

# Municipality rehabilitation after hospital admission

## Research questions

To whom are municipality rehabilitation plans prescribed and to which extend are they activated after discharge from hospital?

How does timely initiation of rehabilitation affect all-cause acute readmission and all-cause mortality?

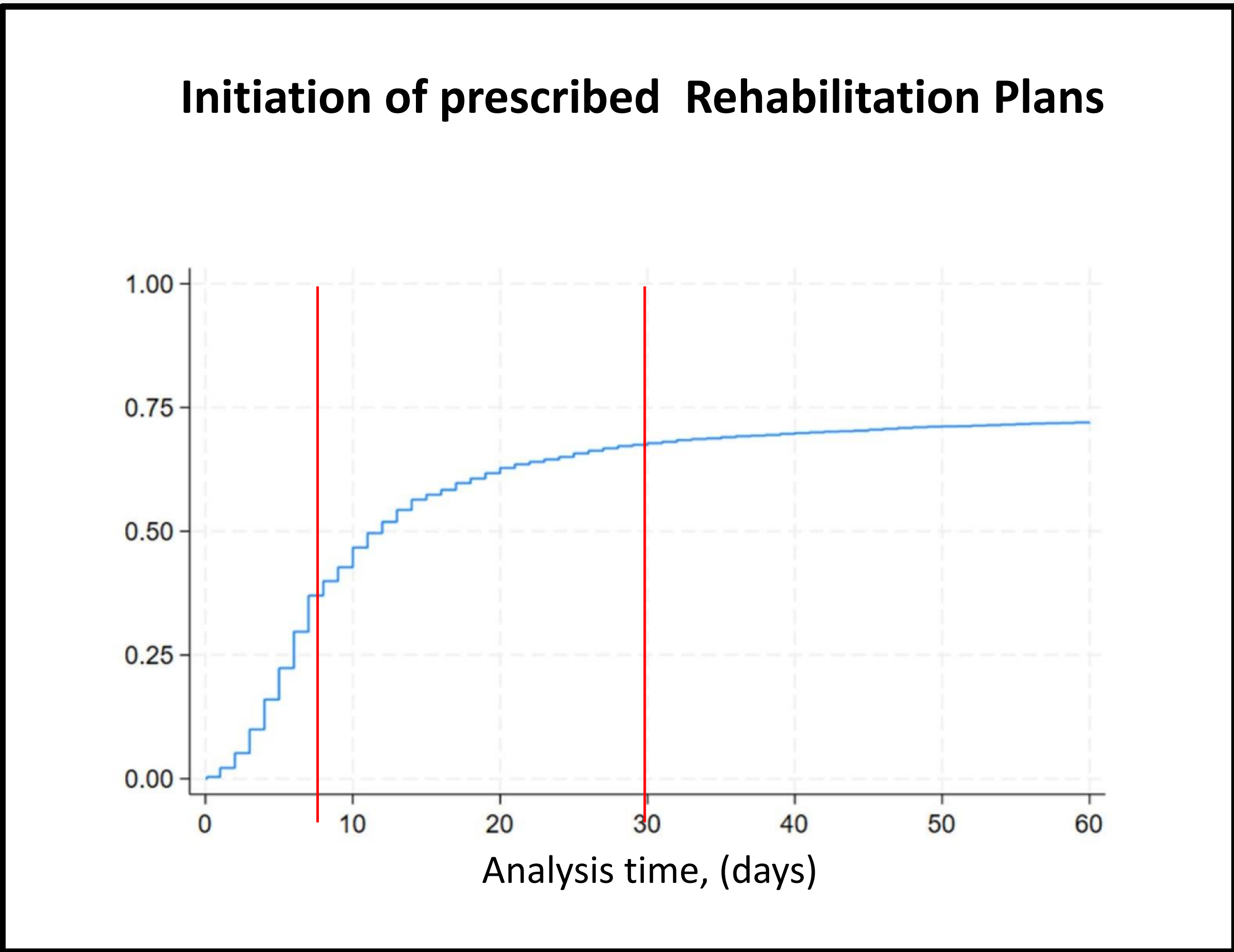
## Method

The study included registry-based data on all acute hospital contacts from Odense University Hospital (OUH) during the years 2015 to 2020 and utilized rehabilitation referrals, demographic and municipal data from a population of residents in the Danish municipality of Odense.

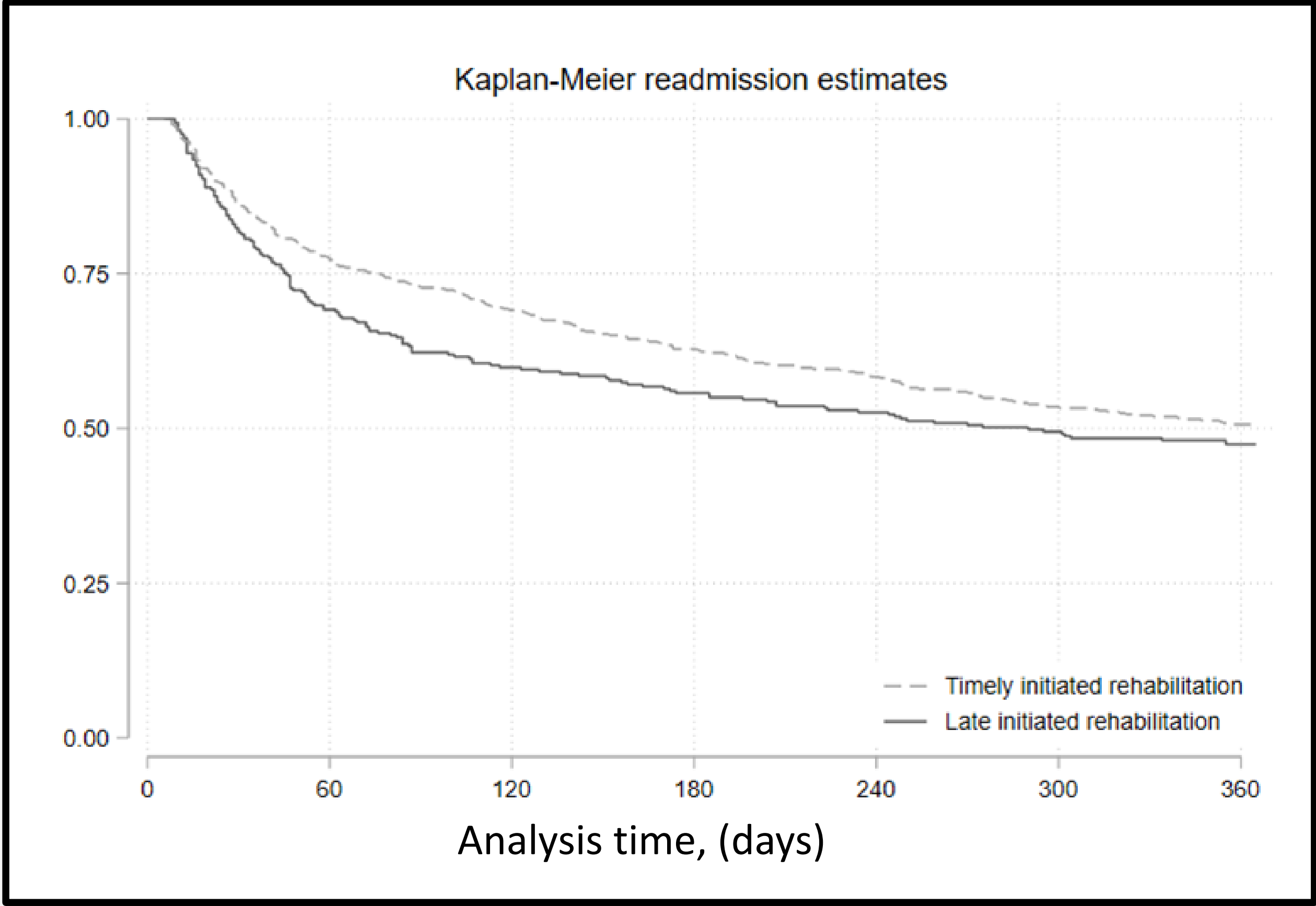
## Results

To whom are municipality rehabilitation plans prescribed and to which extend are they activated after discharge from hospital?

| The odds of having a RP prescribed                   |
|------------------------------------------------------|
| Increased with age<br>( +80; OR 22.3 [20.21; 24.60]) |
| Danish ethnicity<br>(OR 1.23 [1.13; 1.35])           |
| Receiving nursing care<br>(OR 1.08 [1.03; 1.14])     |
| Receiving domestic help<br>(OR 1.91 [1.81; 2.02]).   |
| CCI low or medium<br>(medium; OR 1.32 [1.23; 1.42])  |



How does timely initiation of rehabilitation affect all-cause acute readmission and all-cause mortality?



|                                       | Adjusted Hazard Ratio |           |         |
|---------------------------------------|-----------------------|-----------|---------|
|                                       | HR                    | 95% CI    | p-value |
| 90-day all-cause acute readmission    |                       |           |         |
| Initiation within the legal timeframe | 0.82                  | 0.74-0.90 | <0.001  |
| Weekly delayed initiation             | 1.07                  | 1.04-1.10 | <0.001  |
| 365-day all-cause acute readmission   |                       |           |         |
| Initiation within the legal timeframe | 0.90                  | 0.83-0.97 | 0.006   |
| Weekly delayed initiation             | 1.05                  | 1.02-1.07 | <0.001  |
| 365-day all-cause mortality           |                       |           |         |
| Initiation within the legal timeframe | 0.74                  | 0.61-0.89 | 0.002   |

## Conclusion

- Several variables appear to be associated with the issuance of a rehabilitation plan.
- No potential inequality was reflected in the initiation of rehabilitation.
- 40% who had a rehabilitation plan prescribed did start within the legal initiation period of 7 days.
- If a rehabilitation plan was not initiated within 30 days, chances were small for initiation at all.
- Timely initiation of rehabilitation is associated with reduced readmission and reduced mortality.
- Therefore, focus should remain on early rehabilitation.