

# Increasing quality of care by investing in Cochrane

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# Infant mortality rate in Jämtland

## Östersund hospital

- Catchment area: Jämtland county

## Infant mortality rate (IMR) in Jämtland (moving 5 year average)

- 1984-1985: 7.7/1000 - the highest (worst) IMR in Sweden

# Why did newborns in Jämtland die?

- **Too few SBI (severe bacterial infections)**

Probable explanation: we missed several cases of SBI → death.

Action:

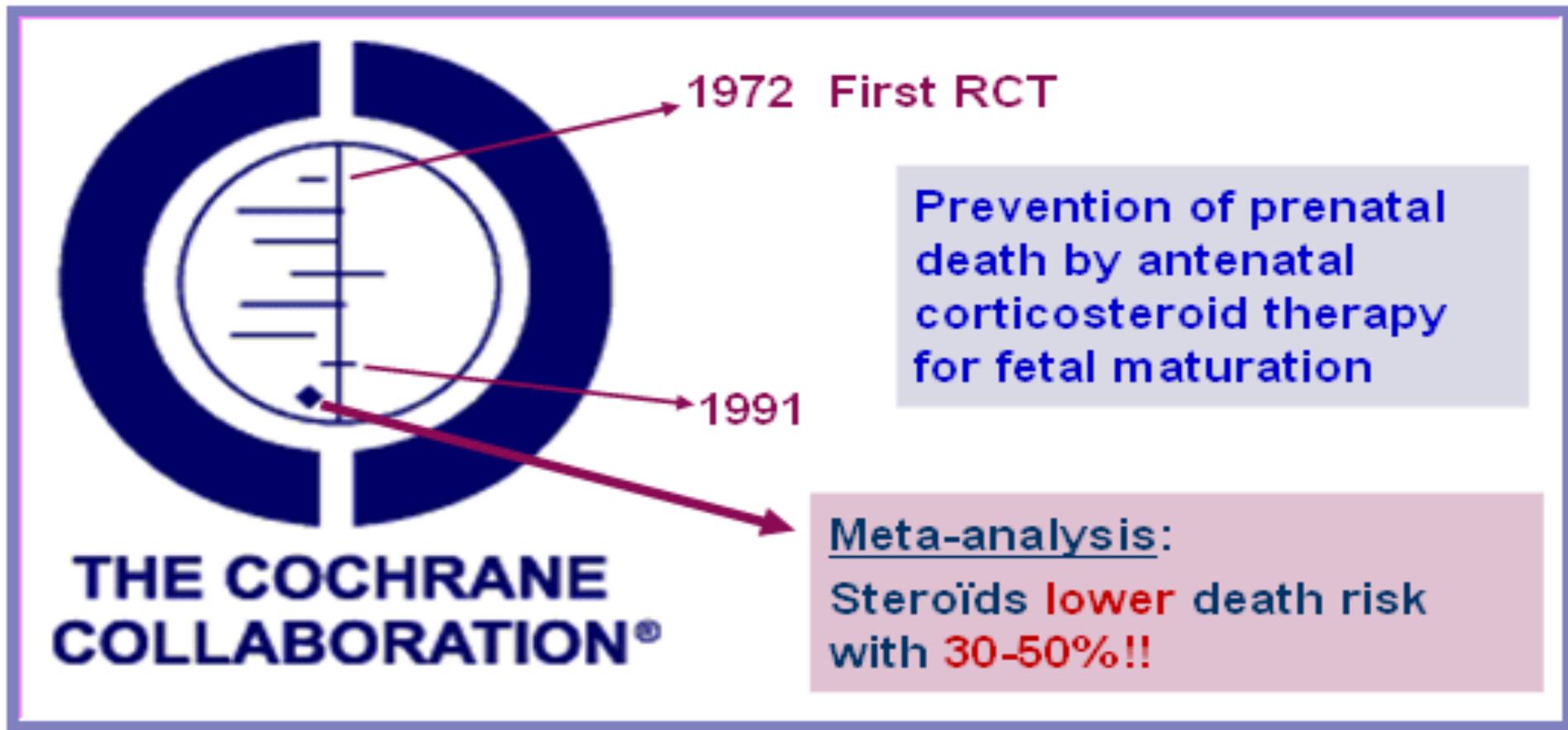
- Improved diagnosis
- Antibiotics if there is a significant risk for SBI

# Why did newborns in Jämtland die?

- **Too many RDS**

The neonatologists at our referral hospital (Uppsala) recommended us not to use betamethasone to pregnant women with premature labor for prevention of RDS.

We studied the meta-analysis in “The Oxford database of perinatal trials” and decided to use betamethasone.



“The Oxford database of perinatal trials”



The Cochrane Library

Iain Chalmers et al., The Oxford database of perinatal trials: Developing a register of published reports of controlled trials. *Controlled Clinical Trials* 1986;7(4):306-324.

# Why did newborns in Jämtland die?

## **Improvements at our hospital:**

- A better nasal CPAP was developed by Drs Gunnar Moa and Kjell Nilsson at ICU: Infant Flow. This device is used world-wide now and has inspired several Cochrane reviews.
- We got access to surfactants when we joined a clinical trial.

## **Improvements at many hospitals:**

- Better ultrasonography → lethal malformations are discovered early in pregnancy → legal abortion

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70 % drop of IMR



- 1993-1996: 2-3/1000 - the lowest (best) IMR in Sweden

# Conclusions

## **Cochrane help us in two ways:**

- We could make a better decision about prenatal betamethasone to mothers with premature labor
- Reviews of CPAP for breathing difficulties in preterm babies supported and inspired our work

This saved lives

*The end*

# Antibiotics for acute otitis media

## **A study at 88 primary care centers in Sweden**

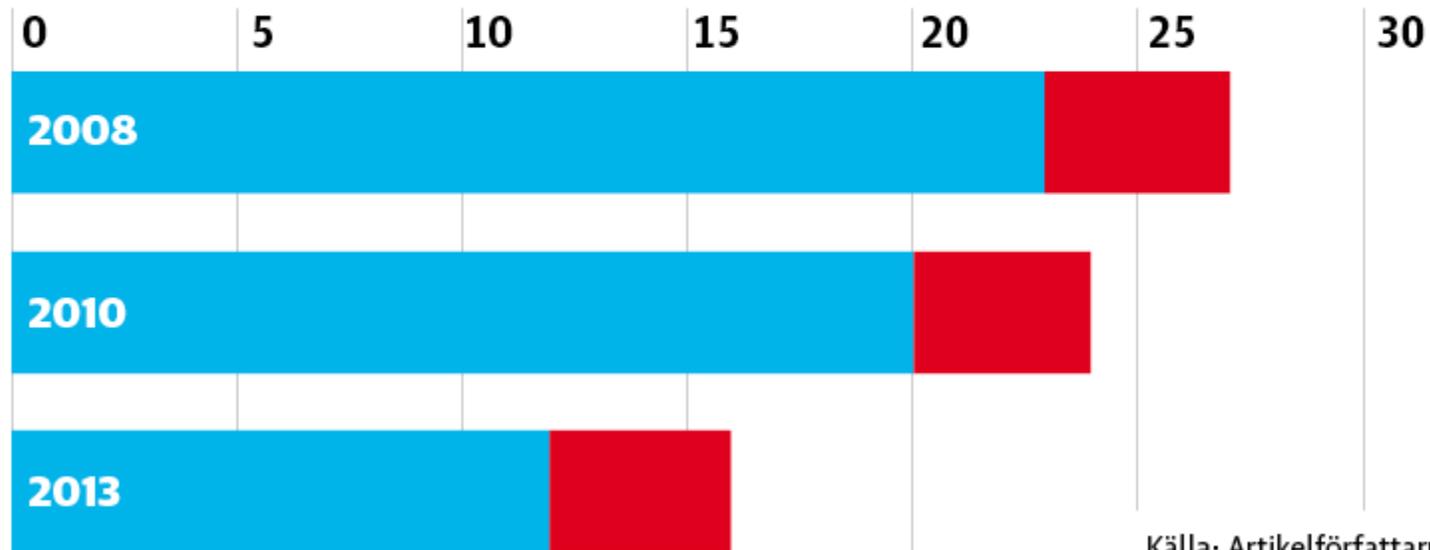
Implementation of clinical guidelines based on Cochrane reviews and other meta-analyses

Tyrstrup M et al. [Reduction in antibiotic prescribing for respiratory tract infections in Swedish primary care- a retrospective study of electronic patient records.](#) BMC Infect Dis. 2016 Nov 25;16(1):709.

# 50 % reduction of ABX for AOM in kids

## Antibiotikaanvändningen kunde minskas

Antal läkarbesök (per 1000 personår) för akut öroninflammation med (blått) respektive utan (rött) antibiotika vid 88 vårdcentraler.



Källa: Artikelförfattarna