

Skin and lung diseases among Norwegian industrial painters

Dept. of Occupational Medicine, Trondheim, Norway (Rømyhr O., Leira HL, Smedbold HT)

Dept. of Occupational Medicine, Bergen, Norway (Aasen TB, Nyfors A)

National Institute of Technology, Oslo, Norway (Berntsen M)

Dept of Occupational and Environmental medicine, Lund, Sweden (Dalene M., Skarping G., Karlsson D)



Department of occupational medicine
St.Olavs hospital, Trondheim

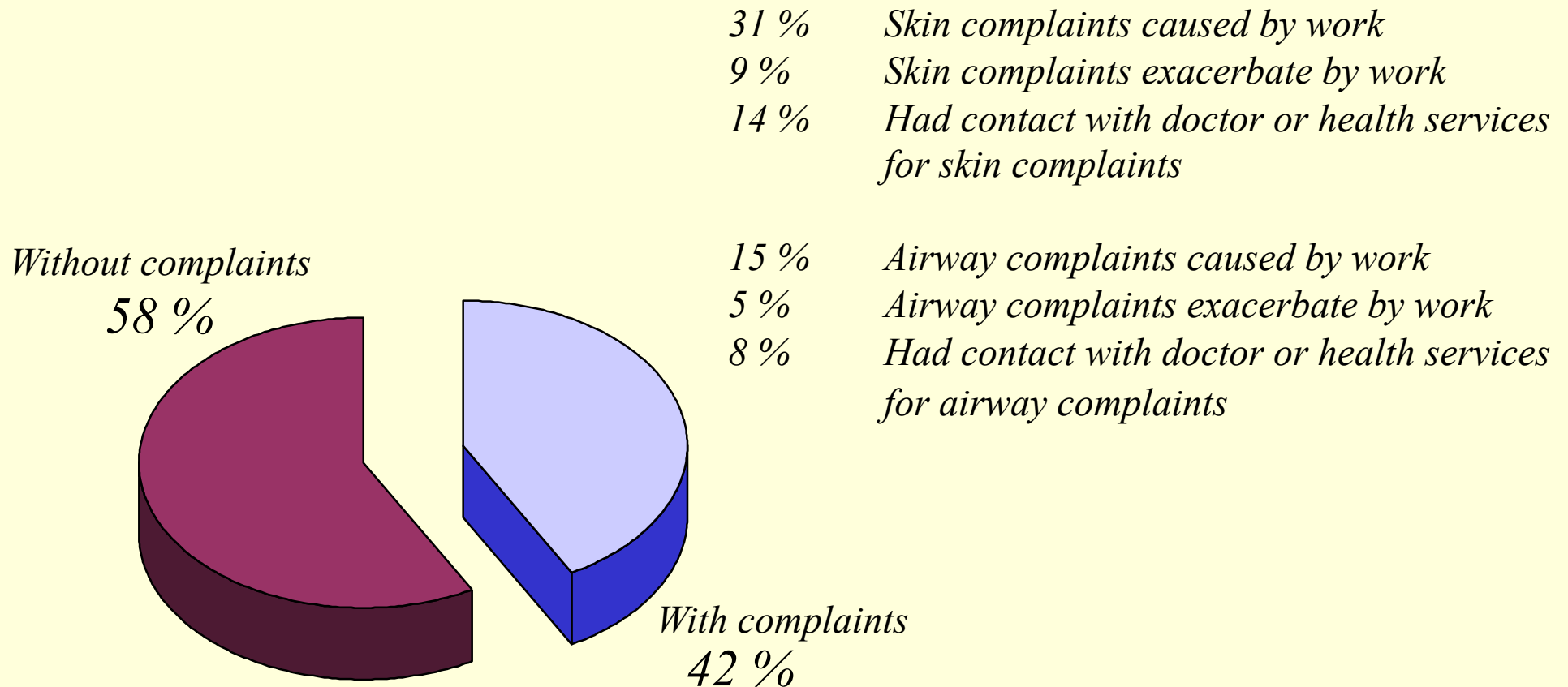


Paint volume 1997-2000

| Year | Volume (1000 liter) | Epoxy (%) | Polyurethane (%) | Others (%) |
|------|------------------------|--------------|---------------------|---------------|
| 1997 | 816 | 66 | 15 | 19 |
| 1998 | 1029 | 67 | 12 | 21 |
| 1999 | 666 | 66 | 9 | 25 |
| 2000 | 413 | 61 | 9 | 30 |



Skin- or airways complaints in work



Cohort

- Six firms
- ~ 1200 industrial painters
- Age: 36 years
- Mean workpractise as industrial painters: 10 years



Incidence (1997-2001)

- Occupational asthma:
6 workers
⇒ 1,1 cases pr 1000 personyears
- Allergic exzemas:
21 workers
⇒ 4,1 cases pr 1000 personyears



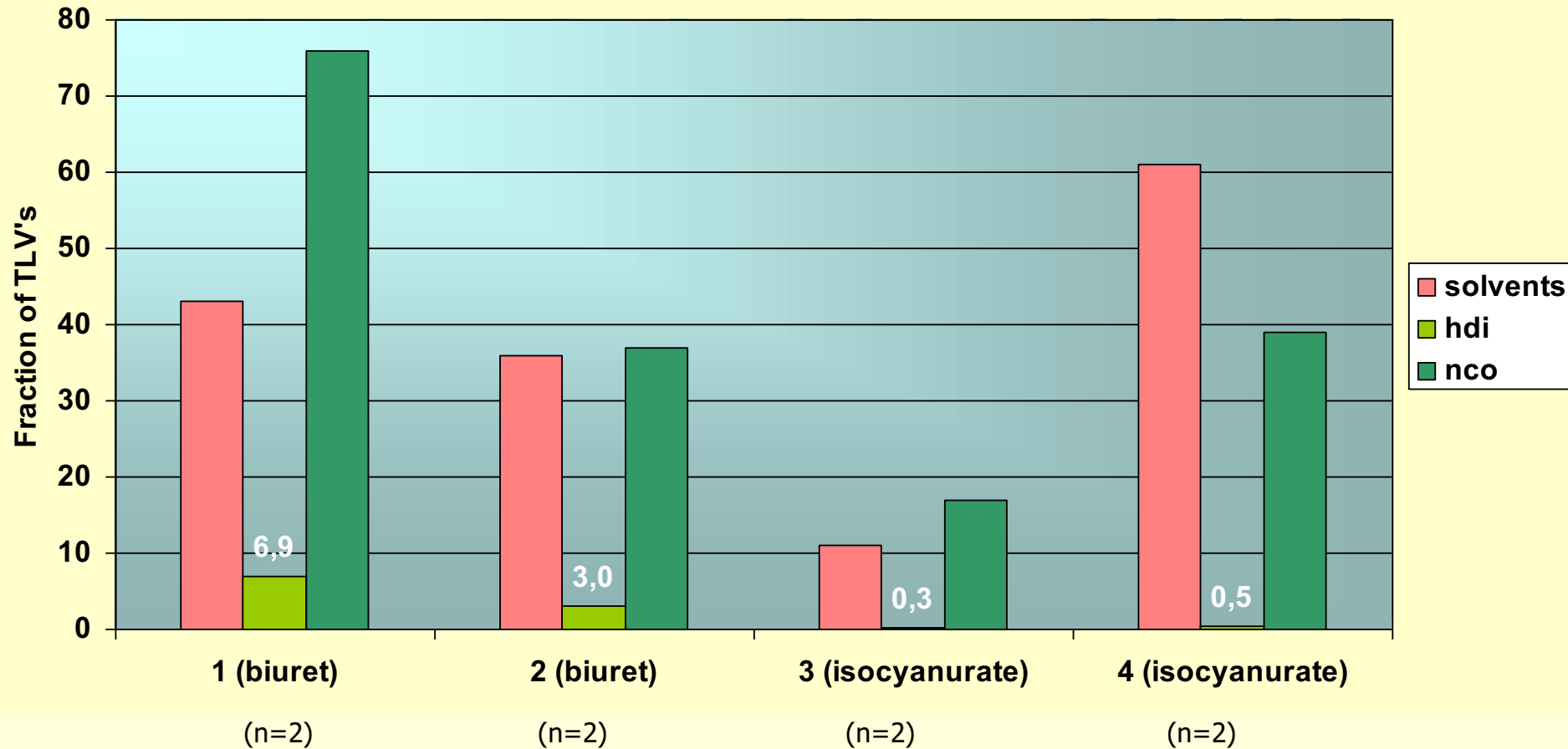
Chamber study



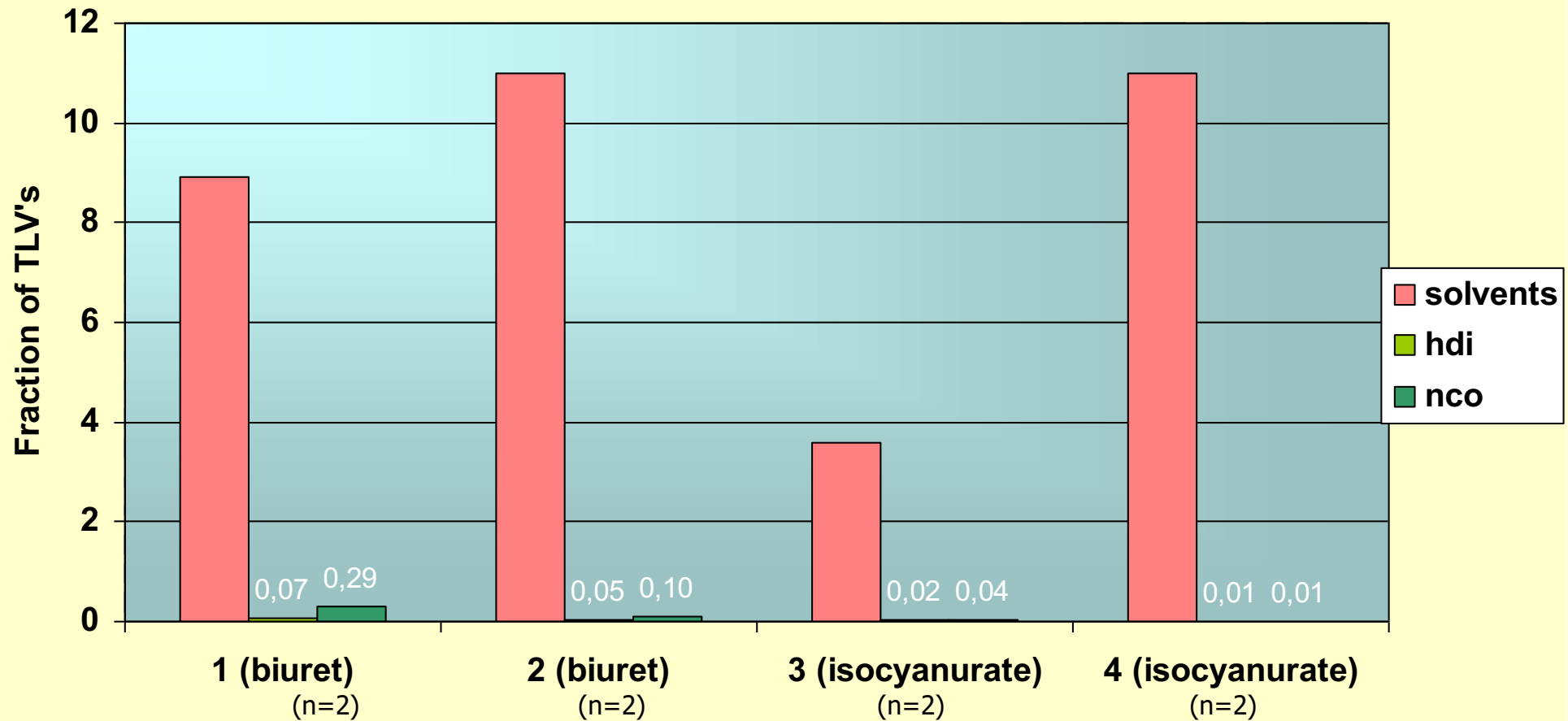
- Volume. 22 m³
- No ventilation
- Four HDI-based paints
- Standard painted area
- Standard paint volume
- Standard applying time



Chamber spraypainting

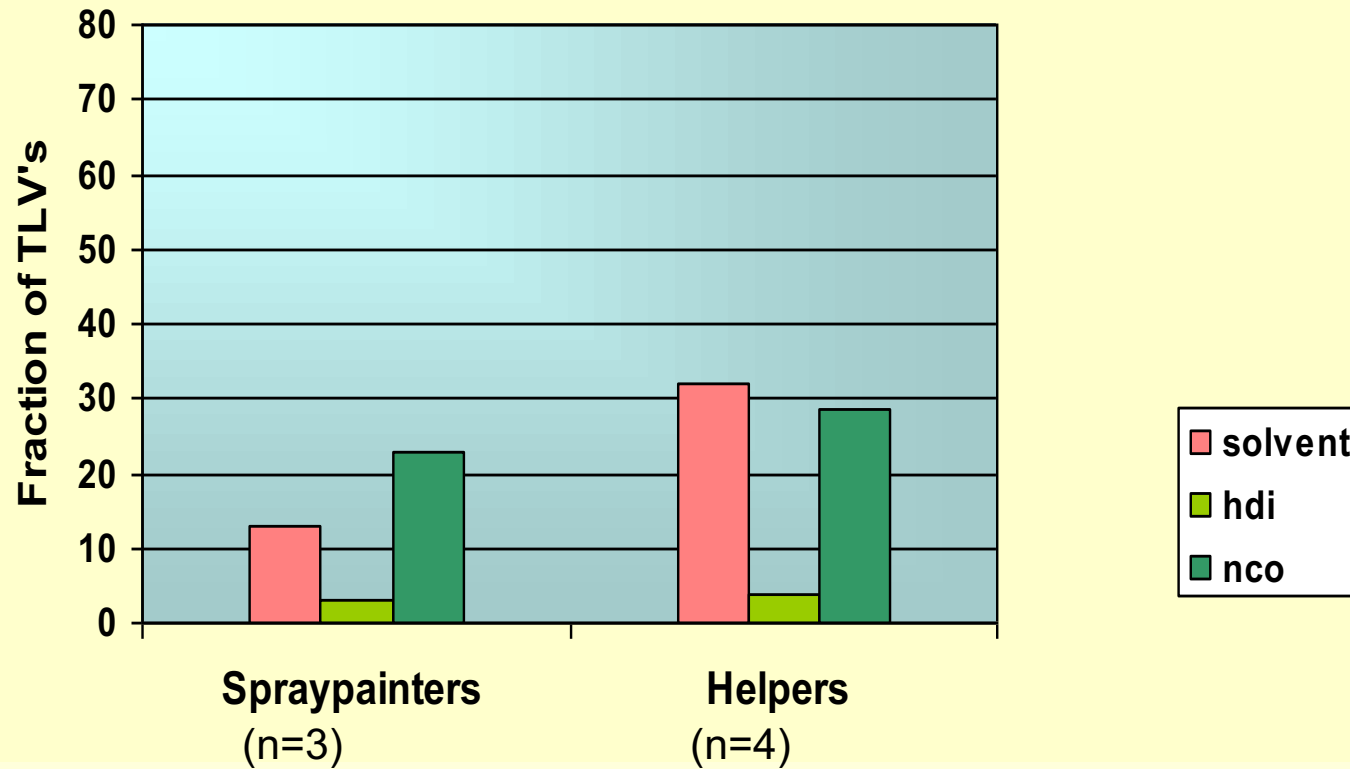


Chamber rollpainting



Spraypainting - engineroom

Personal samples



Main conclusions

- Incidence rates should be regarded as minimum figures.
- Rollpainting: Low isocyanateexposure
- Spraypainting: High isocyanateexposure, dominated by low volatile isocyanatecompounds.

Reports (in Norwegian): www.medisin.ntnu.no/ims/amed

E-mail: olve.romyhr@medisin.ntnu.no



Department of occupational medicine
St.Olavs hospital, Trondheim