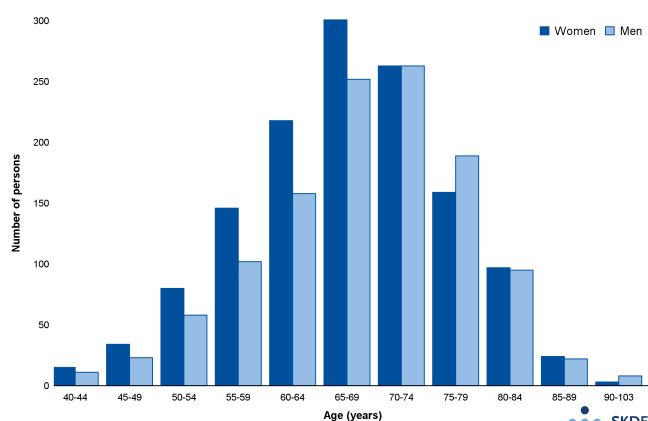


Pulmonary rehabilitation for COPD patients emphasises educating patients about their condition, physical exercise, nutritional advice, personalised medication, and, if relevant, help to stop smoking. The goal is to achieve permanent lifestyle changes. In practice, rehabilitation is carried out as day patient treatment, individually or in groups, and can last from a few days to several weeks. Pulmonary rehabilitation can have long-term positive effects on people's level of physical functioning and quality of life.

### Background and sample

Rehabilitation is offered by different providers in different hospital referral areas, and the content of the rehabilitation services varies. It is a challenge to distinguish between specific pulmonary rehabilitation and more general rehabilitation measures, since no diagnosis or procedure codes are specific to pulmonary rehabilitation for COPD. It is also challenging to gain a full overview of the rehabilitation services available to persons with COPD in the specialist health service, but the basic data are nevertheless deemed to be satisfactory.

The analyses include persons with COPD who participated in pulmonary rehabilitation at defined hospital departments and private rehabilitation institutions in 2015. For the relevant hospital departments, the analyses only include activities coded as rehabilitation, group-oriented patient education, physical exercise with guidance and instruction, coping and learning activities relating to the condition in question, and outpatient contact carried out by a physiotherapist or occupational therapist.



Persons who participated in pulmonary rehabilitation for COPD in 2015 broken down by gender and age. Average number per year.

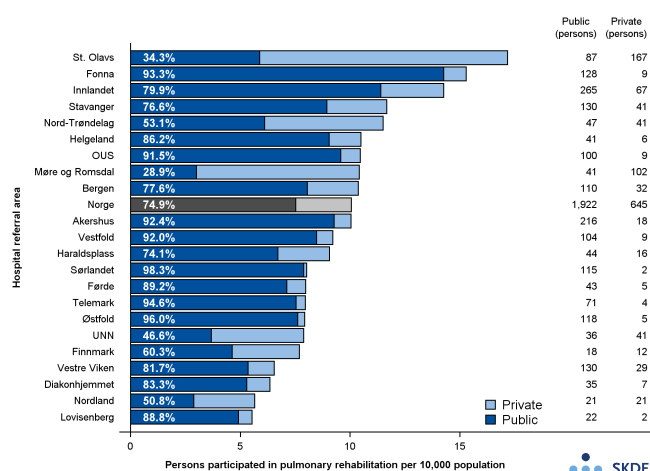
### Pulmonary rehabilitation for COPD as day patient treatments and inpatient stays broken down by private and public treatment providers.

	Private	Public	Both
<b>Day patient treatment</b>			
Persons	59	759	813
Total day patient treatments	821	6,561	7,382
Day patient treatments per person	13.9	8.6	9.1
<b>Inpatient treatment</b>			
Persons	604	1,198	1,789
Total rehabilitation days	15,073	27,360	42,433
Rehabilitation days per person	25.0	22.8	23.7

### Findings

About 2,500 persons aged 40 years or older participated in pulmonary rehabilitation for COPD in 2015. Most of them were between 60 and 80 years old. On average, 10 persons per 10,000 population participated in pulmonary rehabilitation for COPD. There were three times as many participants per 10,000 population in St. Olavs Hospital's referral area as in Lovisenberg hospital referral area.

Of all persons with COPD who participated in pulmonary rehabilitation, 75% received this treatment at a public hospital. The proportion varied from 34% in Helse Møre og Romsdal hospital referral area to 98% in Sørlandet Hospital's referral area.



Persons who participated in pulmonary rehabilitation for COPD in 2015. The numbers are standardised by gender and age per 10,000 population.

### Comments

There was considerable geographical variation in the use of pulmonary rehabilitation for COPD in 2015. The findings must be seen in conjunction with the expected prevalence of COPD (see the fact sheet [Prevalence of COPD](#)). Since the numbers are so small, random variation can have a considerable impact. It is nevertheless likely that much of the variation is unwarranted. It is especially surprising to find such low participation in pulmonary rehabilitation among people resident in the hospital referral areas of Finnmark Hospital and Lovisenberg, given that these areas have the highest expected COPD prevalence. Correspondingly, residents of St. Olavs Hospital's referral area had high participation in pulmonary rehabilitation and a relatively low expected prevalence of COPD. There appears to be unwarranted variation in the provision of pulmonary rehabilitation for COPD. At the same time, the use of rehabilitation services will not always reflect their availability. Some persons with COPD reject concrete offers of rehabilitation.

Establishing and developing rehabilitation services for persons with COPD is a measure with a potential to improve patients' quality of life and to reduce the number of emergency admissions.