



Monitoring and improving the health of ex-prisoners with and without intellectual disability

A randomised controlled trial

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Medical Research. Practical Action.



Acknowledgements



Professor Konrad Jamrozik 1955-2010

“People are sick of hand-wringing epidemiology”



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 - ❑ Consumers and advisory group members
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The *Passports* project

Randomised controlled trial of a health-based intervention for prisoners being released from custody

AIMS: Evaluate impact on:

- post-release physical and mental health, and health risk behaviours, within the first 6 months of release;
- access to and use of health services, during the first two years post-release;
- the incidence and timing of recidivism within two years of release;

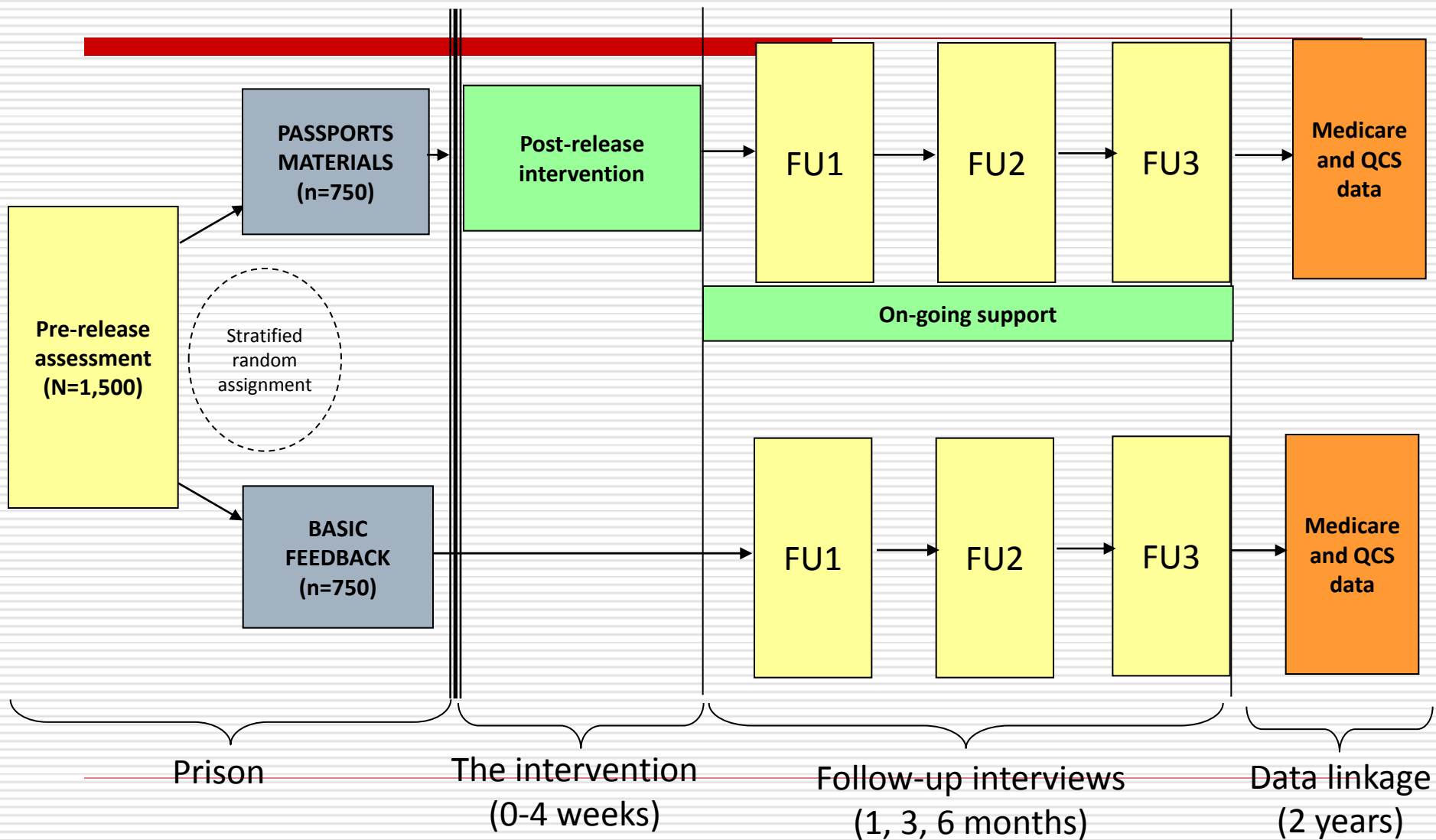
Identify prevalence and correlates of ID



The Passports project

- RCT of transitional intervention for 1,279 adult prisoners in QLD (n~300 female)
 - Comprehensive health and needs assessment pre-release
 - Focus on health promotion and tailored facilitation of service access post-release
 - Health outcomes measured at 1, 3, 6 months
 - Recidivism measured at 2 years
- Data collection commenced August 2008
- Evaluation results due in 2011

Design



Prison populations

What we know about prisons

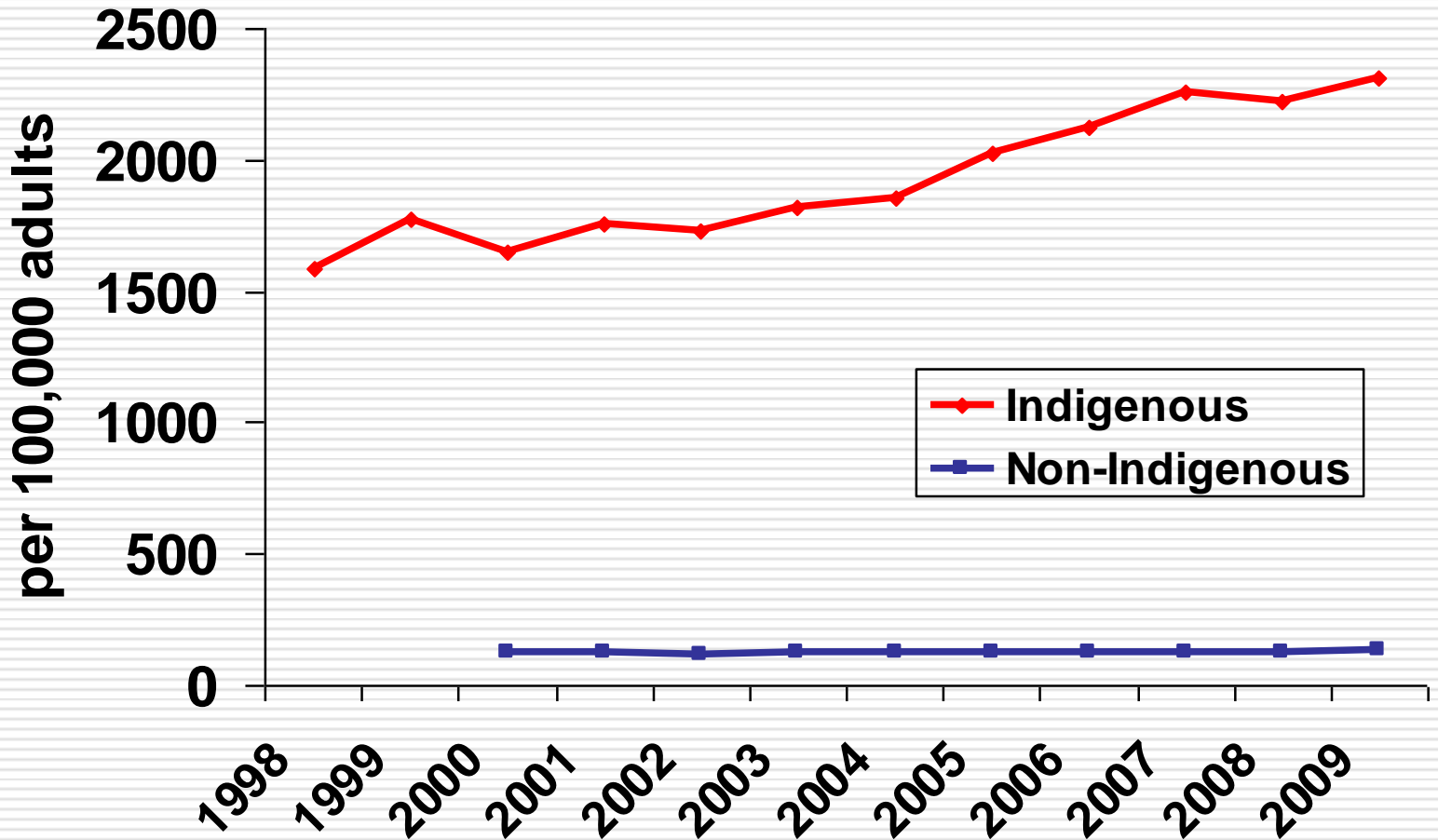
- ❑ There is very little good research
- ❑ No research to show that throughcare reduces recidivism.
- ❑ Throughcare interventions are growing in popularity, but:
 - usually only available for a subset of prisoners
 - intended to reduce offending, not improve health
 - rarely rigorously evaluated

We need to avoid criminocentric idea of prisoners and shift our focus to recognising that they are people with significant health needs.

The prison population

- Australian prison population is growing rapidly
 - 27,615 prisoners at last count
 - increase of 39% in last 10 years
 - 'stock' vs. 'flow'
 - estimated 385,100 *ex-prisoners* in Australia
 - many serving short sentences for drug-related crimes
 - 7% of prisoners female, increasing
 - Indigenous people over-represented by a factor of 13:1 (age-adjusted) and increasing...
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Indigenous cf Non-indigenous



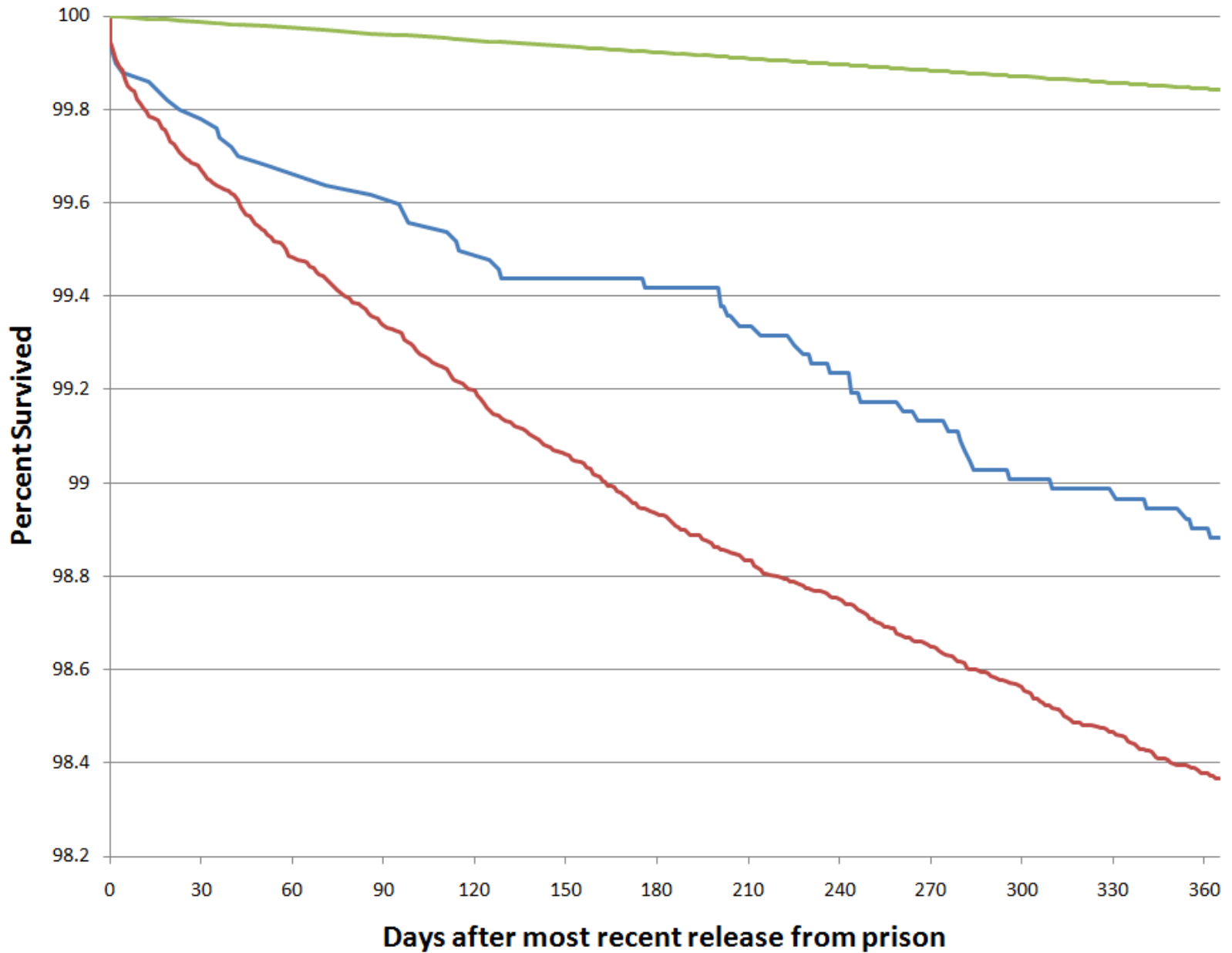
Prisoner 'polymorbidity'

Prisoners are chronically disadvantaged in multiple domains

- Poor education, low rates of employment, unstable accommodation
 - Half have no formal school qualifications
- Chronic ill health
 - Prisoners score below population on all SF-36 scales
 - At reception, 35% HCV+ (60% among IDU)
- Elevated rates of mental health problems
 - Esp. psychosis, depression, anxiety (incl. PTSD)
 - poor mental health → poor physical health
- Alcohol, tobacco and other drug misuse are normative
- Elevated rates of intellectual disability

Queensland ex-prisoners released 1994-2007

Survival for the first 365 days after most recent release from prison



Prisoners with intellectual disability

What we know about prisoners with intellectual disability

- Prevalence remains unknown
 - Prevalence is currently underestimated
 - HASI as a screening tool is not specific enough to locate people with intellectual disability
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Prisoners and ID

- Prevalence of ID among prisoners elevated; estimates vary
 - UK: on WAIS-III 7.1% of prisoners has an IQ <70, a further 23.6% had an IQ 70-79; under-diagnosed
 - Norway: on WASI, 10.8% of prisoners had an IQ <70
 - NSW: 18% below cut-off on HASI, 5% of these had IQ<70 (WAIS-R)
 - VIC: from prison records, 1.3% of male ex-prisoners had recognised ID
- Prevalence of ID higher among:
 - Indigenous prisoners (as per community)
 - Early-onset and frequent offenders
 - Younger prisoners
- (Ex)-prisoners with ID experience poor outcomes:
 - Higher security rating, more breaches in prison
 - Lower participation in prison rehabilitation programs
 - Greater use of prescription psych meds; less drug use
 - Difficulty gaining parole, often due to poor accommodation
 - Higher rate of recidivism

Hayes Ability Screening Index (HASI)

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- Adequate sensitivity and specificity
 - intentionally over-inclusive
 - ? detects any cognitive or intellectual impairment
 - Four assessment items:
 - Background
 - Backwards spelling
 - Puzzle
 - Clock drawing

Background (HASI)

BACKGROUND

Do you have a learning disability?

Do you think you are a slow learner?

Have you ever been in a special class or school for students with a learning disability?

Have you ever received a pension or benefit for a disability?

Yes = 1	No = 2	
Yes = 1	No = 2	
Yes = 1	No = 2	
Invalid or DSP = 1	No Pension = 2	
BACKGROUND TOTAL (maximum of 8)		



Backwards Spelling (HASI)

BACKWARDS SPELLING

Spell the word "stamp" backwards

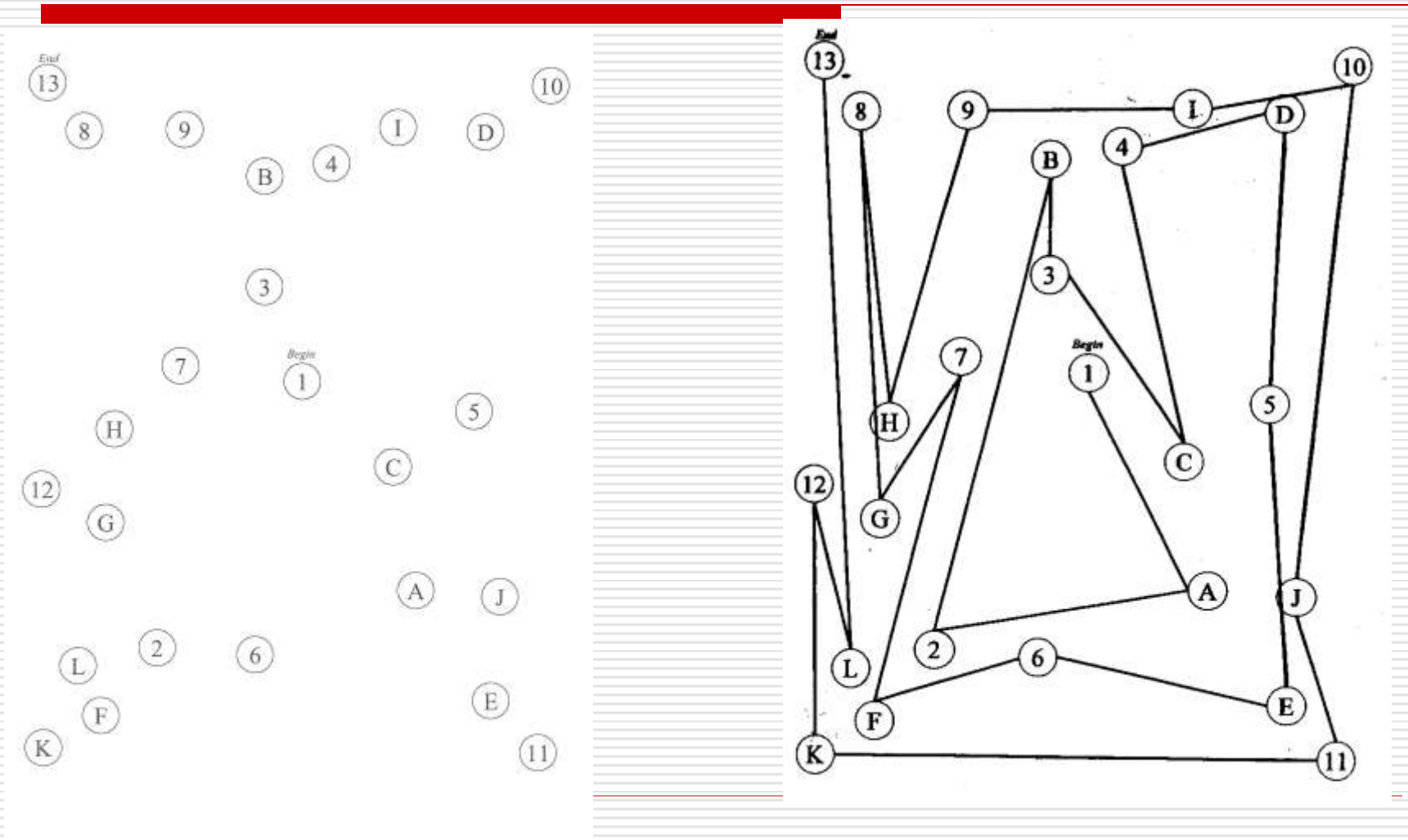
(Circle each letter that is correct in order and position)

P M A T S

(For "zero", score "1")

BACKWARDS SPELLING TOTAL
(maximum of 5)

Puzzle (HASI)



Time allowed for test: 1 minute 40 seconds

Clock drawing (HASI)

“Draw the face of a clock with all of the numbers on it. Make your drawing large”.

“Now draw the hands of the clock at 20 to 4”.

SCORING	
No attempt, or attempt is not recognisable.	1
Clock Drawing shows some evidence that instructions were understood but is only a vague representation; inappropriate arrangement of numbers (in lines, or random on page).	2
Numbers and face are no longer connected in the drawing, or hands are not recognisably present.	3
Numbers are absent, written outside clock, distorted in sequence, or hands are not clearly represented.	4
Inappropriate arrangements which persevere, eg. use of dots instead of numbers, or hands are represented but do not clearly point to a number.	5
Inappropriate use of clock hands (digital display, or circling of numbers) or the crowding of numbers at one end of the clock, or reversal of numbers.	6
Hands are placed significantly off the mark by more than one number, or inappropriate spacing of the numbers (all numbers on one side of clock).	7
More noticeable errors in placement of hour and minute hand (off by one number), or if number spacing shows a gap.	8
Slight errors in placement of hands (not exactly on the 8 and 4, but not on one of the adjoining numbers) or one missing number from face of clock.	9
Normal drawing with the numbers and the hands in roughly the correct positions; hour hand should be distinctly different from the minute hand and approaching 4 o'clock.	10

HASI scoring schedule

Raw Score	Scaled Score				Raw S core
	Background	Backwards spelling	Puzzle	Clock Drawing	
1	3.5	3	3.7	2	1
2	7	6	7.4	4	2
3	10.5	9		6	3
4	14	12		8	4
5	17.5	15		10	5
6	21			12	6
7	24.5			14	7
8	28			16	8
9				18	9
10				20	10 [*]

CALCULATNG THE SCORE

Sub-Test	Raw Score	Scaled Score
Background		
Backwards Spelling		
Puzzle		
Clock Drawing		
Add		26.0
Total Score		

HASI cut-off scores

Aged 18yrs +: <85 refer for further assessment
85+ no referral

Aged < 18 yrs: <90 refer for further assessment
90+ no referral

Passports study (all aged 18+)

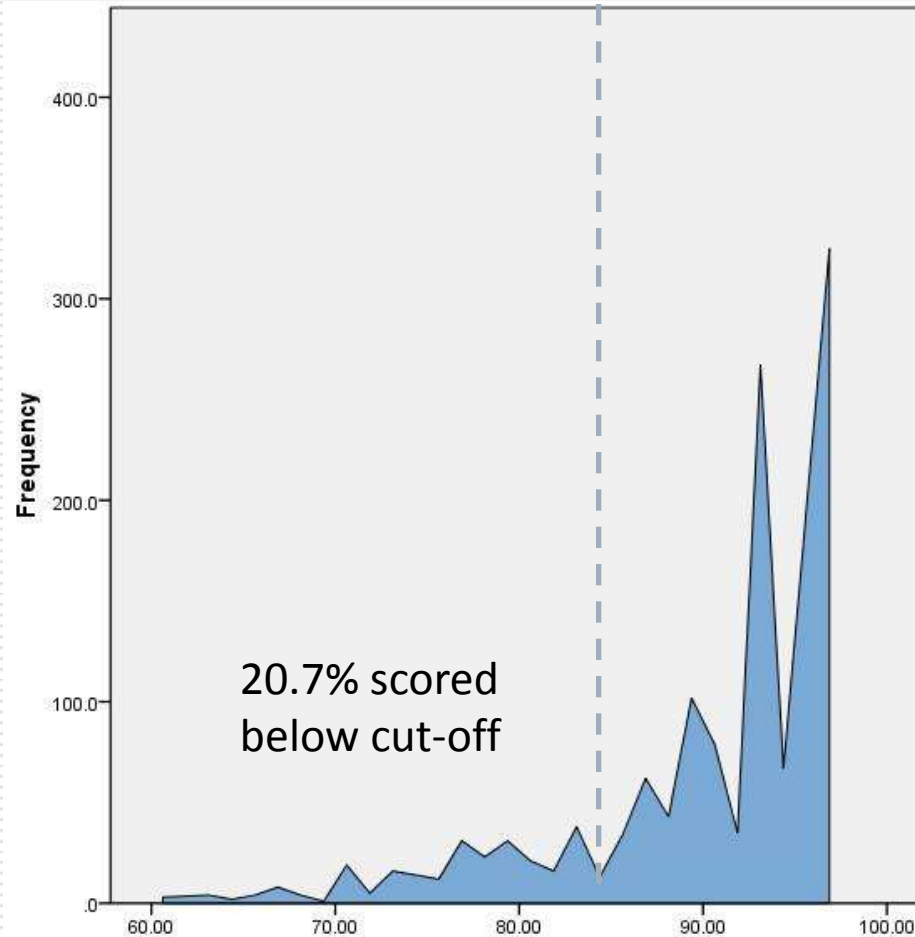
20.7% identified as “refer for further assessment”



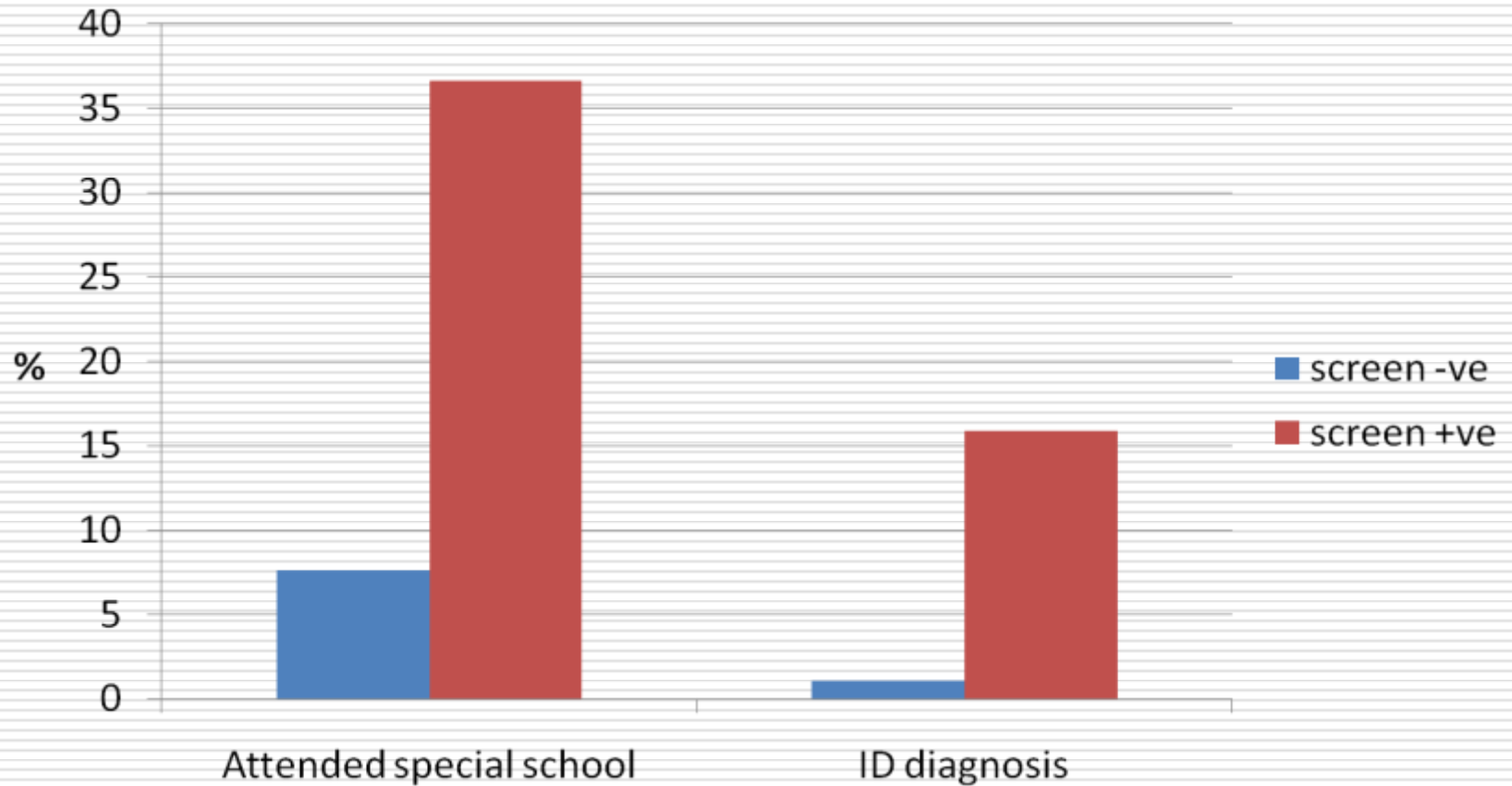
HASI correlates from Passports baseline



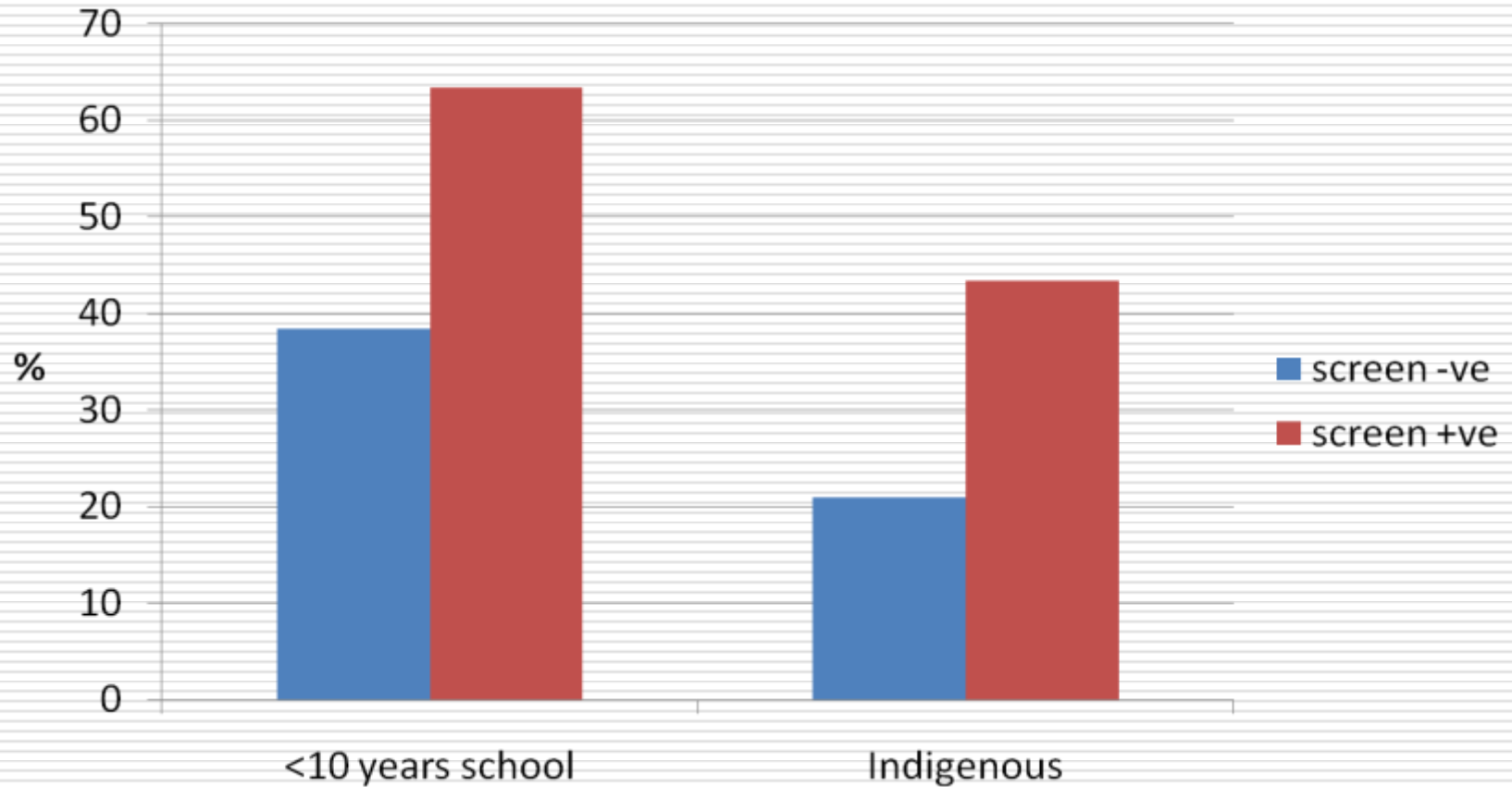
Distribution of HASI scores (N=1,279)



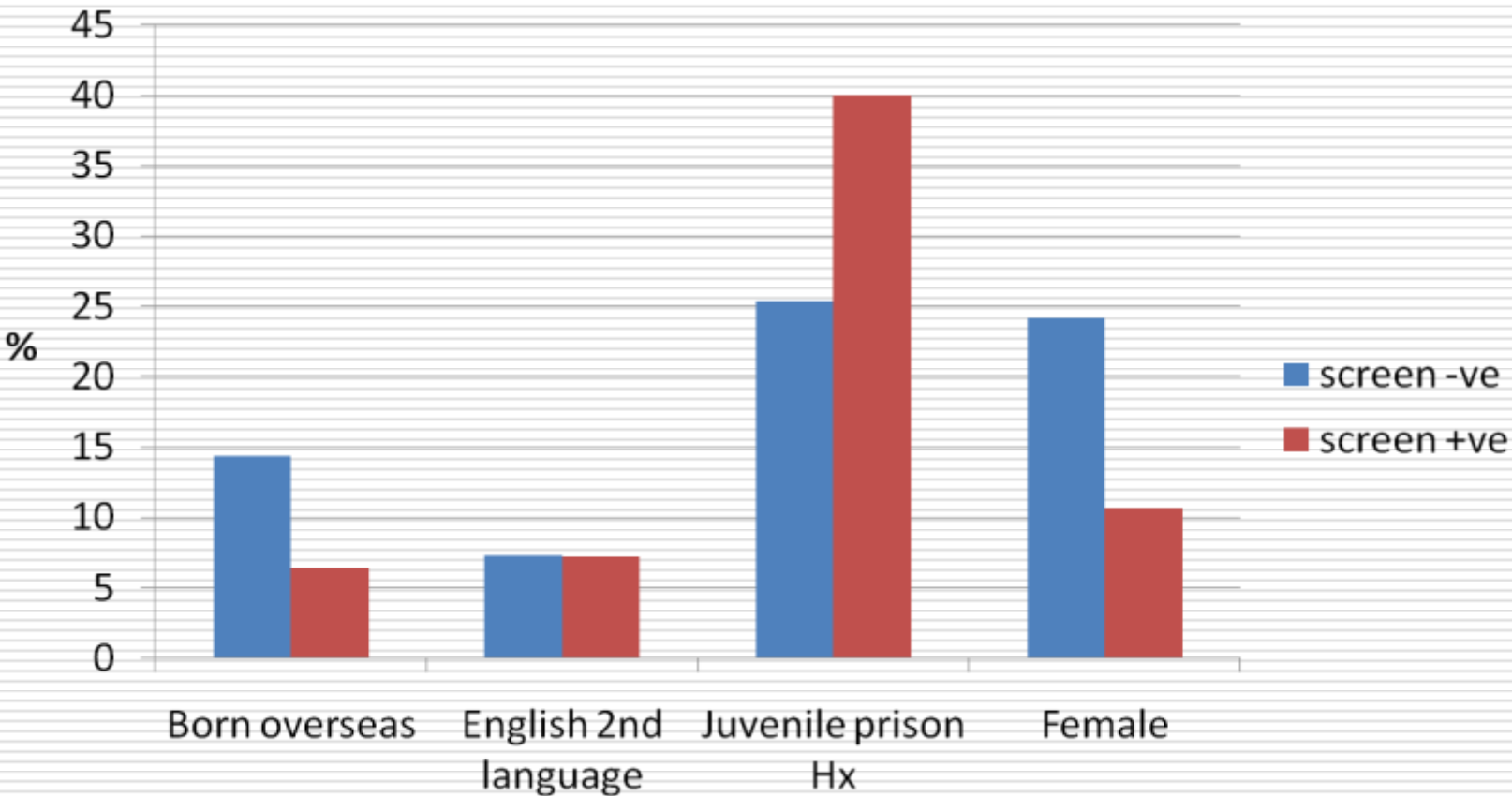
HASI – validation



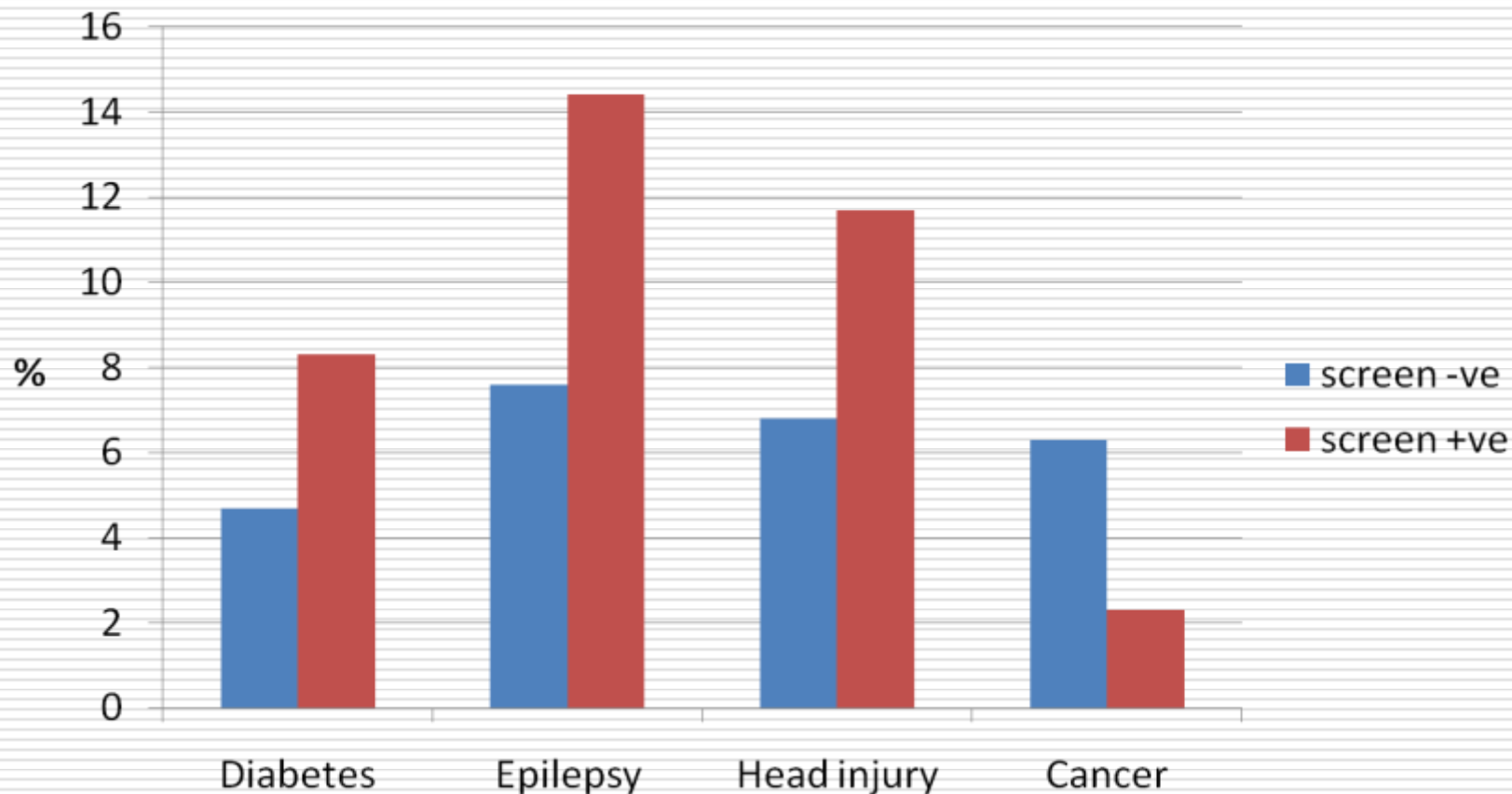
HASI – possible confounds



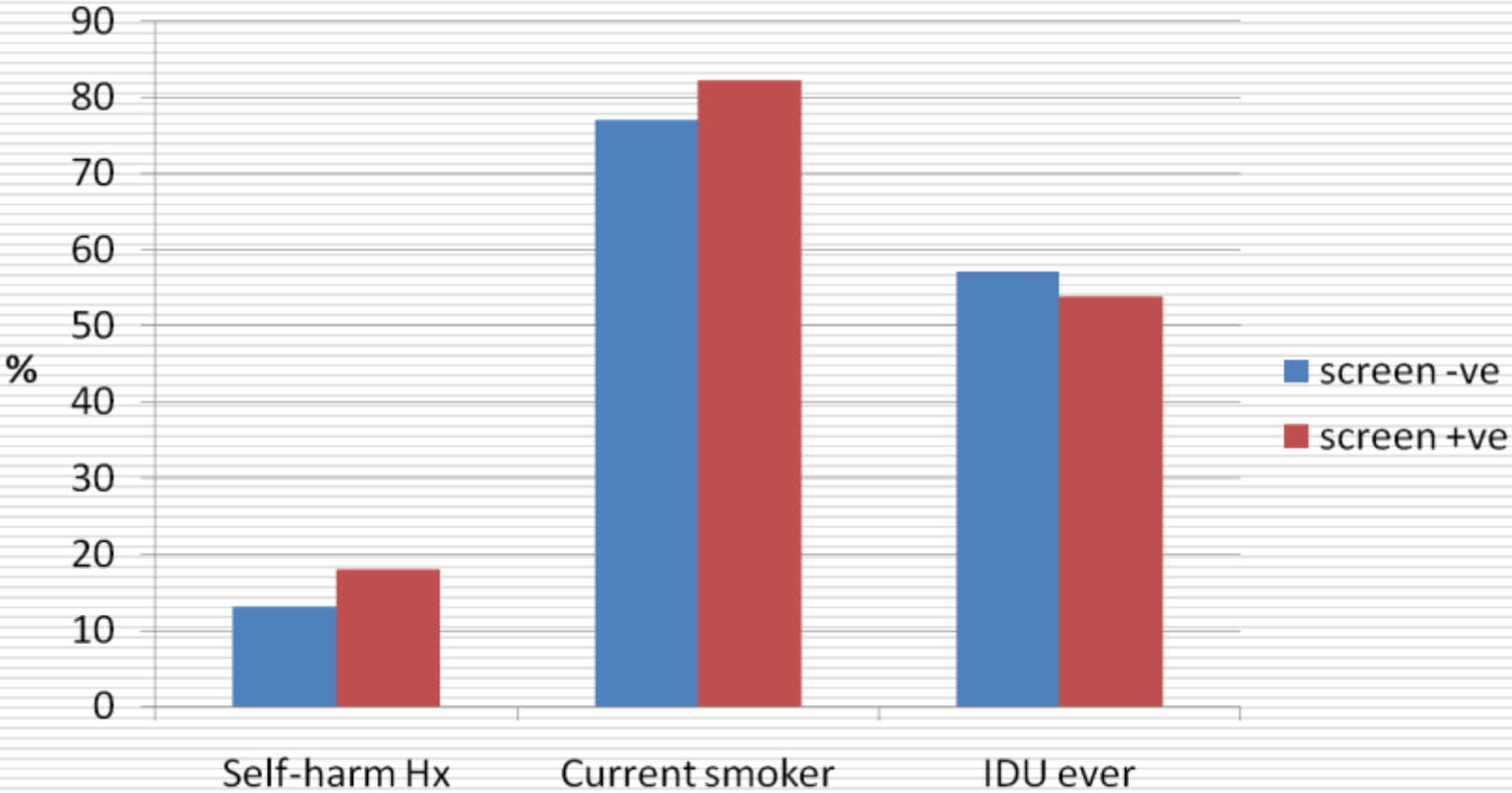
Background factors



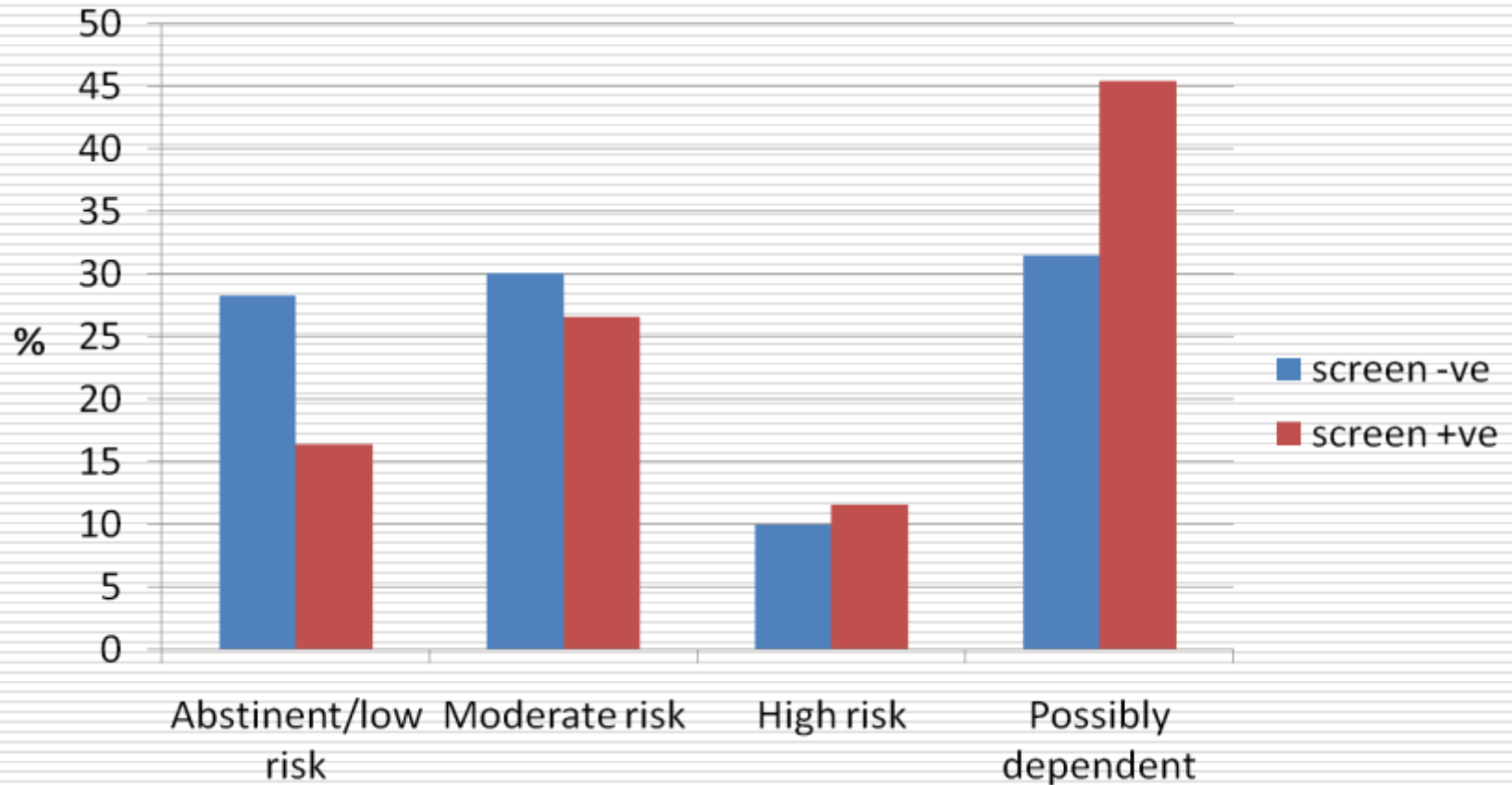
Diagnosed health conditions (ever)



Health risk behaviours



Alcohol use before prison (AUDIT)



K10

7.1 Psychological Distress (K10)

Please answer the following questions about how you have felt
in the **PAST 4 WEEKS**, using the following scale.

All of the time
1

Most of the time
2

Some of the time
3

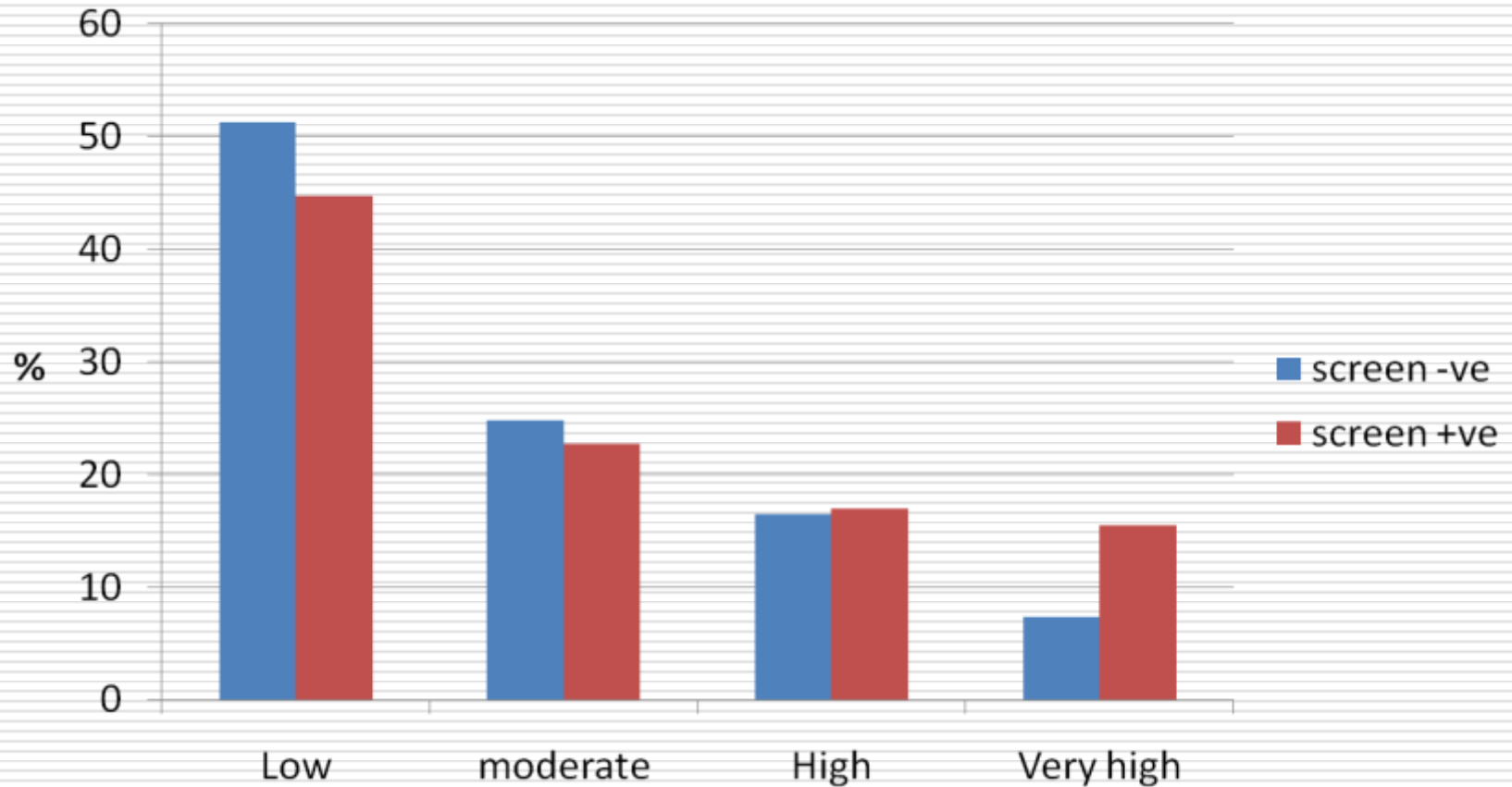
A little of the time
4

None of the time
5

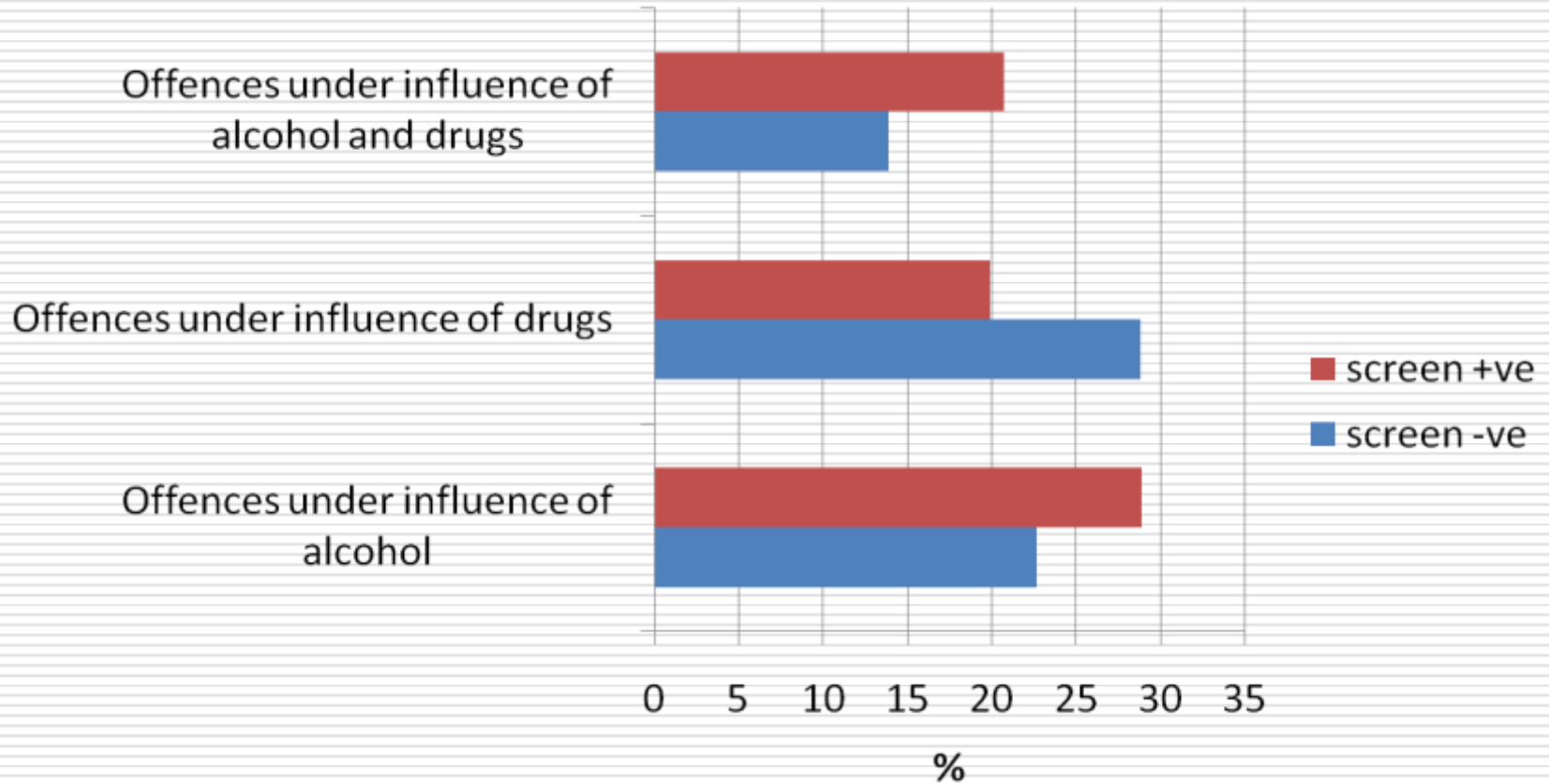
7.1 In the **LAST 4 WEEKS**, about how often...

		All	Most	Some	A little	None
7.1.1	Did you feel tired out for no good reason?	1	2	3	4	5
7.1.2	Did you feel nervous?	1	2	3	4	5
7.1.3	Did you feel so nervous that nothing could calm you down?	1	2	3	4	5
7.1.4	Did you feel hopeless?	1	2	3	4	5
7.1.5	Did you feel restless or fidgety?	1	2	3	4	5
7.1.6	Did you feel so restless that you could not sit still?	1	2	3	4	5
7.1.7	Did you feel depressed?	1	2	3	4	5
7.1.8	Did you feel that everything was an effort?	1	2	3	4	5
7.1.9	Did you feel so sad that nothing could cheer you up?	1	2	3	4	5
7.1.10	Did you feel worthless?	1	2	3	4	5

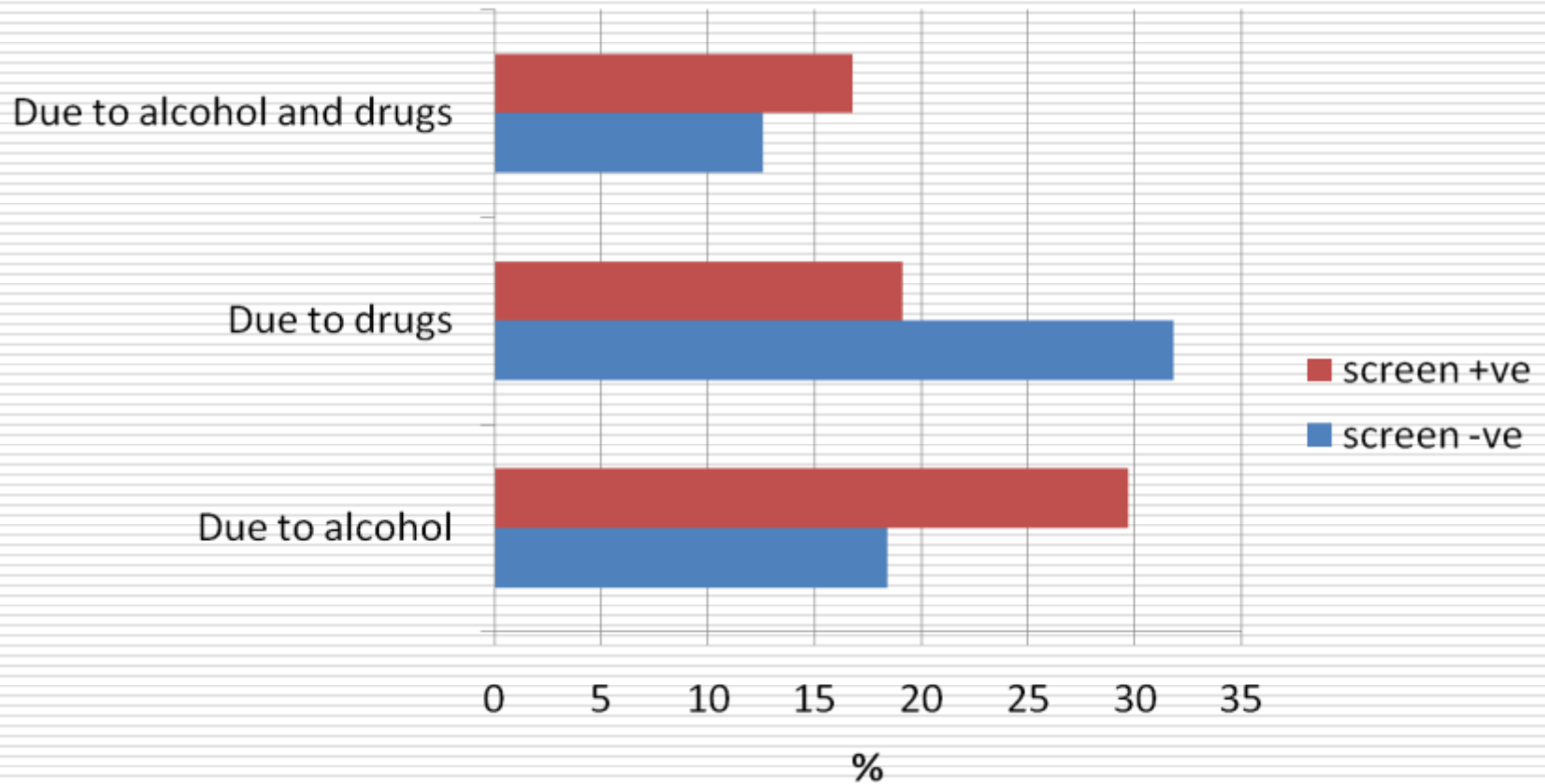
Current psychological distress (K10)



Substance-related offending



Substances to blame for incarceration?



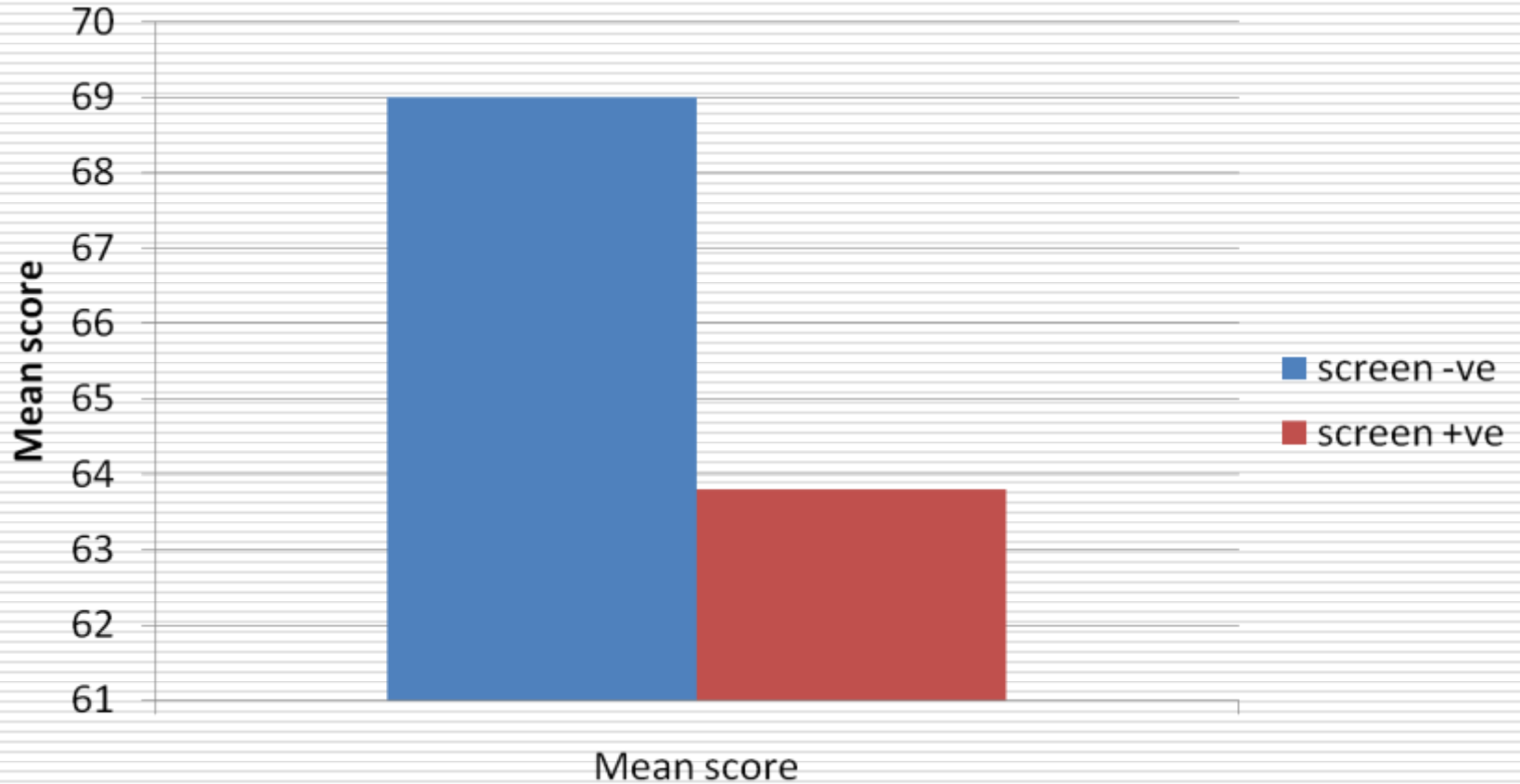
PAM

5.9 Patient Activation Measure (PAM)

I'm going to read out a series of statements. For each statement, I want you to tell me how much you agree with the statement as it applies to you personally. There are no right or wrong answers. Your answers should be what is true to you and not just what you think I want you to say.

		Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
5.9.1	When all is said and done, I am the person who is responsible for managing my health	1	2	3	4	0
5.9.2	Taking an active role in my own health care is the most important factor in determining my health and ability to function.	1	2	3	4	0
5.9.3	I am confident that I can take actions that will help prevent or minimize some symptoms or problems associated with my health.	1	2	3	4	0
5.9.4	I know what each of my prescribed medications does.	1	2	3	4	0
5.9.5	I am confident that I can tell when I need to go get medical care and when I can handle a health problem myself.	1	2	3	4	0
5.9.6	I am confident I can tell a doctor concerns I have even when he or she does not ask.	1	2	3	4	0
5.9.7	I am confident that I can follow through on medical treatments I need to do at home.	1	2	3	4	0
5.9.8	I understand the nature and causes of my health problems.	1	2	3	4	0
5.9.9	I know the different medical treatment options available for my health problems.	1	2	3	4	0
5.9.10	I have been able to maintain the lifestyle changes for my health that I have made.	1	2	3	4	0
5.9.11	I know how to prevent problems with my health.	1	2	3	4	0
5.9.12	I am confident I can figure out solutions when new situations or problems arise with my health.	1	2	3	4	0
5.9.13	I am confident that I can maintain lifestyle changes, like diet and exercise, even during times of stress.	1	2	3	4	0

Empowerment (PAM)



Conclusions

Broad conclusions

- ❑ Prevalence of ID may be **under-estimated** in QLD prisons
 - research using gold-standard (clinical) methods urgently required, to establish prevalence and further validate HASI or similar screener
- ❑ Need for improved **screening** at multiple points in the CJS, to facilitate diversion
 - courts
 - prisons
- ❑ **HASI scores** lower among Indigenous people, males and those with poor employment history; low HASI scores associated with significant psychological distress
 - culturally appropriate?
- ❑ Need to better understand **transitional and post-release** experiences of those with ID, to inform development of treatment/support pathways

HASI conclusions

- ❑ Some degree of validity
 - ❑ High sensitivity and low specificity
 - ❑ Not culturally appropriate tool, Indigenous respondents did not know what was going on
 - ❑ Correlates could be explained by higher number of Indigenous people who screened positive, including juveniles.
 - ❑ Results are difficult to disentangle and clearly state these are people with intellectual disability and these are not
 - ❑ Proper validation study needed
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Where to next?

- Need for a screening tool which is more specifically for people with intellectual disability and more culturally appropriate for Indigenous people
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Thank you for listening
