

All-Actuaries Summit

GETTING CLOSER
THINKING BIGGER

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and Exhibition Centre
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**Actuaries
Institute**



Home and Away: Where do homeless people go?

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Pathways to Homelessness

FINAL REPORT – DECEMBER 2021

NSW Department of Communities and Justice



Introduction

Homelessness is a significant and growing problem. People with experiences of homelessness often have complex needs and challenges including low incomes, mental health issues and/or being victims of family and domestic violence.

The Department of Communities and Justice was setting their five-year strategy with an emphasis on prevention or early intervention. They wanted to improve the evidence base for early intervention.

We had four research questions:

1. For people requiring homelessness support, which other government services have they used before?
2. For people using other government services, how likely are they to require homelessness support?
3. Among the people identified, what other risk factors affect their likelihood of using homelessness services?
4. How do government service use costs differ for people requiring homelessness services?

The dataset

We designed a linked dataset across 20 different government services to enable us to answer these questions.

Key design features:

- Use of administrative data
- Cross-sectoral
- Case and comparison design
- Large study population.

Sector	Administrative data
Justice	Court appearances Youth Justice Time in custody Police callouts Legal aid
Health	Hospital stays Emergency department presentations Ambulatory (walk-in) mental health services Births and deaths Treatment for drug & alcohol addiction Ambulance callouts Medicare services Pharmaceutical Benefit Scheme scripts
Housing	Social housing tenancies Temporary accommodation events Private rental subsidy and private rental assistance
Child protection	Out-Of-Home-Care placements
Homelessness	Specialist Homelessness services
Education	School achievement (NAPLAN+ SC/HSC)
Welfare	Welfare payments

The dataset - continued

~**200,000** people in the case cohort presenting to SHS from over 2012-17.

~**400,000** people in the comparison cohort, sampled from the broader NSW population, matched by age and sex.

16 Additional **NSW service** use datasets.

3 Additional **Commonwealth** service use datasets.

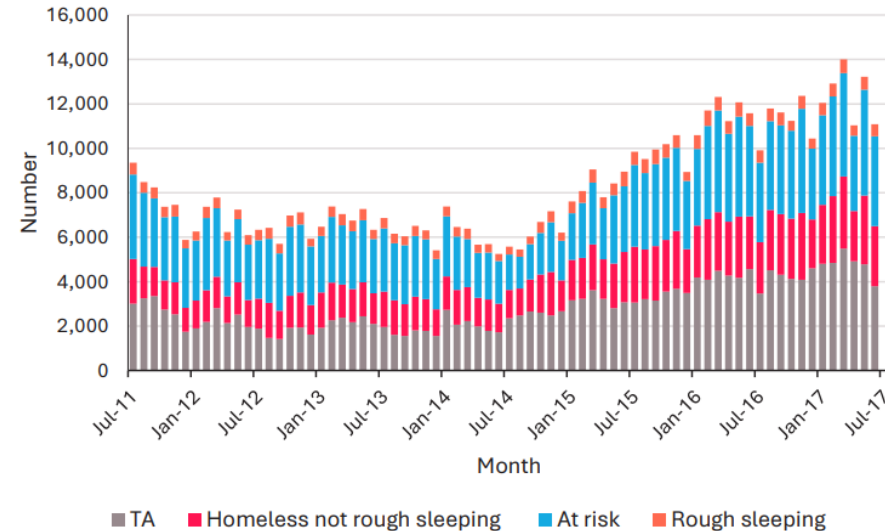
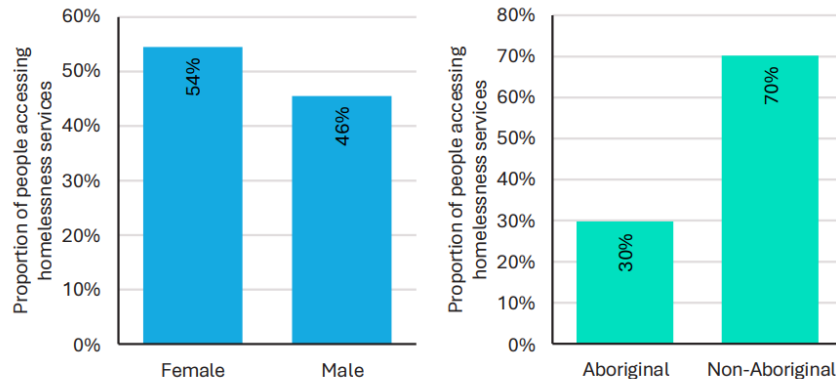
6 years of homelessness services to 30 June 2017. Up to 17 years for other services.

4 Ethics approvals and related privacy controls.

Service	Case	Comparison	Multiplier, rounded
Emergency department	31%	15%	2×
Admitted Patient	18%	11%	2×
Deaths	0.2%	0.1%	2×
Controlled drugs of addiction	2%	0%	24×
Ambulance	13%	3%	5×
Ambulatory mental health	11%	1%	9×
Police-recorded victim incident	19%	4%	5×
Legal aid	10%	1%	13×
Courts	9%	1%	10×
Custody	5%	0%	20×
Social housing	14%	2%	8×
PRA/PRS	5%	0%	16×
OOHC	2%	0%	6×
NESA	4%	6%	1×
Welfare	54%	20%	3×
Medicare	74%	78%	1×
PBS	59%	54%	1×

How many people are homeless?

- On average around 12,000 people a month in 2016/17, about a 60% increase over the six years
- Females are slightly over-represented
- Aboriginal people are over-represented
- About half accessed services more than once over six years



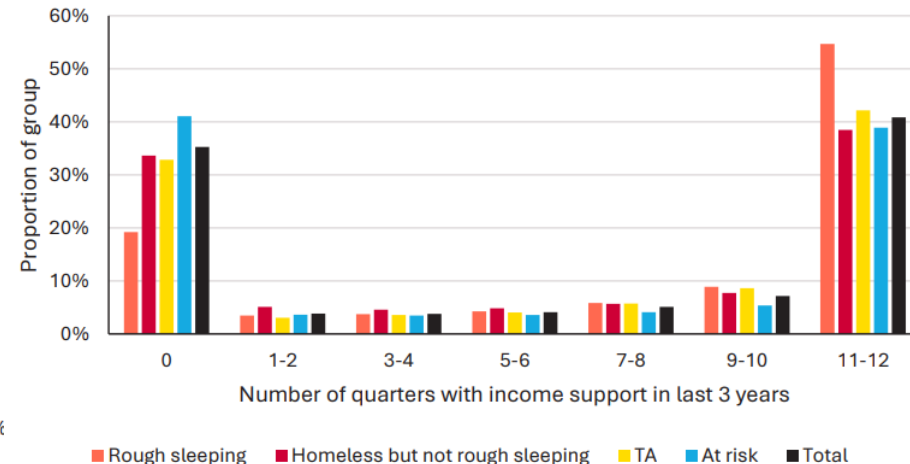
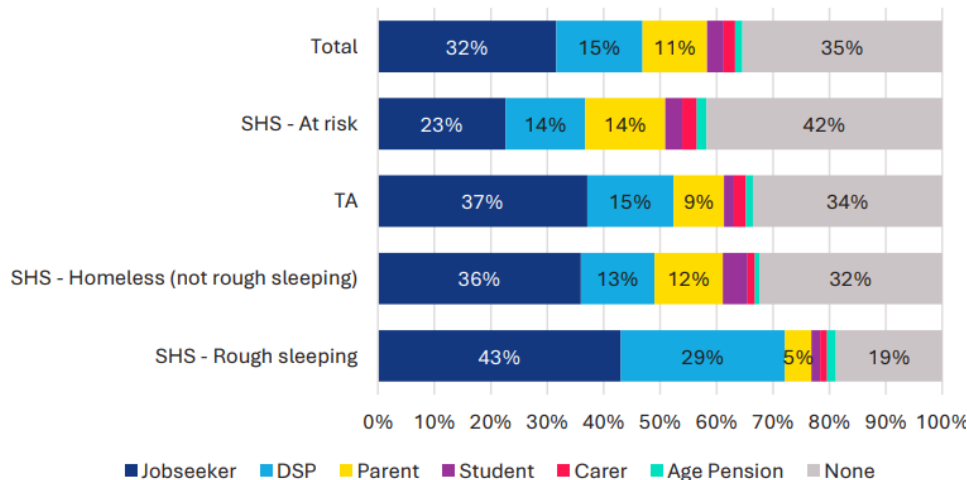
Year	Rough sleeping	Homeless not rough sleeping	At risk	TA	Total
2011/2012	450	1,500	3,000	2,500	7,250
2016/2017	550	2,750	4,000	4,500	11,750
% increase	+19%	+97%	+37%	+78%	+61%

What can the data tell us about income?

- About two-thirds (65%) of people accessing homelessness services receive income support payments
- Jobseeker, Disability Support Pension and Parenting Payments being the most common income support types.

Two distinct groups:

- More typically with extensive time on income support
- However, 35% have not received income support in the past 3 years.



How do cost-to-governments vary?

- Among people with experiences of homelessness, the median six-year service use cost-to-government is **\$166k per person**. This is **11x higher** than the average adult.
- The highest cost 5% (~ 1,500 people) have costs of $\geq \$458k$ or more, with an average of \$706k.

Group	# people (000s) aged ≥ 16	Six-year cost (\$000, June 2020 values)					
		Average (mean)	Median	75 th percent	90 th percent	95 th percent	99 th percent
2011/12 presenters	30	186	166	222	326	458	771
All of NSW	5,759	51	15	74	158	185	267

Median cost is 11x higher than an average adult

The highest 5% have average costs of \$706k, 50x higher than an average adult

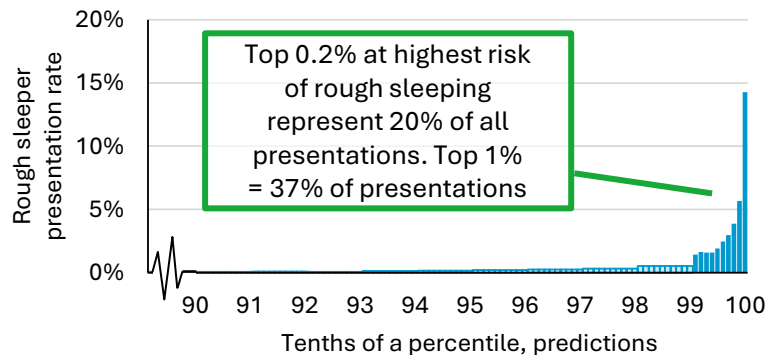
- Most of this cost sits with the NSW government, but is cross-sectoral.
- Housing costs are $< 10\%$.

Service	Top 5% of SHS presenters (1,500 people), \$000	All 2011/12 SHS presenters (30,000 people), \$000	NSW population (5.8m people), \$000
SHS+TA	21	9	0.1
Other NSW housing	12 9%	8 5%	1
Public hospital	137	22	7
Other NSW Health	15	3	0.3
MBS & PBS	11	9	8
Child protection	25	2	0.1
Custody & police	201	16	1
Courts & Legal Aid	182	21	1
Welfare (Commonwealth)	102	96	32
NSW Subtotal	593	81	11
Commonwealth Subtotal	113	105	40
Total	706	186	51

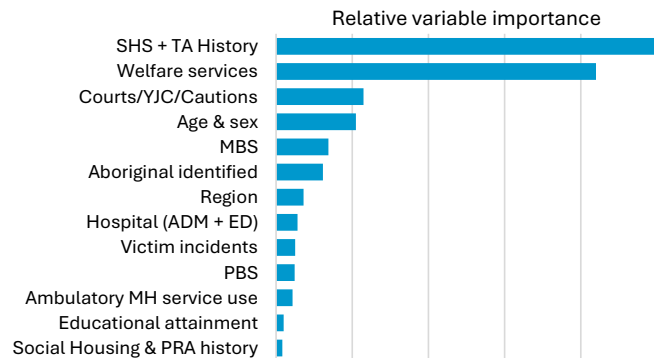
Can we predict who will become homeless?

Rough sleeper results

Prediction curve



Key variables



Key comparison statistics

Statistic	Group at highest risk (highest 0.2%) from prediction model	Full population
Number of people	15,700	7,850,000
Rough sleeper SHS presentation rate	11.80%	0.07%
% Indigenous	40%	3%
# police victims' incidents, 3yr	2.07	0.16
# court appearances, 3yr	5.60	0.10
# previous SHS presentations, 3yr	2.07	0.02
# previous temporary accommodation supports, 3yr	1.05	0.01
# previous emergency department presentations, 3yr	6.63	0.76
# ambulatory mental health services, 3yr	7.28	0.25

Intervention point exploration

We can test how homelessness service use changes with use of another service in the previous year.

The example on this slide shows key statistics for those accessing walk-in NSW mental health services

People who have accessed the service in the last year present to homelessness services at a rate of 10%, compared to 0.7% for people overall - 13 times the base rate (**'uplift'**)

16% of people presenting to homelessness services had ambulatory mental health services in the previous year (**'coverage'**)

The cost across all NSW gov. services for people accessing mental health & homelessness services was \$96k over the subsequent three years. This compares to \$38k for those accessing ambulatory mental health only – a difference of \$58k (**'cost difference'**)

	Homeless- ness rate in next year (0.7% base rate)	Risk uplift (risk relative to base)	Coverage (% of all homeless service use)	3 yr cost difference: elevated NSW fiscal cost for those homeless
Ambulatory mental health	10%	13x	16%	\$58k

Intervention point exploration (2)

		NSW population			
		Homelessness rate in next year (0.7% base rate)	Risk uplift (risk relative to base)	Coverage (% of all homeless service use)	Cost difference: elevated NSW fiscal cost for those homeless
Ambulatory mental health	Any	10%	13x	16%	\$58k
	Psychoactive substance use	19%	26x	3%	\$52k
	Disorders personality & behaviour	18%	25x	1%	\$62k
Emergency department	Any	2%	3x	42%	\$51k
	Mental health diagnosis	16%	21x	3%	\$79k
Admitted patients	Any	1%	2x	26%	\$55k
	Mental health related	11%	15x	3%	\$67k
End of controlled drug treatment spell		18%	25x	3%	\$56k
Police: victims incidents	Any	5%	7x	29%	\$51k
	ID&FV	14%	20x	4%	\$33k
Legal Aid		12%	17x	16%	\$55k
Custody spell ending		24%	32x	8%	\$48k
Housing tenancy ending		9%	12x	4%	\$41k
OOHC spell ending		9%	13x	1%	\$60k
CMW Welfare	Any income support	2%	3x	63%	\$41k
	Any Rent assist.	4%	5x	39%	\$39k
CMW MBS – Addiction		9%	12x	4%	\$73k
CMW PBS – MH		2%	3x	27%	\$49k

As per prev. slide

Large increase in risk and cost diff. with mental health

Large % known to police as victims

Good coverage and uplift for legal aid

High post-custody homelessness rates (partly by design)

Cohorts of interest

Work done on specific cohorts:

- Those experiencing financial hardship
- Those experiencing mental health problems
- Those treated for substance use
- Those experiencing domestic and family violence
- Those exiting custody
- Young people exiting out-of-home care

The report also included a dedicated chapter on results for Aboriginal people

Cohorts of interest – mental health

About 12% of presentations to SHS have a mental health (MH) service need identified (~7,000 per year). This includes a relatively higher rate for young females. This group is much more likely (2-3x) to have had a mental health-related hospital event in the prior three years.

We defined a broader population ‘acute MH’ group as those with ambulatory MH, or hospital ED/ admission related to MH. 220k people over 3 years to 2016. They are 9 times more likely to seek homelessness support in the next year, with some important sub-divisions (e.g. justice interactions).

Example segmentation of acute MH cohort with different homelessness risk

Segment rules				% of cohort	Rate of SHS/TA in next year	% of all SHS/TA presentations in cohort
No SHS or TA use in last 3 years	No time in custody in last year			81%	3.4%	33%
	Some time in custody in last year	Less than 1/3 past year on income benefits		1.6%	10.8%	2%
		>1/3 past year on income benefits	<3 ambulatory mental health services in last 3 years	0.7%	12.8%	1%
			≥3 ambulatory mental health services in last 3 years	1.2%	27.1%	4%
Some SHS or TA use in last 3 years	No court presentations in last year			11%	26.3%	35%
	≥ 1 court presentations in last year			4.7%	42.9%	25%
Total				100%	8.3%	100%

Implications

The Pathways to homelessness research project helps to:

- Inform key initiatives to deliver the Premier's Priority to halve street homelessness by 2025 and the development of the next NSW Homelessness Strategy.
- Inform the development of the annual Action Plan under the No Exits from Government Services into Homelessness Framework.
- Develop business cases examining elevated cross-sectoral costs.
- Explore new intervention points. For example, the Home & Healthy initiative.
- Engage with stakeholders to improve effectiveness of services.