HOSPITAL TO HOME: EVALUATING THE DISCHARGE PLANNING PROCESS FOR PEOPLE WITH ACQUIRED DISABILITY AND COMPLEX SUPPORT NEEDS.

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Background

- People with disability and complex needs face long delays to discharge and uncertainty about where and how they will live post discharge
- Nearly 60 young Australians with disability enter Residential Aged Care (RAC) every month (AIHW 2021)
- Most (59%) younger people are admitted to an acute or rehabilitation hospital before their first admission to RAC, after having a brain injury, or late onset degenerative neurological disabilities
- Effective NDIS and health process throughout the transition from hospital to home can improve patient flow and discharge outcomes

Hospital Discharge Research Program

- Scoping Review
- Mixed method hospital data

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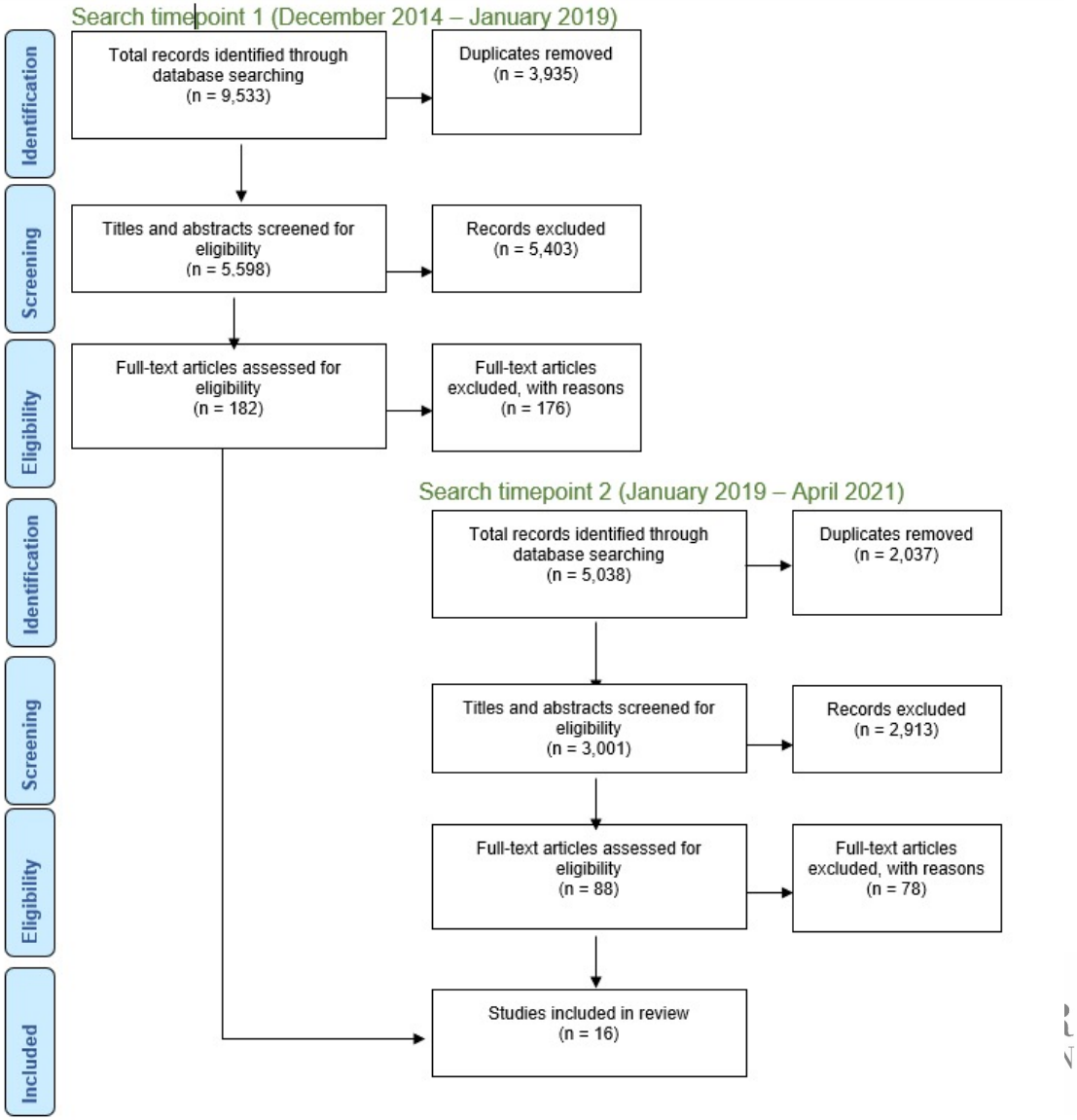
Scoping Review

A scoping review was undertaken to identify and integrate the findings of studies that report on the experience of hospital discharge for people with disability and complex needs between 2014 and 2021 in order to highlight key components of an effective hospital discharge for this population.

Method

- Four major databases (MEDLINE, CINAHL, SCOPUS, AMED and EMBASE) were systematically searched from 2014-2021 for studies that reported qualitative and/or quantitative findings on hospital discharge outcomes for adults with disability and complex needs. Key findings from 16 eligible studies were integrated to form overarching principles.



Populations

Study populations included:

- People with disability (nine studies)
- Caregivers (two studies)
- Caregivers and people with disability (two studies)
- Health professionals (three studies)

Disability Type

- People with acquired brain injury (including stroke and traumatic brain injury; 11 studies)
- People with spinal cord injury (three studies)
- People with acquired brain injury and spinal cord injury (one study) and various disability types (one study)

Findings

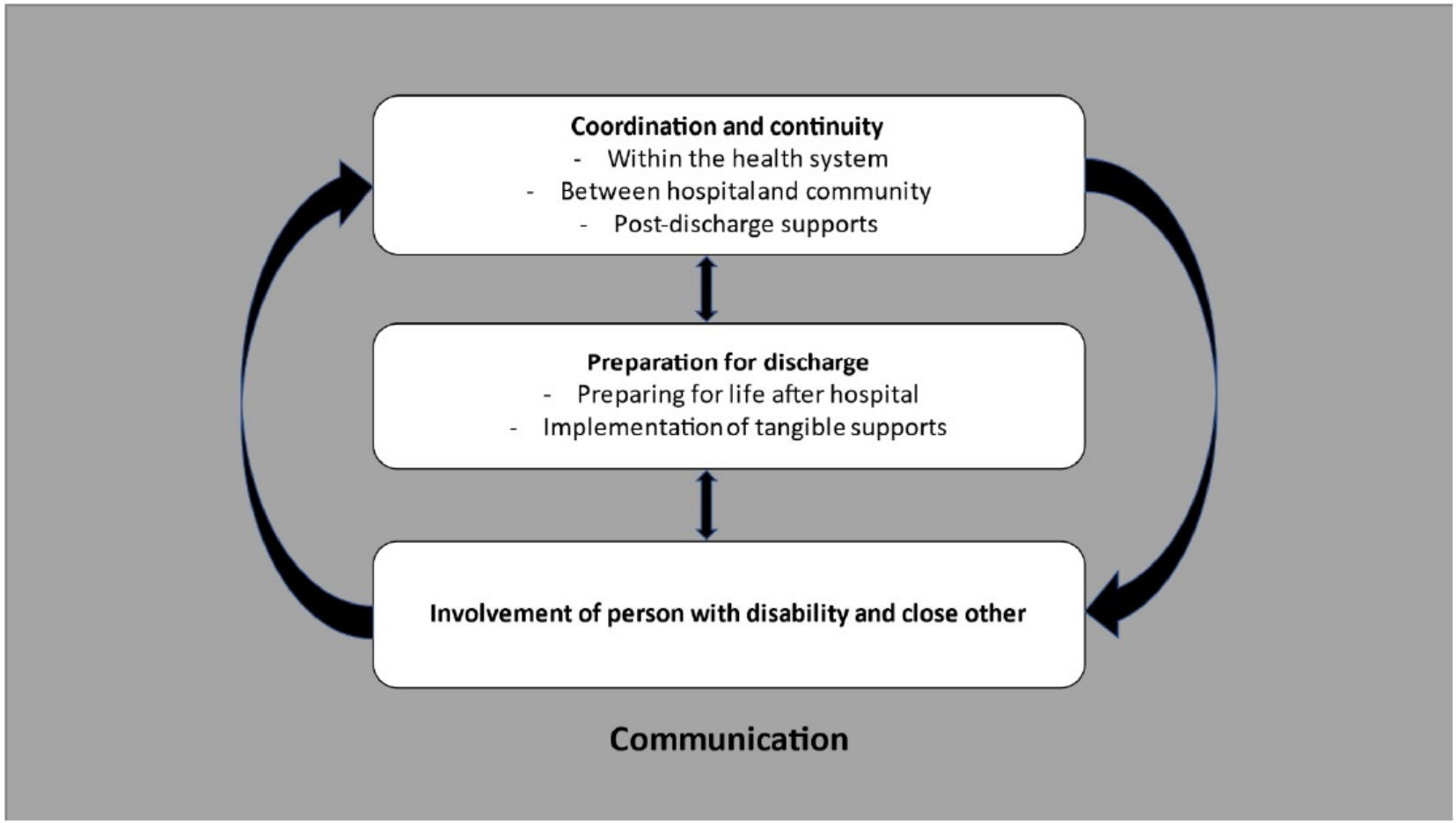


Figure 1. Schematic representation depicting the interrelated principles that emerged from the scoping review

Coordination and Continuity

Within the health system

"…if there was just one person that was dedicated to that family... ... who could co-ordinate everything" (close other, person with ABI; Abrahamson et al., 2017).

Between hospital and community

"…so when you're dealing with [state] Health and the Department of Communities, but within that Housing and Disability Services, there's a communication between the three … one can't happen without the other, because you can't have suitable housing unless Disability feel that they're going to be able to support this person, otherwise they're not going to get this housing and vice versa" (Social worker; Redfern et al., 2016).

Post Discharge Supports

"…I've been lucky I've had complete continuity of service [of physiotherapists and occupational therapists], I haven't been spread around the different people" (person with SCI; Dwyer & Mulligan, 2017).

Preparation for discharge

Support worker training

"…having people who know me, know my house, what I need, and can do things, is the difference between me waking up in the morning and not feeling like this disability is a big thing." (person with SCI; Dwyer & Mulligan, 2017).

Home visits

"…'He had a couple of weekend visits, but that still wasn't somehow really enough to prepare us" (close other, person with ABI; Abrahamson et al., 2017).

Preparation for life after discharge

"…I thought it was going to be a lot easier... I thought I was back to normal, yes. And I was nowhere near" (person with ABI; Abrahamson et al., 2017).

Adjustment Support

'I also think that greater support should be provided for us psychologically' (close other of person with SCI; Conti et al., 2016).

Tangible Supports

Housing

"It's been fourteen months now I guess, so long … just have to be patient … as they say no place like home, look forward to going home you know, do my thing' (person with SCI; Dwyer & Mulligan, 2017)

Home modifications

"... I can't get back in with my wheelchair. Once I go out, I can't get back up the ramp ..." (person with stroke; Hodson et al., 2016)

People with disability and close others as active participants

"…I felt integrated and fully participant in the decision-making process, I loved the happiness and optimism of health care professionals" (close other, person with SCI; Conti et al., 2016).

"…I'm quite happy to badger the system to feel heard....It just annoys me that I have to do that .. . because I don't think we should have to" (close other of person with ABI; Abrahamson et al., 2017).

Communication

Between person with disability and clinicians

"…Oh well, they told me that the doctor wouldn't, he'd just ask how you going and that, because he knew that I wouldn't understand, or I wouldn't get it what he was telling me. [.] I thought well if no one is going to tell me that I'm supposed to be here I might as well go home" (person with ABI; Fitts et al., 2019).

Between close others and clinicians

"…Four weeks after discharge and we haven't heard a dickey bird." (close other, person with ABI; Abrahamson et al., 2017).

Hospital data evaluation

The aim of this study was to evaluate the discharge processes of people with acquired disability and complex support needs to provide information about discharge delays and destinations.

Methodology

- Hospital discharge trajectory data (N = 318) collection from 10 hospitals in Vic, NSW, SA and QLD
- Hospital records of eligible participants identified, and relevant data extracted
- Demographics, health and NDIS milestones, outcomes

Eligibility Criteria

- 18 – 65 years of age
- Inpatient in subacute setting
- Existing NDIS participant or likely eligible for NDIS

Today's data

- Quantitative component
- Trends over time and by disability type
- Descriptive data and visuals

Demographic information

Demographic (N = 318)		n	%
Gender	Male	220	69.2
	Female	97	30.5
	Missing	1	0.3
Age (M,SD); range		50.5 (12.0)	18-67
Disability type	Stroke	85	26.7
	Acquired Brain injury	67	21.1
	Neurological condition*	36	11.3
	SCI	87	27.4
	Orthopaedic (fracture, replacement)	8	2.5
	Cardiac, pulmonary & reconditioning	6	1.9
	Developmental disability	4	1.2
	Amputation	15	4.7
	Other (incl. pain, cancer)	9	2.8
	Unknown	1	0.3
NDIS participant on admission (all participants) (N=330)	Yes	69	22.9
	No	244	73.9
	Unknown	17	5.5

*e.g., Multiple Sclerosis, Guillain-Barre Syndrome

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Location

Location (N = 318)		n	%
State	VIC	227	71.38
	NSW	66	20.75
	SA	2	0.63
	TAS	3	0.94
	QLD	7	2.20
	ACT	2	0.63
	Unknown	11	3.46
Area remoteness	Metropolitan	187	58.81
	Regional	119	37.42
	Remote	1	0.31
	Unknown	11	3.46

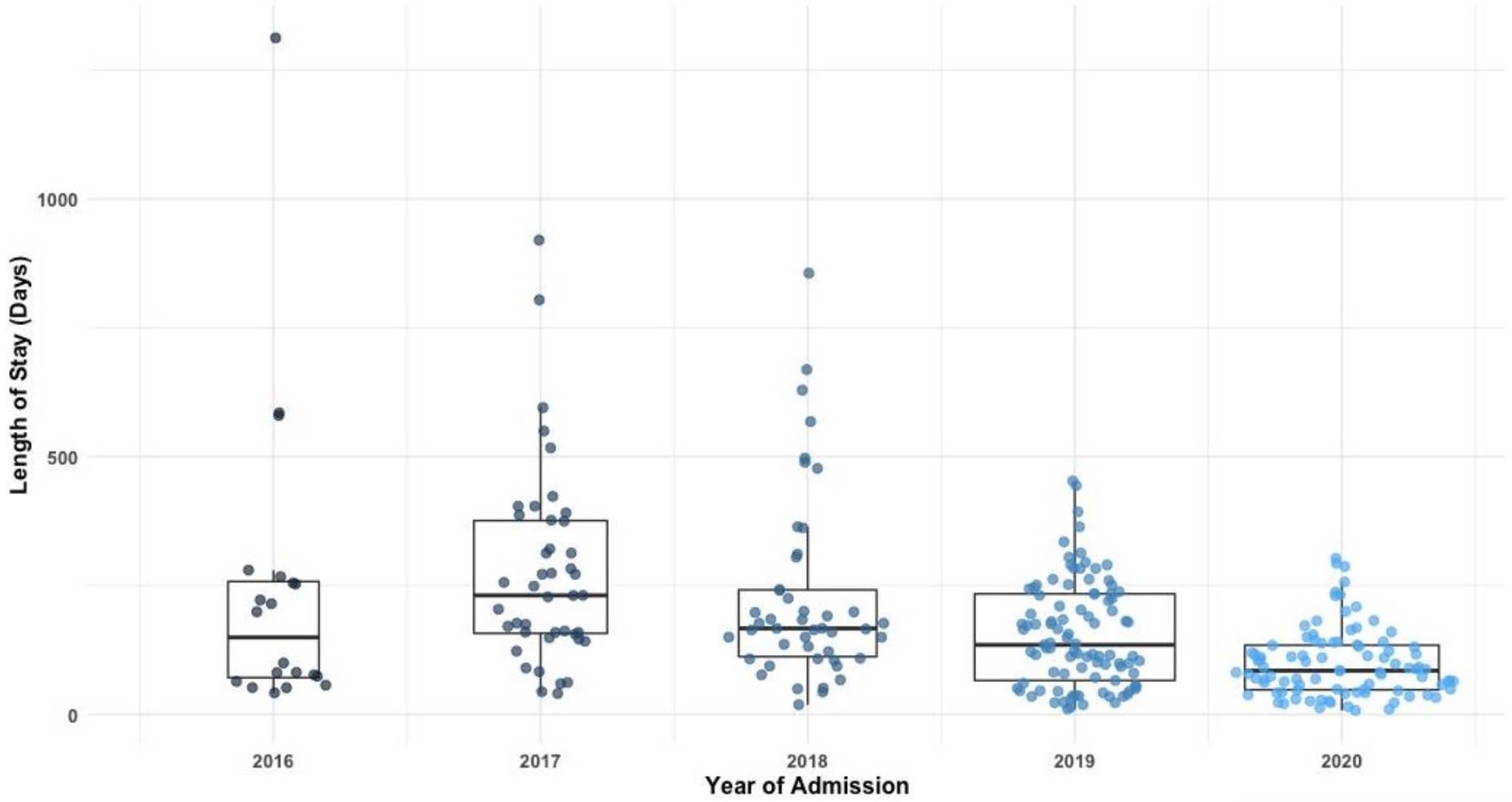
Year of admission

Year of admission (N=318)	Year	n	%
	2015	14	4.2
	2016	20	6.1
	2017	44	13.3
	2018	46	13.9
	2019	99	30.0
	2020	92	27.9
	2021	4	1.2
	missing	11	3.3

Length of stay

Year	Median days LOS (IQR)	Range
2015 (n=14)	73.50 (61 – 124.75)	16 - 159
2016 (n=19)	100 (64 – 255)	42 - 585
2017 (n=43)	231 (156 - 377)	41 - 920
2018 (n=46)	167 (108.75 – 257.75)	19 - 856
2019 (n=97)	135 (63.50 - 234)	11 - 453
2020 (n=91)	85 (47 – 135)	8 - 303

Length of Stay



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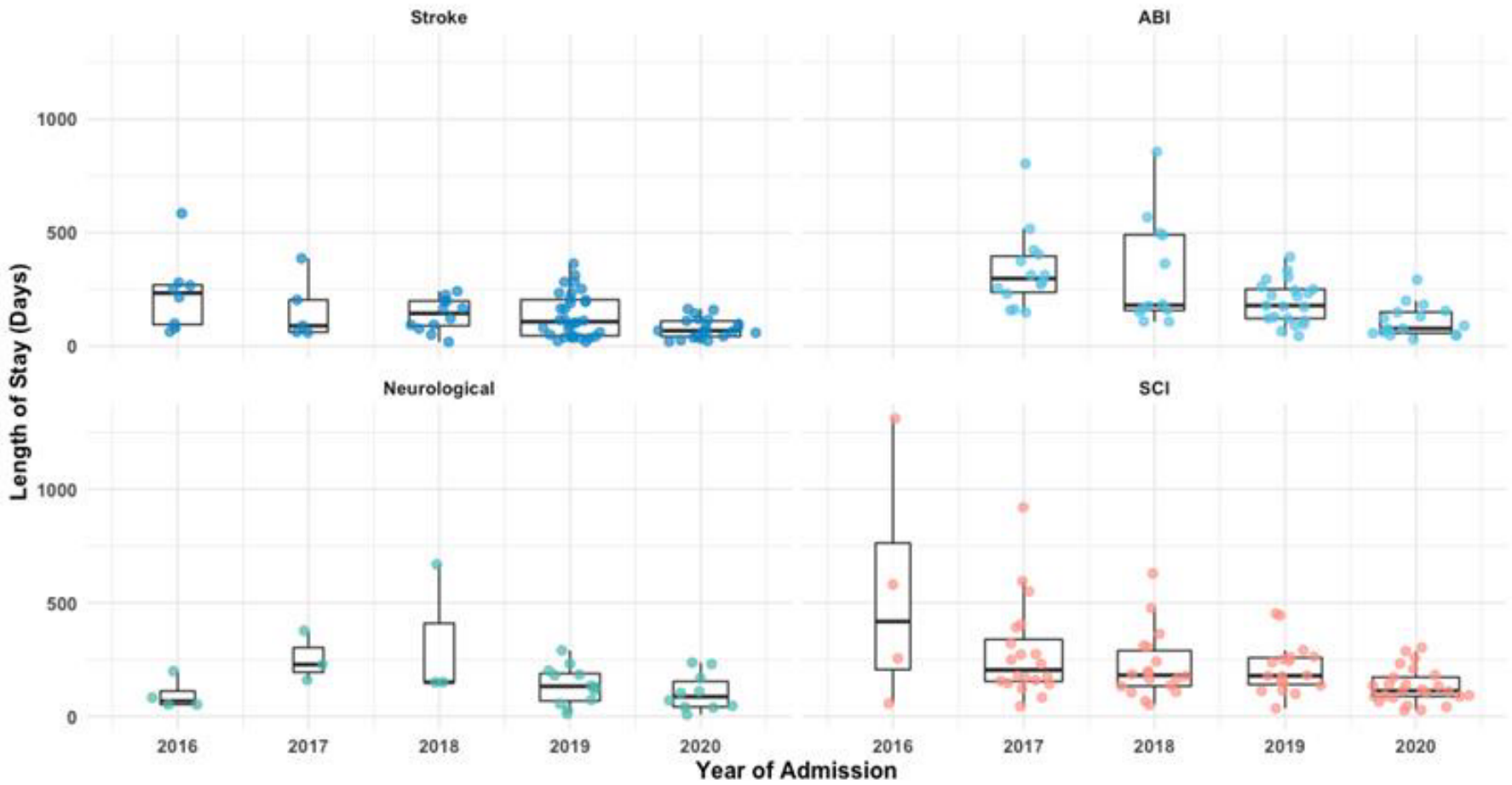
Length of stay by disability type



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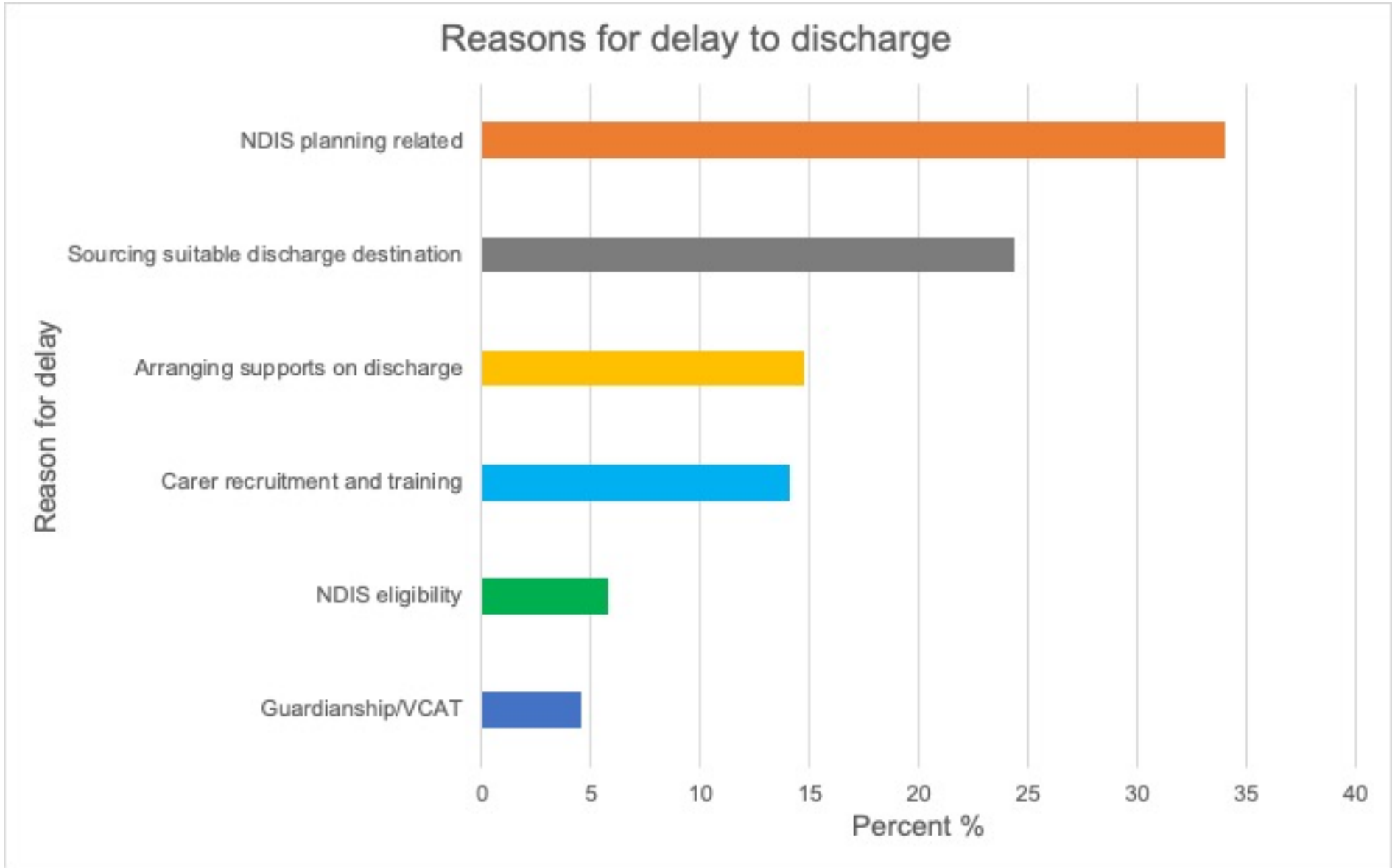
Prevalence of discharge delay over time

Prevalence of Delay to Discharge	n	%
2016 (n = 20)	9	45
2017 (n = 44)	19	43.18
2018 (n = 46)	17	36.96
2019 (n = 99)	40	40.40
2020 (n = 92)	27	29.35

Prevalence of discharge delays – disability type

Prevalence of delay to discharge	n	%
Total patients admitted	118	35.8
SCI	40	44.4
ABI	25	37.3
Stroke	32	37.3
Neurological conditions	14	35
Amputation(s)	3	20

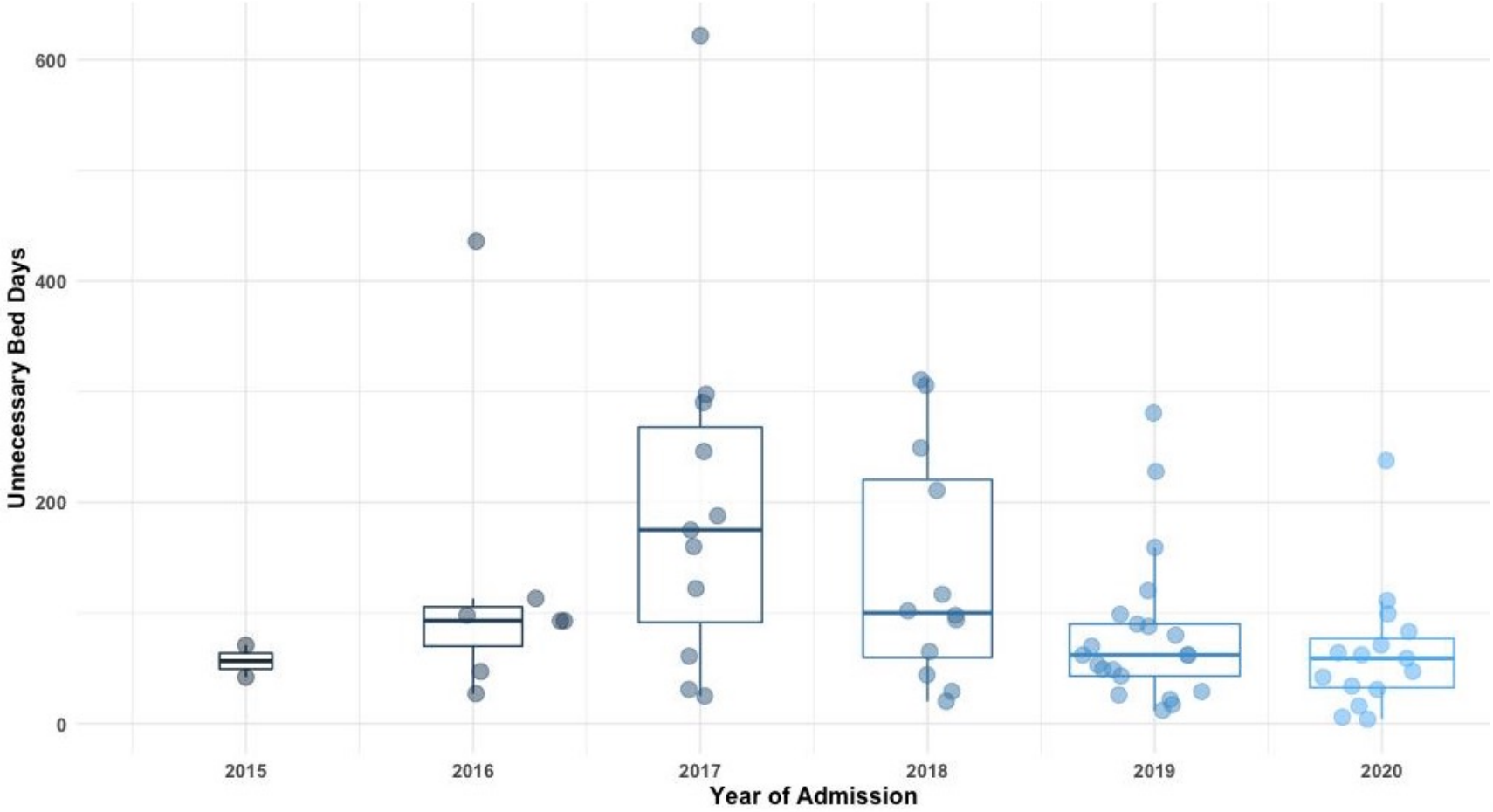
Reason for delay to discharge



Days between clinically ready for discharge and actual discharge

Year	Median unnecessary bed days (IQR)	Range
2015 (n=2)	56.50	42 - 71
2016 (n=7)	93 *(47-113)*	27 - 436
2017 (n=11)	175 *(61 - 290)*	25 - 622
2018 (n=12)	100 *(49.25 – 239.5)*	20 - 311
2019 (n=21)	62 *(36 - 94.50)*	12 - 281
2020 (n=15)	59 *(31– 83)*	4 - 238

Days between clinically ready for discharge and actual discharge



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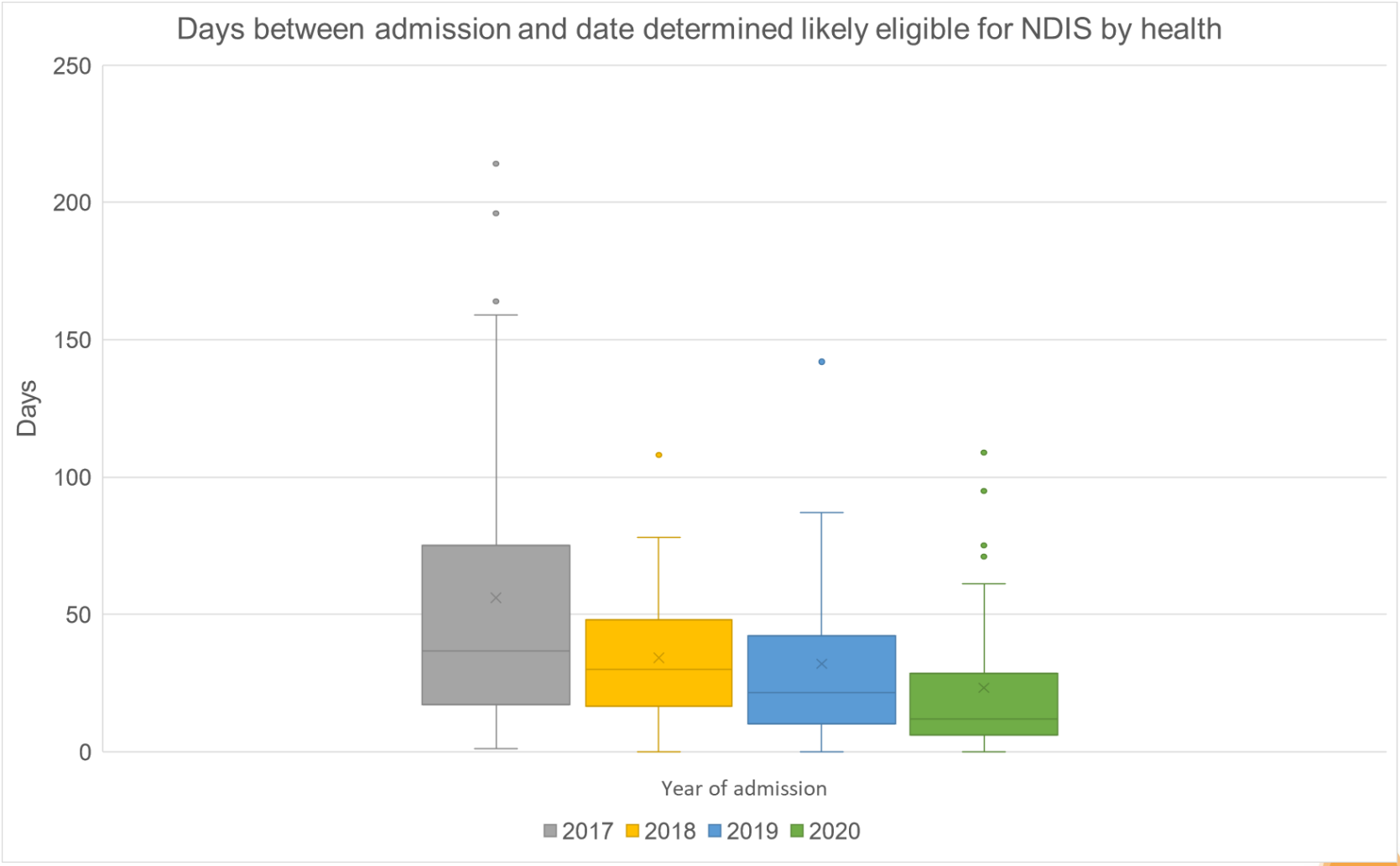
Days between clinically ready for discharge and actual discharge by disability type

Disability type	n	Median unnecessary bed days (IQR)	range
Stroke	19	71 (44-98)	29 - 436
ABI	12	92.5 (64 – 231.50)	26 - 298
SCI	26	76 (26.50 – 131.50)	4 - 622
Other	10	59 (36.50 – 141.75)	12 - 238

Health and NDIS Timeframes



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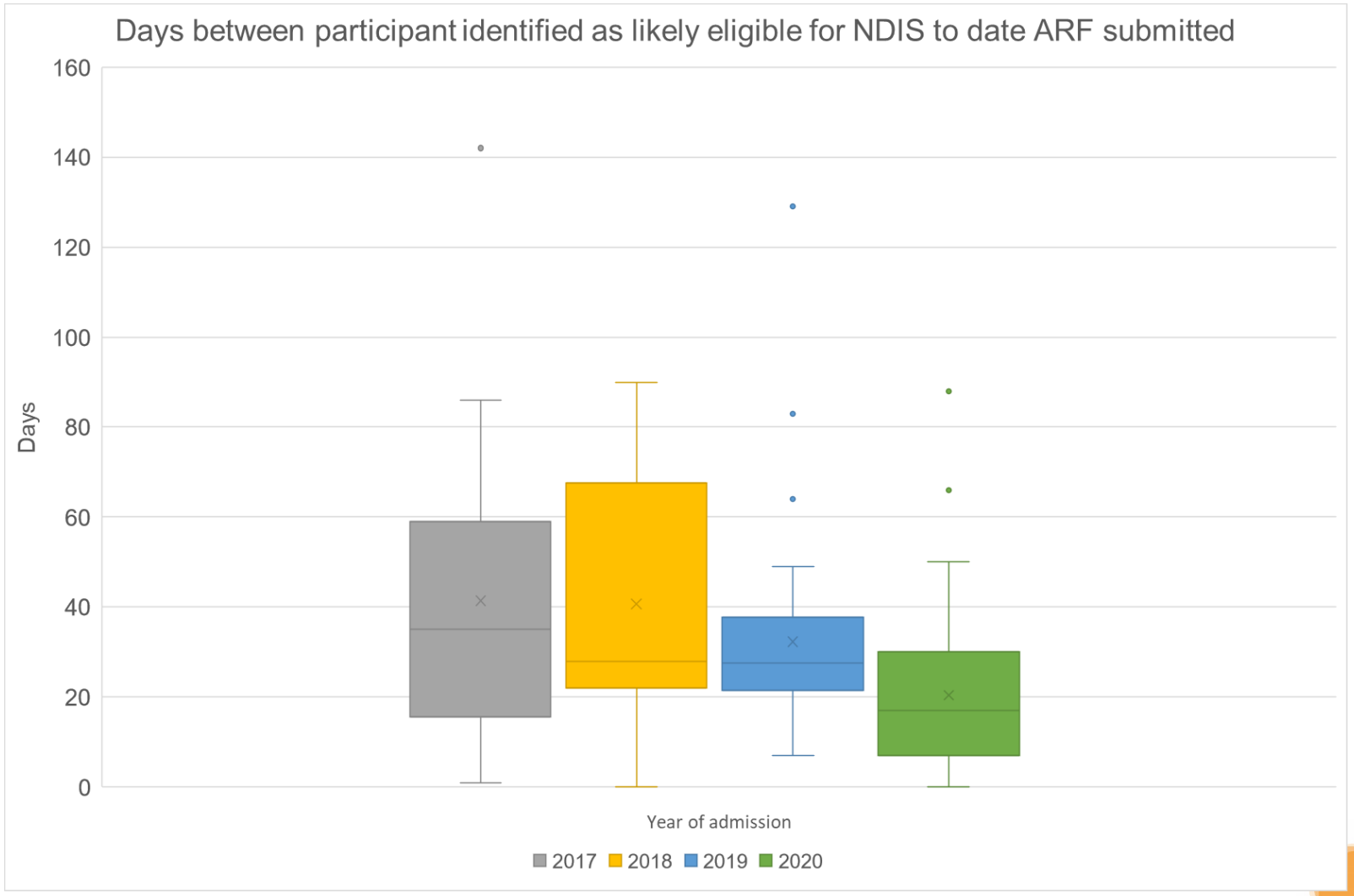
Health and NDIS Timeframes



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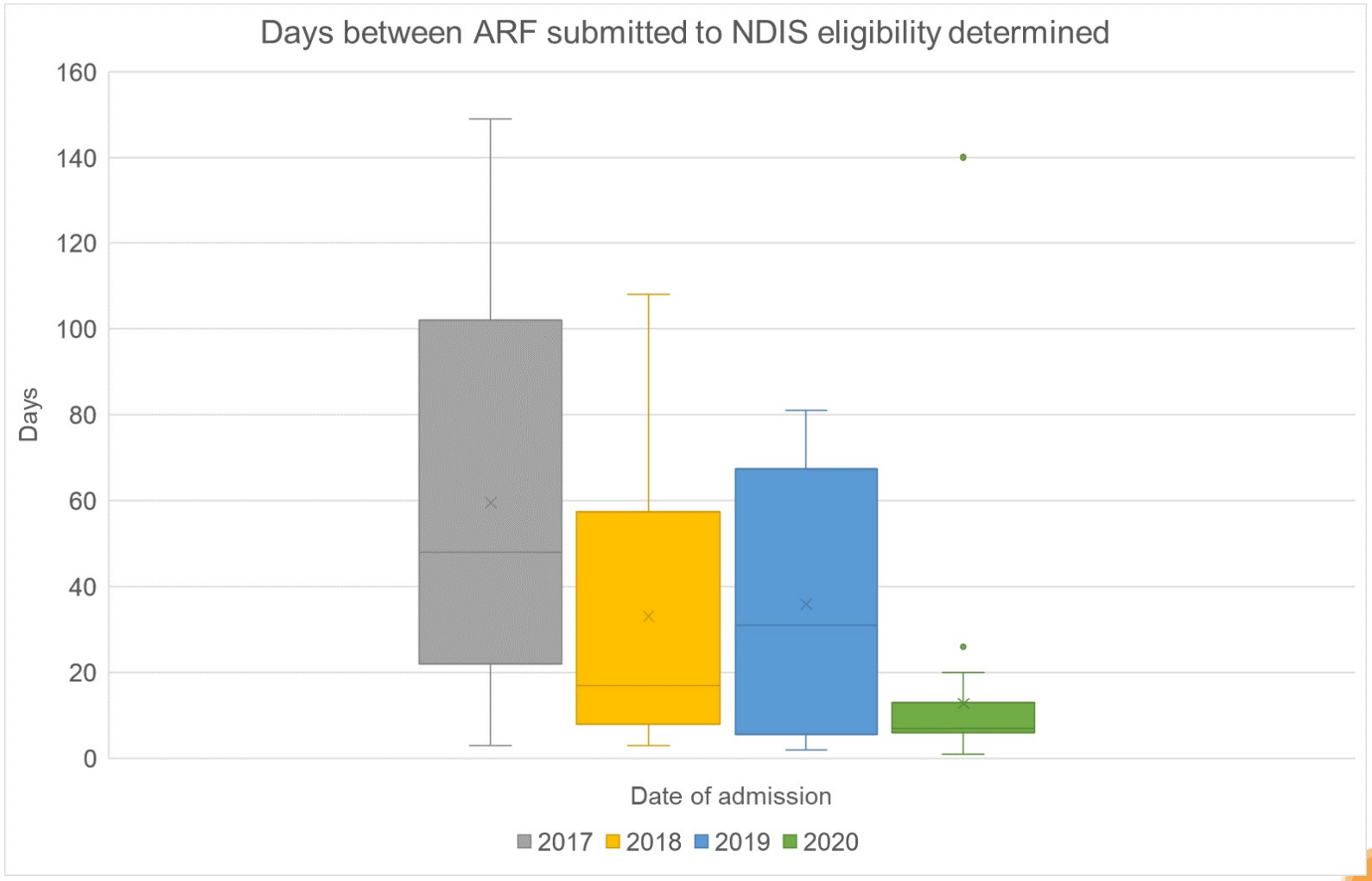
Health and NDIS Timeframes



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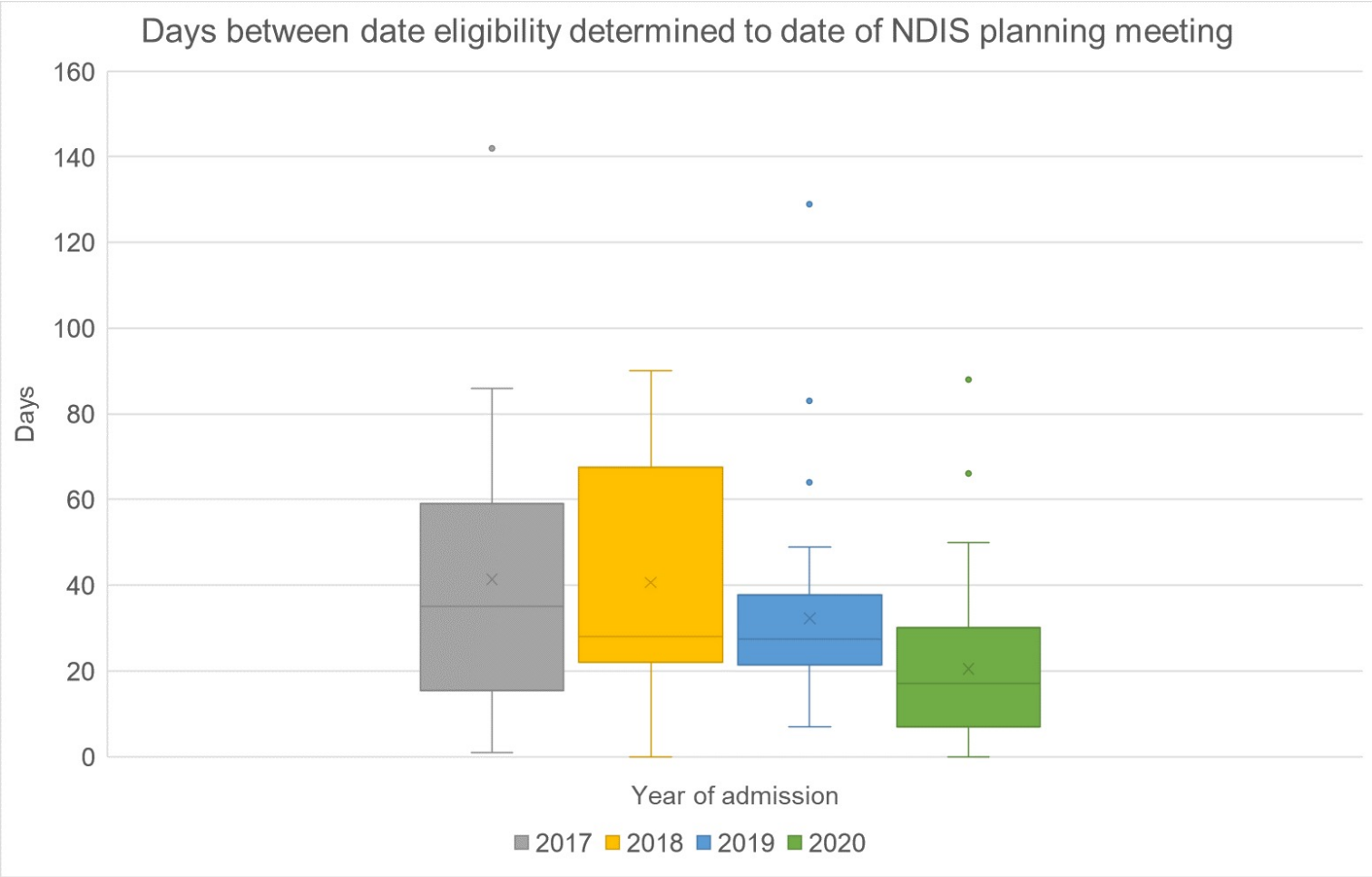

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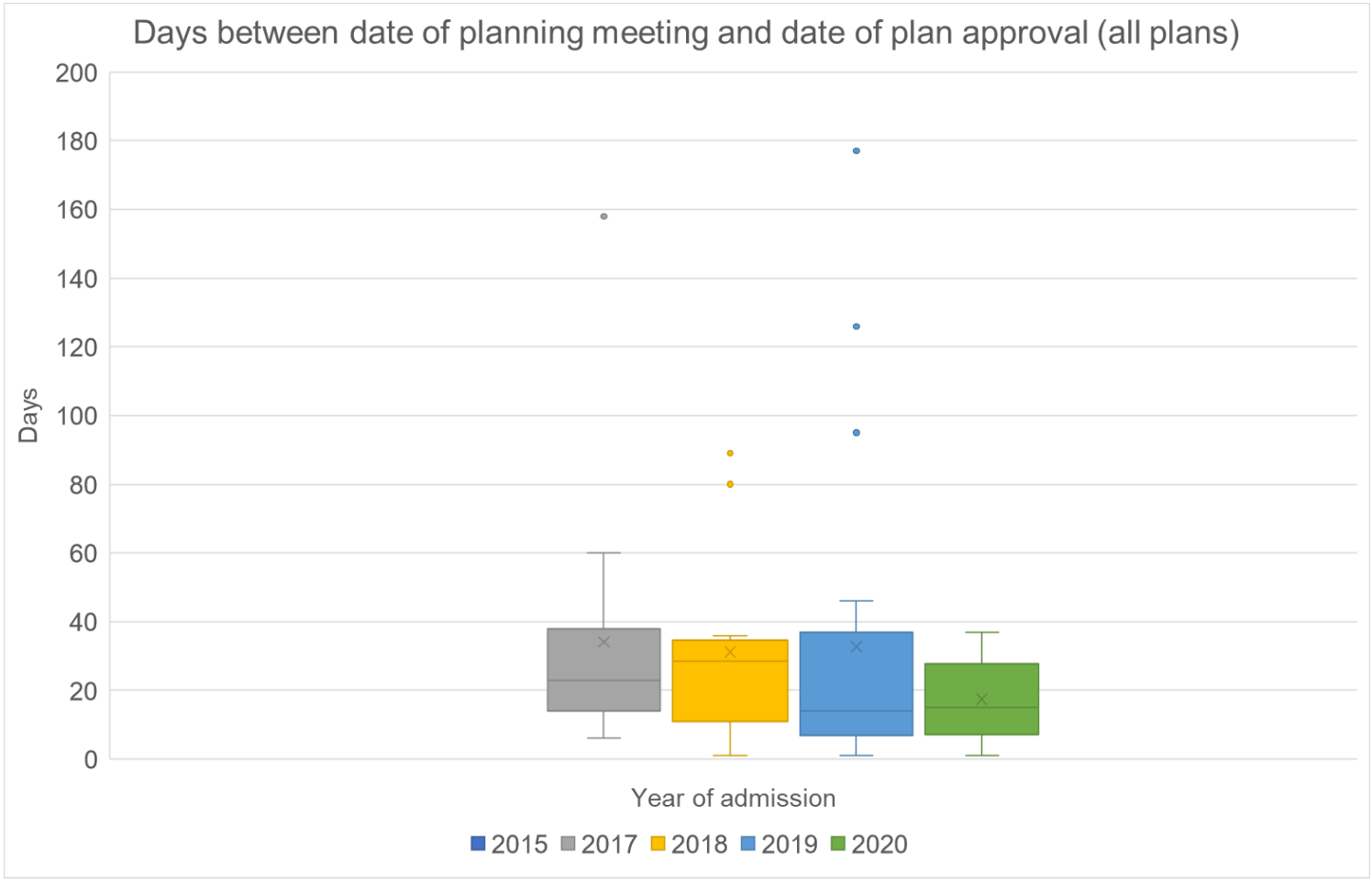

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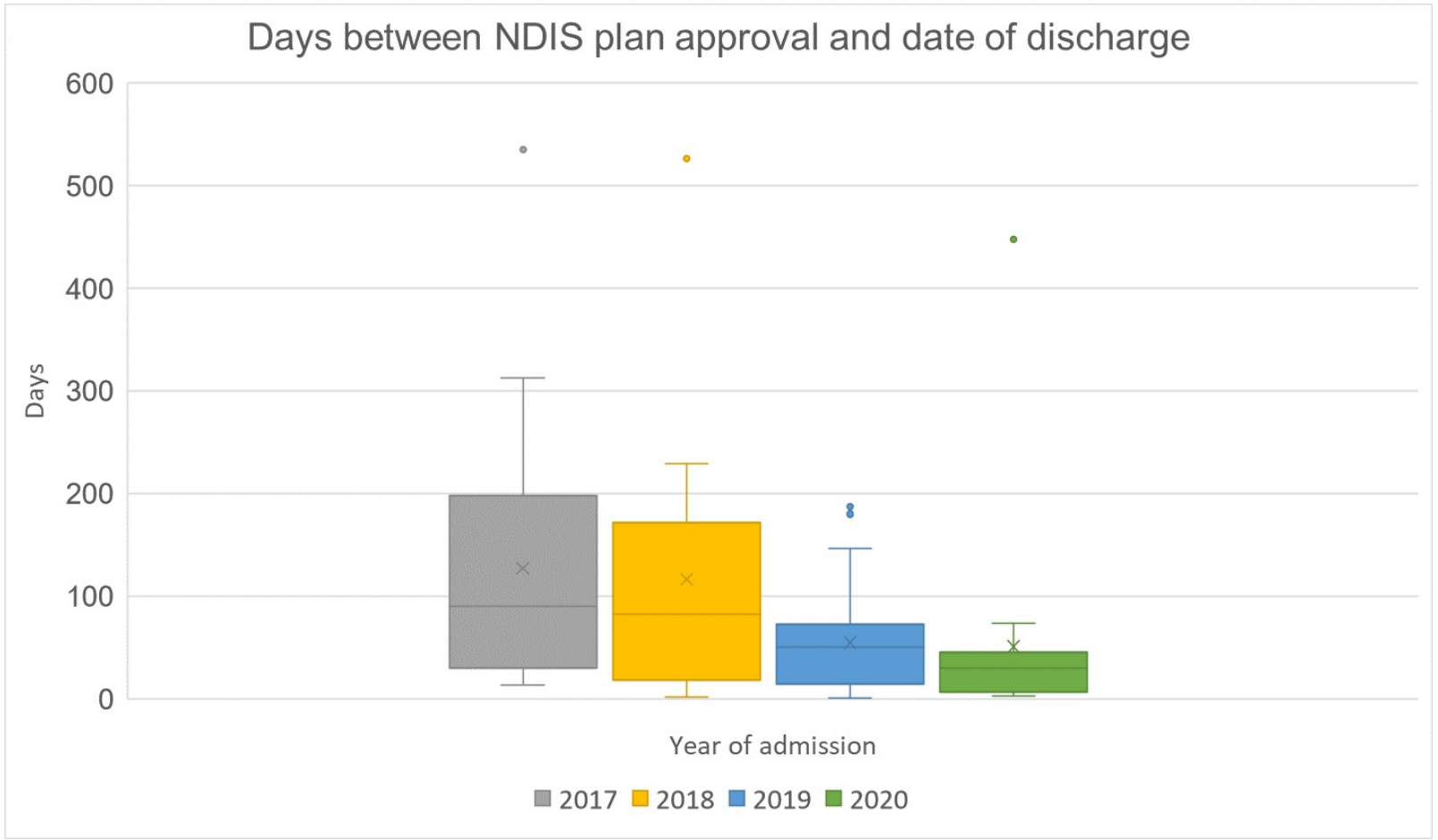

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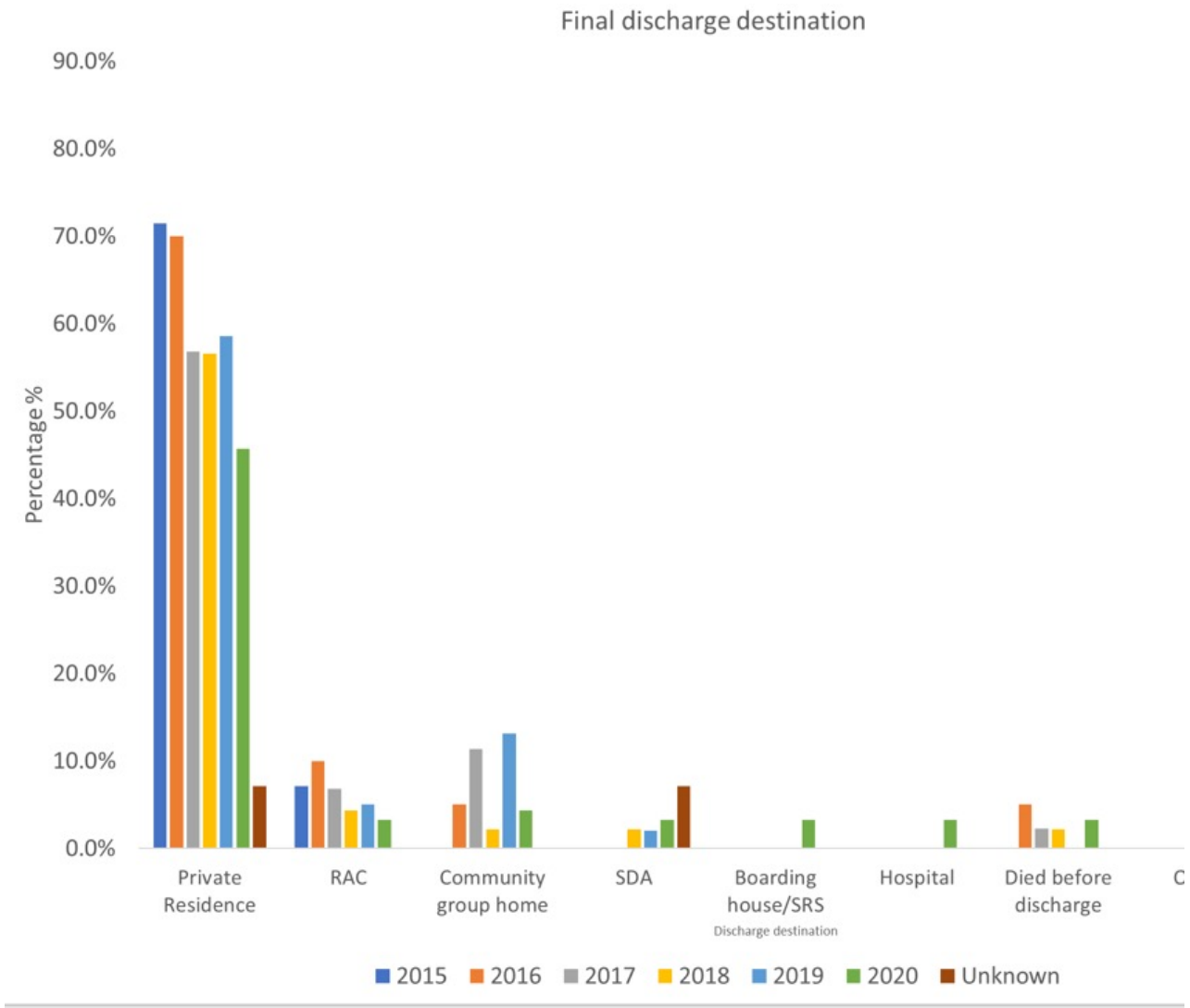
Variation according to disability type

- NDIS eligibility took longest for participants with ABI
- Participants with ABI experienced longer times waiting plan approvals (*m*=32, IQR=*12-54)*
- Length of stay for all disability types has been decreasing since 2018 and less extreme values have been recorded for all disability types
- Participants with SCI recorded the highest frequencies in each category of reasons for delays to discharge.

Long-term discharge destination



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Summary

- Improved LOS, delays and unnecessary days spent in hospital
- Improved navigation of NDIS and health timeframes
- Still experiencing lengthy delays and going to RAC

Principles for discharge planning for people with disability and complex needs

Start **discharge planning early** and keep in on the agenda throughout entire hospital stay

Expert **coordination and continuity** of care between wards, hospitals and community

Involve person with disability and close others in all discussions and decisions

Initiate early assessment and application for housing, home modifications and other necessary tangible post-discharge supports

Prepare for home with **education** to person, close others and support workers. Provide ample opportunity for practice with home and community visits.

Open and accessible **communication** at all stages of the hospital and discharge trajectory

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Limitations

- COVID19 Contamination!
- Missing data
- Missing voice of person with disability, close others and health professionals

Future Directions

- Qualitative research
- Ongoing quantitative data collection
- Action research and codesigned interventions

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Thank you

To participating hospitals!!!
To Summer Foundation
To co-authors

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