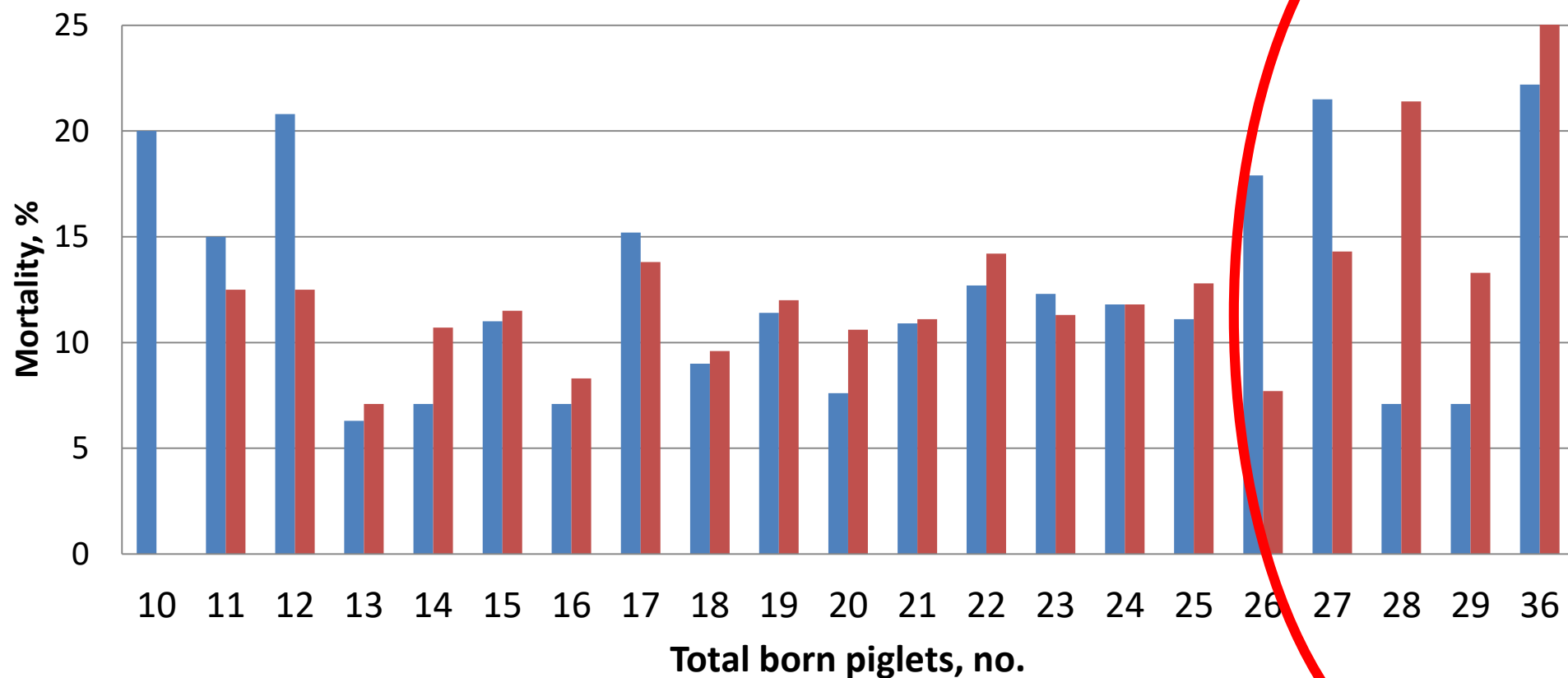
The piglets from the small-nurse are taken to farrowing sows to get colostrum. They can be moved to 2-step nurses, if they have had colostrum



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

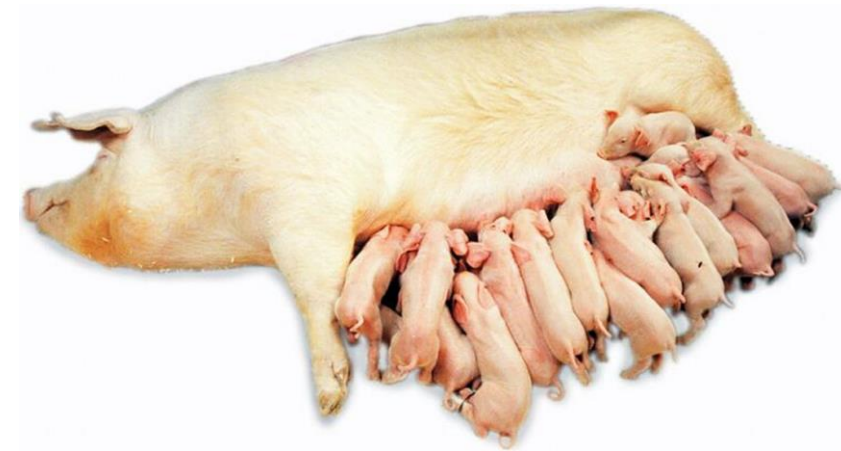


The **first-** and the **last-born** piglet has the same mortality.
Maybe we have a challenge with the largest litters?



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

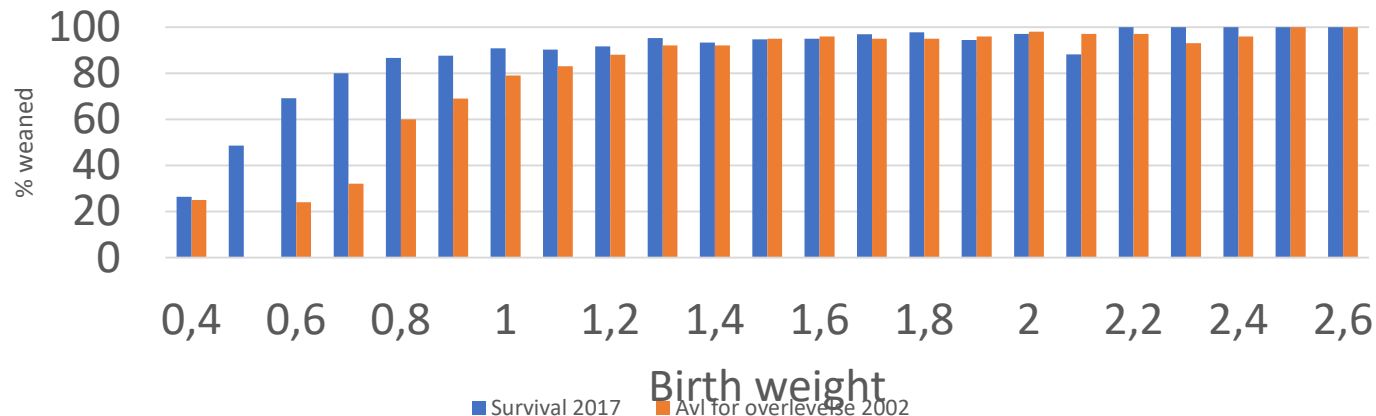
Conclusion: Bad news

- 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 ="ammesør"



TAK og husk!

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