Drug and Alcohol Consultation Liaison Services

Model of Care

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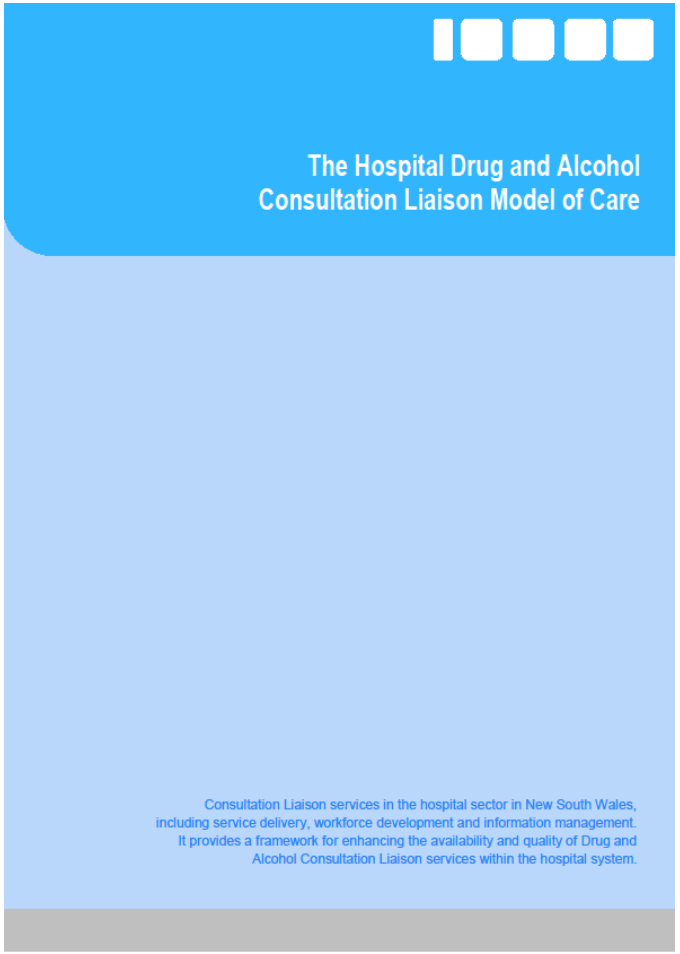
Evaluation

Hospital Drug and Alcohol Consultation Liaison Model of Care



Evaluation

- Evaluation of NSW Health Drug and Alcohol Consultation Liaison Services
- Final Report
- November 2014

Report for the Mental Health Drug and Alcohol Office (MHDAO), NSW Health

Centre for Health Economics Research and Evaluation (CHERE), University of Technology, Sydney

National Drug and Alcohol Research Centre (NDARC), University of NSW

Links to the Evaluation and Model of Care

- http://www.health.nsw.gov.au/mhdao/programs/da/Documents/rpt-eval-nswda-cl-serv.pdf

- http://www.health.nsw.gov.au/mhdao/programs/da/Documents/hosp-da-cl-modofcare.pdf

Role of Hospital D&A Services

What D&A CL services do

D&A CL services conduct specialist D&A patient assessments tailored to:

- the reason for presentation or admission to hospital
- the reason for referral to HDA-CL
- the available resources (staff qualification, time available, setting).

What D&A CL services do

- The assessment may include history, examination and investigations of the following key domains:
- assessment of substance use (with focus on recent patterns of use) including pattern and frequency, route of administration and time and date and amount last used
- identification of substance use disorders or complications, such as withdrawal (e.g. past withdrawal symptoms), dependence, tolerance, intoxication, drug-drug interactions

What D&A CL services do (cont)

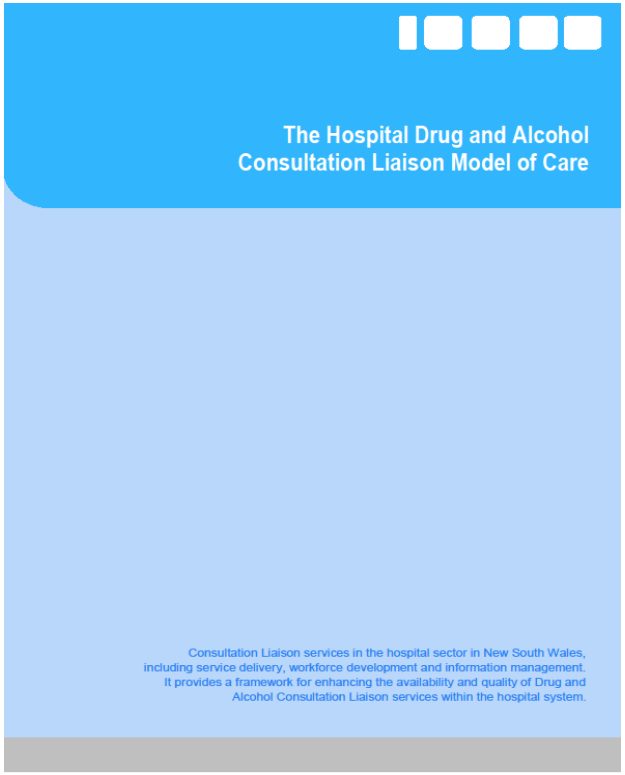
- past and current D&A treatment
- impact of substance use on presentation to hospital
- identification of high risk factors linked to the patient's substance use (e.g. MH, child protection, DV…)
- Review
  - patient's medications (safety concerns including drug-drug interactions, overdose, diversion, iatrogenic dependence)
  - investigations
- patient's goals or expectations regarding their substance use and treatment
- discharge planning (including linkages with relevant D&A, medical and social services)

D&A CL work with the treating team

- Where issues are identified by the D&A CL team that need to be addressed (e.g. other medical or psychiatric issues, child protection, homelessness), D&A CL staff will notify the primary treatment team, and the roles of different service providers will be clarified).

Description

- In Hospital Drug & Alcohol Consultation-Liaison Model of Care



Evaluation

Evaluation of Hospital Drug and Alcohol Consultation Liaison Services in NSW

- Commissioned by MHDAO in 2010
- The Evaluation was released in December 2014
- Conducted by
  - the Centre for Health Economics and Research, University of Technology, Sydney and
  - the National Drug and Alcohol Research Centre

Method

- The evaluation is comprised of two related studies,
  - Study 1 (baseline and follow-up patient surveys)
  - Study 2 (economic evaluation).

Study 1

- Patients recruited from EDs and selected wards at 8 NSW public hospitals.
  - Metro/regional/rural
- Baseline surveys were administered in each hospital over a 10 day period, where all waiting patients were approached and screened using the WHO ASSIST tool.

D&A screening tool ASSIST

- The WHO ASSIST screens for
  - problem or risky use of tobacco, alcohol, cannabis, cocaine, amphetamine type substances, sedatives, hallucinogens, inhalants, opioids and 'other' drugs.
- The ASISST obtains information from clients about
  - lifetime use of substances, and
  - use of substances and associated problems over the last 3 months

Comparison groups

Patients were categorised into

- No D&A problem
- D&A issue
  - a brief intervention required
  - an intense intervention required

- Did/did not see CL services

Comparisons across groups

- Analysis was undertaken of the
  - patterns of service,
  - health system resource use and
  - costs over time.
- Comparisons were made between patients
  - without D&A problems,
  - with D&A who
    - received D&A CL services
    - did not receive D&A CL services
- Estimate of baseline prevalence

Study 1

- Follow up 3 months later
  - Screen +ve – followed up
  - changes in substance use since baseline survey, general functioning, and health service utilisation.

Too intoxicated to consent

- Those who were too intoxicated or cognitively impaired to consent - excluded
  - Probable under-estimate
- Intoxication as a reason for exclusion ranged from 2-11%

Study 2 – economic evaluation

- Patients enrolled in study 1 - medical record data
  - Medicare data and NSW APDC, ED and LHD
  - from 18 months prior to the survey up to twelve months after the survey.
- Economic evaluation
  - estimate the impact of receiving a D&A CL intervention on changes in the utilisation and associated costs of health services by patients over time
    - i.e. length of stay, frequency of presentations and admissions and reported incidents

Results

Prevalence

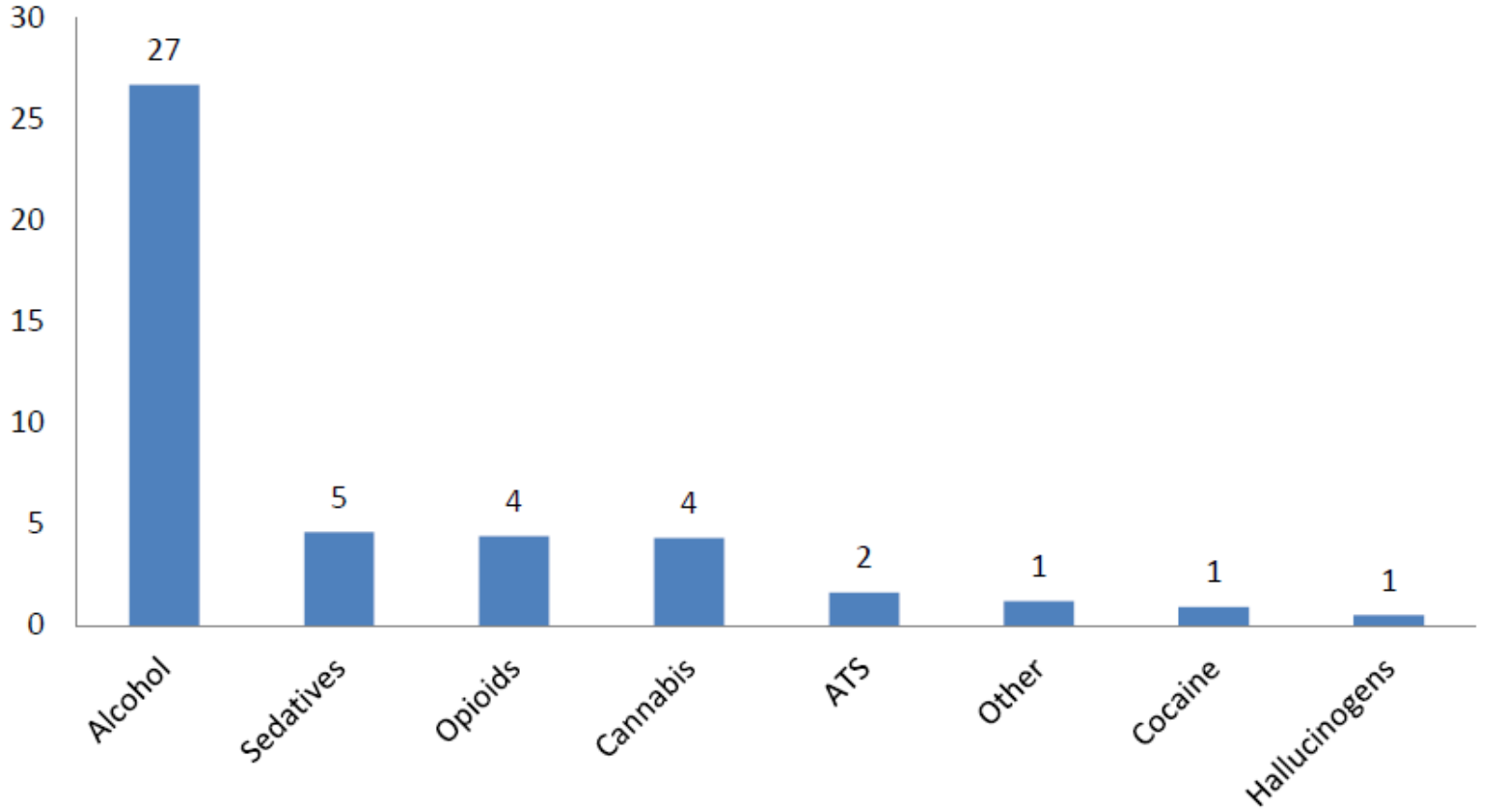
- More than one-third (35%) of people presenting to NSW hospitals were screened as having a drug and alcohol (D&A) problem in need of some level of intervention
  - Need brief intervention - 32%
  - Intensive intervention – 7%
    - Both (>1 substance) 4%

Substance type

- Substances most commonly used in the past 24 hours were
  - alcohol,
  - sedatives, opioids, cannabis, amphetamines
- Tobacco was also reported as contributing to their presentation by 12% of respondents.

Substance use

Figure 2.1.4 Self-reported substance use in the past 24 hours (%) by type of substance used (n=1,615)



Time of presentations and arrival mode

- Presentations for people with D&A alcohol problems occur 7 days a week and are more frequent in the *afternoon* and *evening* than other times of day
- This group is more likely to arrive by ambulance, public transport or police/correctional services vehicle

Departure mode

- People who screened as needing an intensive intervention for a D&A issue are more likely to leave at their own risk or not to wait, compared to presentations for other patients.

Demographics

- Demographics of patients who were referred to D&A Consultation Liaison services:
  - 63% male
  - 4% ATSI
  - Mean age 40 yrs (range 17 – 90)
    - younger than those with no D&A issues (~6 years)
  - More likely to have a poorer disability score

Main findings—benefits to EDs

- D&A Consultation Liaison services:
  - prevent an increase in average Length of Stay in Emergency Departments over time.
    - Patients who screen as requiring an intense intervention represent frequently to EDS and have an increasing length of stay in EDs.
  - Length of stay in EDs decrease for patients who have seen D&A CL services
  - D&A CL prevents a worsening in emergency admission performance

Benefits to EDs and NSW Health

- People who screened as requiring an intensive D&A intervention as well as the group who saw D&A CL services present more frequently to EDs than other patients and are admitted more frequently
  - D&A CL decreases the rate of presentations over time
  - D&A CL decreases the rate of admissions over time.
  - Once a patient has seen a D&A CL service, they are re-admitted less frequently over time

Shifting of care and management out of hospitals

- Patients who have seen D&A CL services show an uptake of selected PBS drugs but with no overall increase in PBS costs
  - so there is more appropriate drug and alcohol treatment and management of patients than presenting to hospitals.

Patients who saw D&A CL presented less often to EDs over time

- People who received a CL consultation have 39% fewer presentations per quarter

- Patients who screened as requiring an intensive intervention but who were not referred to D&A CL services, did not have a significant change in the trend in presentations over time.

Cost savings to hospitals

- The difference between the cost of providing D&A CL and the savings from reduced ED presentations for those receiving a D&A CL intervention amounts to a **net benefit** of at least **$203 per new D&A CL patient** per annum
- Based on the current patient numbers being treated by D&A CL services, this amounts to an average net benefit of over $100,000 per hospital per year

D&A CL leads to a reduction in Incidents

- The majority of services that received dedicated funding to enhance their D&A CL service experienced a reduction in incidents (9 out of 12 services in at least 1 type of incident)

D&A in Incidents

- D&A is over represented in Clinical Incidents, with 32% of reported Clinical Incidents for D&A service patients are behavioural incidents
  - only 4% of all Clinical Incidents are behavioural incidents.

Low rate of previous D&A treatment

- Among the D&A group, previous service utilisation for substance use was low;
  - 75% of the group had never accessed any type of substance use service.
- Of those who had used a service previously, the most commonly used services were face to face counselling (19%), detoxification services (13%) and support groups (12%).

D&A issues under recorded in hospitals

- Only a small proportion of patients receive a drug and alcohol diagnosis (less than 1% on average) as their primary diagnosis, the majority of which are for “mental and behavioural problems related to alcohol use”.

Low rate of referrals to D&A services

- Despite the high prevalence of D&A problems amongst ED patients, the 3 month follow-up study indicated that
  - only 8% of patients with D&A problems were referred to D&A services by hospital staff
- Only a minority of patients with D&A problems who present to ED are referred for D&A treatment.

D&A CL refers to D&A treatment

- The provision of D&A CL services may improve identification of patients with D&A problems, improving health outcomes through appropriate treatment and referral to services thereby reducing re-presentation and admission rates and length of stay in hospital

Summary

- Drug & Alcohol problems in EDs are common
  - 35% require treatment
  - Probably under-detected
- D&A CL services are associated with
  - Reduced re-presentations
  - shorter Ed & wards stays
  - Reduced critical incidents
  - Overall savings ~$200/patient/$100,000/hospital/pa

Thank you

- Questions?

Assist screened hospitals

- Royal Prince Alfred Hospital – Sydney
- St Vincent's Hospital – Sydney
- John Hunter Hospital – Newcastle
- Wollongong Hospital – Wollongong
- Orange Health Service – Orange
- Lismore Base Hospital – Lismore
- Campbelltown Hospital – Campbelltown
- Albury Wodonga Health - Albury

Hospitals

Table 1.1 Hospitals and CL/ECL status

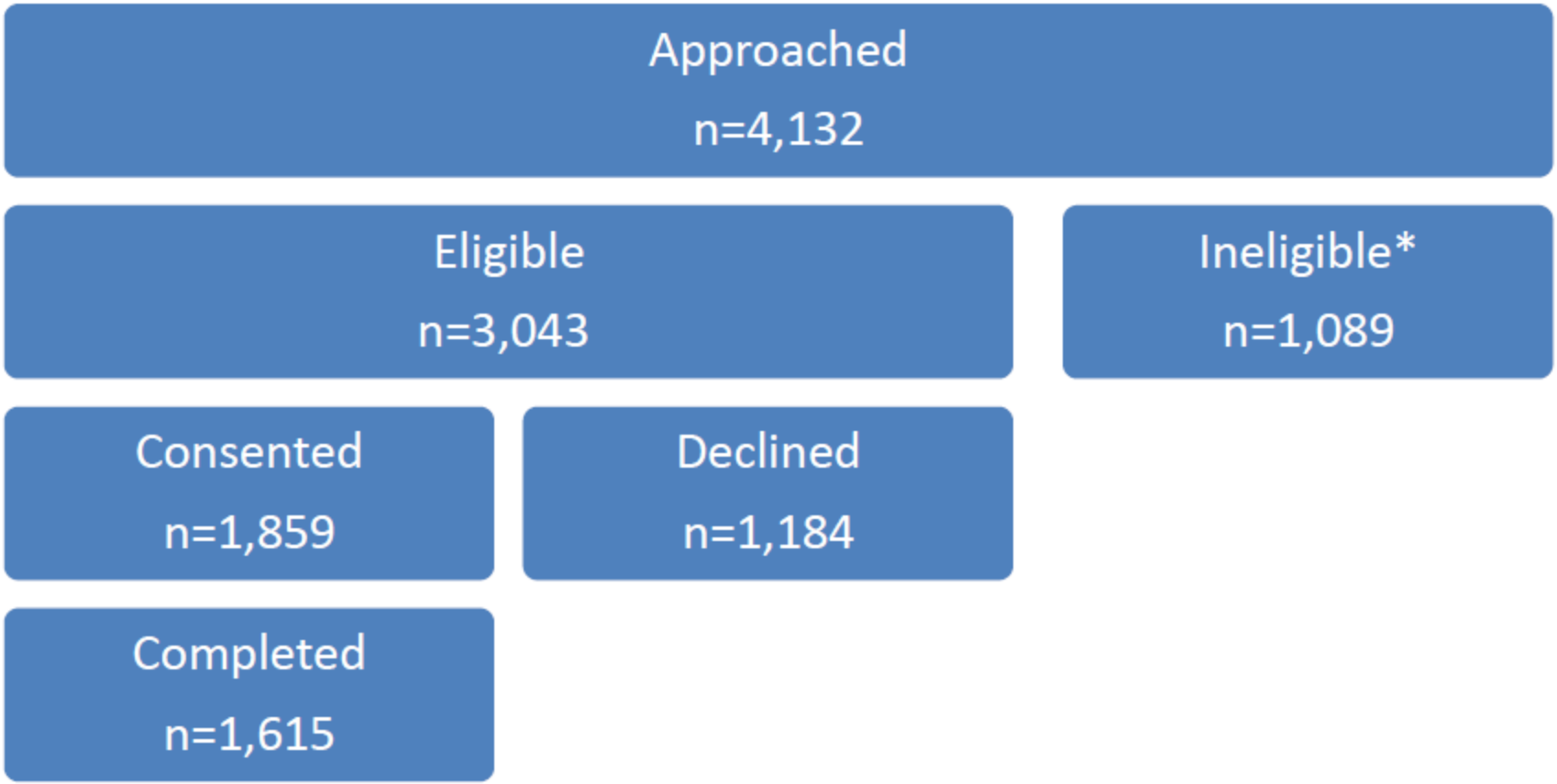
Hospital	CL in 2005	ECL	Enhanced funded service commenced
Albury Base*	yes	yes	Approximately August 2007
Bathurst	no	yes	Operational July 2008
Campbelltown*	yes	yes	August 2008
Concord	yes	yes	August 2008
Dubbo	yes	yes	Approximately March 2010
Goulburn	no	yes	Approximately August 2007
John Hunter*	yes	yes	Recruitment June 2008, operational July 2008
Liverpool	yes	yes	August 2008, extended hours commenced October 2008
Orange*	no	yes	Recruited April 2007, operational August 2007.
Royal Prince Alfred*	yes	yes	August 2008, extended hours fully operational July 2009
Wagga Wagga	no	yes	Approximately August 2007
Westmead Children's Hospital	no	yes	June 2008
Lismore*	ad hoc	no	N/A
St. Vincent's*	Yes	no	N/A
Wollongong*	No	no	N/A

Goal of extended CL services

- Improve ED performance indicators (i.e. reduce bed block) and improve hospital throughput.
- Increase the identification of patients with drug and alcohol problems.
- Improve the health outcomes and treatment pathways for patients with drug and alcohol problems.
- Improve generalist staff knowledge of CL services and their capacity to identify and refer patients with drug and alcohol problems.
- Provide a long term cost-effective strategy to reduce the impact of drug and alcohol presentations and hospital admissions on the NSW health system.

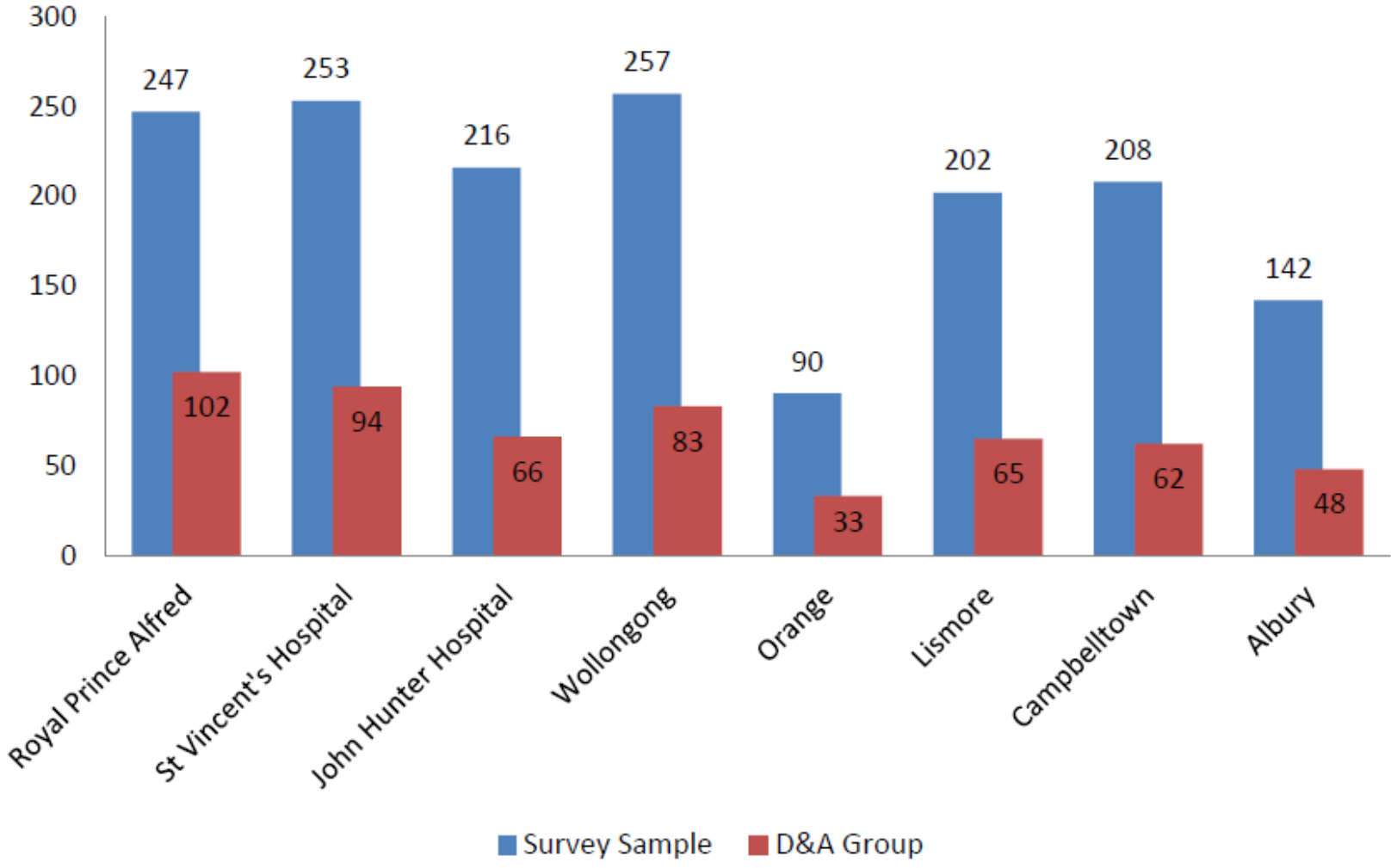
Baseline data

Figure 2.1.1 Patient survey participation



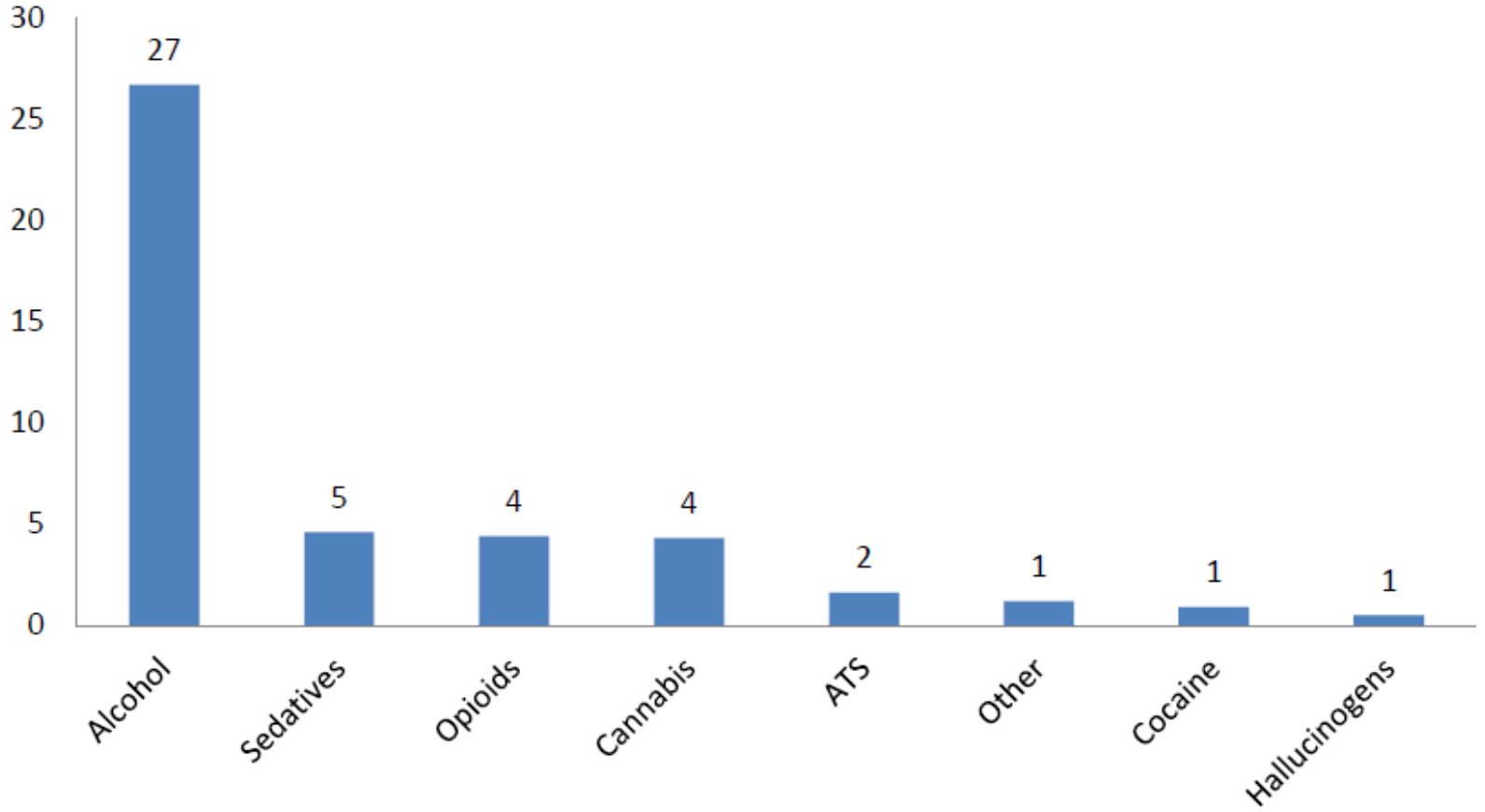
By hospital

Figure 2.1.3 Total sample and the D&A group as identified with the ASSIST by hospital



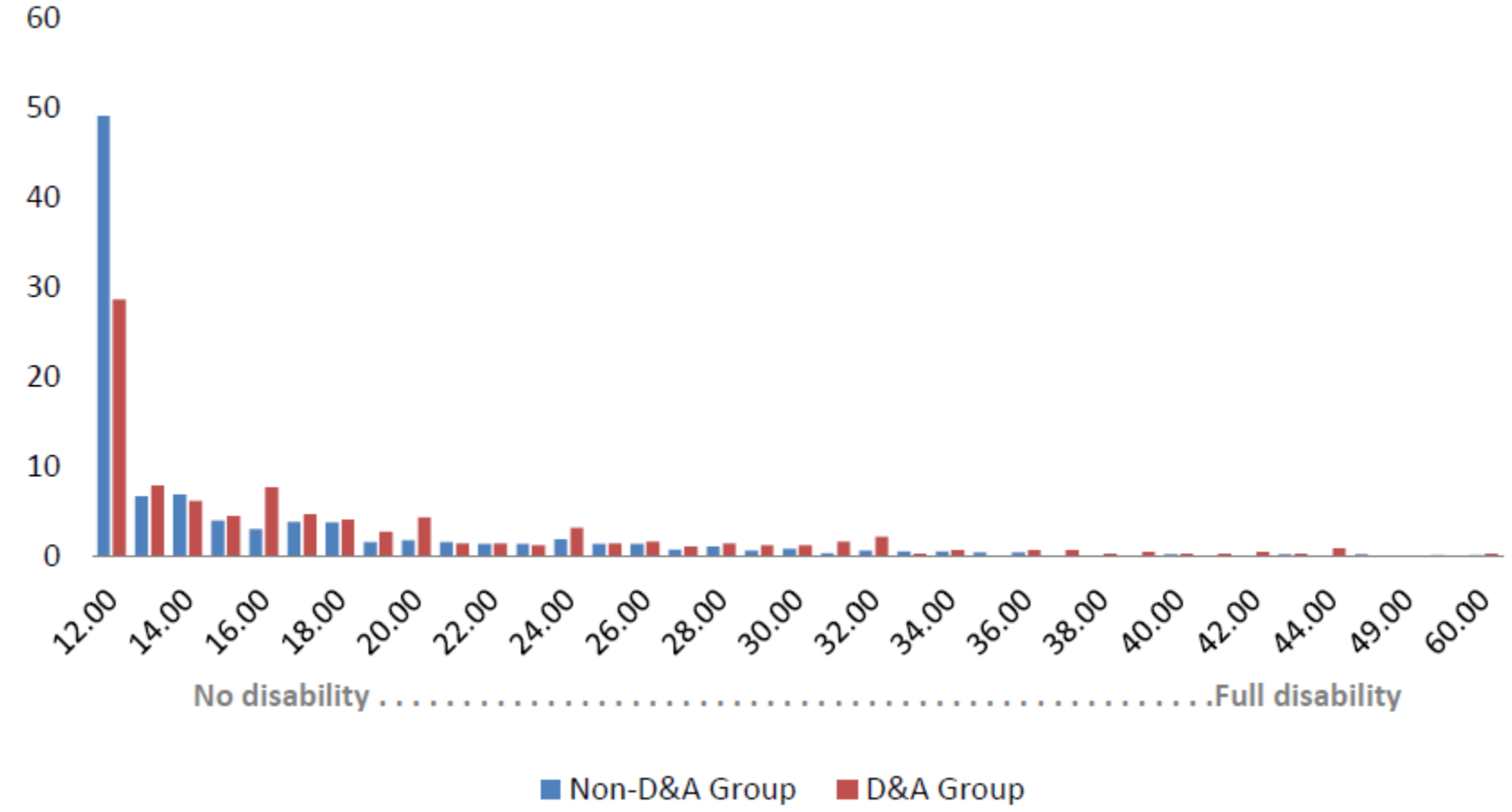
Substance use

Figure 2.1.4 Self-reported substance use in the past 24 hours (%) by type of substance used (n=1,615)



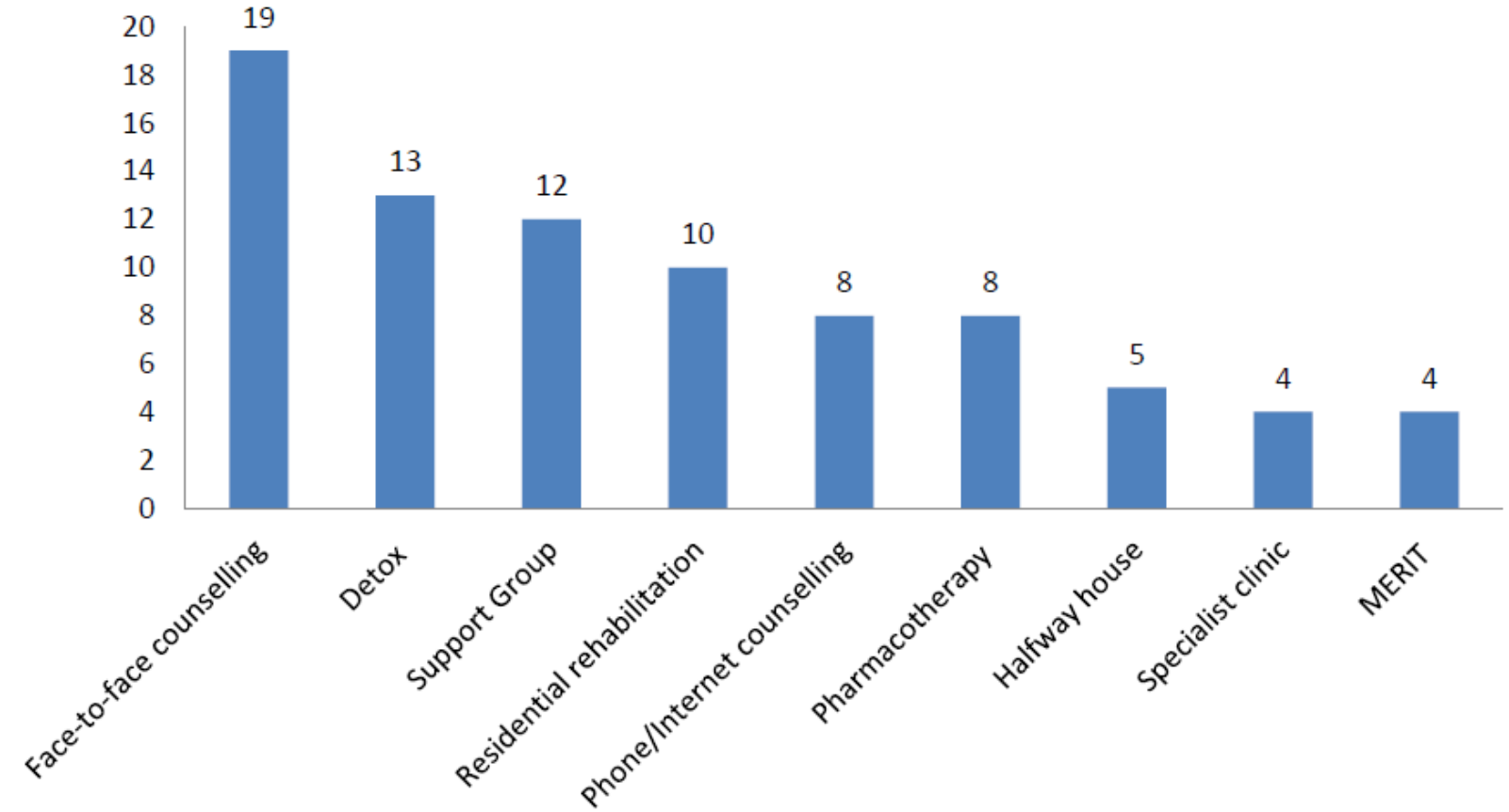
disability

Figure 2.1.7 WHODAS 2.0 Disability scores (n=1615)



Previous D&A treatment

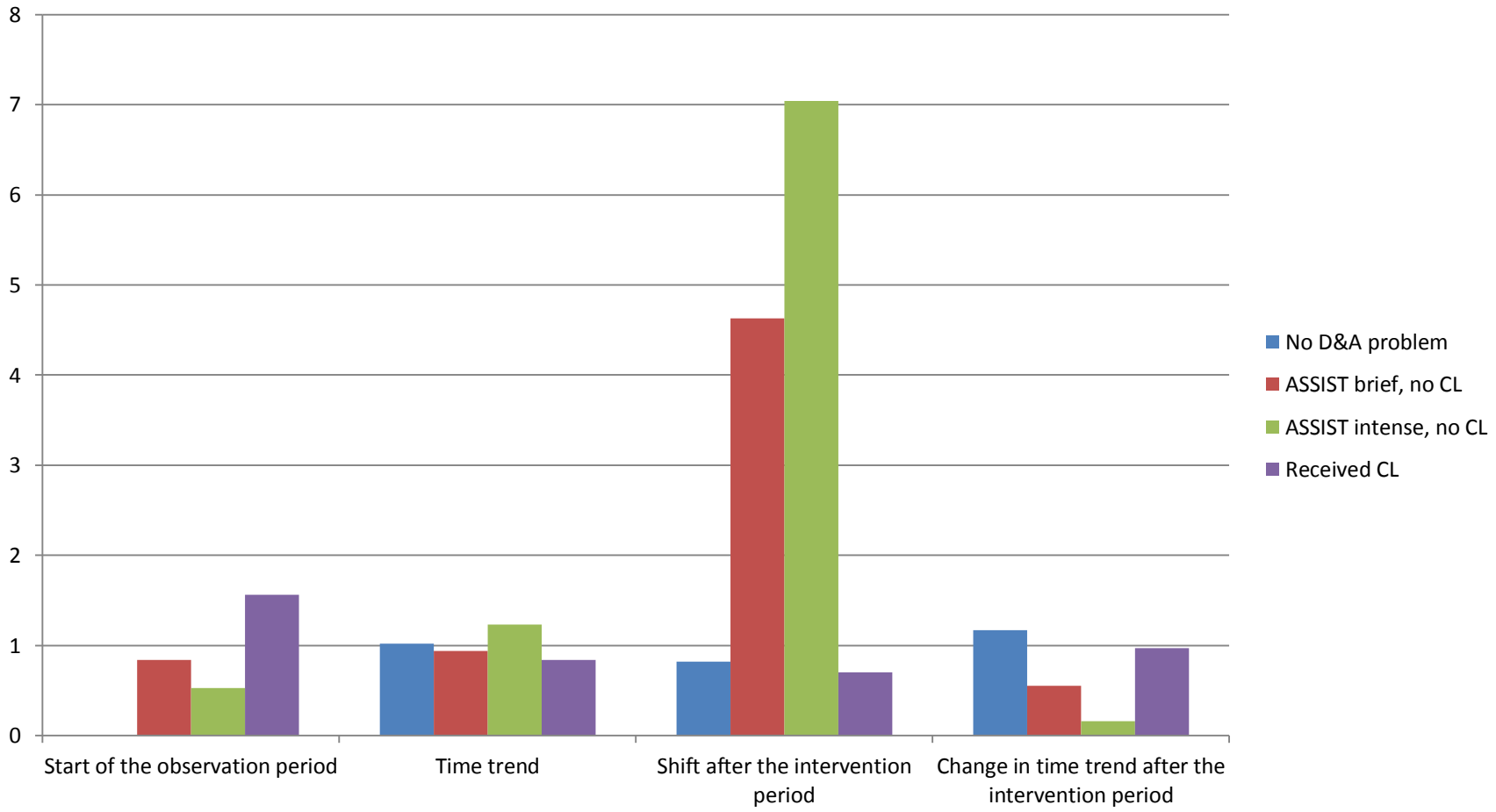
Figure 2.1.8 % D&A group substance use service utilisation, by service type (n=553)



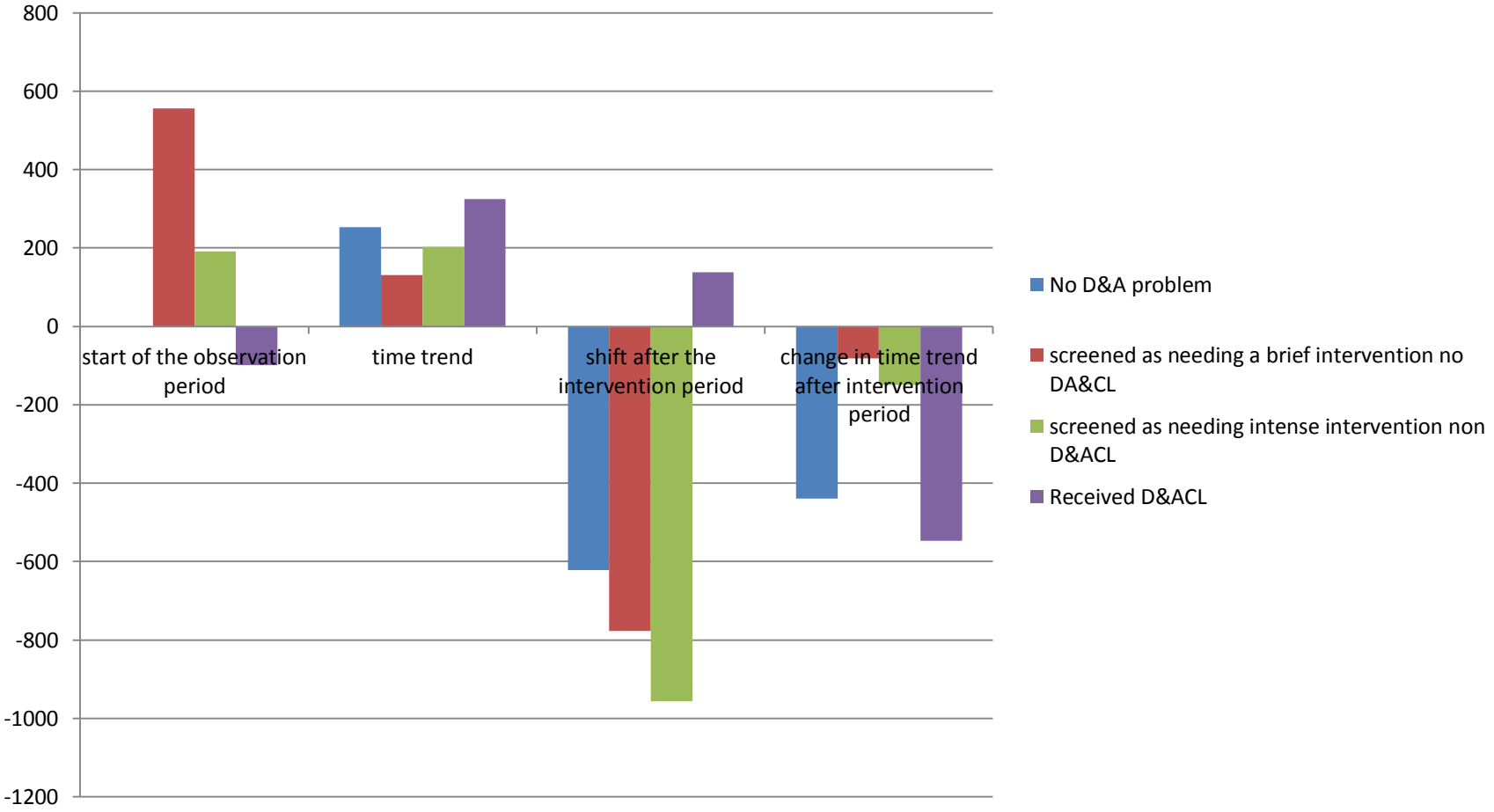
Follow up survey

- Baseline screen n=1615
- Assist +ve n=553 (35%)
- Consented to follow up n=352 (64%)

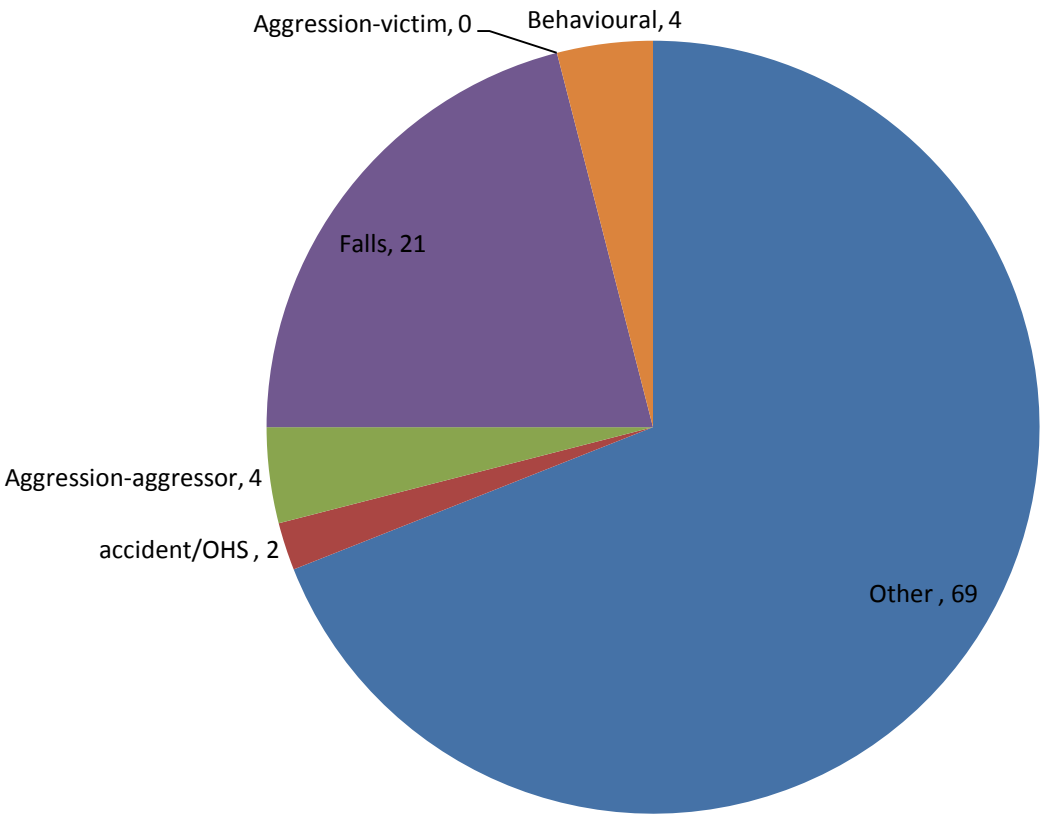
Logistic regression analysis of 4 hour Emergency Admission Performance



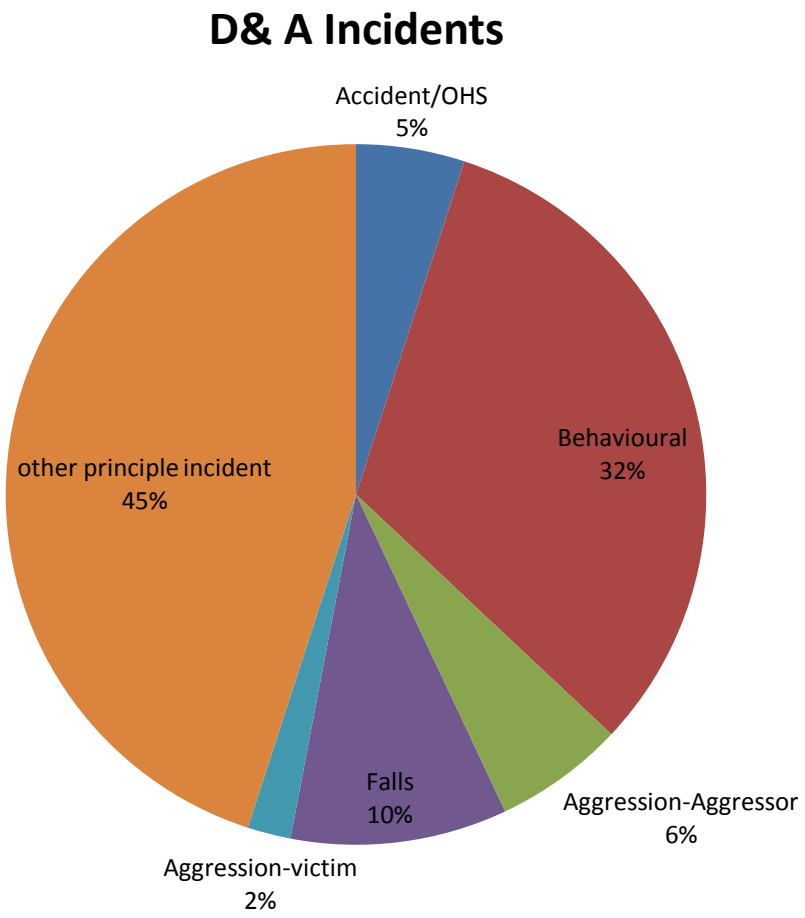
Random effects regression of cost of AP admissions per quarter per person



Overall Clinical Incidents



D&A overrepresented in Critical Incidents



Referral to D&A CL

- Referral of intoxicated patients to D&A CL may be appropriate where:
  - the patient requires admission to hospital (for clinical indications other than intoxication) and where there is a diagnosis or high suspicion of drug or alcohol dependence
  - there is an unclear diagnosis of a presenting problem that may require hospital admission and where HDA-CL is requested to assist in assessment and diagnosis
  - the patient is known to frequently present and the coordinated management plan notes that HDA-CL should be contacted on patient presentation (e.g. pain management patient).

D&A CL staff build capacity of hospital staff to manage intoxicated patients

- D&A CL staff have a role in training and capacity building of hospital staff in identifying and responding to D&A issues, including managing intoxicated patients
- They may provide assistance to the treating team in their assessment of the patient and advice regarding monitoring, prevention of aggression and management of any underlying substance use disorders.
- However, HDA-CL services cannot admit, constrain or detain patients and it is usually inappropriate to consider longer term D&A treatment plans (e.g. withdrawal or rehabilitation treatment) whilst the patient is intoxicated. Once the patient is no longer intoxicated, the need for referral to D&A CL can be reassessed.