

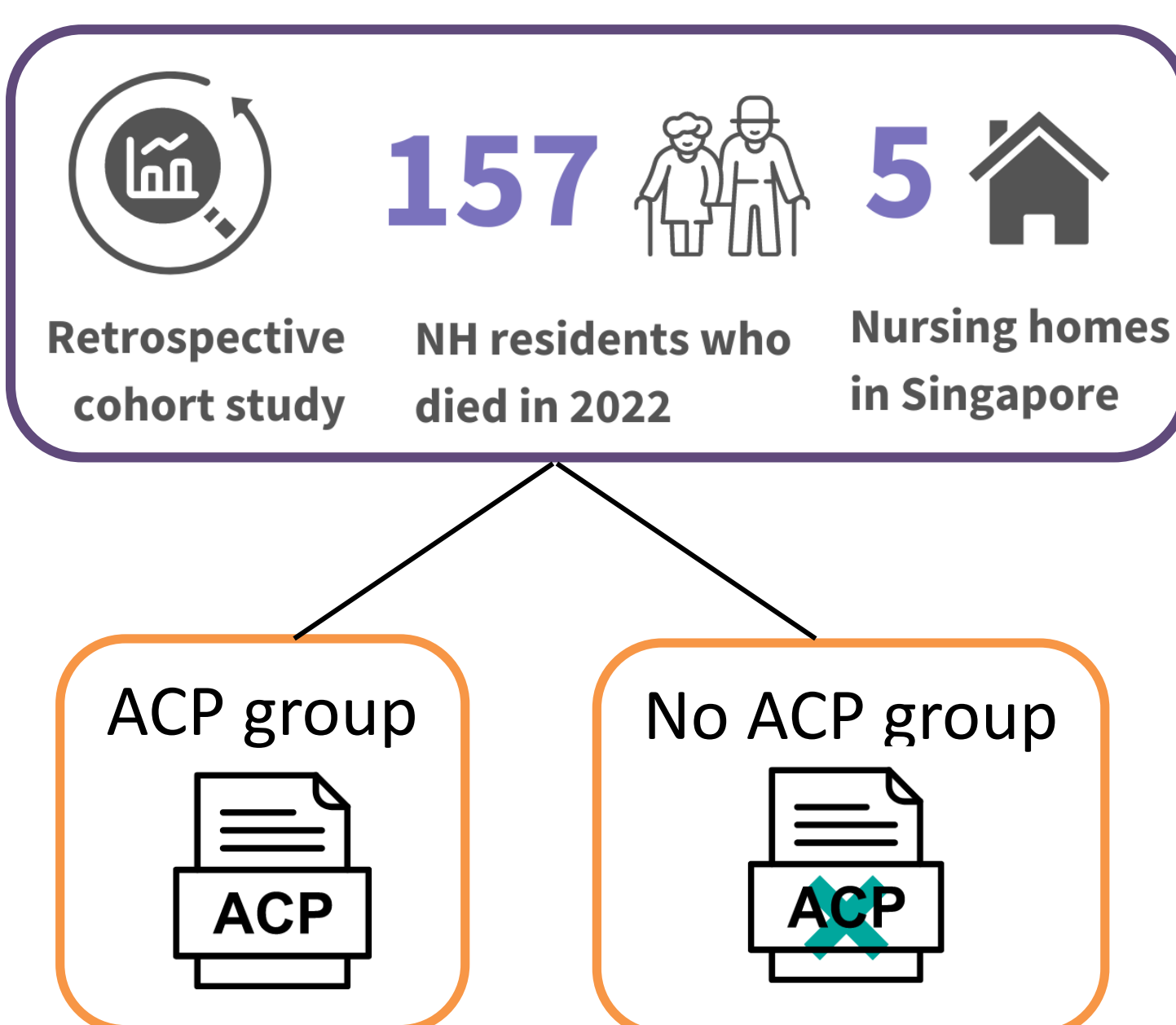
# Impact of Advance Care Planning on acute hospital admission rate and length of stay of nursing home residents in their last year of life

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## Background

- Advance Care Planning (ACP) is a process where individuals can discuss their preferences and make plans for their future health and personal care.
- Previous studies have shown that ACP could achieve high concordance to patients' preferences and reduce overall healthcare utilisation<sup>1</sup>. However, little is known about that from Nursing Homes (NHs).
- In this study, we aimed to evaluate the effects of ACP discussions on acute hospital admission rate, length of stay (LOS) and concordance to ACP preferences for NH residents.

## Methodology



- Demographics information, acute hospital resources utilisation (mean admission rate and median LOS) in their last 1 year of life were compared.
- Concordance to preferred plan of care (PPOC) and preferred place of death (PPOD) of ACP group was computed.
- Descriptive statistics were used to report the results.

## Results

### 1. Demographics

- ACP group was older and mostly female.

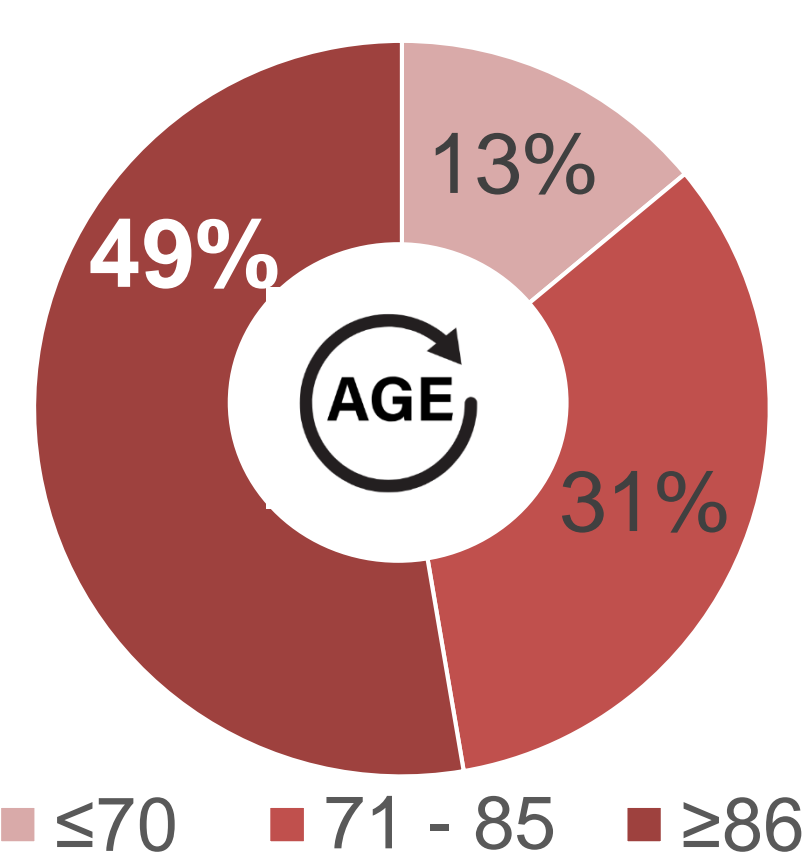


Fig 1A. Age groups demographics (ACP group)

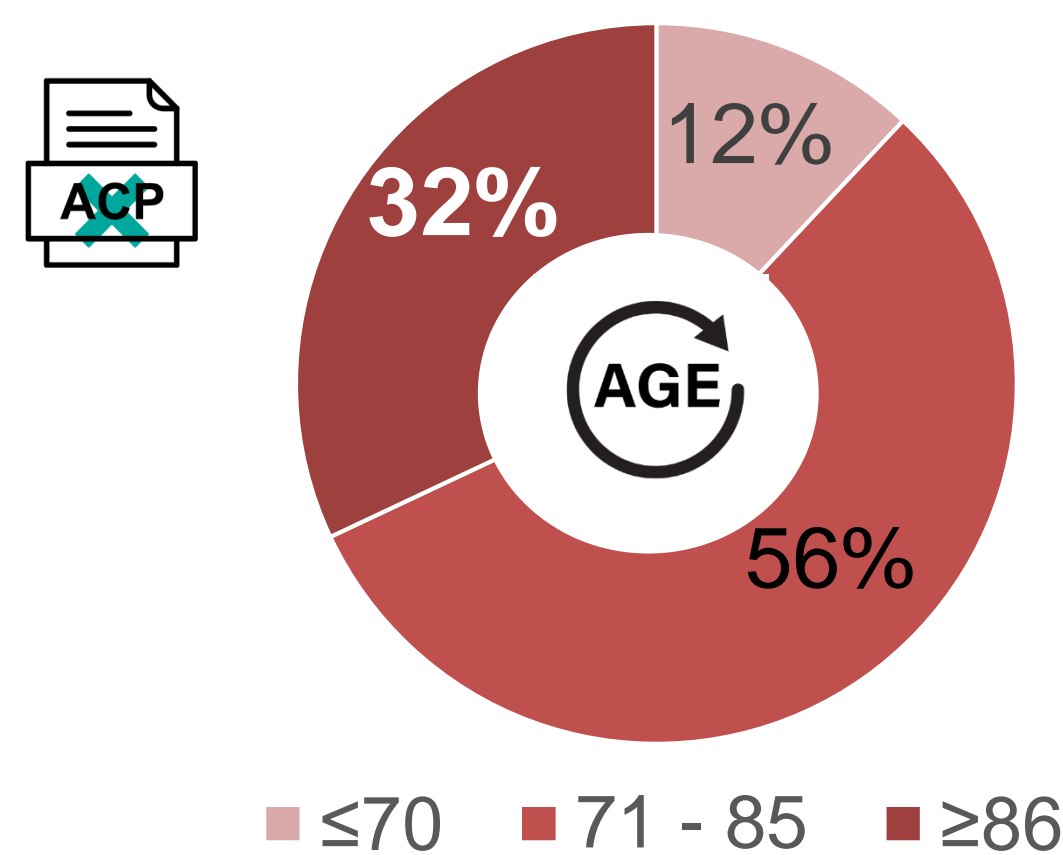


Fig 1B. Age groups demographics (no ACP group)

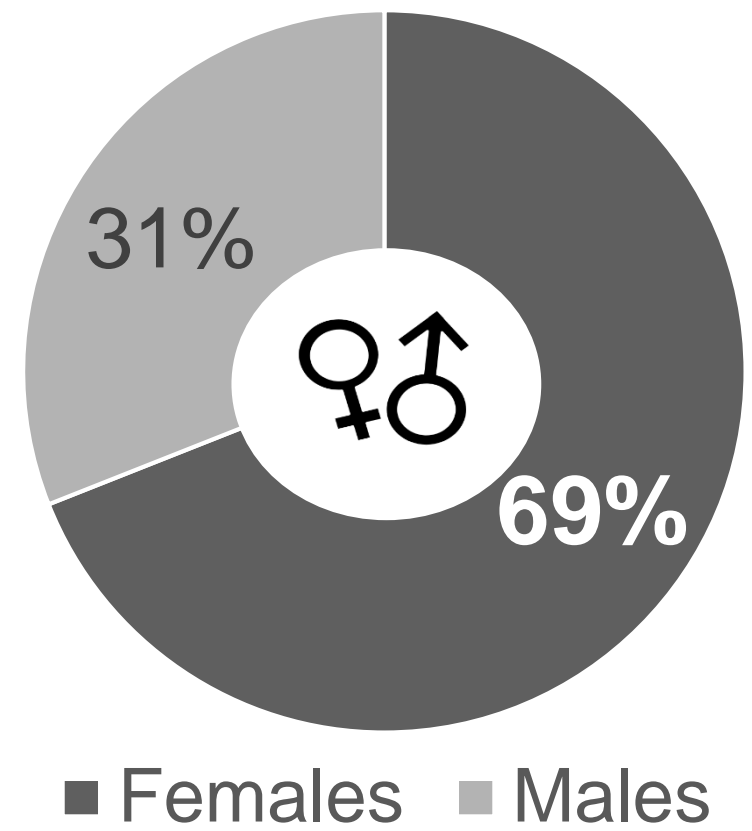


Fig 1C. Gender demographics (ACP group)

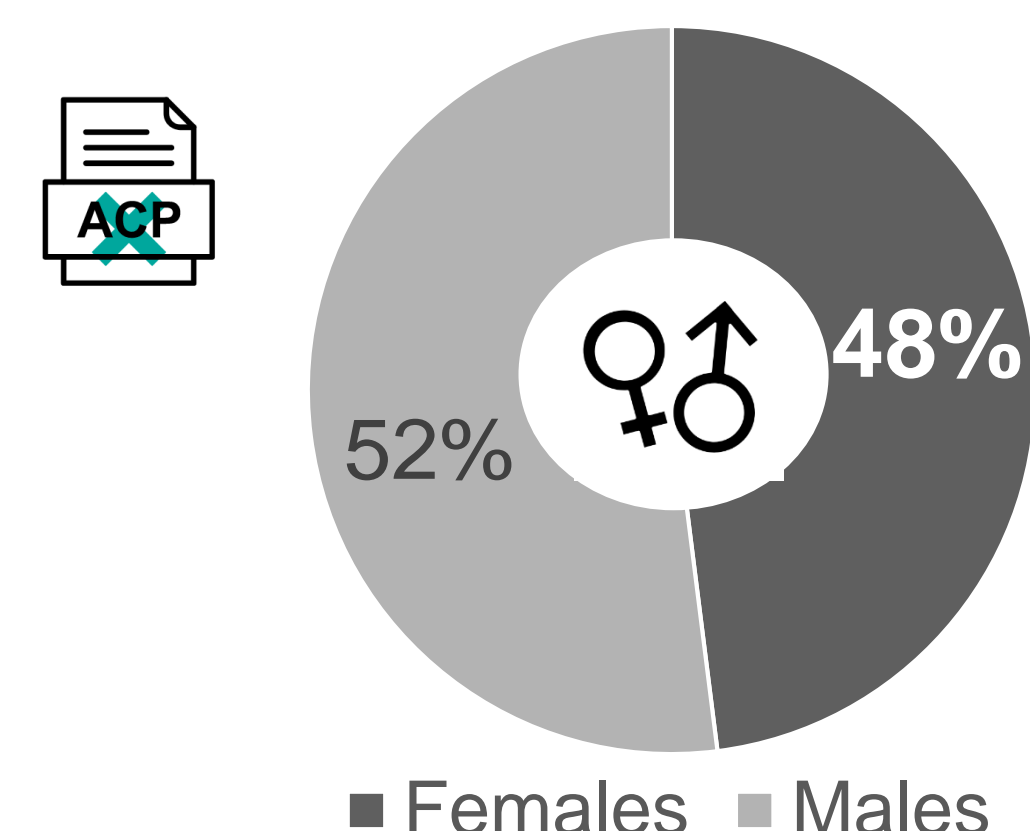


Fig 1D. Gender demographics (no ACP group)

### 2. Hospital admission and LOS

- ACP group had a higher rate of hospital admission (mean 1.76 vs 1.62) and a lower LOS (median 8.0 vs 9.5).

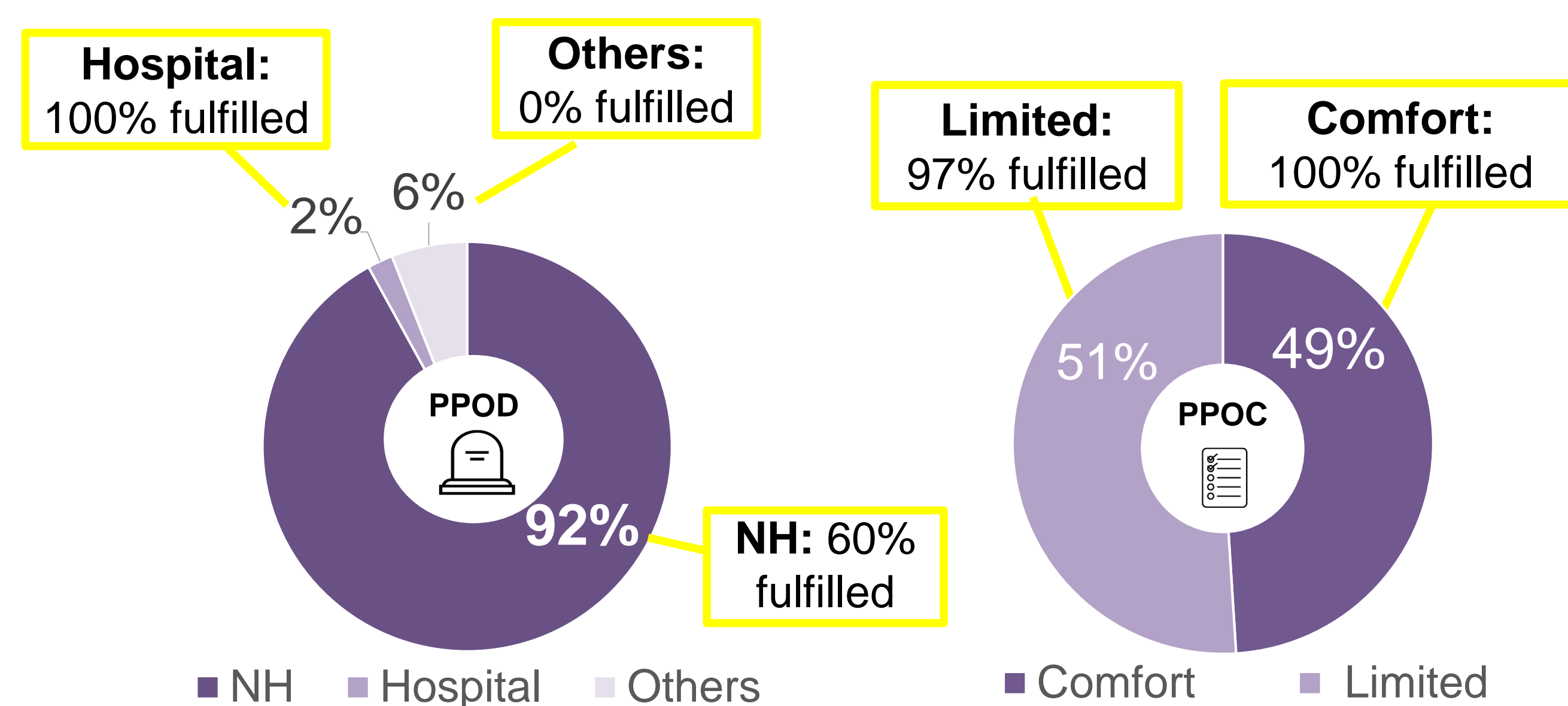
NH residents who died in 2022 in respective POD (n = 157)				
	ACPN group (n=71)		No ACP group (n=86)	
Mean admission rate	1.76		1.62	
	NH (n=37)	Hospital (n=34)	NH (n=21)	Hospital (n=65)
	0.81	2.79	1.19	1.75
Median LOS	8.0		9.5	
	NH (n=37)	Hospital (n=34)	NH (n=21)	Hospital (n=65)
	3.0	18.5	12.0	9.0

## Results (Continued)

- Residents with ACP who died in NH utilised lesser acute hospital resources, as compared to those without an ACP (mean admission rate: 0.81 vs 1.19; median LOS: 3.0 vs 12.0).

### 3. ACP concordance

- 57% of PPOD was fulfilled. Majority chose NH as their PPOD (92%) with 60% of PPOD fulfilled.
- 49% chose comfort care and 51% chose limited interventions. PPOC concordance was high.



POD: NH	POD: Hospital
<ul style="list-style-type: none"> <li>• 100% of PPOD and PPOC was fulfilled.</li> <li>➢ 68% chose comfort care and 32% chose limited intervention as their PPOC.</li> </ul>	<ul style="list-style-type: none"> <li>• 5% of PPOD and 94% of PPOC was fulfilled.</li> <li>➢ Majority chose NH (82%) as their PPOD and limited intervention (71%) as their PPOC.</li> </ul>

## Discussion

- Research has shown that patients with ACP, as compared to patients without ACP, were more likely to be hospitalised and less likely to receive intensive therapies<sup>2</sup>. Similarly in our study, it was observed that ACP group had a higher rate of hospital admission and lower LOS.
- For residents who chose NH as their PPOD and limited intervention as their PPOC, their PPOD was unlikely to be honoured. They were admitted to hospital for treatment and died in hospital. A possible reason for the non-concordance to their PPOD is difficulty in prognostication<sup>3</sup>.
- The study revealed that residents opting for NH as their PPOD and comfort care as their PPOC led to lower hospital utilisation. However, the sample size was relatively small and there was insufficient information on the residents' medical conditions prior to hospital transfers.
- Further studies are required to evaluate residents whose concordance were met (PPOD - NH and PPOC - limited intervention), which might shed light on their hospital utilisation needs and healthcare outcomes.

## Conclusion

- NH residents would benefit from having ACP discussions. However, the study showed that ACP alone does not result in the reduction of acute hospital utilisation.
- It was difficult to honour PPOD in NH if limited intervention was chosen as their PPOC. More efforts are needed to look into better prognostic tools and work towards honouring both PPOD and PPOC.

## References

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