



Veterinærinstituttet
Norwegian Veterinary Institute

Overview of the disease situation in Norway

PD, CMS and HSMI

Trination 2022 - 22. November 2022, Edinburgh

Hilde Sindre





The Norwegian Fish Health Report



Rapport 2a/2022

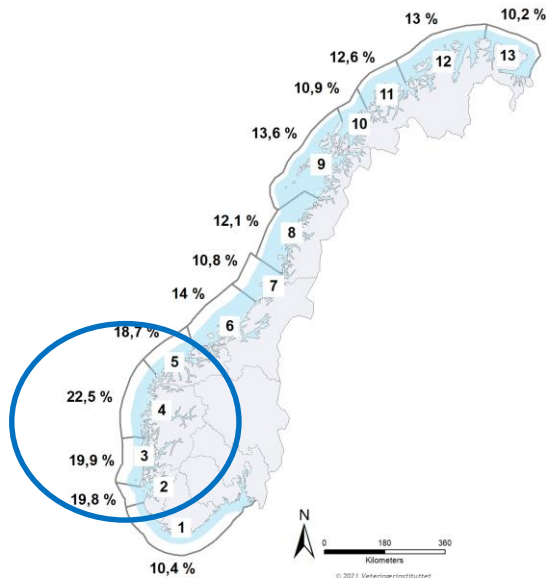


Munnen til en lakselus forstørret 300 ganger. Bildet er tatt med skanning elektronmikroskop og fargelagt.
Foto: Jannicke Wiik-Nielsen

Published annually since 2003
Access to data at site level from private laboratories since 2020
Questback from fish health personell and inspectors in the Food Safety Authority
Official registers on active sites, biomass, harvest and mortality



Mortality in sea farms with Atlantic salmon



Median percent mortality of production cycles of commercial farmed salmon, end of 2021:

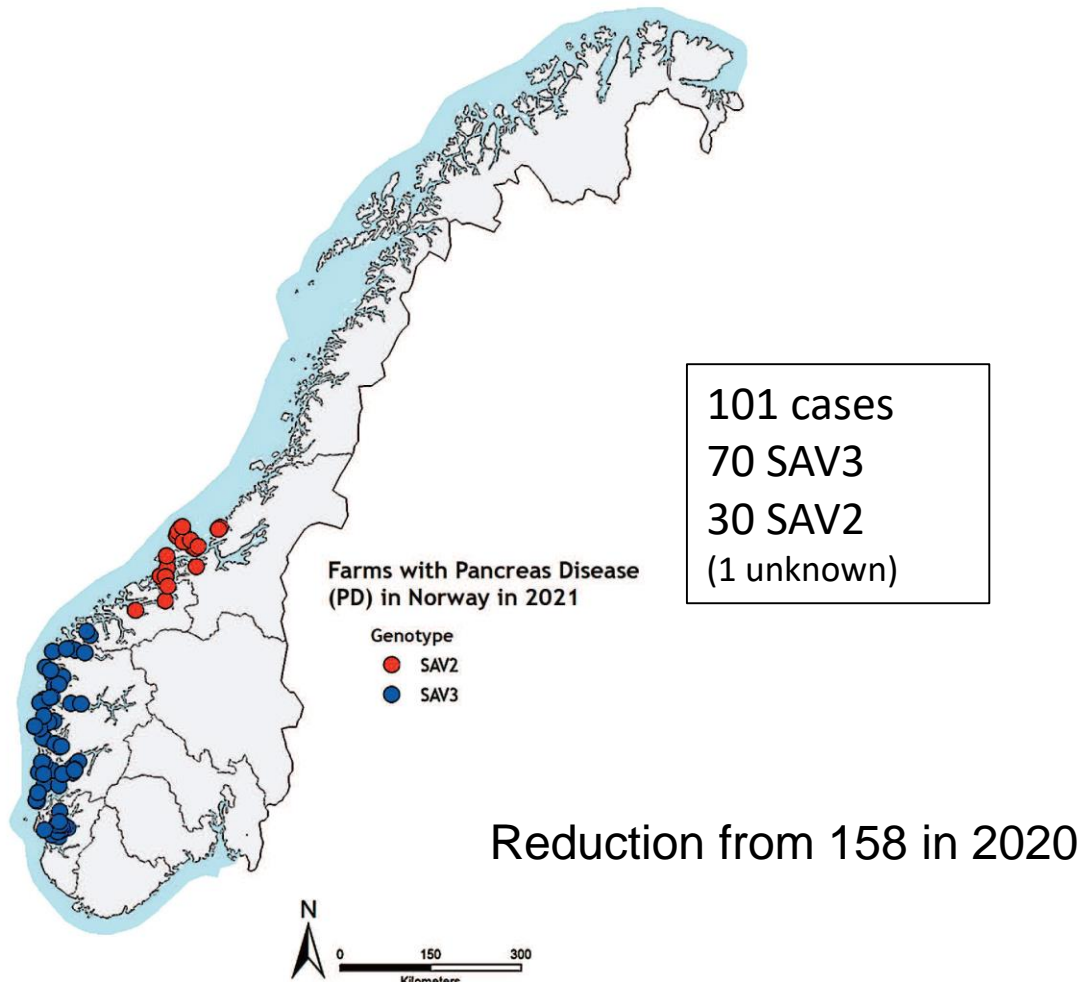
- 17.4% (10.3 - 26.7%)

The differences between production areas may in part be attributed to diseases and frequency of delousing



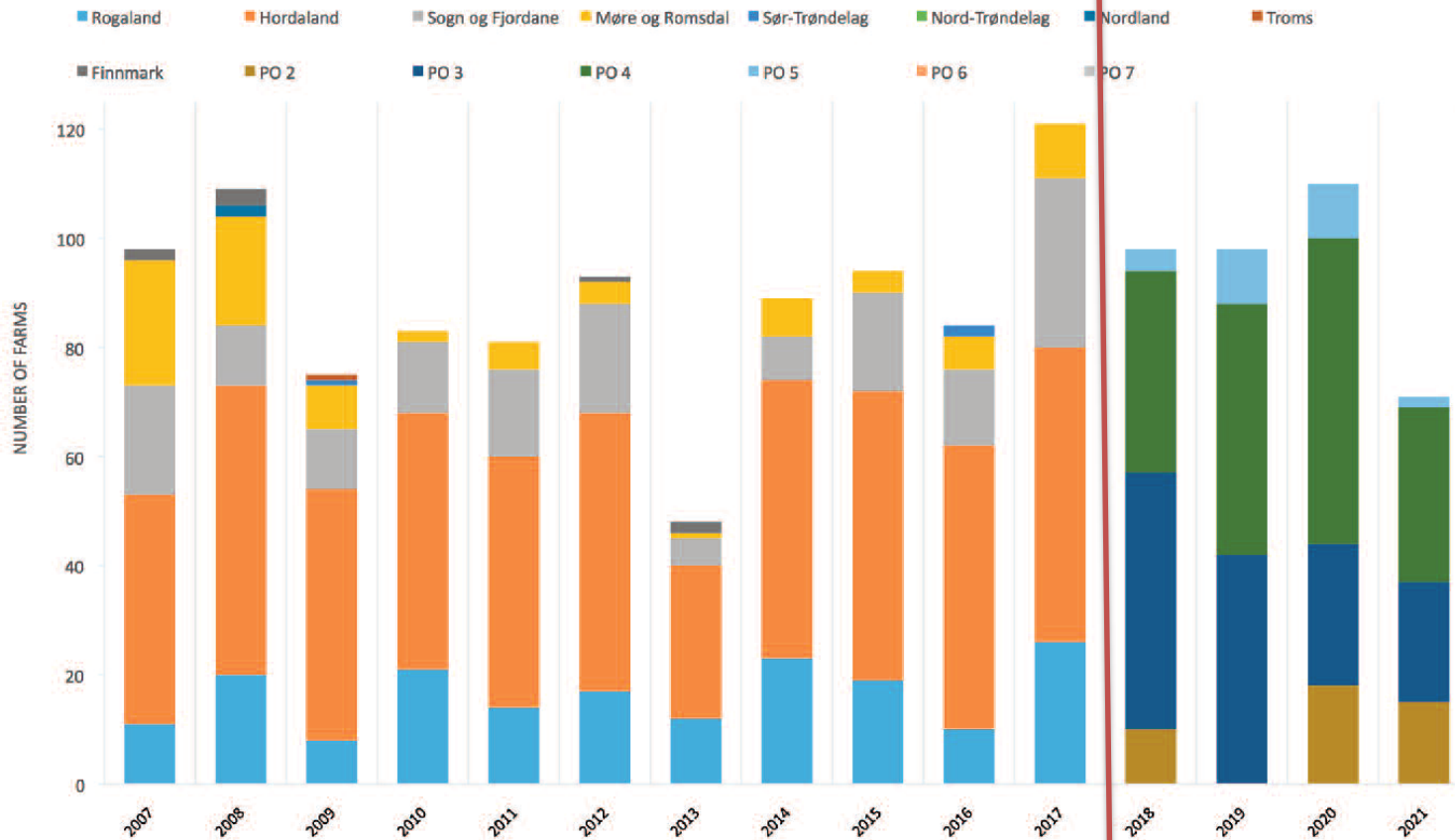
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Pancreas disease (PD) Status 2021





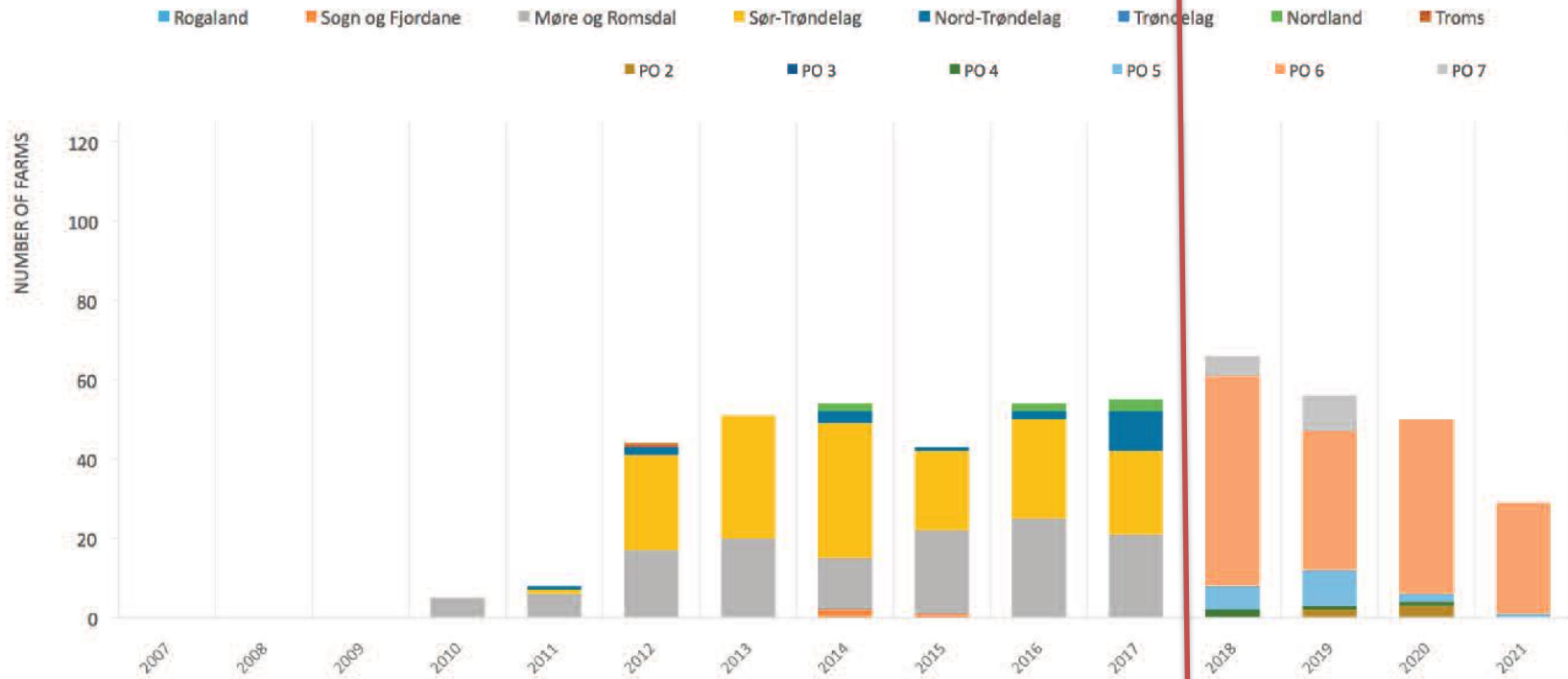
SAV3-CASES 2007-2021





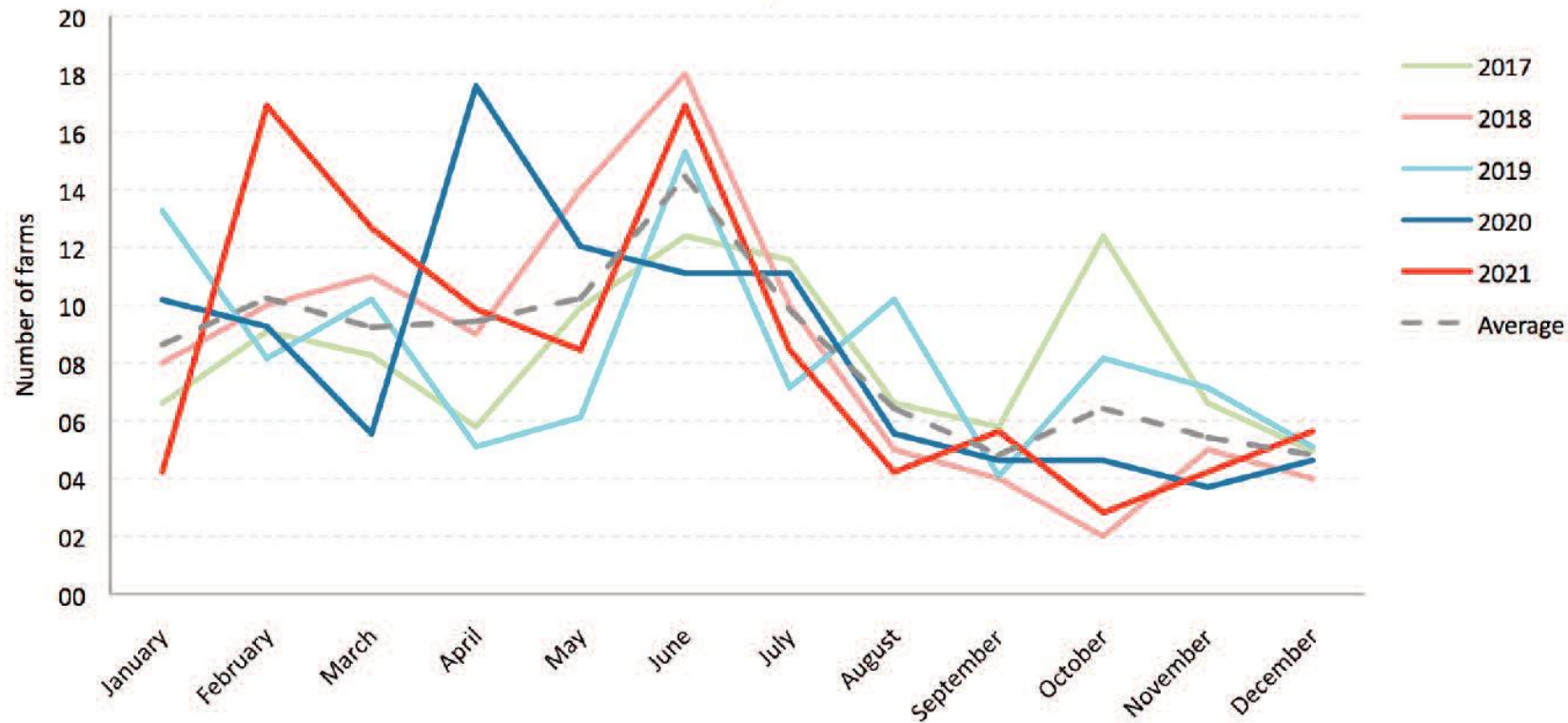
PRODUCTION AREAS (POs)

SAV2-CASES 2007-2021



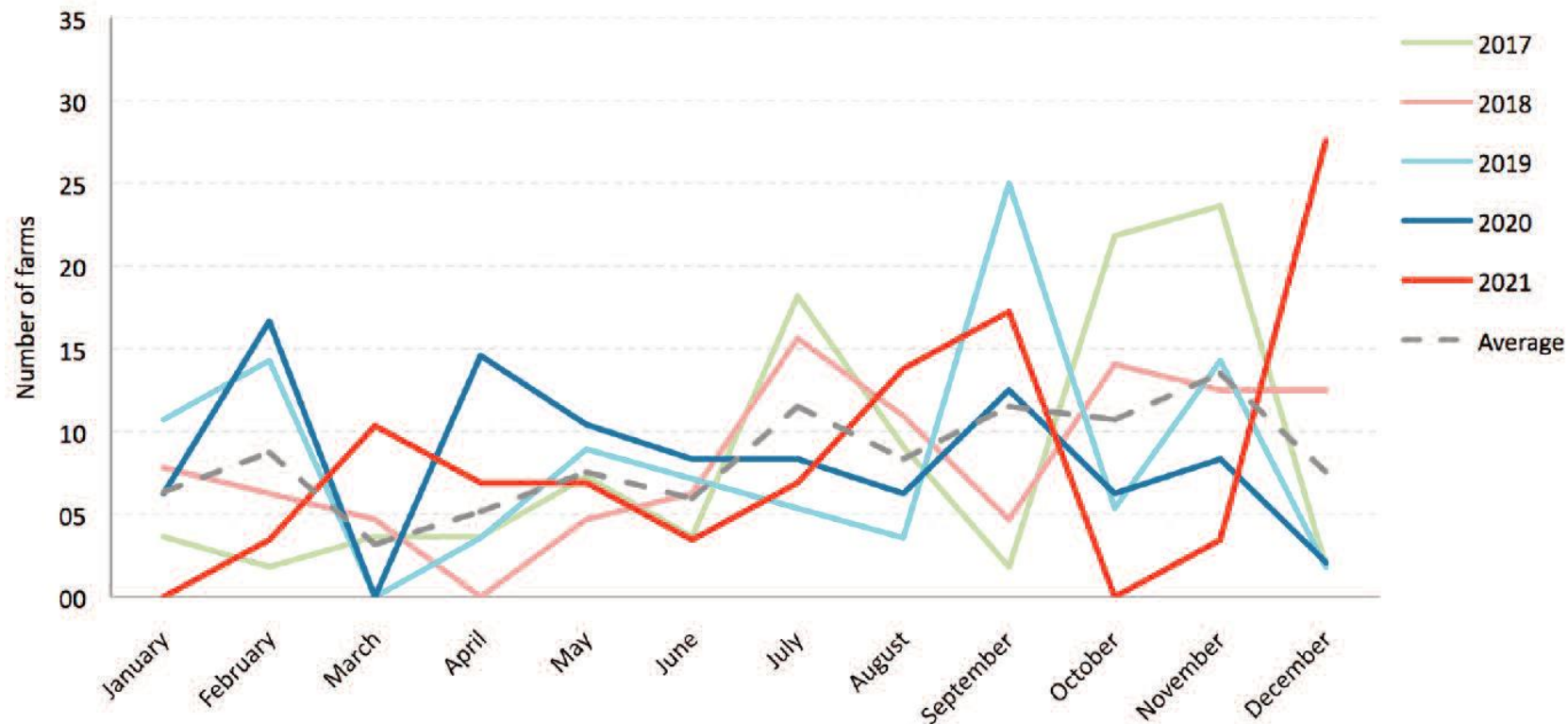


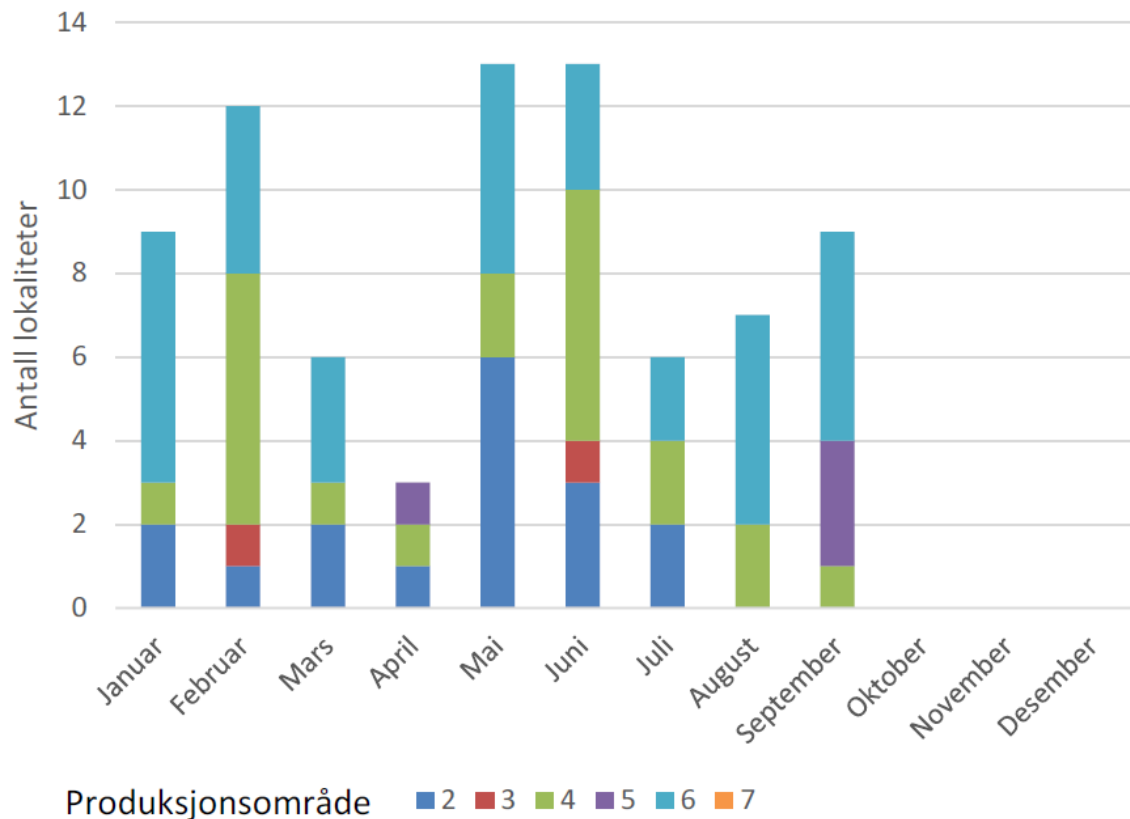
SAV3 Monthly incidence 2017-2021





SAV2 Monthly incidence 2017-2021



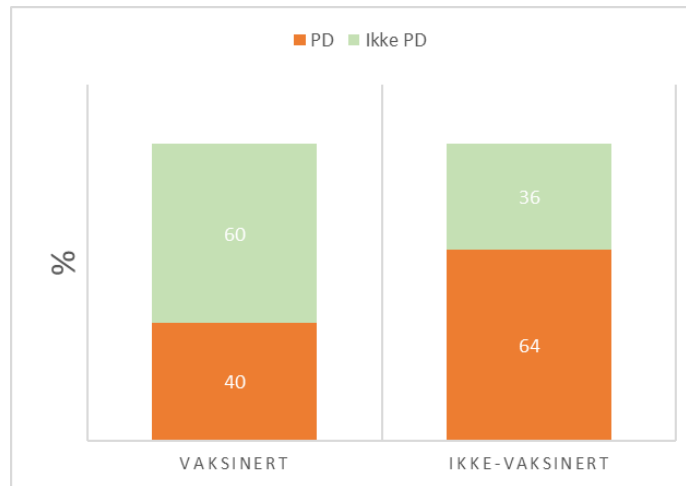
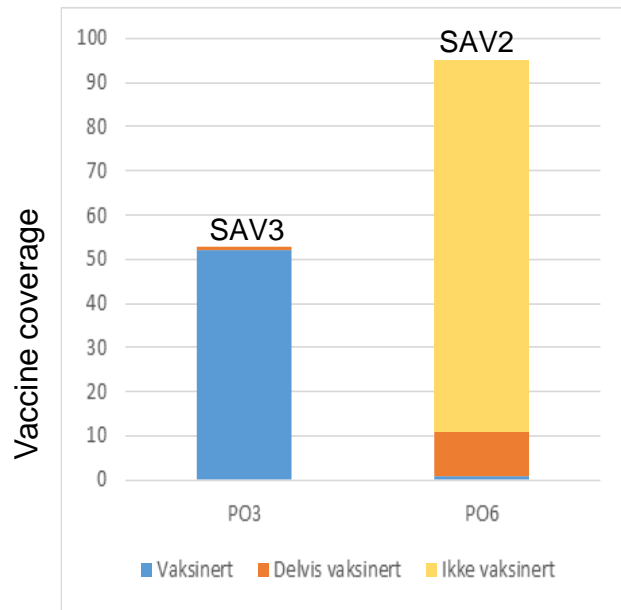


By September 2022:

- A total of 78 suspected cases, 36 SAV2 and 40 SAV3, (2 unknown)
- Same time point in 2021 – 83 cases



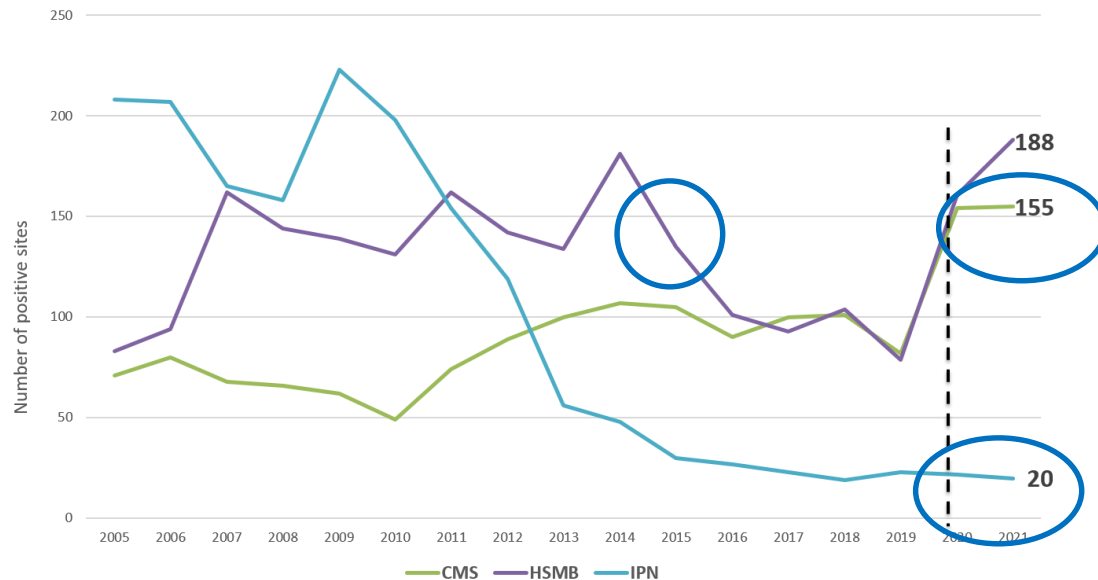
Effect of vaccination against PD - study performed by B. Bang Jensen in early 2022



- The results indicate that vaccination has an effect.
- Other differences between the POs may contribute
- More data needed to conclude!



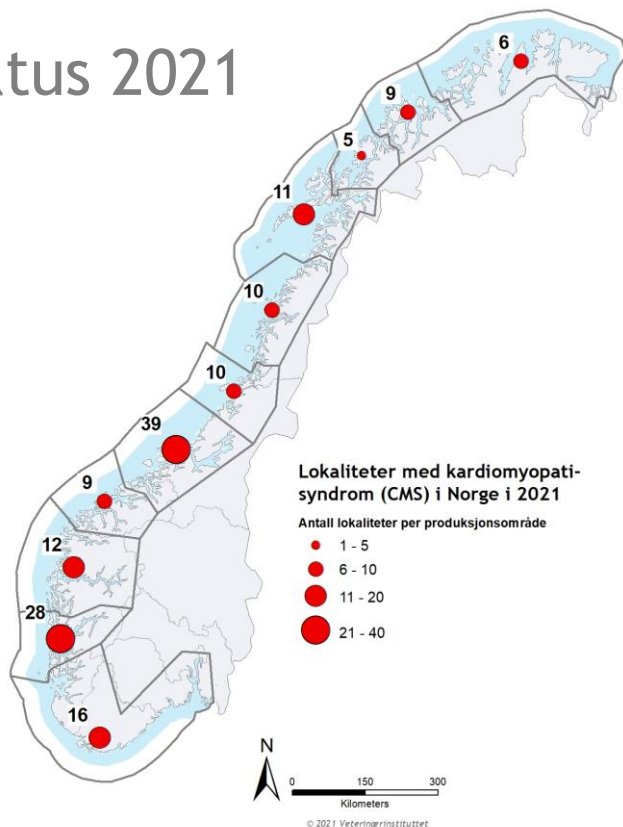
The prevalence of CMS and HSMI





Cardiomyopathy syndrome (CMS)

Status 2021

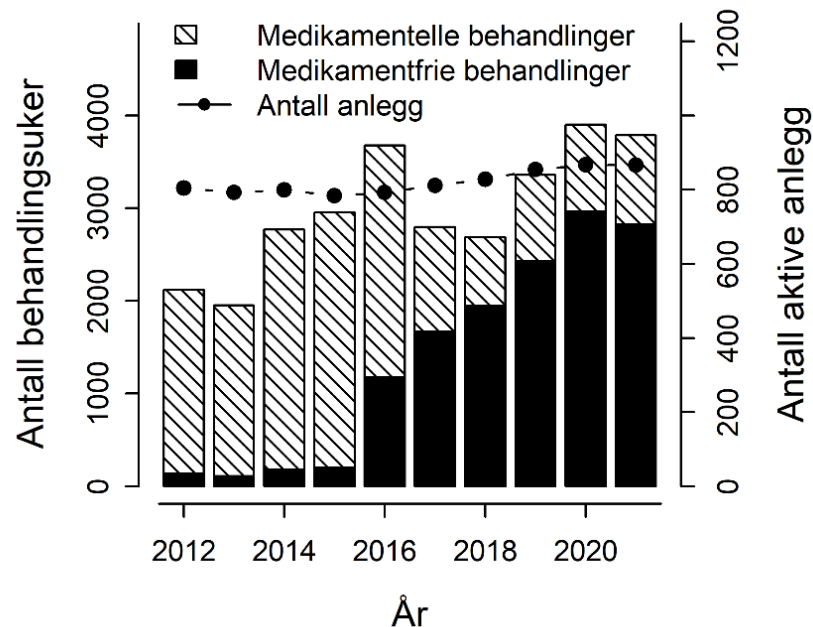
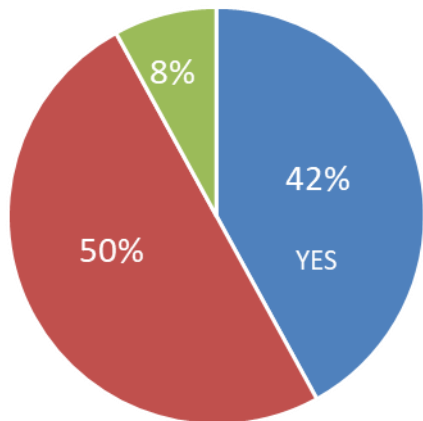


- 155 positive salmon farms (154 in 2020)
- Ranged as the most important cause of mortality in 2021 in Questback (as in 2020 and 2019)
- Not notifiable → probably under-reported



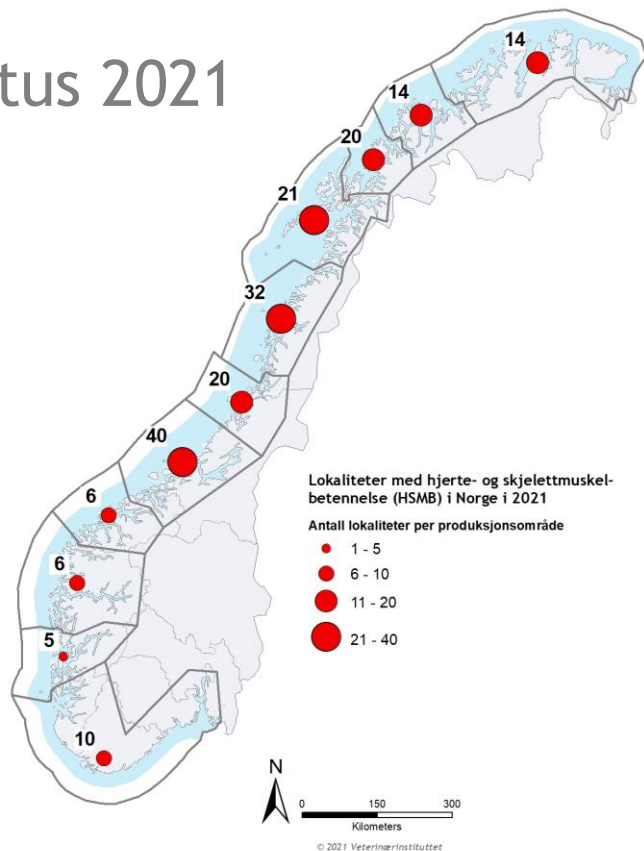
Stress-related CMS outbreaks?

CMS outbreaks 14 days after non -
medicinal delousing (n= 74 resp.)



Heart and skeletal muscle inflammation (HSMI)

Status 2021



- 188 positive salmon farms 2021 (161 in 2020)
- Common in Mid- and North- Norway
- Primarily a problem in the sea phase
- Increasing problem with persistent PRV infections in some hatcheries

Thanks to:

Ingunn Sommerset, Editor of the 'Norwegian Fish Health Report' and all coworkers at NVI contributing to the report

Thank you for your attention!

www.vetinst.no