Background:
Nursing homes are important arenas for delivery and receipt of primary health services and house persons particularly vulnerable to acute incidences that require adequate care. Under the assumptions that hospitalisations of nursing home residents represent an unfavourable discontinuity of care and many are considered potentially avoidable, high rates represent a concern.

Mapping of variation is increasingly used as a measure in health services research and large variance indicate a need to focus on the appropriateness of the service use.

Objectives:
1. Describe overall variation in acute hospital admission rates among nursing homes in one municipality
2. Estimate the association between the hospitalisation rate and size, bed-mix and ownership status

Methods:
In a large norwegian municipality we studied acute hospitalisation rates from all nursing homes (n=38) over a two-year period (01.01.2007 – 31.12.2008).

Overall variation was tested using chi-square. Diagnose specific variation was tested using the Systematic Component of Variation (SCV). Regression was used to estimate the association between mean annual hospitalisation rate as dependent variable and size of the nursing home, percentage short-term beds and ownership status as independent variables.

Results
The overall mean rate of hospital admission was 0.57 per nursing home bed (SD±0.298), varying significantly between 0.16-1.49 per nursing home (p<0.0001).

The admission rates were consistent for each nursing home across the two years, with a correlation coefficient of 0.78 (p<0.0001) (figure 1).

We found significant correlations between variation in hospitalisation rates and nursing home size (r= -0.64) and percentage short-term beds (r=0.60), while no association was found for ownership status (r=0.28). In a multiple regression model, size and percentage short term beds could significantly explain as much as 36.7 % (R²=0.367) of the variance.

1 Birgitte Graverholt, 2 Trond Riise, 3 Gro Jamtvedt, 4 Bettina Husebø, 1 Monica Wammen Nortvedt

E-post – korresponderende forfatter: 1 bgra@hib.no

1 Senter for kunnskapsbasert praksis, Høgskolen i Bergen
2 Institutt for samfunnsmedisinske fag, Universitetet i Bergen
3 Nasjonalt kunnskapssenter for helsetjenesten