

Sick leave before and after stroke

Prevalence and associated factors in a long-term Swedish registry study

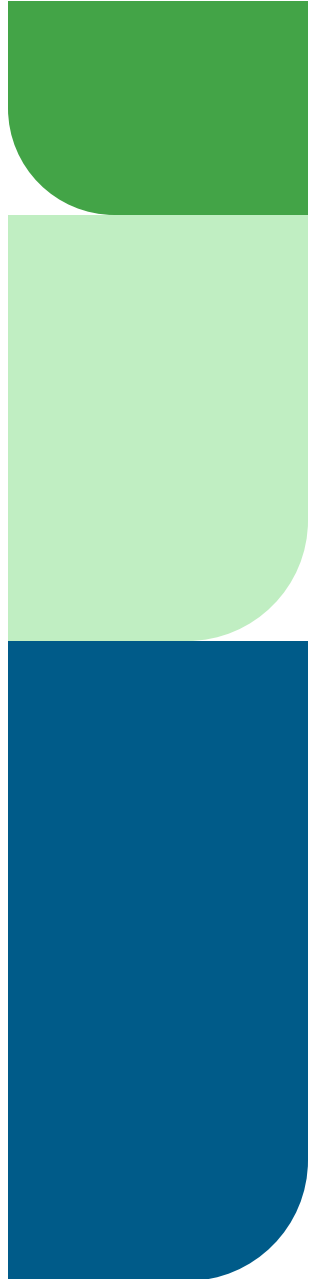
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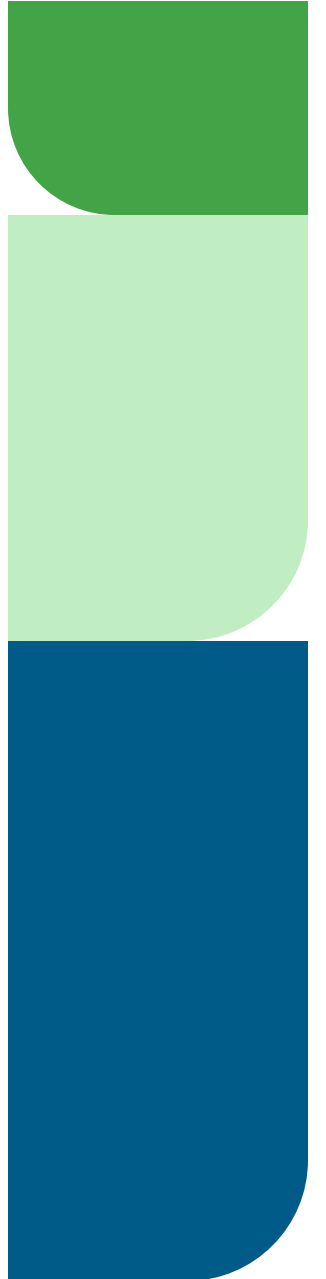
Two questions about work disability

01 Compare trajectories

How does sick leave differ between stroke cases and matched controls, from one year before to three years after stroke?

02 Identify associated factors

Which pre-stroke characteristics and early clinical impairments are associated with longer post-stroke sick leave?



A linked-registry study in Gothenburg

1,502

first-ever stroke cases

6,008

age- and sex-matched controls

2014-2019 | Ages 18-65 | First-ever stroke | Survival ≥ 30 days

Väststroke / Riksstroke: clinical and functional measures

Statistics Sweden: controls and socioeconomic data

Social Insurance Agency: sickness absence and disability pension

What does sick leave mean here?

A combined outcome

Sickness absence + disability pension, expressed as net sick leave days.

10 days at 50% incapacity = 5 net days



Who was included?

54.3 years

Mean age at stroke

65.8% men

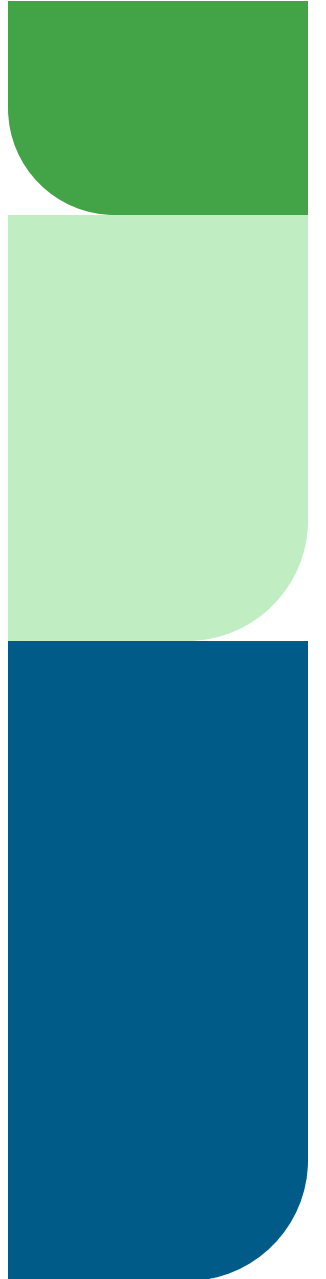
Matched on age and sex

86.8% ischemic

13.2% intracerebral hemorrhage

Lower income in cases

Median: EUR 20,678 vs 25,176

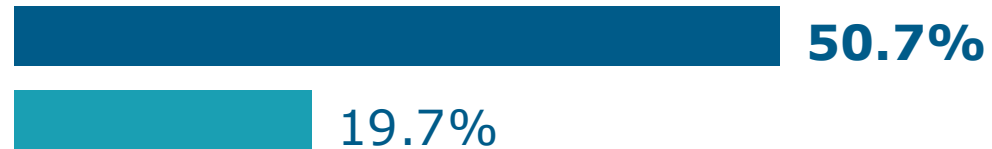


The burden was higher before stroke

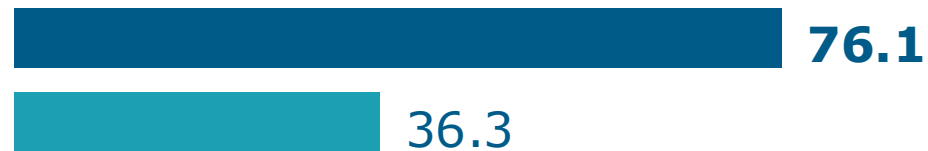
■ Stroke cases

■ Matched controls

**Any sick leave during
the pre-index year**



**Mean net sick leave
days in that year**



Work-disability burden was higher before stroke.

A substantial three-year cumulative burden

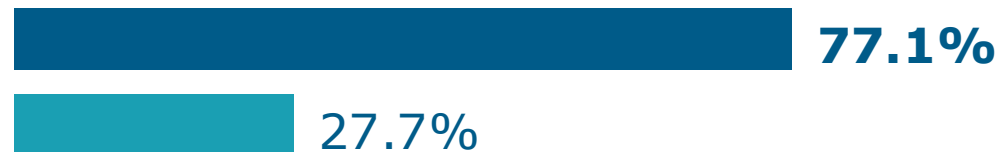
■ Stroke cases

■ Matched controls

**Mean net days over
three years**

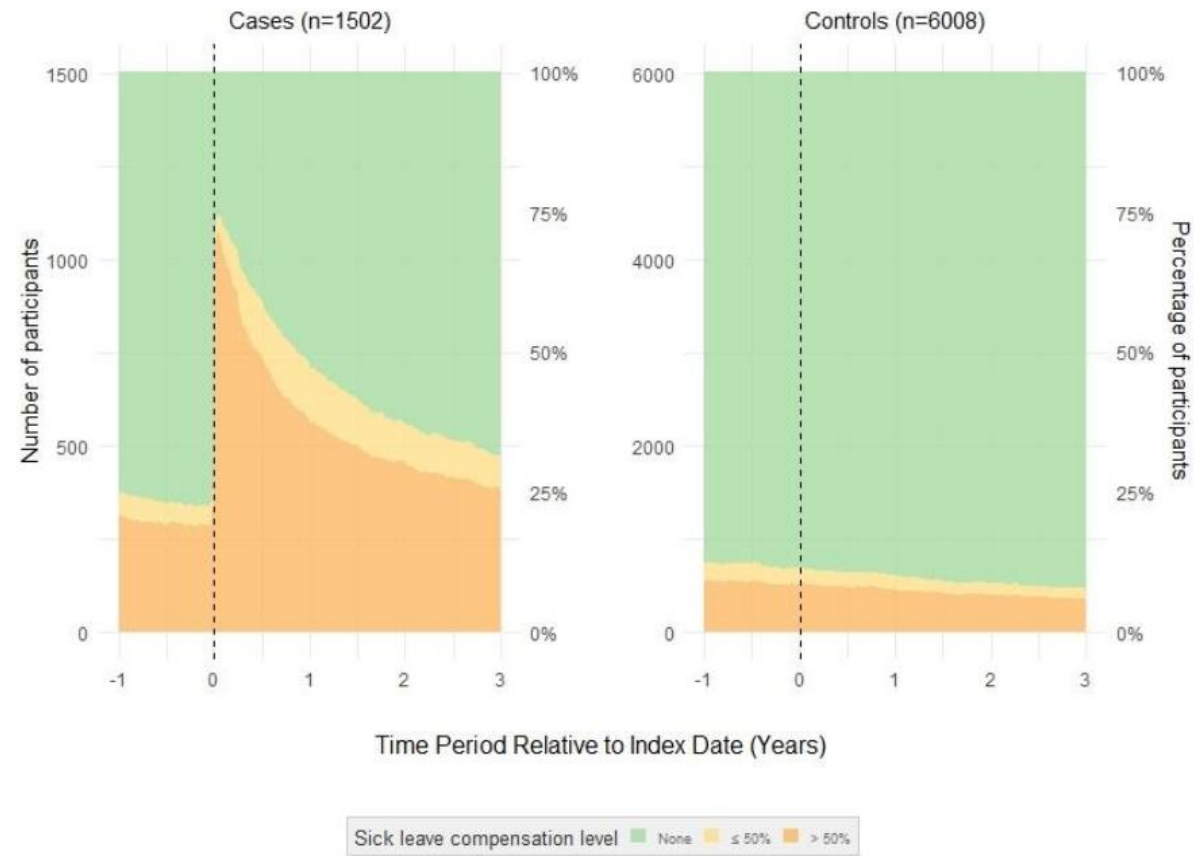


**Any sick leave during
those three years**

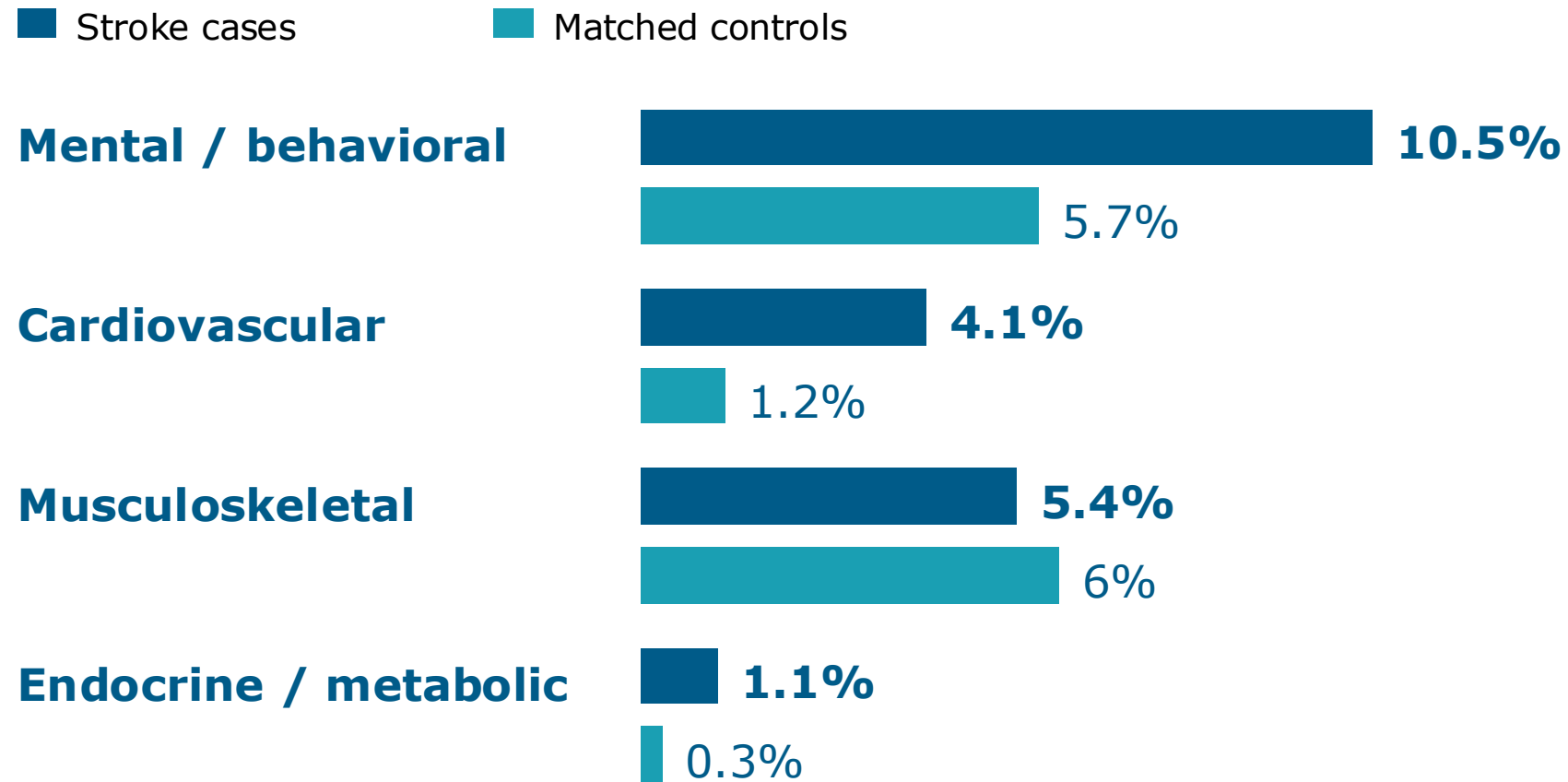


Median net days: 262 in cases and 0 in controls.

Backup | Daily sick leave trajectories

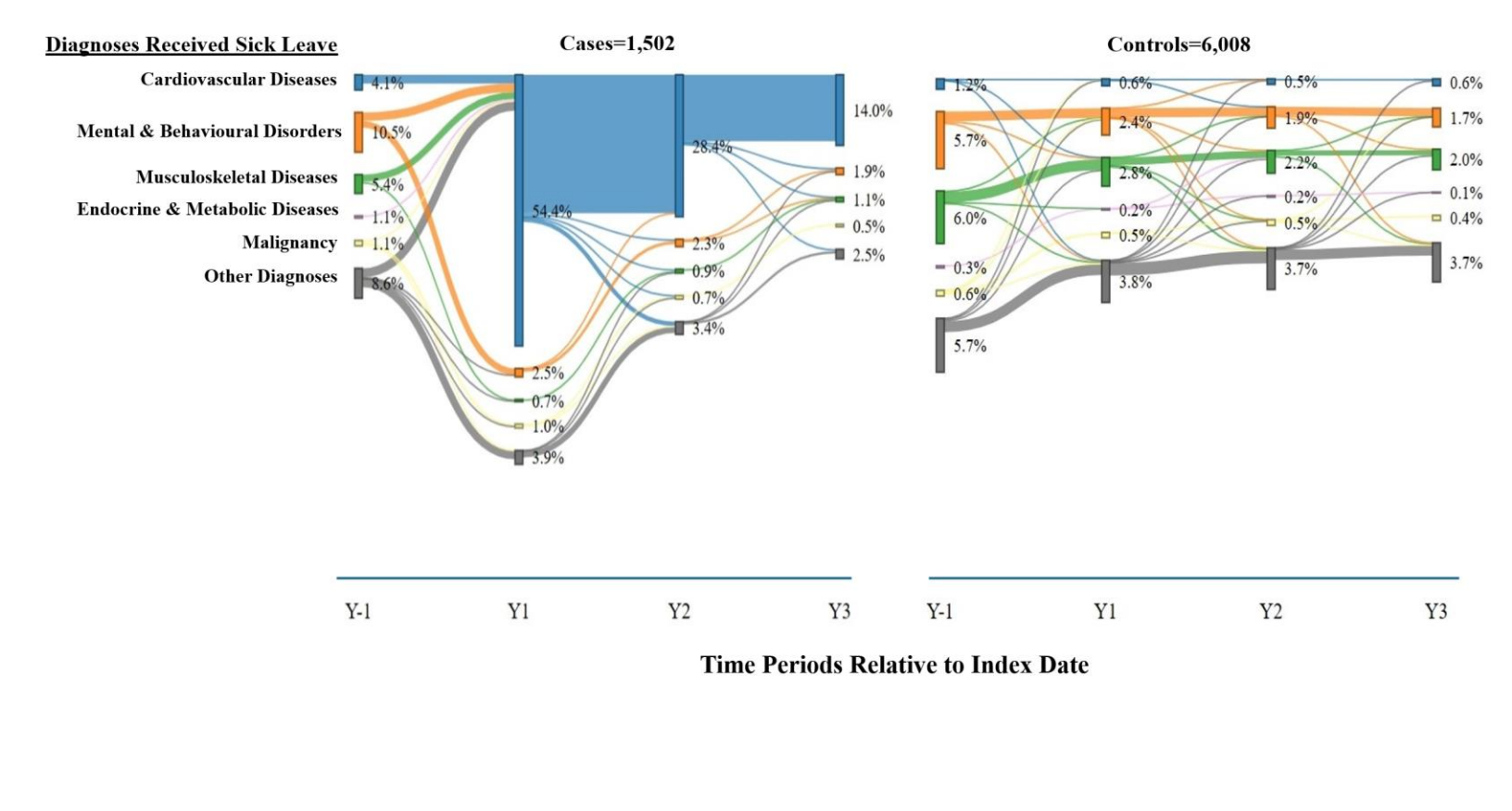


Pre-stroke diagnoses differed between groups



Source: Table 2. Percentages of each group; descriptive comparisons only.

Backup | Diagnosis transitions



Source: Figure 3.

The association analysis used a narrower cohort

1,502 → 1,051 → 792

All stroke cases

Eligible cohort

Main model

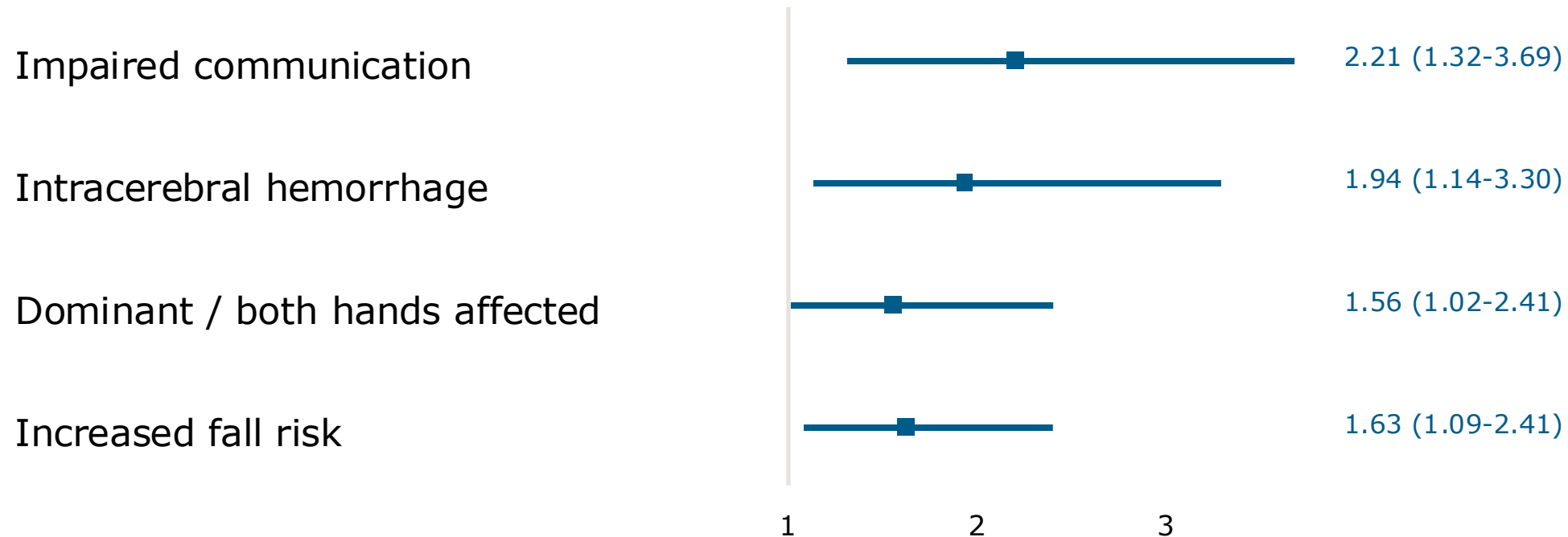
Exclude substantial pre-stroke work incapacity (>50%).

Model the next three years of net sick leave using $\log(\text{days} + 1)$.

Assess early clinical factors alongside age, sex and prior sick leave.

Four clinical factors remained associated

Adjusted exp(beta) and 95% confidence interval



Prior sick leave also remained associated. Model R-squared: about 17%.

Strong follow-up, limited causal inference

Strengths

- Direct sick-leave measure, avoiding varying RTW definitions
- Linked high quality, population-based clinical and national registers
- Matched comparison group
- Long follow-up: 1 year before and 3 years after stroke

Limitations

- Short sickness spells (<15 days) not captured
- Missing data and unmeasured factors
- Limited generalizability beyond the Swedish/Göteborg setting
- Model explained only ~17% of the variance

Observational associations support assessment priorities, not causal claims.

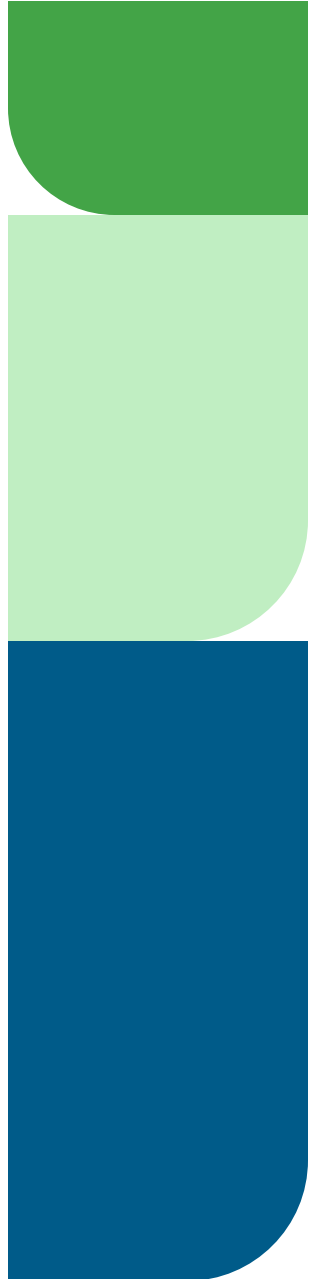
Implications for rehabilitation planning

Look back

Include pre-stroke work disability and underlying health needs in the assessment.

Assess function early

Consider communication, hand function and balance when planning vocational support.



Thank you

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