



Cognitive Impairment in Prison: A User's Guide

Dr Adrian Hayes

ST5 General Adult Psychiatry & Medical Psychotherapy
Avon & Wiltshire Partnership NHS Trust

Plan

- Aging Prisoners
- The Mental Health of Older Prisoners
- Cognitive Impairment in Prison
- Cognitive Impairment in Offenders
- End of Life Care
- Ethics of Imprisonment

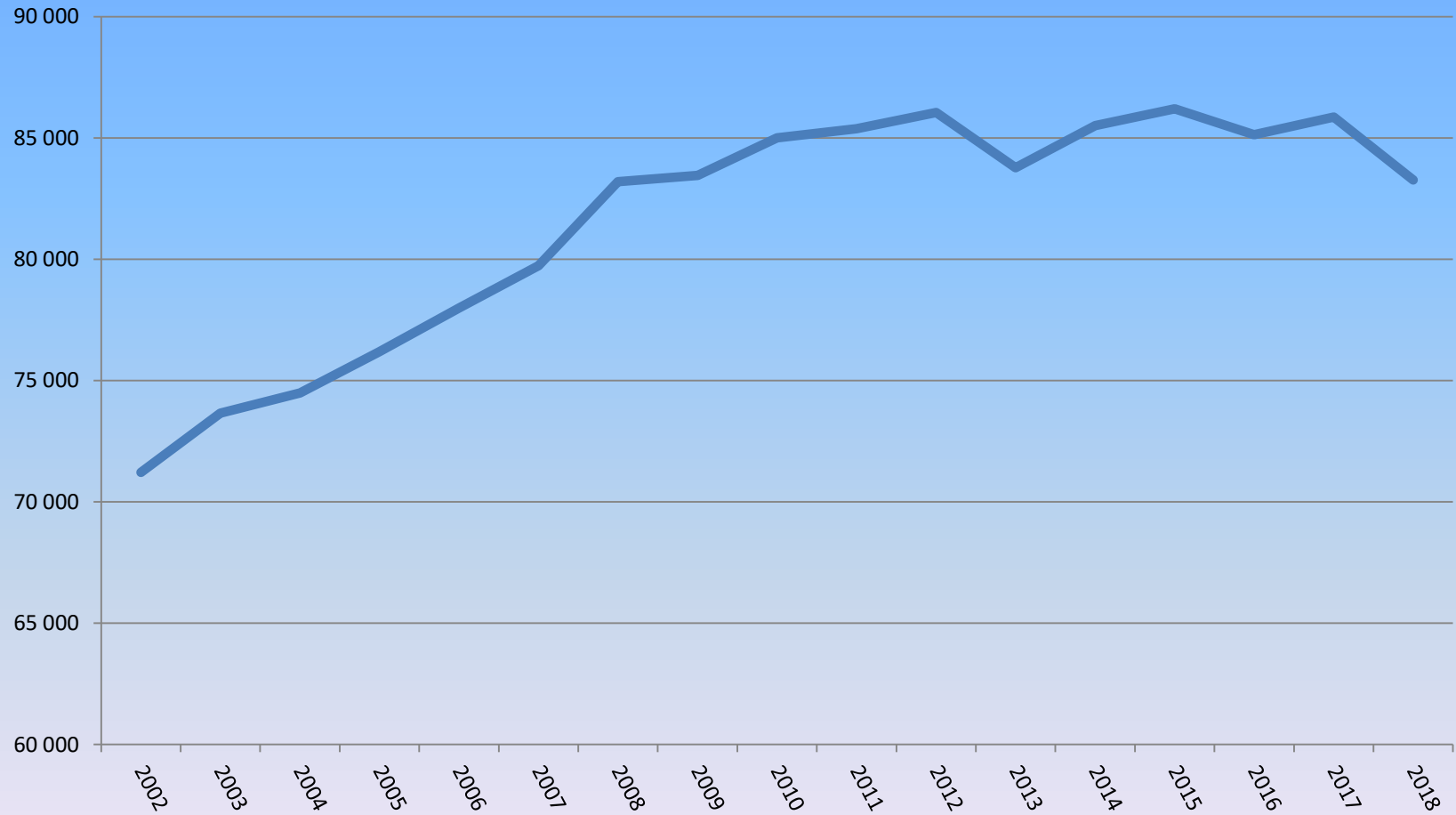
With Thanks

- University of Manchester
 - Prof Jenny Shaw
 - Dr Jane Senior
 - Katrina Forsyth
 - Leanne Heathcote

- University of Oxford
 - Prof Seena Fazel
 - Dr Lucy Fitton



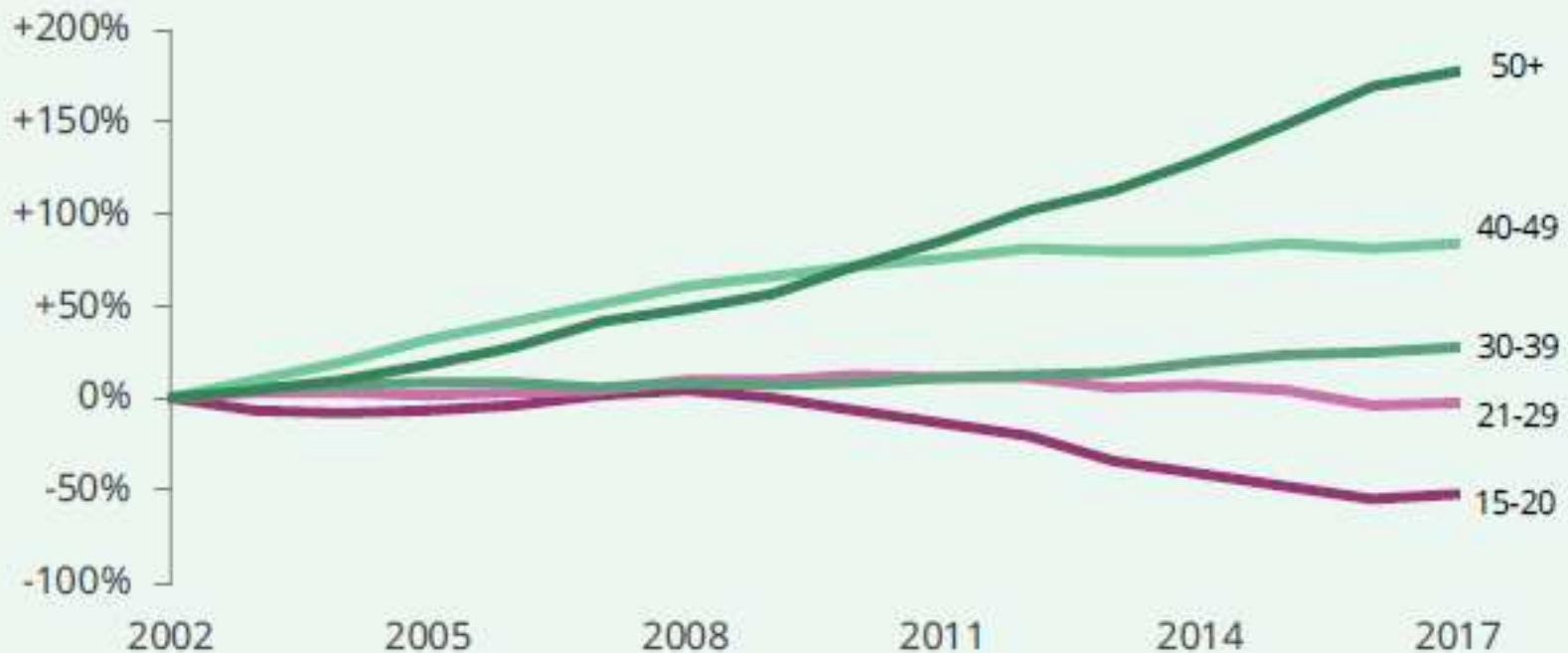
Prison Population of England and Wales



Prison Population by Age Group

PRISON POPULATION AGED 50+ ROSE THE MOST RELATIVE TO 2002

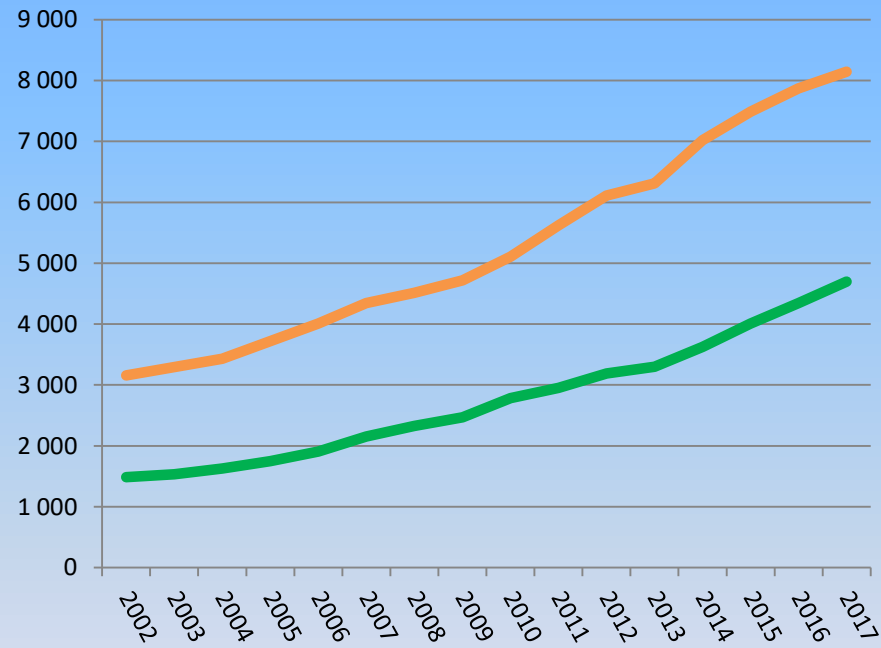
Change in prison population by age category, England & Wales



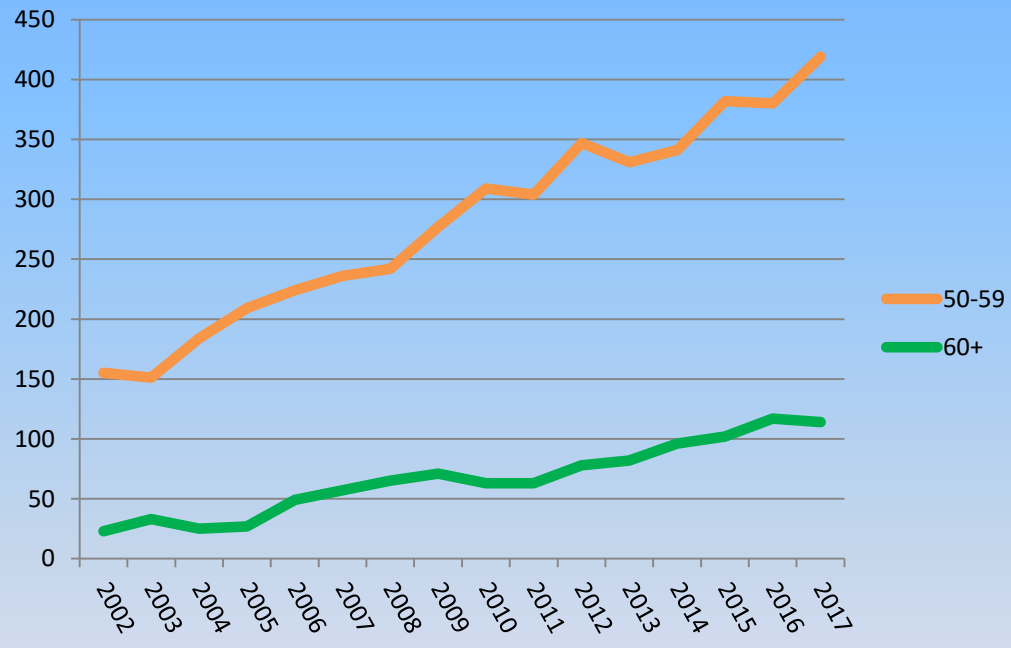
Sources: MoJ, *Offender Management Statistics Quarterly*, various years

Notes: Data at June 2002-2017, age groups combined

Aging Prisoners



Men



Women

Aging Prisoners

- Why the increase?
 - Aging population
 - ?Harsher sentencing
 - Recall on license
 - Historical crimes



- Types
 - Growing old in prison 10%
 - First time convicted 60%
 - Habitual offenders 30%

The Mental Health of Older Prisoners

- Prevalence of disorders
 - Any psychiatric disorder 38%*
 - Depression 28%*
 - Psychosis 5.5%
 - Bipolar Disorder 4.5%
 - Personality Disorder 23%*
 - Alcohol Abuse 16%
 - Anxiety Disorders 14%

The Mental Health of Older Prisoners

- Depression as key condition
- Entry Shock
 - Higher rates of low mood
 - Unmet need
 - Anxiety
- Increased needs in transition



Cognitive Impairment in Prison

Study	Country	N	Sex	Measures	Cognitive Impairment	Dementia
Fazel 2001	UK	203	M	GMS AGECAT		1%
Kingston 2011	UK	237	M	GMS AGECAT MMSE	13%	1.6%
Hayes 2012	UK	262	M	MMSE	7%	
Koenig 1995	US	95	M	DIS		1.1%
Regan 2002	US	671	M,F	Not mentioned		5%
Combalbert 2016	France	138	M	MMSE	19%	

Cognitive Impairment in Prison

- Prevalence
- Screening and Validation
- Case Studies
- Care Pathways and Training



Collaborators

- University of Manchester
 - Prof Jenny Shaw
 - Katrina Forsyth
 - Prof Alistair Burns
 - Prof David Challis
 - Prof Roger Webb
 - Dr Jane Senior
 - Dr Caroline Saunders
 - Dr Richard Emsley
 - Dr Rachel Meacock
 - Dr Baber Malik
 - Laura Archer-Power
 - Leanne Heathcote
- University of Oxford
 - Prof Seena Fazel
 - Dr Adrian Hayes
- Lancashire Care NHS Foundation Trust
 - Dr Salman Karim
 - Dr Rachel Domone
- Other
 - Dr Stuart Ware, Service User Consultant
 - Dr Mary Piper, Retired Geriatrician

Funding

-NIHR HS&DR

Prevalence

- Aim to recruit 860 prisoners >50
 - 269 women
 - 591 men
- All female prisons
- Representative sample of male prisons
 - Local/Training/Dispersal/Open/High Secure
 - Dedicated older prisoner wing

Prevalence

- Stratify by age
 - Half sample 50-69
 - Half sample 70+
- Exclusion Criteria
 - Unsafe for interview
 - Lack of functional English
 - Lack of capacity AND proxy not available

Screening

- Screening on reception to custody
- Need for brief cognitive impairment screen
- 6CIT (Katzman, 1983)
 - What year is it
 - What month is it
 - About what time is it
 - Count back from 20-1
 - Say months in reverse
 - Repeat the memory phrase (name and address)

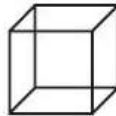
Screening

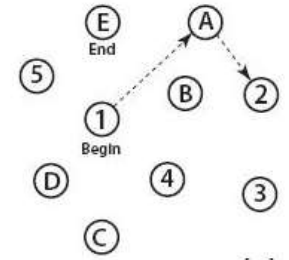
- MoCA
- Nasreddine et al, 2005

NAME: _____
 Education: _____ Date of birth: _____
 Sex: _____ DATE: _____


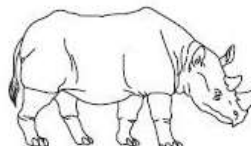
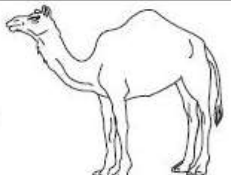
MONTREAL COGNITIVE ASSESSMENT (MOCA)

VISUOSPATIAL / EXECUTIVE

Copy cube  Draw CLOCK (Ten past eleven) (3 points)

 [] [] [] [] [] [] [] [] [] []

NAMING

 []  []  []

MEMORY Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. Do a recall after 5 minutes.

	FACE	VELVET	CHURCH	DAISY	RED
1st trial	[]	[]	[]	[]	[]
2nd trial	[]	[]	[]	[]	[]

No points

ATTENTION Read list of digits (1 digit/sec). Subject has to repeat them in the forward order [] 2 1 8 5 4
 Subject has to repeat them in the backward order [] 7 4 2

Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors
 [] FBACMNAAJKLBAFAKDEAAAJAMOF AAB

Serial 7 subtraction starting at 100 [] 93 [] 86 [] 79 [] 72 [] 65
 4 or 5 correct subtractions: 3 pts, 2 or 3 correct: 2 pts, 1 correct: 1 pt, 0 correct: 0 pt

LANGUAGE Repeat: I only know that John is the one to help today. []
 The cat always hid under the couch when dogs were in the room. []

Fluency / Name maximum number of words in one minute that begin with the letter F [] _____ (N ≥ 11 words)

ABSTRACTION Similarity between e.g. banana - orange = fruit [] train - bicycle [] watch - ruler

DELAYED RECALL

Has to recall words WITH NO CUE	FACE	VELVET	CHURCH	DAISY	RED	Points for UNCUED recall only
[]	[]	[]	[]	[]	[]	

Optional

Category cue	FACE	VELVET	CHURCH	DAISY	RED
[]	[]	[]	[]	[]	[]
Multiple choice cue	[]	[]	[]	[]	[]

ORIENTATION [] Date [] Month [] Year [] Day [] Place [] City

© Z.Nasreddine MD Version 7.1 www.mocatest.org Normal ≥ 26 / 30 TOTAL _____/30
 Administered by: _____ Add 1 point if ≤ 12 yr edu

Screening and Prevalence

- Interview 1
 - Demographics
 - 6CIT
 - MoCA
- Interview 2 (for screen +ve MoCA)
 - ACE-III
 - GDS
 - RPQ
 - BADL
 - Lubben Scale
 - PrSnQuest
 - Health and Risk info

Screening and Prevalence

	Total 50+	Total Approached	Target	Total Recruited
Male	2028	916	591	601
Female	500	500	269	275
Total	2528	1416	860	876

Screening

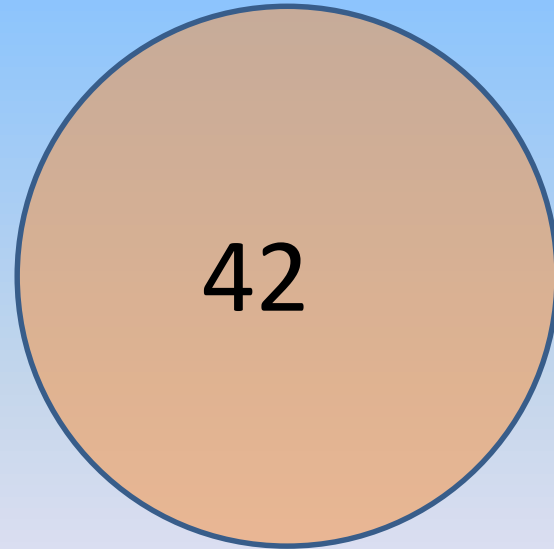
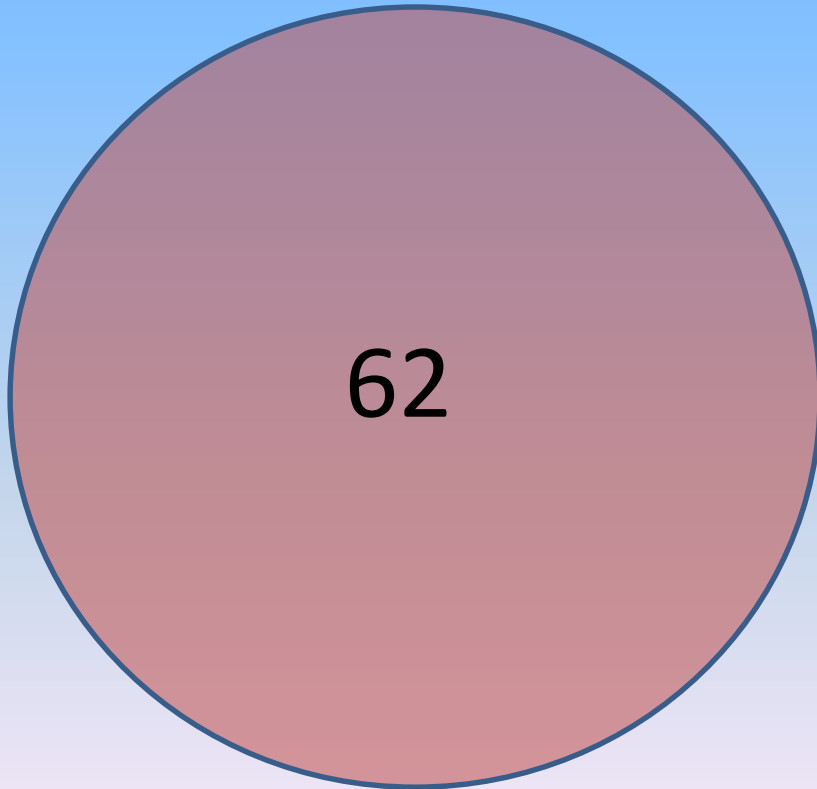
+ve MoCA

62

+ve 6CIT

42

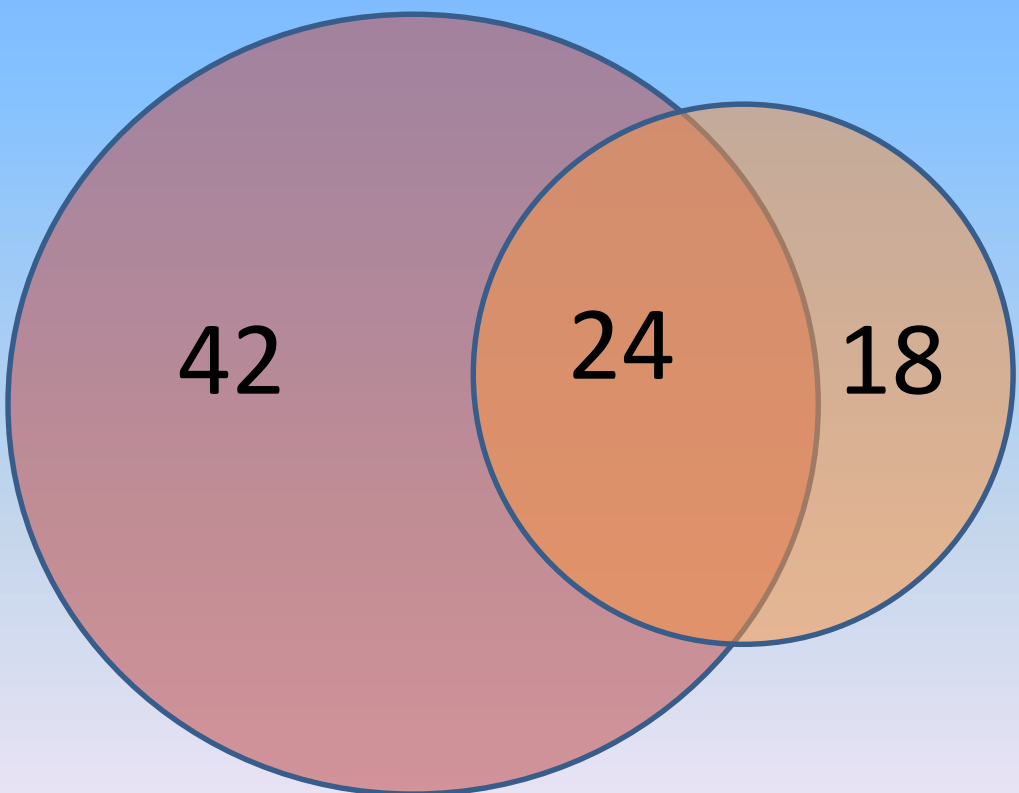
495 completed MoCA and 6CIT



Screening

+ve MoCA

+ve 6CIT



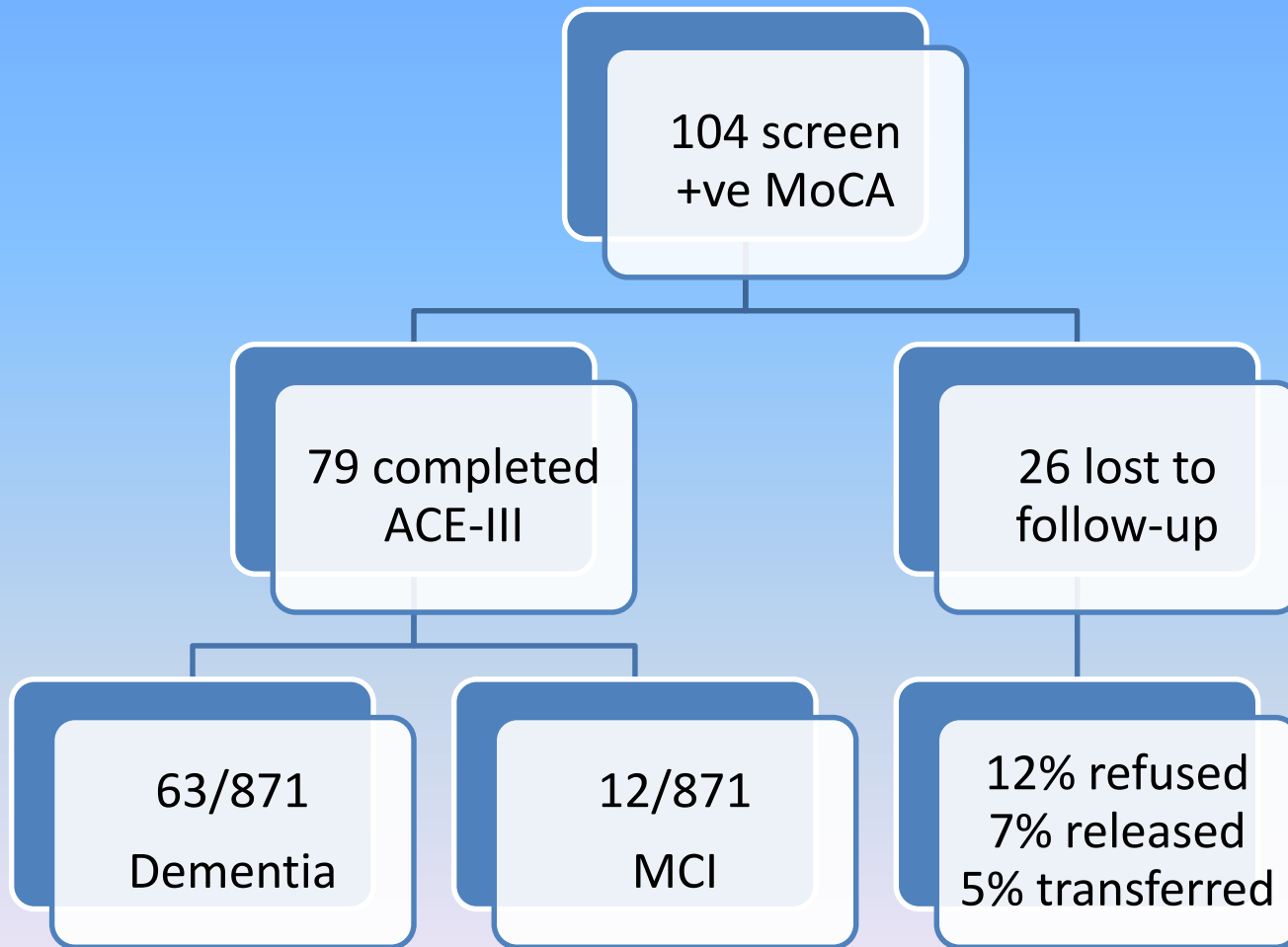
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Screening

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 - What year is it
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 - Count back from 20-1
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Prevalence



Prevalence

- Overall Prevalence of Dementia
 - 7.2% (CI 5.6-9.2)
- Weighted for Total Prison Population
 - 6.8% (CI 5.2-8.7)
 - Equivalent to 2000 people
- Meta-analysis (Di Loreto et al, 2017)
 - Dementia 3.3% (CI 3.2-3.3)

Case Studies

- Ethnography
 - 10 cases, range of variables
 - Observation
 - Interviews

Case Types

- Albert, aged 60
- Dementia, no physical or mental health problems
- Independent with daily living
- Convicted of sexual offences, considered high risk of reoffending
- Confusion with prison regime, some bullying, isolated

Case Types

- Barbara, aged 55
- Dementia, good physical health, low mood requiring further investigation
- Independent with daily living
- Convicted of theft, considered low risk of reoffending
- In community lives with partner with support from adult children
- Medication issues, seeks assistance, frightened of other prisoners

Case Types

- Colin, aged 67
- Dementia, poor physical health (diabetes, eyesight, arthritis; 6 medications), no mental illness, LD
- Independent with daily living
- Sexual offence, 6 years into 20 year sentence, considered high risk of reoffending
- No family or friends in community
- Frustration and occasional aggression, risks of isolation

Case Types

- Derek, aged 64
- Dementia, depression, anxiety, physical ill health (arthritis, kidney failure, bp, hearing)
- Independent with daily living
- Convicted of sex offence, 1 year into 4.5 year sentence
- Does not leave cell, worried about release, disorientation

Case Types

- Ernie, aged 70
- Dementia, no mental illness, poor physical health (past stroke, bp, hearing difficulties)
- Mobility and coordination problems
- Convicted of sexual offence, 5 years into 10 year sentence, considered high risk of reoffending
- Sporadic contact with distant relatives
- Unable to walk unaided, difficulty with transfers, cannot clean cell

Case Types

- Fearne, aged 61
- Dementia, poor physical health (asthma, bp), depression
- Problems with mobility, coordination and self care
- Convicted of sexual offence, 4 years into 10 year sentence
- In community would live with husband
- Forgets health care appointments, does not shower, bullied, cannot cut up food

Case Types

- George, aged 79
- Mild cognitive impairment, no physical or mental illness
- Independent with daily living
- Convicted of historical sexual offence, 4 years into 8 year sentence
- Some word-finding difficulties

Case Types

- Harry, aged 70
- Mild cognitive impairment, poor physical health (COPD, poor hearing and eyesight), low mood
- Independent with daily living
- Convicted of sexual offence, 4 years into 13 year sentence, considered medium risk of reoffending
- Forgets medication, feel hopeless

Care Pathways

- Workshops
 - 40 attendees
 - Prison and community services
 - Using case types
 - “What should happen in the community?”
 - “What should happen in prison?”
 - Implications and cost projection

Next Steps

- Implementation and evaluation of care pathway
- Development of training package
- Investigation of dementia diagnosis
 - Physical tests
 - Further neuropsychological testing
 - Medical treatment
- Alternative screen
- Consideration of setting

Cognitive Impairment in Community Offenders

- University of Oxford

- Dr Lucy Fitton

- Dr Adrian Hayes

- Prof Seena Fazel



- Oxford probation study

- 32 male probationers in Oxfordshire, UK aged 50+

- Seen at probation offices

Cognitive Impairment in Community Offenders

- Range 50-75
- 94% White British
- 66% sexual offences, 16% violent offences
- 65% community sentence, 34% post-custody

Cognitive Impairment in Community Offenders

- Test of Promorbid Functioning
- Verbal Fluency
- Response Inhibition
- Mental Disorder
- Depression
- Alcohol Use
- 6CIT

Cognitive Impairment in Community Offenders

- 47% mental health conditions
- 31% indication of depression
- 31% hazardous drinking

Cognitive Impairment in Community Offenders

- Cognitive Impairment
 - 6% further investigation
- Executive Function
 - Higher verbal fluency
 - No impairments in flexibility or inhibition

End of Life Care

- Compassionate release
- Transfer to general hospital
- Transfer to forensic hospital
- Management in prison

Ethical Issues

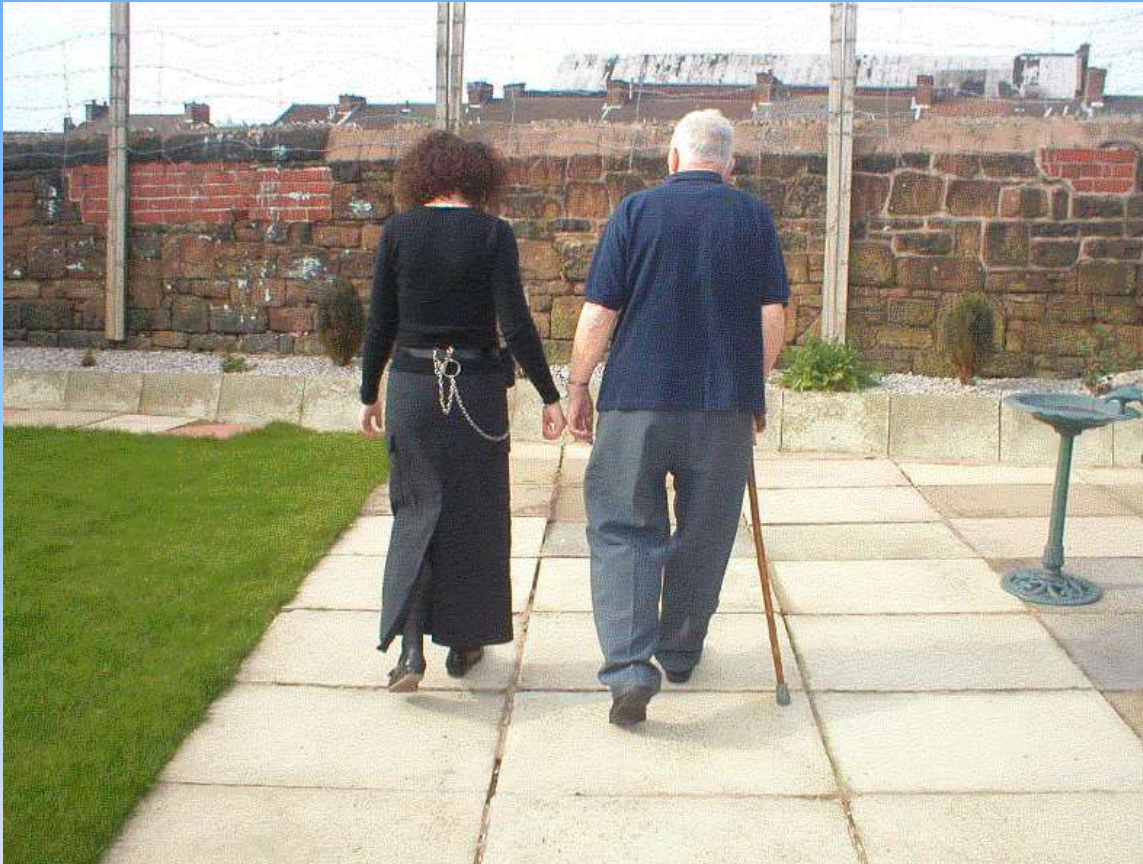
- Why imprison?
 - Punishment
 - Safety
 - Rehabilitation
 - Deterrent

(Fazel et al, 2002)

Summary

- Rising numbers of older prisoners
- 2000 prisoners with dementia
- Lack of appropriate screen
- Development of care pathways
- Need for study into wider CJS

Thank You



Adrian.Hayes@nhs.net