

Criminal Justice Involvement and Later Life Health Disparities

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Overview

- **What is known**

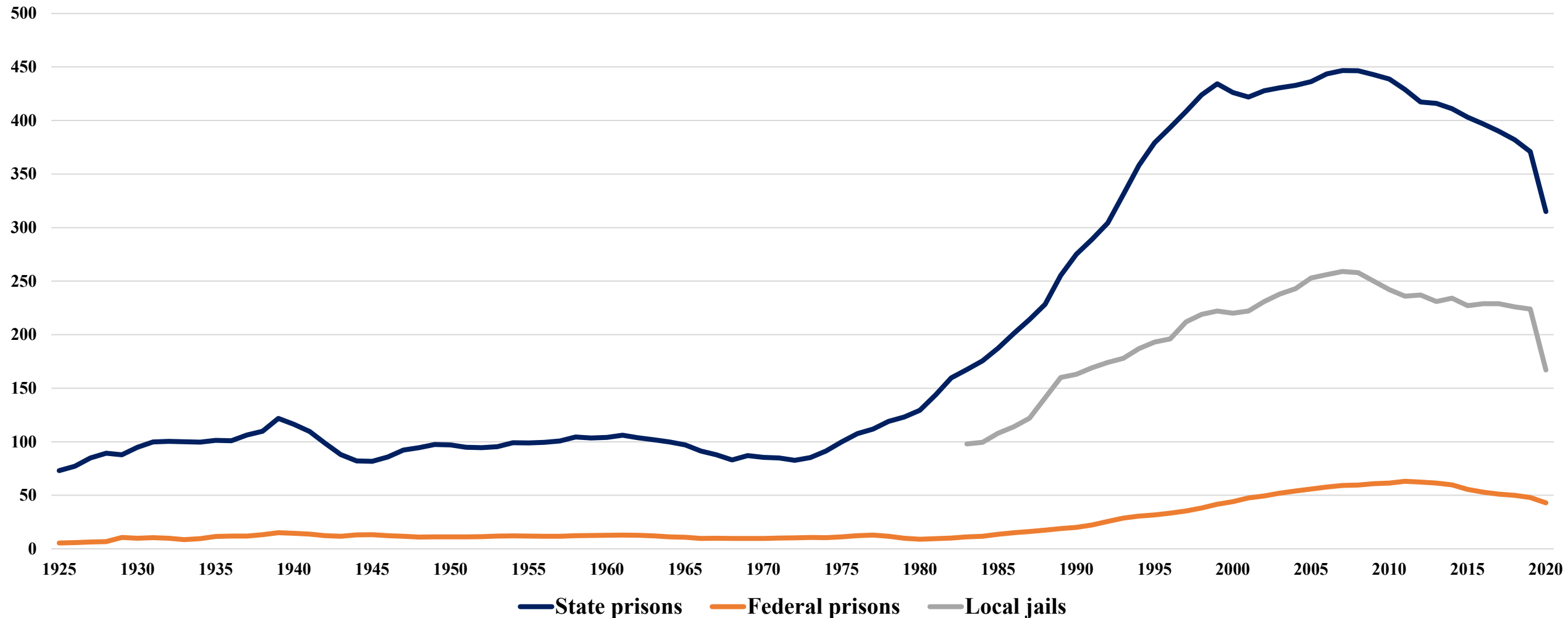
- Criminal justice system contact and health
 - Living in the community at the time of the study
 - Health measured at age 45+

- **Sources of knowledge**

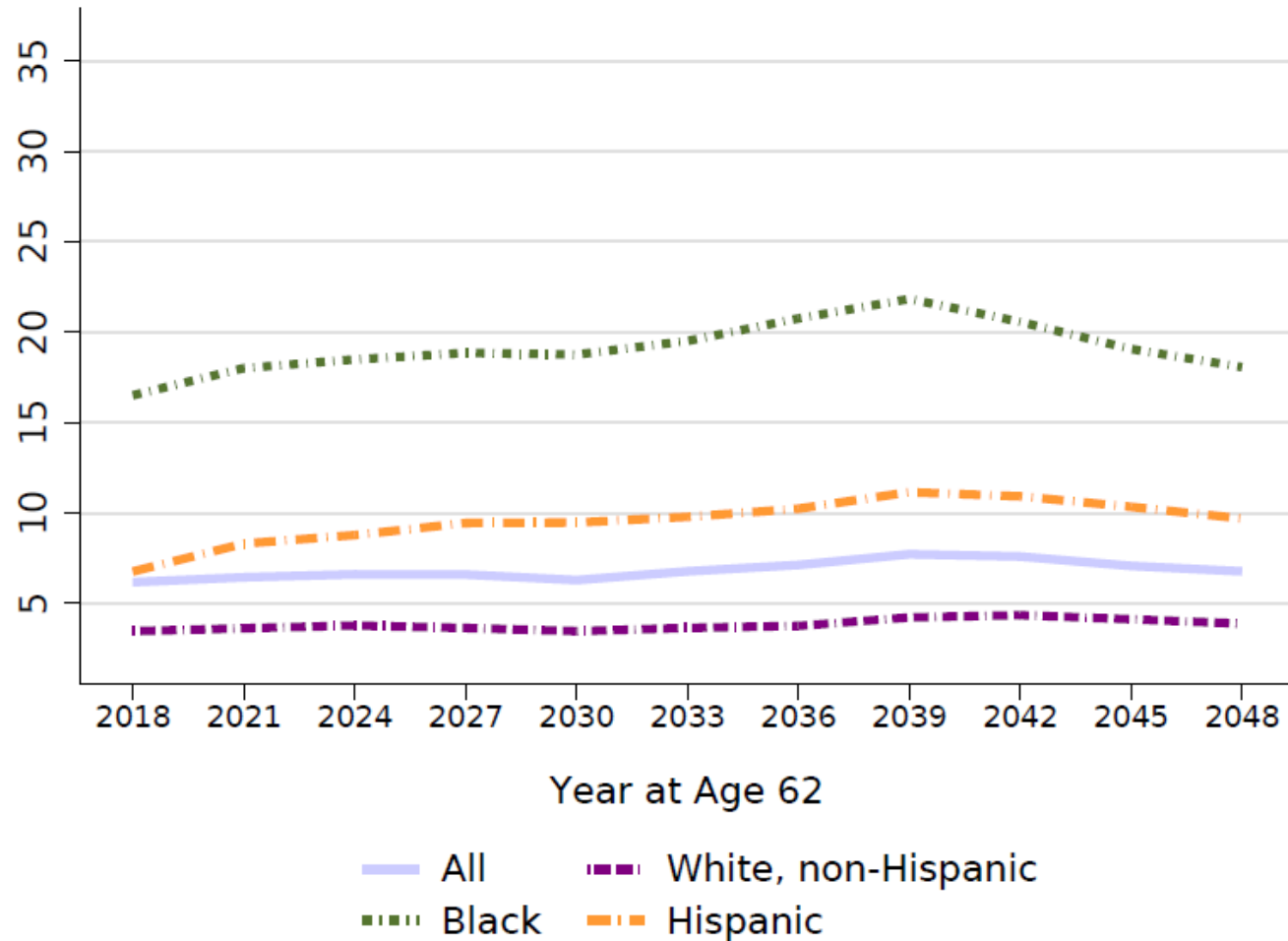
- Trends of research
- Overview of data sources

- **Gaps in knowledge and paths forward**

Mass Incarceration in the US

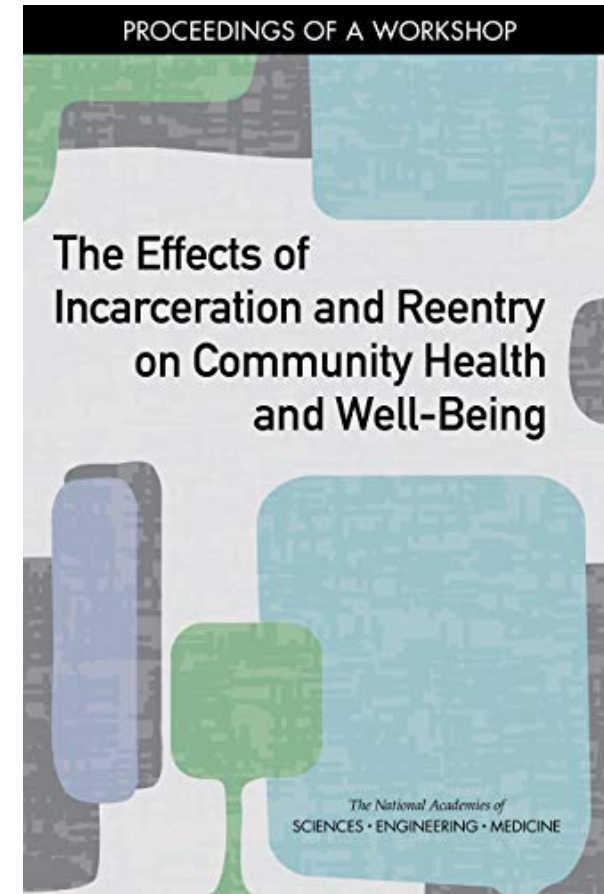


Share of 62-year-old men with an incarceration spell



Incarceration & Health

- “With its many direct and indirect effects on the health of individuals, families, and communities, **incarceration is a major social determinant of health**”
 - NASEM, 2020
- “Some of the strongest negative effects of incarceration emerge **after release**, suggesting that the struggles of reintegration are as important as the conditions of incarceration.”
 - Schnittker et al. 2011

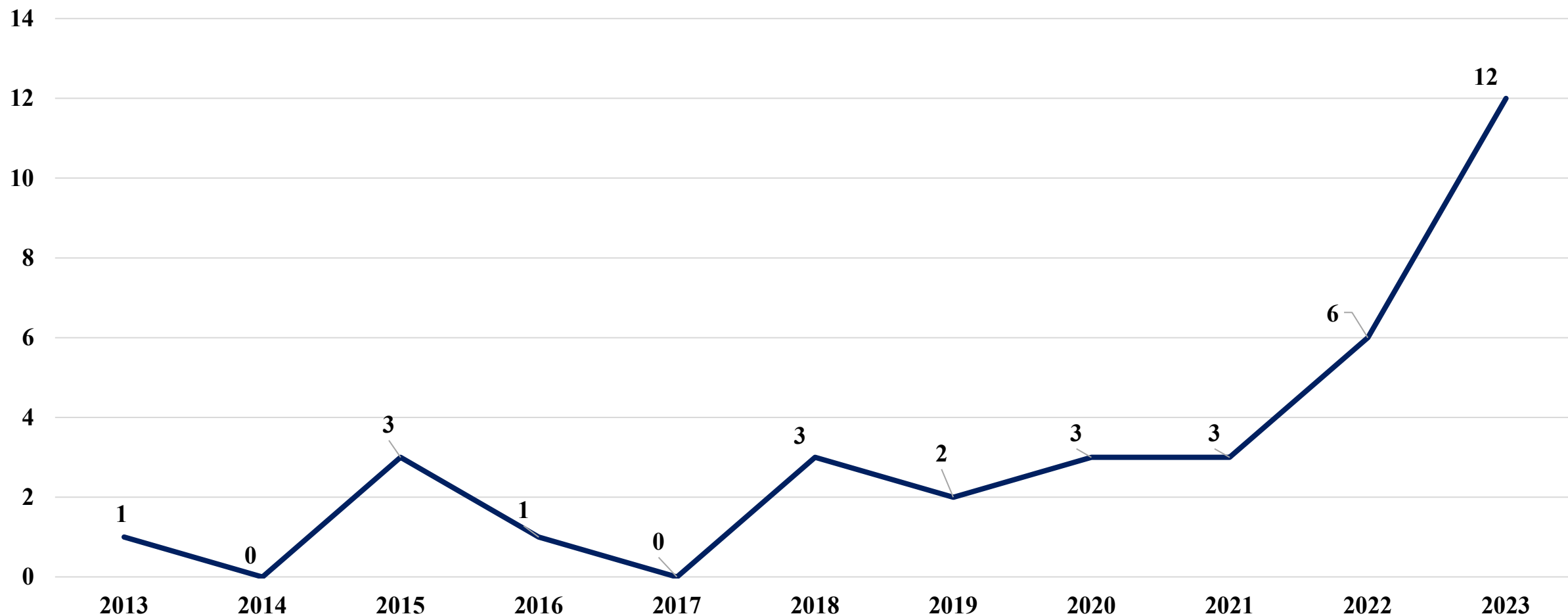


Community Reintegration & Health in Later Life

- Stress of reintegrating to the community
- Formal barriers to reintegration (i.e., legal barriers to labor market)
- Informal barriers to reintegration (i.e., social stigma)
- Social isolation and lack of meaningful relationships
- Barriers to healthcare

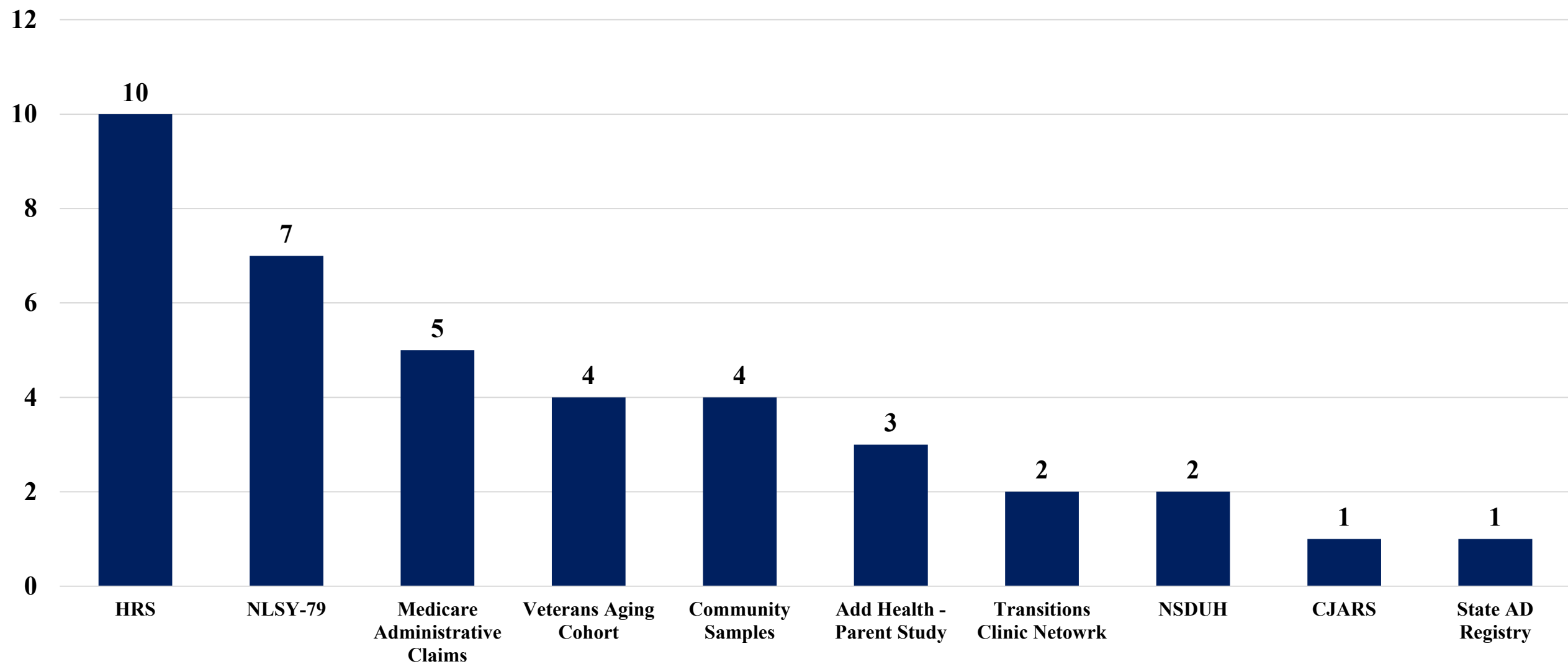


Trends in CJ Contact Health Research (Age 45+)

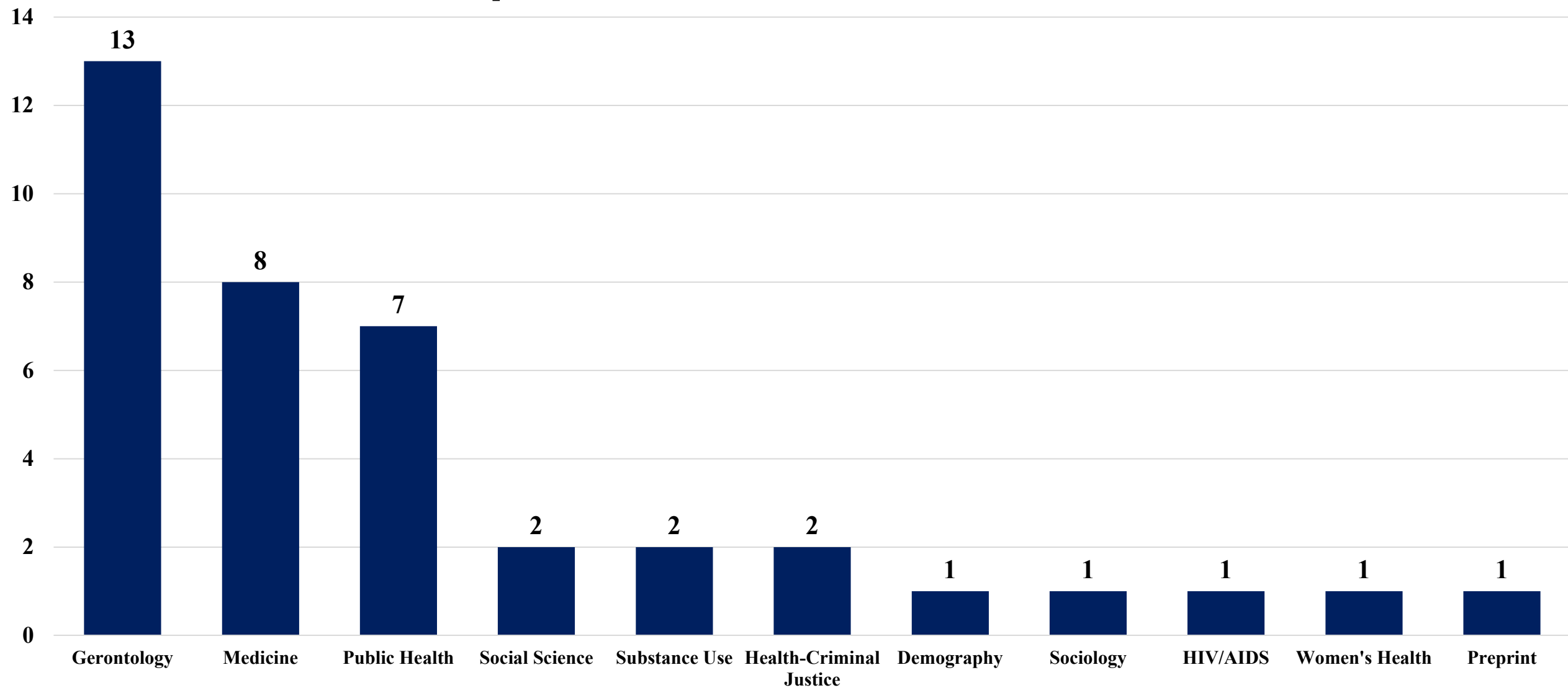


*5 articles in 2024

Data Sources: CJ Contact Health Research (Age 45+)



Disciplines of Published Research



Health and Retirement Study (HRS)

- Longitudinal panel study of ~20,000 US adults over age 50
- Surveys biennially since 1992
- **Incarceration**
 - 2012-2014 Leave Behind Survey
 - Have you ever spent time in juvenile detention, jail, or prison?
 - In your entire life, how much time in total have you been detained in a jail, prison, juvenile detention center, or other correctional facility?
- **Childhood police encounters**
 - 2008-2012 Leave Behind Survey
 - “Before you were 18 years old, were you ever in trouble with the police?”

HRS		
Author	Ages	Health Outcome Associated with CJ Contact
Das, 2022	3,875 adults age 50+	<ul style="list-style-type: none"> • <u>Childhood police encounters</u> associated with accelerated aging <ul style="list-style-type: none"> ○ Levine Clock ○ GrimeAge ○ Dunedin page-of-aging
Lui et al. 2022	1,524 males 50+ (HRS) 1,994 males 50+ (WLS)	<ul style="list-style-type: none"> • Depressive symptoms
Jordan & Sneed, 2023	12,703 adults aged 51+	<ul style="list-style-type: none"> • Household food insecurity
Latham-Mintus et al. 2023	11,883 adults 52+	<ul style="list-style-type: none"> • Number of physical limitations • Depressive symptoms <ul style="list-style-type: none"> ○ Concentrated in women of color
Steigerwald et al. 2022	160 adult pairs 65+	<ul style="list-style-type: none"> • Depressive symptoms
Tanksley et al. 2023	11,268 adults 50+	<ul style="list-style-type: none"> • Cognitive impairment
Testa et al. 2023	8,272 adults 65+	<ul style="list-style-type: none"> • Lower cognition score
Emerson et al. 2024	8,265 women aged 50+	<ul style="list-style-type: none"> • Multimorbidity • Polypharmacy • Mortality • Frailty • Depression

Author	Ages	Health Outcome Associated with CJ Contact
Garcia-Grossman et al., 2023	13,462 adults 51+	<ul style="list-style-type: none">• <u>Geriatric syndromes</u><ul style="list-style-type: none">○ Cognitive impairment○ Mobility impairment○ Vision impairment○ Hearing impairment○ ADL impairment○ IADL impairment
		<ul style="list-style-type: none">• <u>Chronic health problems</u><ul style="list-style-type: none">○ Fair/poor SRH○ Chronic lung disease○ Mental health condition○ Heavy alcohol use
MacConnachie et al. 2024	7,523 adults 55+	<ul style="list-style-type: none">• Increased inflammation• Reduced viral control• Reduction in naïve T cells relative to memory T cells

National Longitudinal Survey of Youth - 1979

- Longitudinal cohort of Americans born 1957-1964
 - Round 1 (1979) to Round 29 (2020)
 - Studies included use data from Year 2006 or later
- **Incarceration:**
 - What type of residence or dwelling unit are you living in?
 - [Option: jail]

NLSY – 1979

Author	Ages	Health Outcome Associated with CJ Contact
Kim et al. 2015	4,169 males	<ul style="list-style-type: none">• Lower self-reported health & higher depressive symptoms<ul style="list-style-type: none">○ Incarceration at ages 18-24○ No relationship incarceration at ages 25-40
Olukotun et al. 2020	12,686 adults	<ul style="list-style-type: none">• Heart disease
Witteveen, 2021	7,6548 adults	<ul style="list-style-type: none">• Increased risk of death by mid-50s
Bovell-Ammon et al., 2021	7,974 adults	<ul style="list-style-type: none">• 65% higher mortality among Black participants
Bovell-Ammon et al., 2023	7,880 adults	<ul style="list-style-type: none">• Worse mental health<ul style="list-style-type: none">○ Mental health diagnosis○ Depressive symptoms○ Psychological distress
Cox & Wallace, 2023	8,021 adults	<ul style="list-style-type: none">• Cognitive impairment and dementia (TICS-m)<ul style="list-style-type: none">○ Explained by educational attainment and premorbid cognitive functioning
Zhao et al. 2024	7,963 Followed to 2018	<ul style="list-style-type: none">• Lower health care utilization<ul style="list-style-type: none">○ Physical examinations○ Blood labs○ Dental check up○ Cancer screening (colorectal; breast)

Community Samples		
Author	Ages	Health Outcome Associated with CJ Contact
Pruchno et al. 2015	3,379 people in New Jersey age 50+	<ul style="list-style-type: none"> • Unsuccessful aging <ul style="list-style-type: none"> ○ More function difficulties ○ Pain ○ Chronic illnesses ○ Quality of life
Humphreys et al. 2018	101 adults 55+ enrolled in an urban jail with 6 month community follow up	<ul style="list-style-type: none"> • 46% visited an ED within 6 months • 21% visited ED multiple times
Ahalt et al. 2019	102 adults 55+ enrolled in an urban jail with 6 month community follow up	<ul style="list-style-type: none"> • >70% reported being current smokers • 62% reported failed attempt to quit
James et al. 2023	Interviews with 13 formerly incarcerated Black women 50+	<ul style="list-style-type: none"> • Experiences of health and illness while incarcerated may continue to influence if and how they seek care as they age in the community

Medicare Administrative Claims

- Medicare Administrative claims
 - 4 studies linked with Veteran Health Administration claims
- Three variables to identify incarceration (Wang et al. 2013)
 - Whether or not a beneficiary has every been incarcerated
 - Incarceration start date
 - Incarceration end date
- Incarceration information provided by CMS by Social Security Administration since 2002 because federal Medicare dollars cannot be used to fund healthcare costs for individuals who are incarcerated

Medicare Data

Author	Ages	Health Outcome Associated with CJ Contact
Wang et al. 2013	110,419 fee-for-serve beneficiaries released from a correctional facility (mean age 48)	<ul style="list-style-type: none">• 1 in 70 hospitalized for an acute condition within 7 days of release• 1 in 12 by 90 days
Barry et al., 2018	15,342 Medicare-eligible veterans age 50+	<ul style="list-style-type: none">• Attempting suicide• Drug overdose mortality• Accidental injury mortality
Kuffel et al., 2021	28,267 Medicare-eligible veterans age 50+	<ul style="list-style-type: none">• AD/ADRD and MCI
Kuffel et al., 2022	17,962 Medicare eligible veterans age 50+	<ul style="list-style-type: none">• 3.3% had a diagnosis of either dementia (2.5%) or MCI (0.8%) <u>prior to their most recent incarceration</u>
Barry et al., 2023	18,803 Medicare-eligible veterans age 50+	<ul style="list-style-type: none">• Substance use disorder related ED visits/in-patient hospitalizations

Veterans Aging Cohort Study

- Cohort study of patients with HIV in Veterans Health Administration matched with an uninfected group (self-reported incarceration)

Author	Ages	Health Outcome Associated with CJ Contact
Wang et al. 2015	1,591 HIV-infected patients mean age 57	<ul style="list-style-type: none">• 47% of HIV infected patients had history of incarceration
Howell et al. 2016	2,304 VACS participants mean age 57	<ul style="list-style-type: none">• Uncontrolled blood pressure
Hawks et al. 2020	5,367 participants mean age 57	<ul style="list-style-type: none">• Mortality for people infected with HIV
Hawks et al. 2023	993 participants in HCV care	<ul style="list-style-type: none">• Hepatitis-C (FI = 40% vs. NFI = 21%)

Add Health Parent Study

- In 2015-2017 conducted a probability sample of Add Health parents who were originally interviewed in 1995
 - 2,013 parents aged 50-80
 - Mean age 62
- **Incarceration**
 - “Have you every been incarcerated, that is, spent time in a jail, prison, juvenile detention center or other correctional facility”



Add Health – Parent Study

Author	Ages	Health Outcome Associated with CJ Contact
Foster et al. 2022	1,466 females	<ul style="list-style-type: none">• No association with age of menopause
Testa et al. 2024a	2,003 respondents 97% female	<ul style="list-style-type: none">• Lower verbal recall<ul style="list-style-type: none">○ 90-second and -60-second recall
Testa et al. 2024b	2,007 respondents 97% female	<ul style="list-style-type: none">• Difficulty walking• ADL• Cancer diagnosis• Depression diagnosis• Chronic lung disease
	967 Spouse/Partners mean mean age 64 96% Male	<ul style="list-style-type: none">• Difficulty seeing• Cancer diagnosis• Depression diagnosis• Heavy alcohol use



Transition Clinic Data

- Transition Clinic Network – Community health clinics serving as primary care medical homes for people with medical conditions returning from prison

Author	Ages	Health Outcome Associated with CJ Contact
Hadden et al. 2018	751 individuals in Transition Clinic Network mean age 46	<ul style="list-style-type: none">• 60% of sample had inadequate health literacy• Inadequate health literacy related to:<ul style="list-style-type: none">○ Increased ED visits & lower medication adherence
Redmond et al. 2020	743 adults 50+ in Transition Clinic Network	<ul style="list-style-type: none">• 52% mental health condition• 50% SUD• 85% 1+ chronic medical conditions• 27% perceived discrimination by health provider

NSDUH

- Nationally representative cross-sectional survey of non-institutionalized adults
 - CJ contact past year: (1) arrested/booked; (2) on probation; (3) on parole (or supervised release)

Author	Ages	Health Outcome Associated with CJ Contact
Bryson et al. 2019	44,624 adults 50+	<ul style="list-style-type: none">• Probation/Parole<ul style="list-style-type: none">○ Serious or moderate mental illness○ Receipt of SMMI treatment
Han et al. 2023	34,898 adults 50+	<ul style="list-style-type: none">• Mental illness• SUD• Not multimorbidity

CJARS

- Collaboration between University of Michigan and Census Bureau
 - Criminal justice records from agencies
 - Harmonized and linked to Census survey and administrative records

Author	Ages	Health Outcome Associated with CJ Contact
Doleac et al., 2020	50-65 years old	Higher rates of disability

South Carolina AD Registry

- South Carolina ADRD Registry (1992-2016) linked with South Carolina Department of Corrections data (1992-2019)

Author	Ages	Health Outcome Associated with CJ Contact
Miller et al., 2023	2,171 individuals on SC AD Registry	<ul style="list-style-type: none">• AD 2.15x higher for those with incarceration history

Future Directions

- **Embedding detailed criminal justice questions in major aging surveys**
 - Health and Retirement Study*
 - International sister studies (i.e., Mexican Health & Aging Study)
 - Midlife in the United States*
 - National Health and Aging Trends Study
 - National Health and Nutrition Examination Survey
 - National Social Life, Health, and Aging Project
 - Panel Study of Income Dynamics*
 - Behavioral Risk Factor Surveillance System*
 - Add Health*
 - NLSY-79/NLSY-97*

Confined to Ignorance: The Absence of Prisoner Information from Nationally Representative Health Data Sets

Cyrus Ahalt, MA^{1,4}, Ingrid A. Binswanger, MD, MPH², Michael Steinman, MD^{1,4}, Jacqueline Tulsky, MD³, and Brie A. Williams, MD, MS^{1,3,4}

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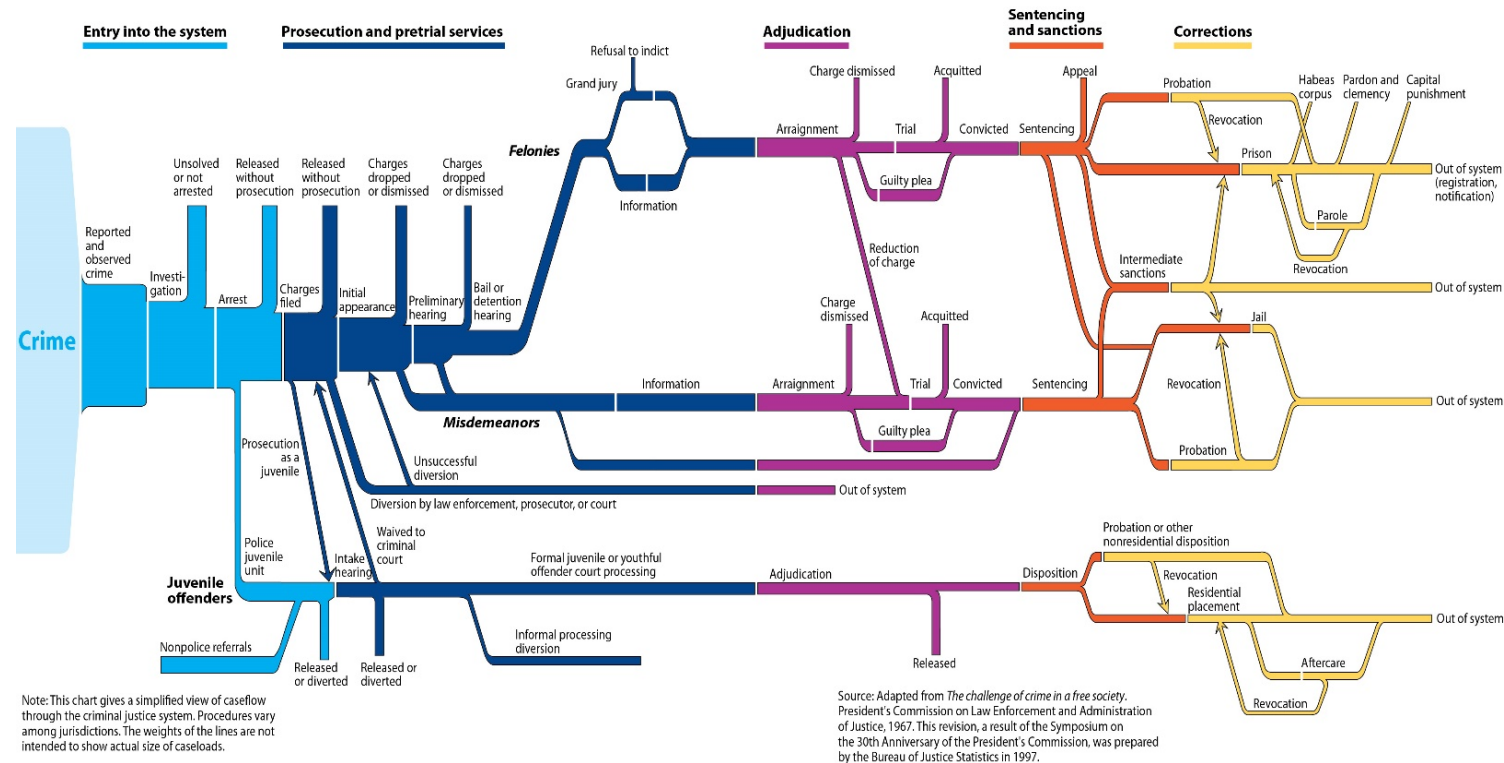
Future Directions

- **Other forms of criminal justice contact and aging**

- Police contact (Das, 2022)
- Probation & Parole (NSDUH)
- Conviction
- Details of incarceration
 - Dosage; timing of life-course

- **Vicarious contact**

What is the sequence of events in the criminal justice system?



Future Directions

- **Identifying how CJ contact accelerates aging earlier in life**
 - Evidence of accelerated aging due to incarceration by early adulthood
- **Data 50+ “miss” highest risk**
 - Median age of death:
 - Age 49 (PSID)
 - Daza et al. 2020
 - Age 47 (PA Release Cohort)
 - Testa et al. 2018

**Losing Years Doing Time:
Incarceration Exposure and
Accelerated Biological
Aging among African
American Adults**

Mark T. Berg¹ , Ethan M. Rogers¹, Man-Kit Lei²,
and Ronald L. Simons² 

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Table 3 Median age of death across race and cause of death


Cause of death	Full sample (N = 871)	White (N = 475)	Black (N = 339)	Hispanic (N = 57)	χ^2
All-cause mortality	47 (18–93)	48 (21–93)	44 (18–78)	45 (23–73)	6.490**
Infectious disease	51 (26–73)	48 (34–73)	52 (26–62)	50 (35–73)	.227
Non-infectious disease	54 (27–93)	55 (29–93)	54 (27–77)	54 (41–64)	1.166
Cancer	55 (36–82)	54 (39–82)	57 (36–74)	50 (40–56)	3.207
Cardiovascular disease	53 (28–78)	53.5 (29–74)	51.5 (28–78)	57 (29–62)	2.834
Nonintentional injuries	41 (21–71)	41 (21–71)	43 (21–63)	35 (25–54)	4.085
Homicide	32 (18–63)	41.5 (31–58)	31 (18–63)	31 (27–44)	13.745***
Suicide	36 (22–68)	36 (22–68)	—	31 (28–34)	1.413
Other	38 (23–61)	43 (23–61)	37.5 (25–59)	42 (23–55)	.625

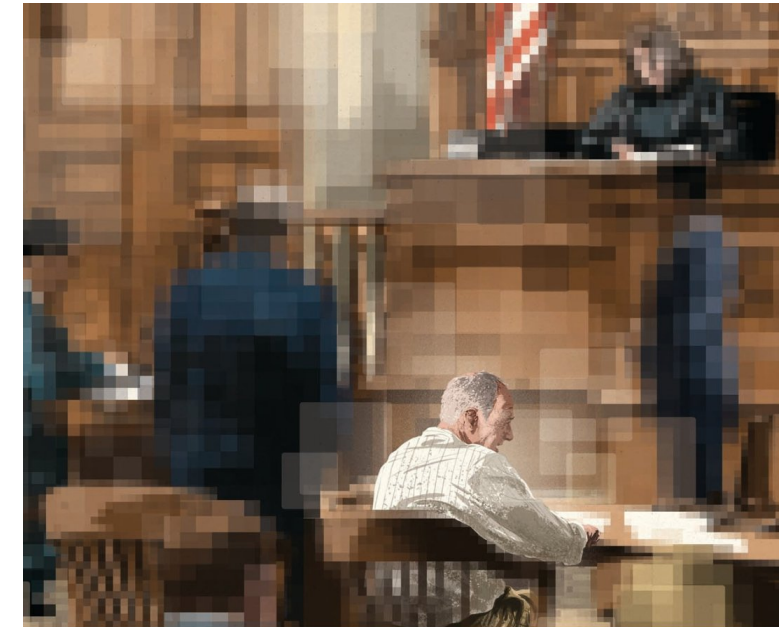
Future Directions

- Unhealthy aging as a pathway to CJ Contact

Journal of the
American Geriatrics Society

Prevalence of dementia and mild cognitive impairment before incarceration

Randall L. Kuffel BS^{1,2}  | Amy L. Byers PhD, MPH^{1,2} | Brie Williams MD, MS⁴ |
Richard Fortinsky PhD, MA¹ | Yixia Li MPH^{1,2} |
Michael A. Ruderman DO, MPH^{1,3} | Lisa C. Barry PhD, MPH^{5,6}



What Happens when People with Dementia Commit Crimes?

When criminal behavior overlaps with degenerative cognitive disease, the justice system often falters

By Jessica Wapner

SCIENTIFIC
AMERICAN

Thank you!

Questions and Comments are Welcomed



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