

## Disorder codes in genetic evaluation of reproductive diseases in NAV

*Kjell Johansson*

Reproductive diseases are evaluated by use of a multilactational model. The analysis makes use of disorder codes given by veterinarians and by AI-technicians. A disorder code is 1 if the cow has the corresponding disease otherwise it is zero. Within lactation the codes are pooled. A categorical trait with 2 categories is constructed and used for the genetic evaluation. For each cow all disorder codes within lactation are summed. If the sum is larger or equal to 1 the cow is considered sick (=1). Otherwise she is considered healthy (=0).

The following codes are used in the evaluation:

### *Group 5: Hormonal reproductive disorders*

#### **Denmark**

- 3 Ovarian cysts
- 65 Ovarian cysts, hormone

#### **Sweden**

- 2 Cyst, AI
- 3 Other ovarian problems, AI
- 4 Other ovarian problems, AI
- 6 Cyst, AI treatment
- 7 Other ovarian problems, AI treatment
- 210 No return
- 211 Regular return without symptoms
- 212 Cystic ovaries

#### **Finland**

- 11 Nonfunctional ovaries
- 12 Suboestrus
- 21 Delayed ovulation prolonged oestrus
- 22 Follicle atresia, anovulation
- 23 Cystic ovaries
- 31 Repeat breeder
- 33 Incufficiency of the corpus luteum
- 10 oestrus problems
- 20 ovulation problems
- 30 problems with corpus luteum
- 32 problems with corpus luteum

**Group 6: Infective reproductive disorders**

**Denmark**

- 2 Metritis
- 5 Uterusinfection or endometritis
- 46 Uterusinfection requireing treatment or metritis
- 66 Vaginitis

**Sweden**

- 8 Endo metritis
- 213 Endo metritis
- 214 Pyometra
- 250 Acute puerperal metritis

**Finland**

- 40 Metritis problems within 6w. p. p.
- 42 Metritis problems within 6w. p. p.
- 50 Metritis problems after 6w. p. p.
- 43 Pyometra within 6w. p.p.
- 51 Acute metritis after 6w. p.p.
- 52 Cronic metritis/cervicitis after 6 w
- 53 Acute metritis after 6w. p.p.

**Group 7: Other reproductive disorders**

**Denmark**

- 9 Other reproductive disorder
- 47 Abortion
- 90 Uterine prolaps

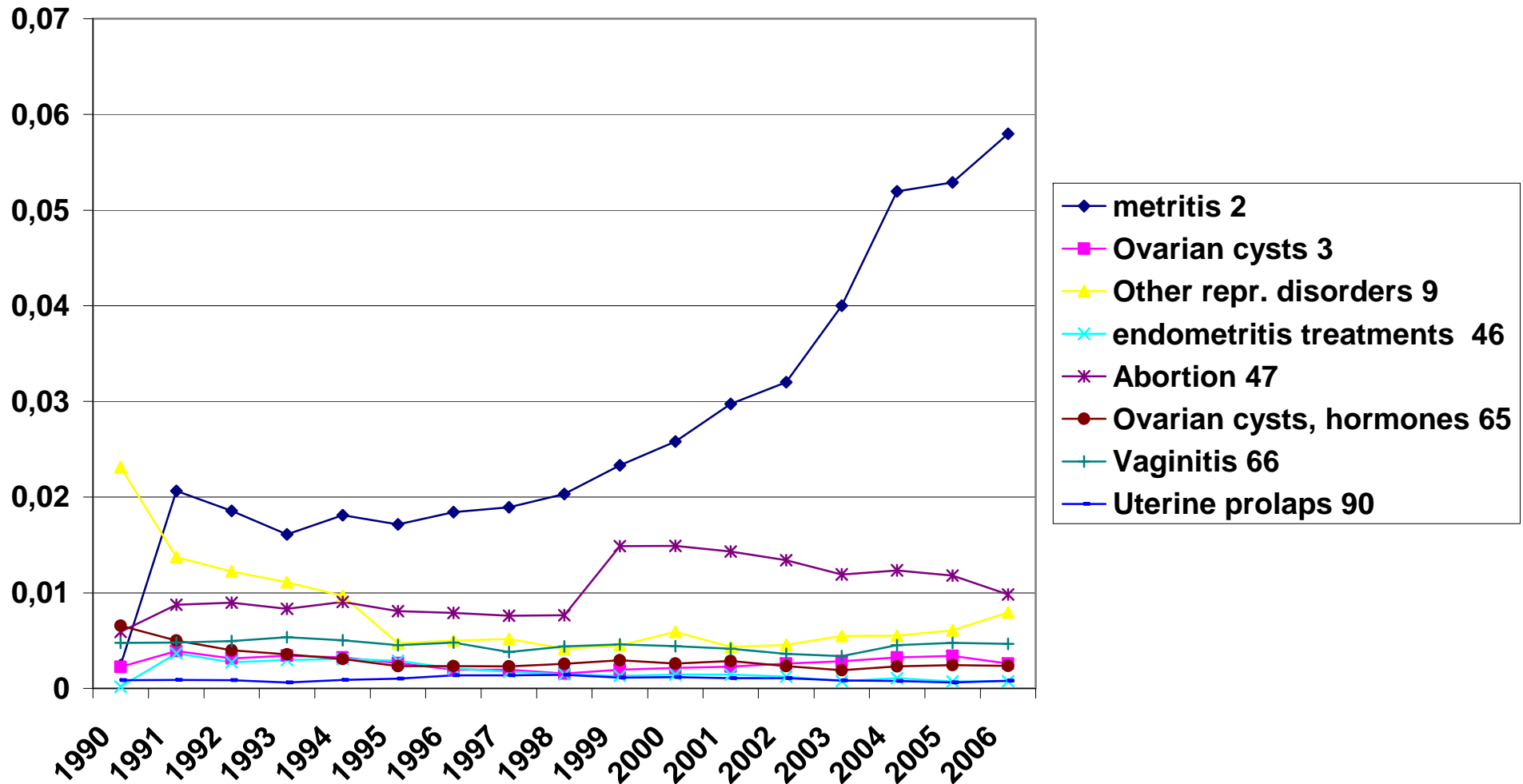
**Finland**

**Sweden**

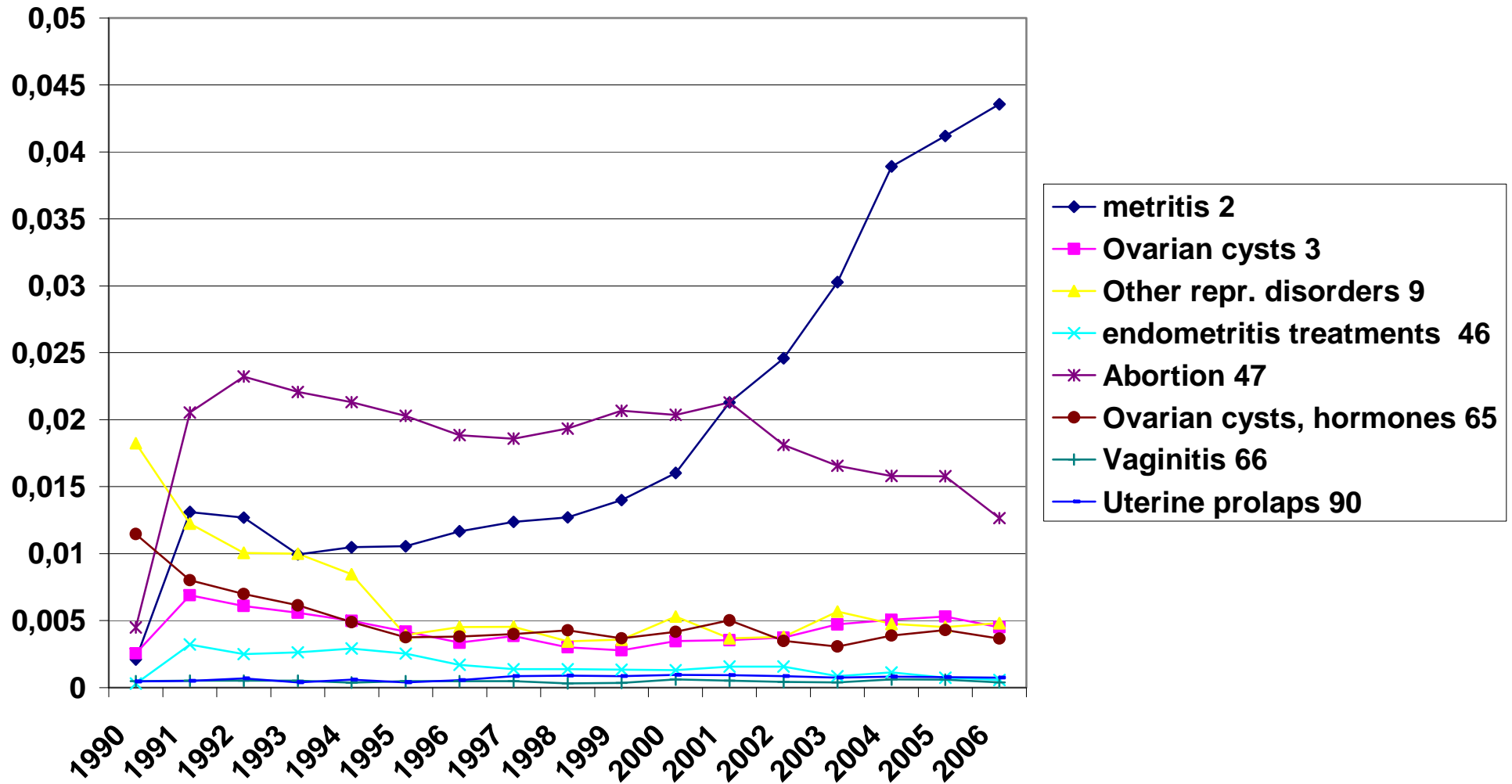
- 9 treatment other than 6-8 AI
- 226 Uterine prolaps

The yearly frequencies for each country's disorder codes are given in the graphs below.

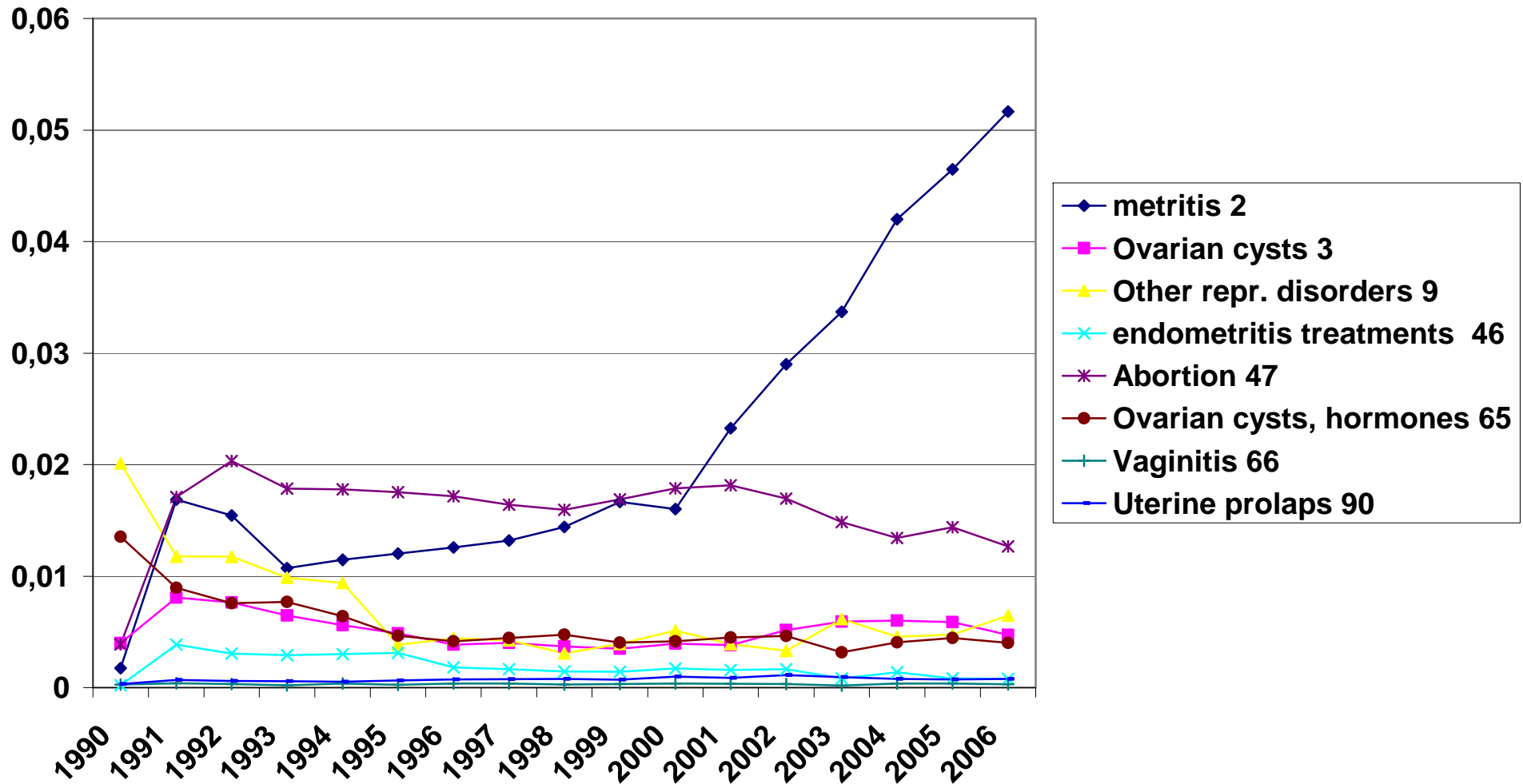
# Reproductive disorders in Denmark. Lactation 1



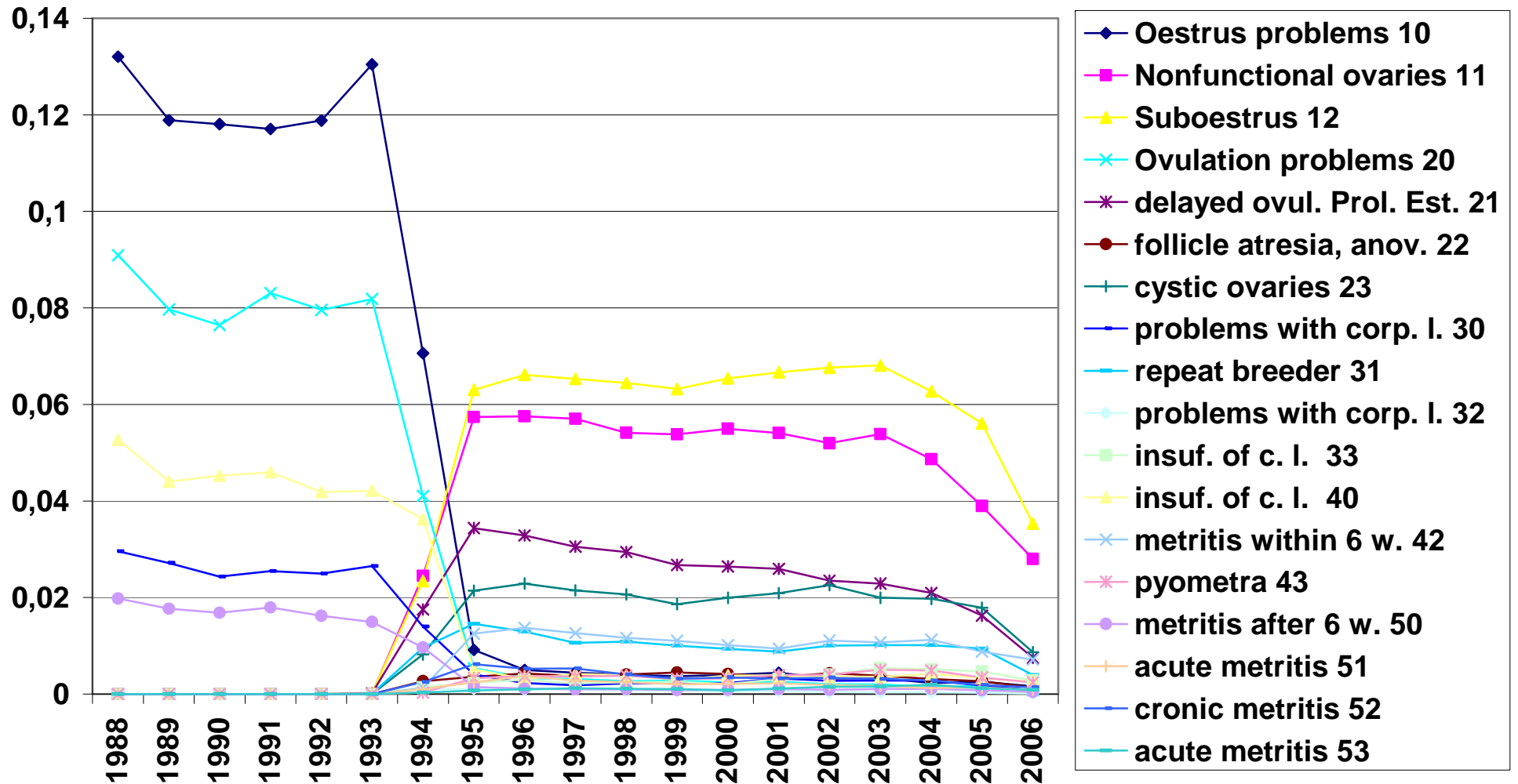
## Reproductive disorders in Denmark. Lactation 2



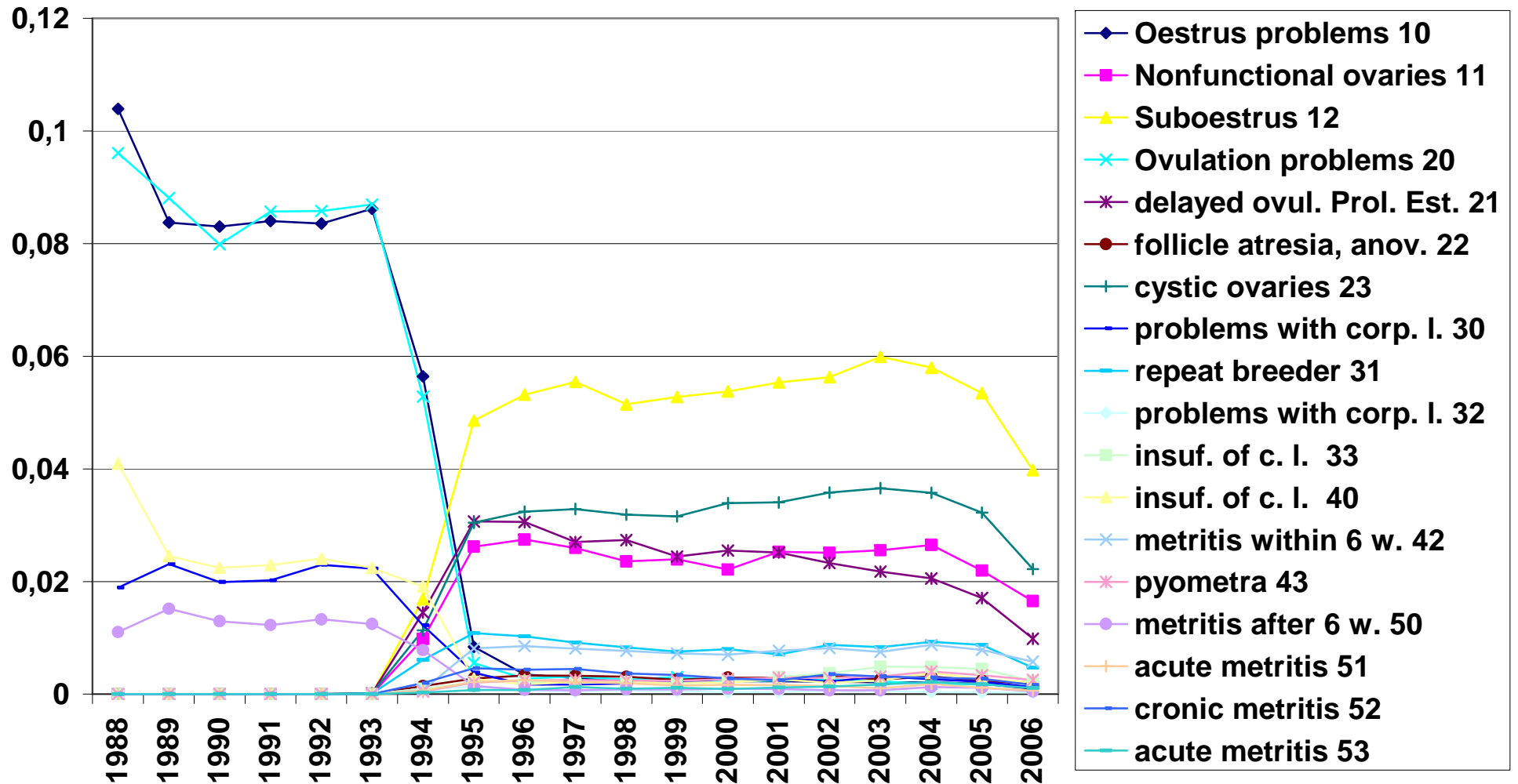
# Reproductive disorders in Denmark. Lactation 3



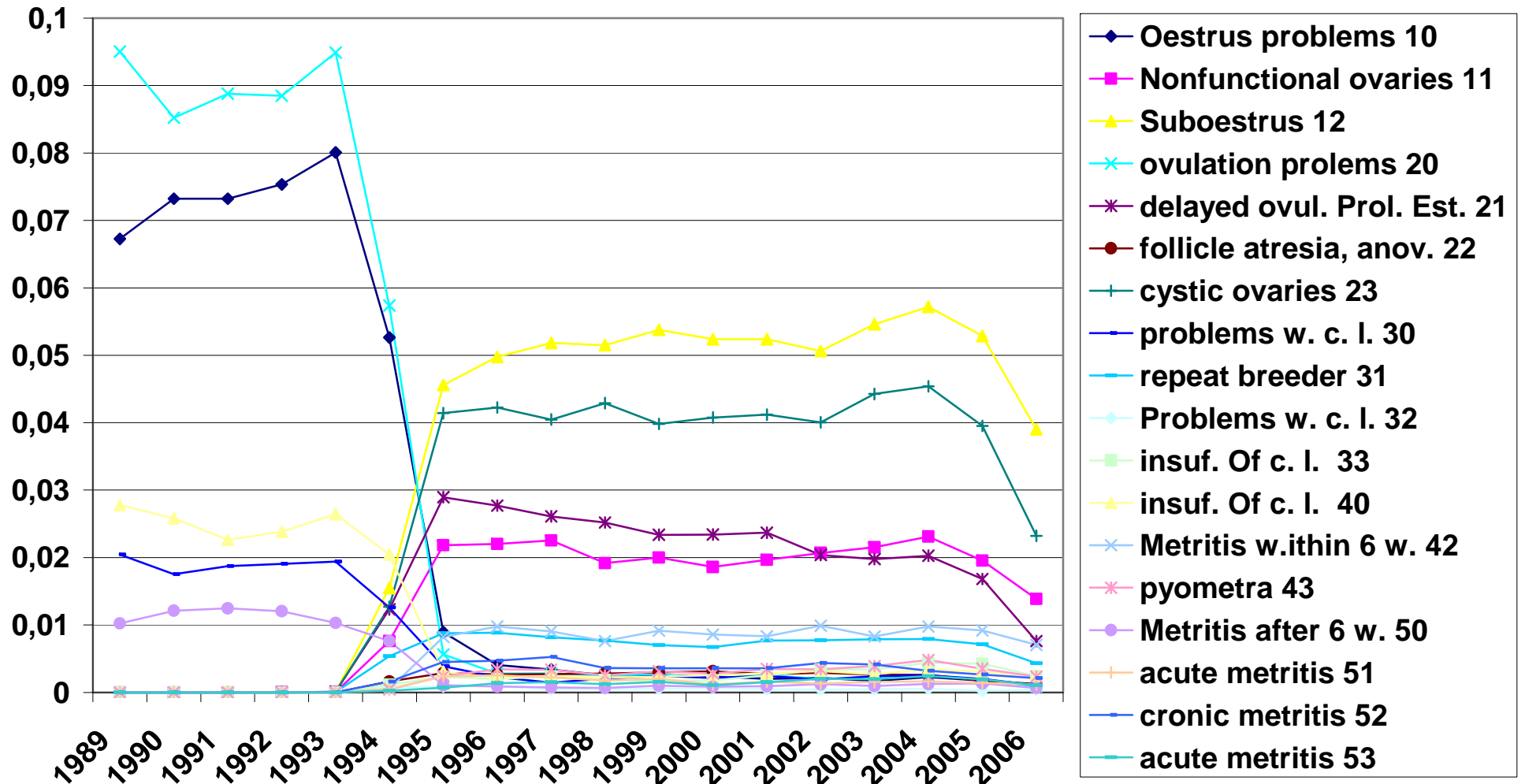
# Reproductive disorders in Finland. Lactation 1



## Reproductive disorders in Finland. Lactation 2



## Reproductive disorders in Finland. Lactation 3







# Reproductive disorders Sweden. Lactation 3

