

# Bereavement, COVID-19, and mental health: Leveraging a population health perspective to understand clinical and adaptive processes

Keynote, Palliative and End of Life Research Group Seminar

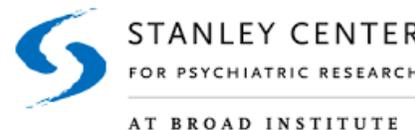
May 24, 2022

Christy Denckla, PhD

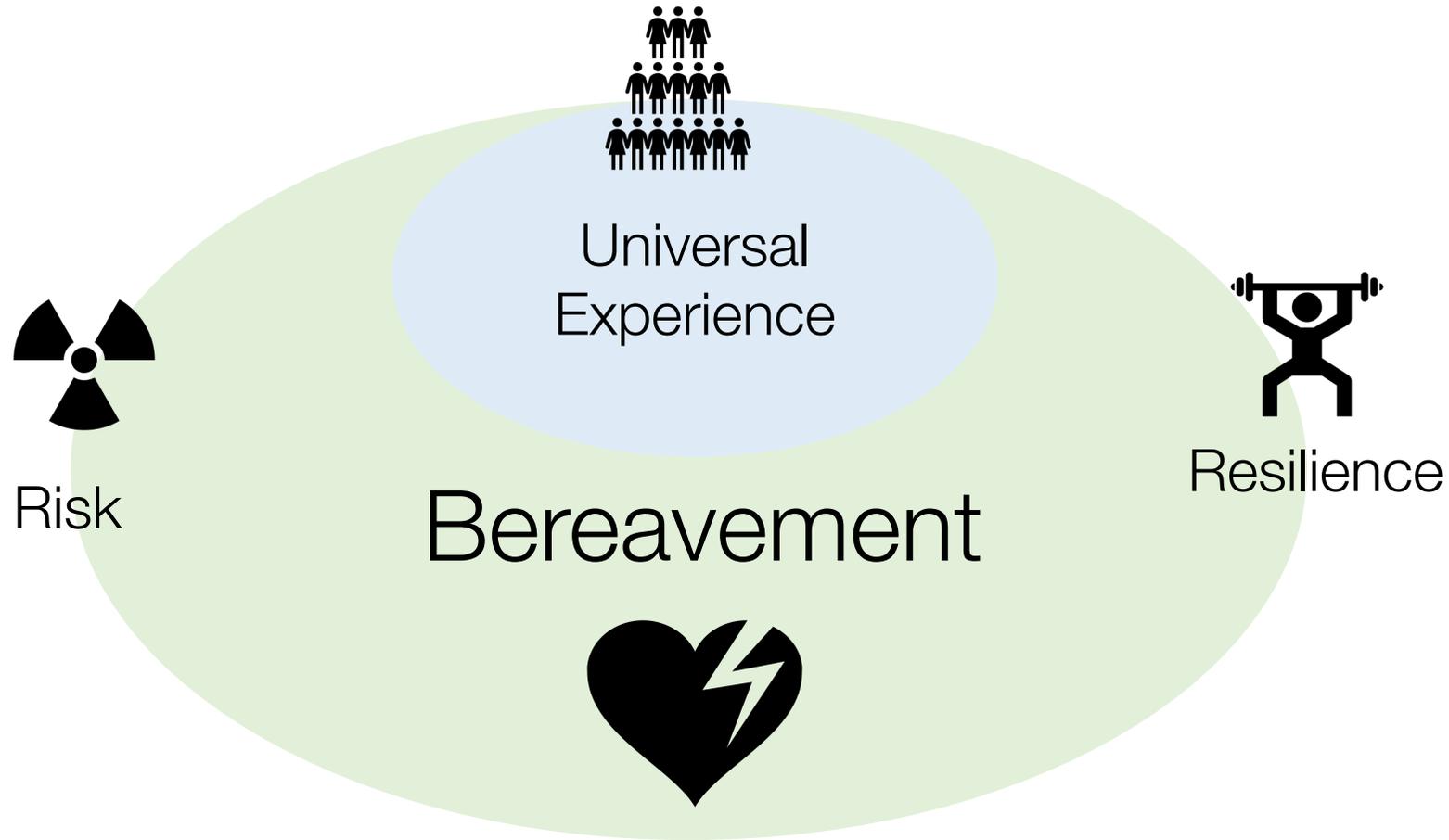
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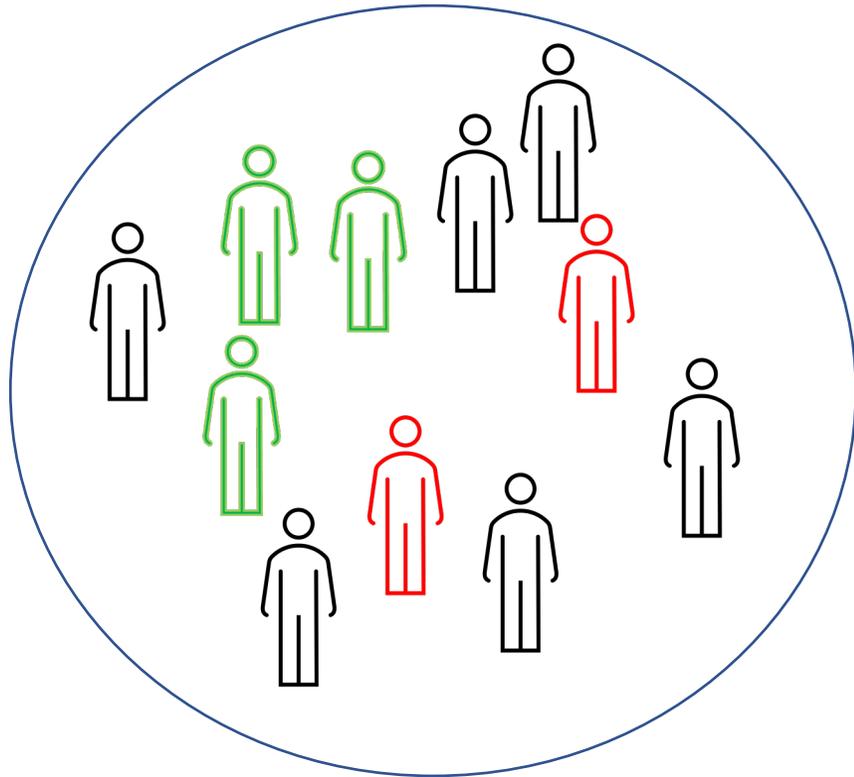


# Bereavement as a model to understand risk and resilience across the lifespan

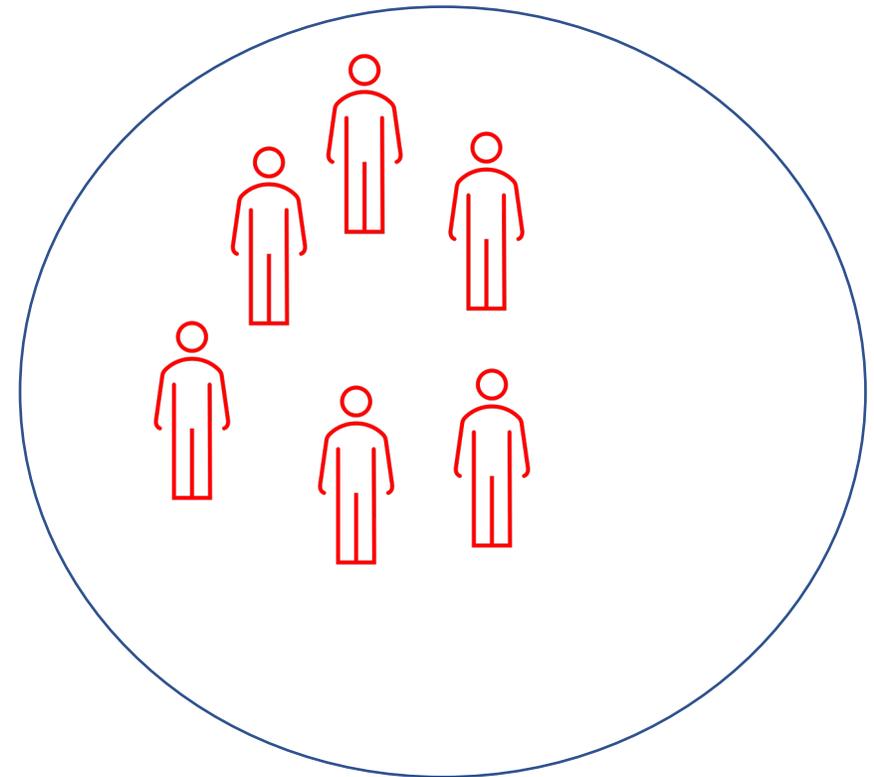


# The Clinician's Illusion

Patricia Cohen, PhD, Jacob Cohen, PhD



Population (Incidence) Sample



Clinical (Prevalence or Census) Sample

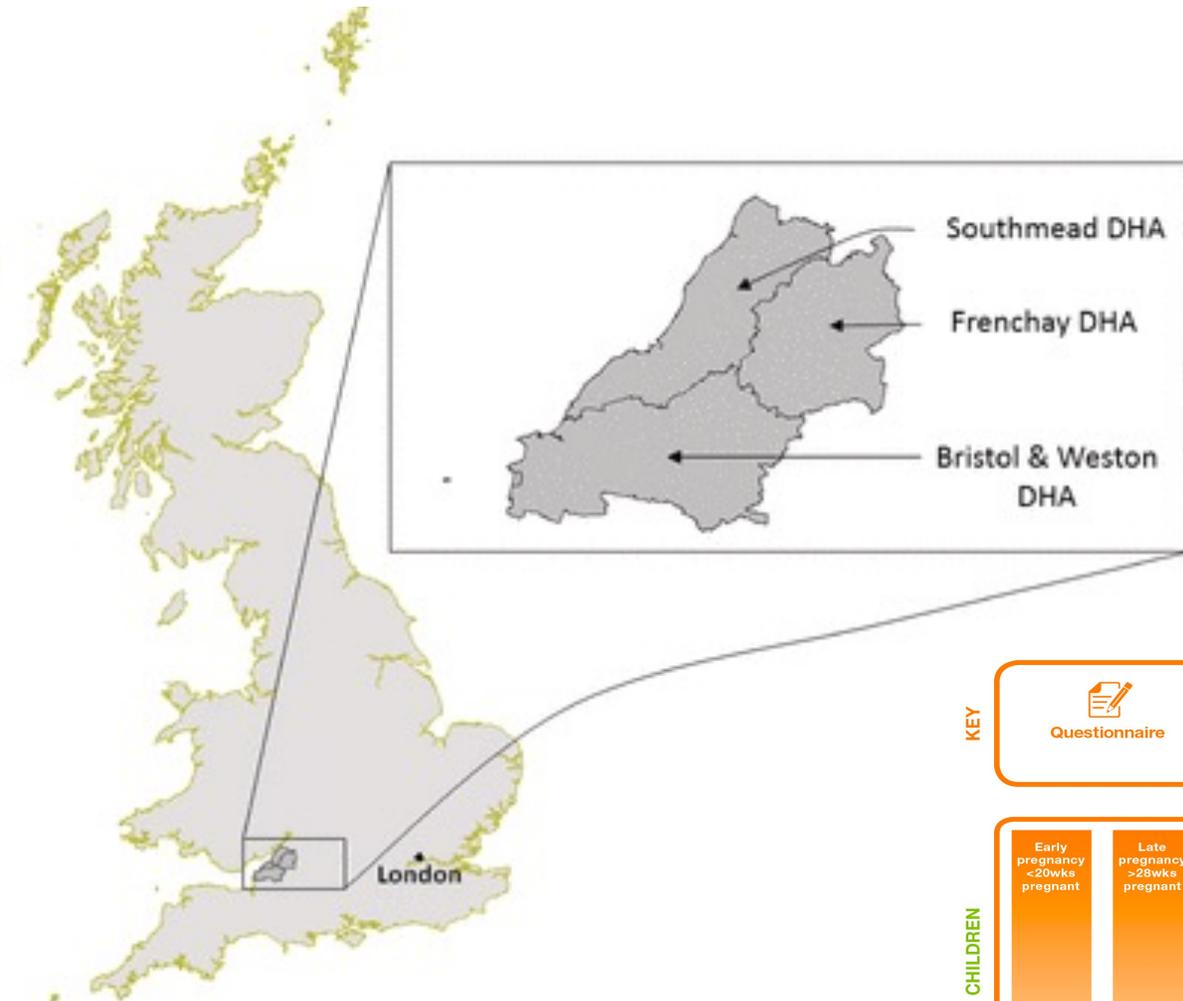


# Outline

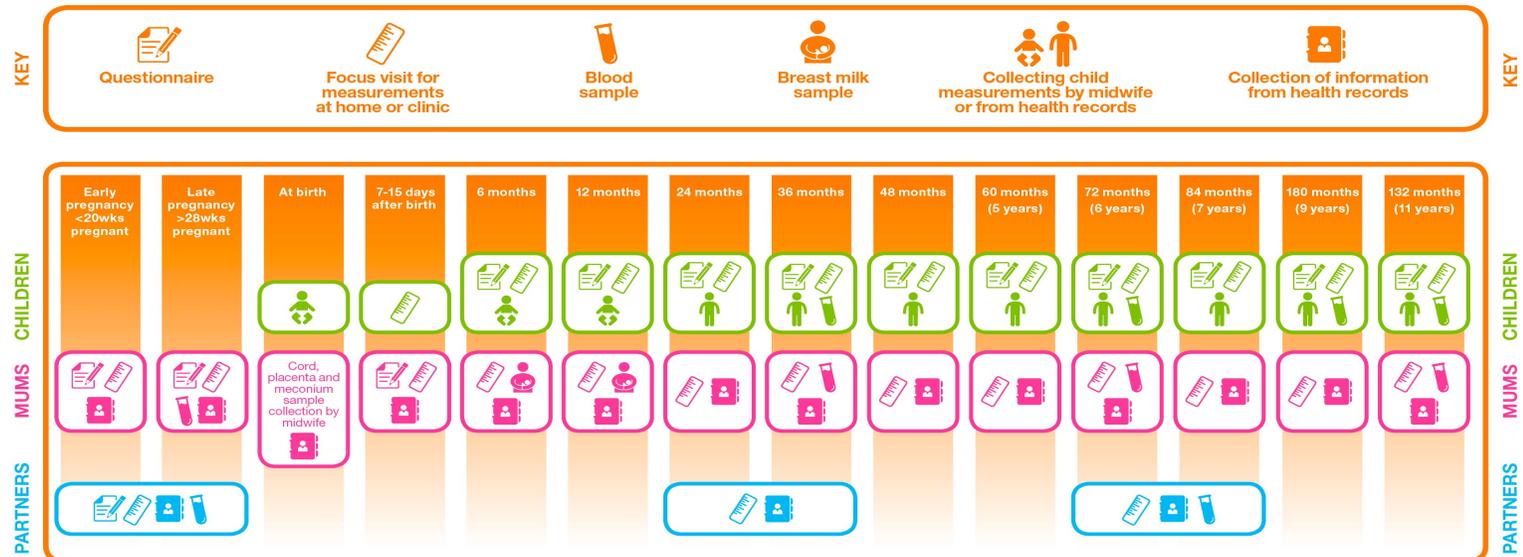
- Do personal assets, including cognitive ability, buffer against mental distress after bereavement?
- Does attending a memorial after bereavement impact mental distress levels during the COVID-19 pandemic?

# Avon Longitudinal Study of Parents and Children (ALSPAC)

Cognitive ability, bereavement, metal health

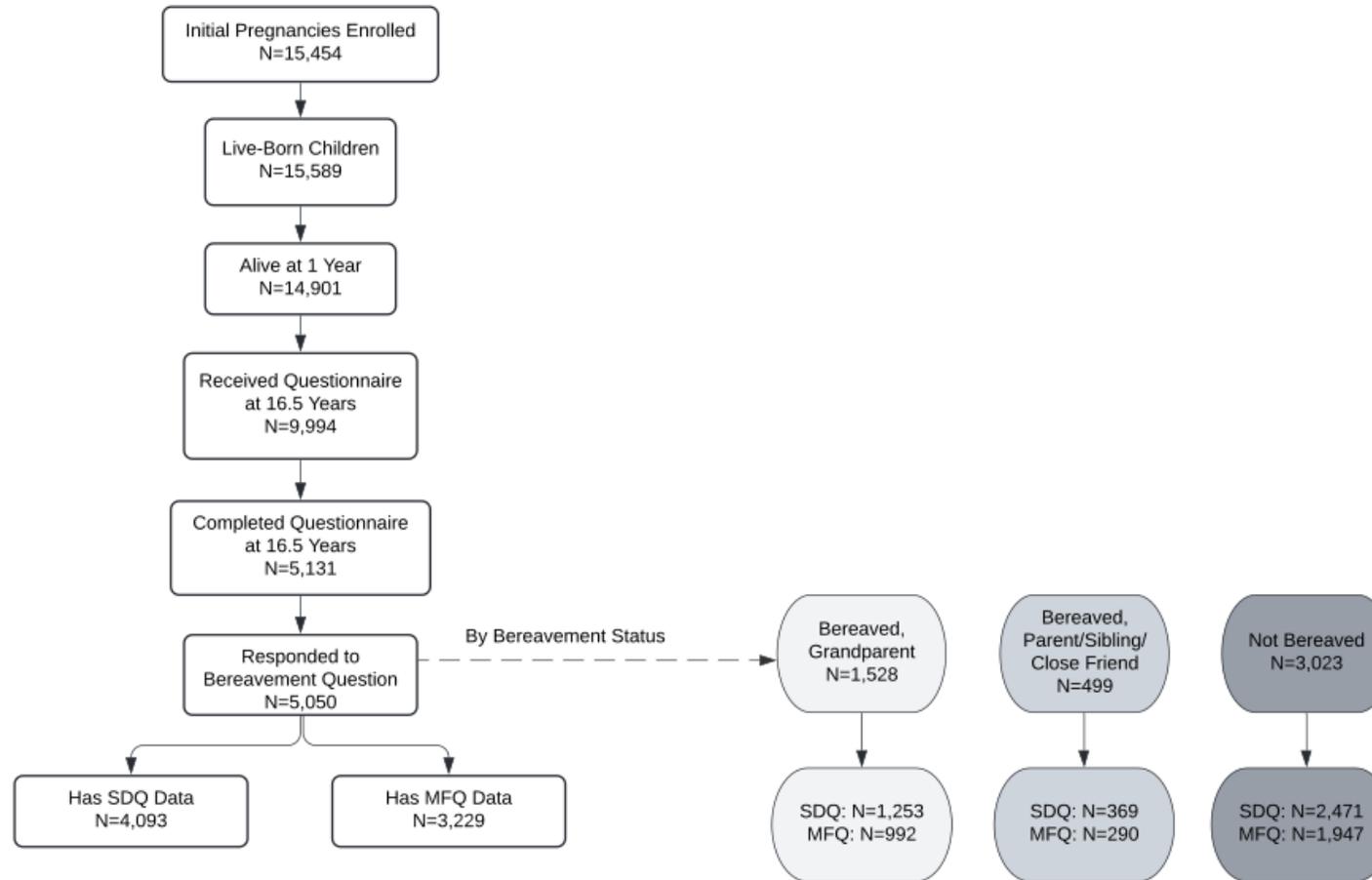


Avon Longitudinal Study of Parents and Children



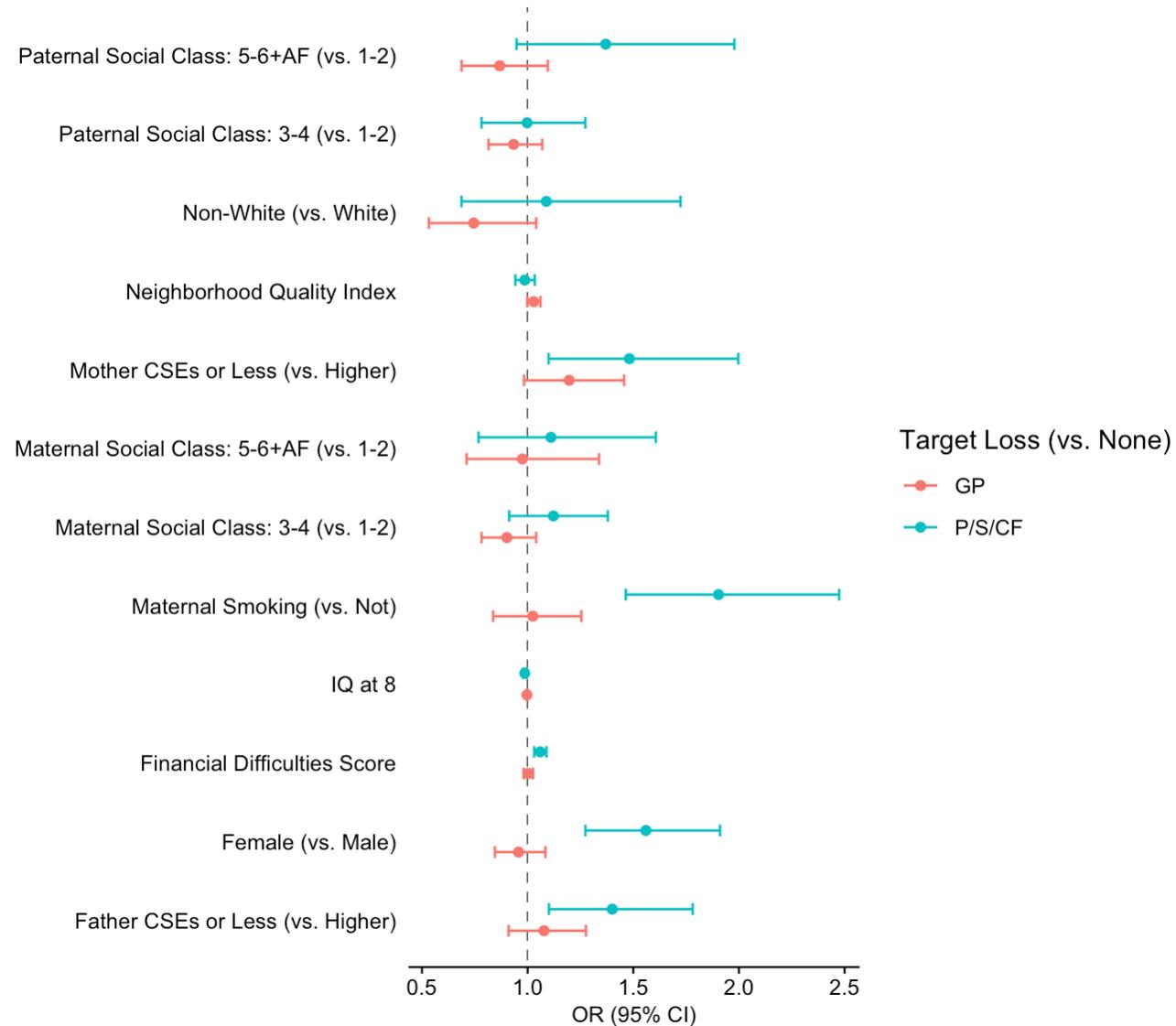
Among youth bereaved of a parent, sibling, friend, or grandparent between the ages of 9-12, was IQ assessed at age protective against mental health symptoms at age 16?

Cognitive  
ability,  
bereavement,  
metal health



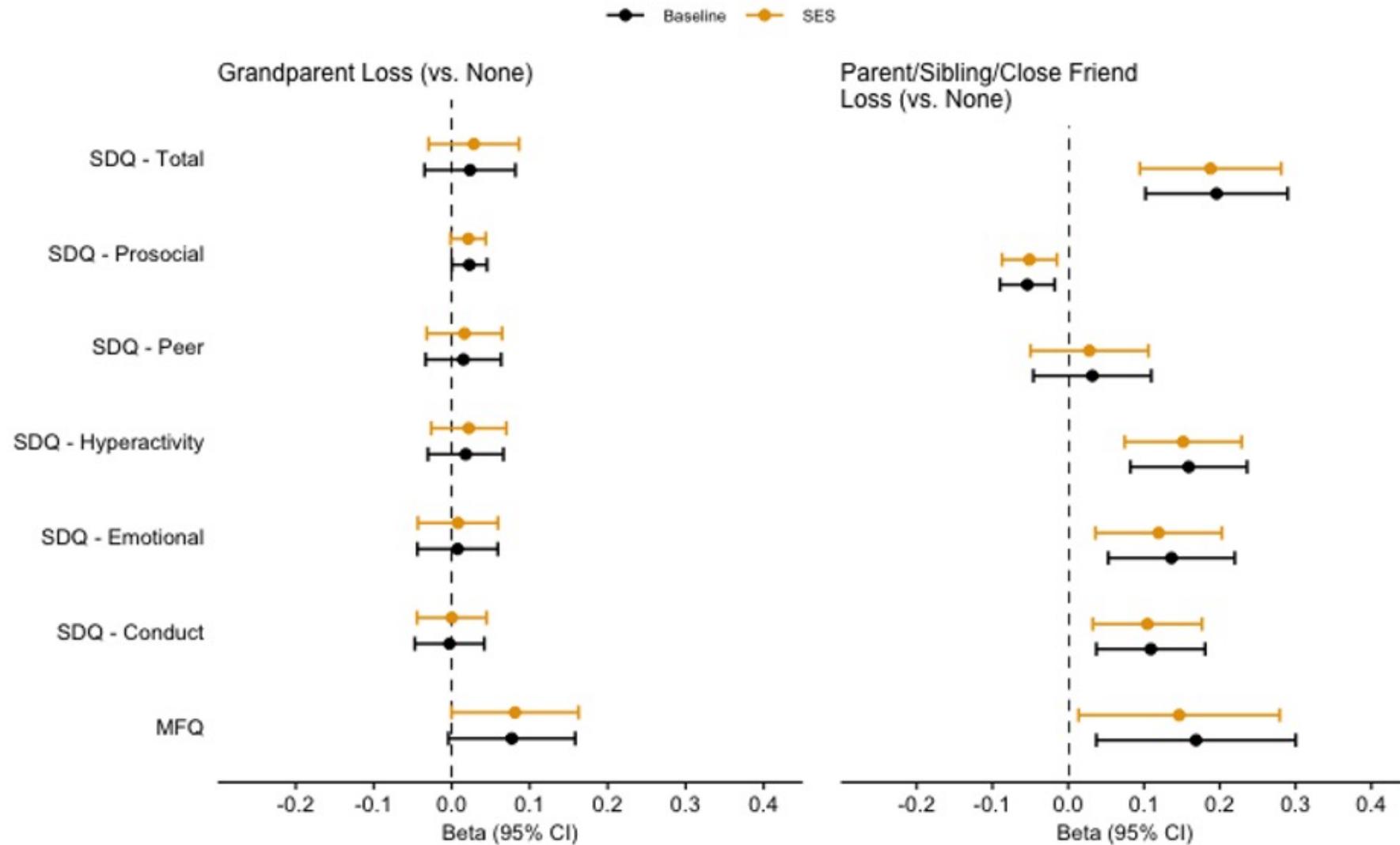
# Sociodemographic factor comparison between bereaved and non-bereaved youth

Cognitive  
ability,  
bereavement,  
metal health



Youth bereaved of a parent/sibling/close friend show elevated mental health symptoms at aged 16

Cognitive  
ability,  
bereavement,  
mental health



IQ, assessed at age 8, buffers against mental health distress at aged 16 in a non-bereaved sample

<i>Model</i>	<i>Psychopathology Outcome</i>	<b>Stratum: Bereaved of a Parent, Sibling, or Close Friend</b>				<b>Stratum: Bereaved of a Grandparent</b>				<b>Stratum: Not Bereaved</b>			
		<b>Beta</b>	<b>SE</b>	<b>P</b>	<b>N</b>	<b>Beta</b>	<b>SE</b>	<b>P</b>	<b>N</b>	<b>Beta</b>	<b>SE</b>	<b>P</b>	<b>N</b>
Adjusted for pre-loss mental health, child sex, and sociodemographic covariates	SDQ - Total	-0.005	0.004	0.171	369	-0.004	0.002	0.021	1253	-0.006	0.001	0.000	2471
	SDQ - Emotional	-0.003	0.003	0.434	371	-0.003	0.002	0.093	1262	-0.002	0.001	0.034	2484
	SDQ - Conduct	-0.004	0.003	0.205	371	-0.001	0.001	0.370	1264	-0.003	0.001	0.002	2485
	SDQ - Hyperactivity	-0.006	0.003	0.049	371	-0.003	0.001	0.069	1262	-0.006	0.001	0.000	2488
	SDQ - Peer	-0.001	0.003	0.712	371	-0.002	0.001	0.075	1262	-0.004	0.001	0.001	2481
	SDQ - Prosocial	0.001	0.002	0.708	372	0.001	0.001	0.058	1258	0.001	0.000	0.257	2487
	MFQ	-0.004	0.005	0.517	290	0.000	0.002	0.877	992	0.000	0.002	0.960	1947

IQ, assessed at age 8, buffers against **SOME** types of mental health distress at aged 16 among youth bereaved of a grandparent between the ages of 9-12

<i>Model</i>	<i>Psychopathology Outcome</i>	<b>Stratum: Bereaved of a Parent, Sibling, or Close Friend</b>				<b>Stratum: Bereaved of a Grandparent</b>				<b>Stratum: Not Bereaved</b>			
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IQ, assessed at age 8, buffers only against hyperactivity at aged 16 among youth bereaved of a parent/sibling, or friend between the ages of 9-12

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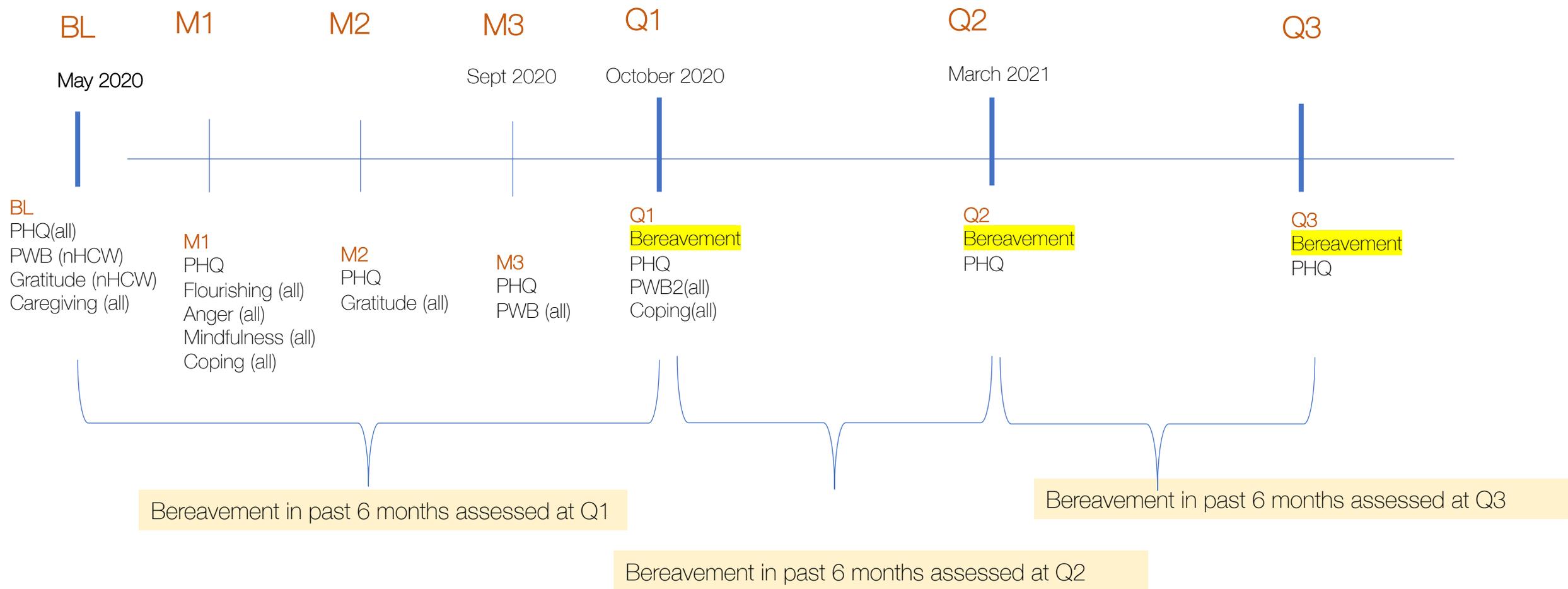
## Recent news

**ASCO Post , May 20, 2022:**

[Age at Initiation of Colorectal Cancer Screening and Risk of Colorectal Cancer Among U.S. Women](#)

The Nurses' Health Study and Nurses' Health Study II are among the largest investigations into the risk factors for major chronic diseases in women.

# NHS II COVID Supplement Bereavement Analysis Item Timeline



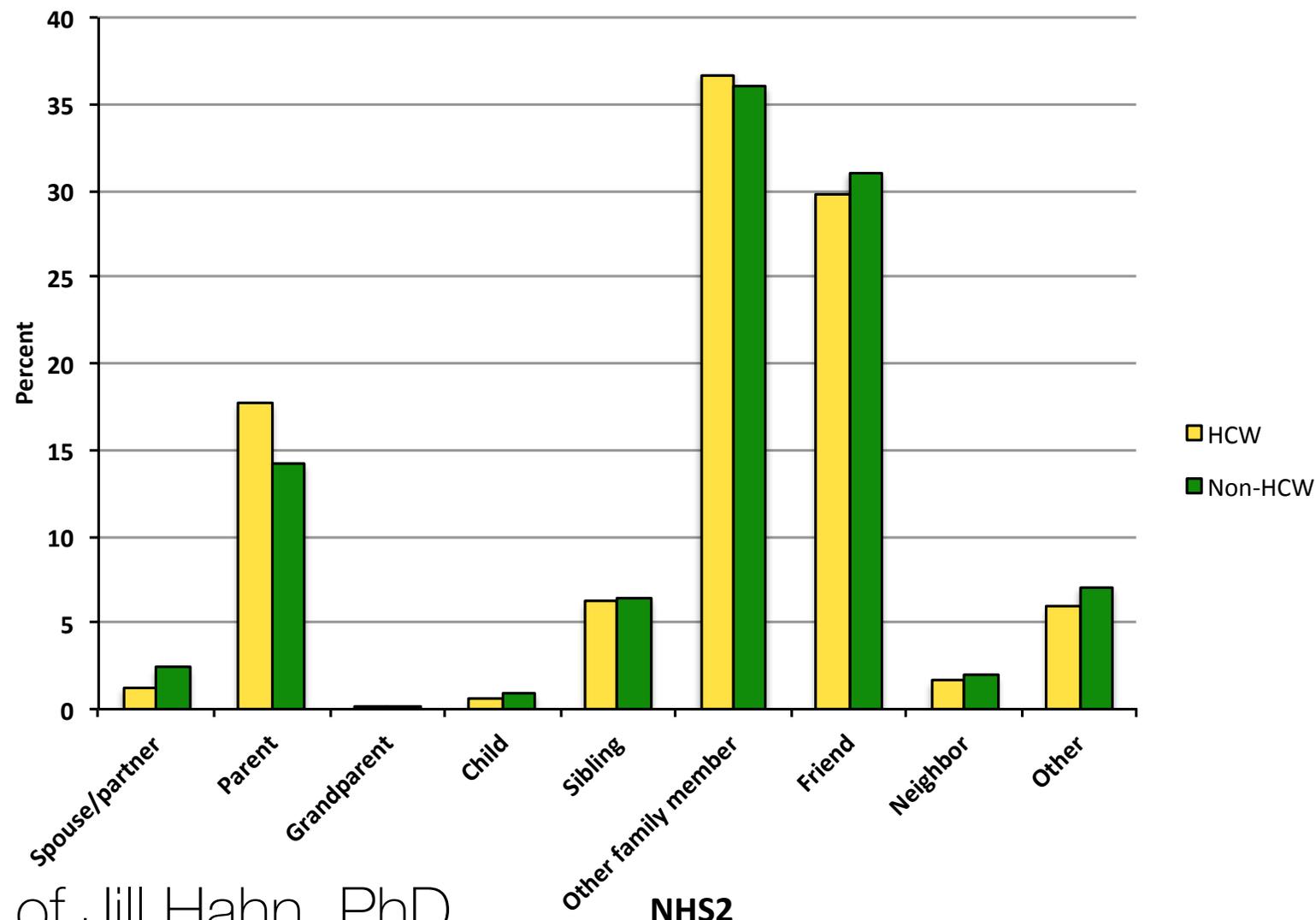
Nurses Health Study COVID Substudy, n~33,000/120,000  
Bereavement incidence in 6-month period (March-October 2020) in

**Table 1** Age-standardized characteristics of the NHS2 Covid-19 Substudy by whether or not participants lost a loved one as reported in Quarterly1

	No (n=23677)	Yes (n=6901)
age*	65.4 (4.49)	65.29 (4.5)
Median family income (2010 Census), 2013	84038 (32633)	82484 (31449)
phq4_q2q3ca	1.957 (2.204)	2.148 (2.316)
depress_q2q3ca	0.8975 (1.1799)	0.9906 (1.2348)
anxiety_q2q3ca	1.154 (1.267)	1.263 (1.321)
nonwhite, %	2	4
relation		
- spouse or child, %		3
- parent, grandparent, or sibling, %		22
- Other, %		76
lovedth_covid_q1, %	0	19
memorial_		
- no, %		51
- online only, %		7
- in person, %		41
goodbye_		
- no, %		69
- online or phone only, %		7
- in person, %		24

Since March 1, 2020, has a loved one or someone important to you died?

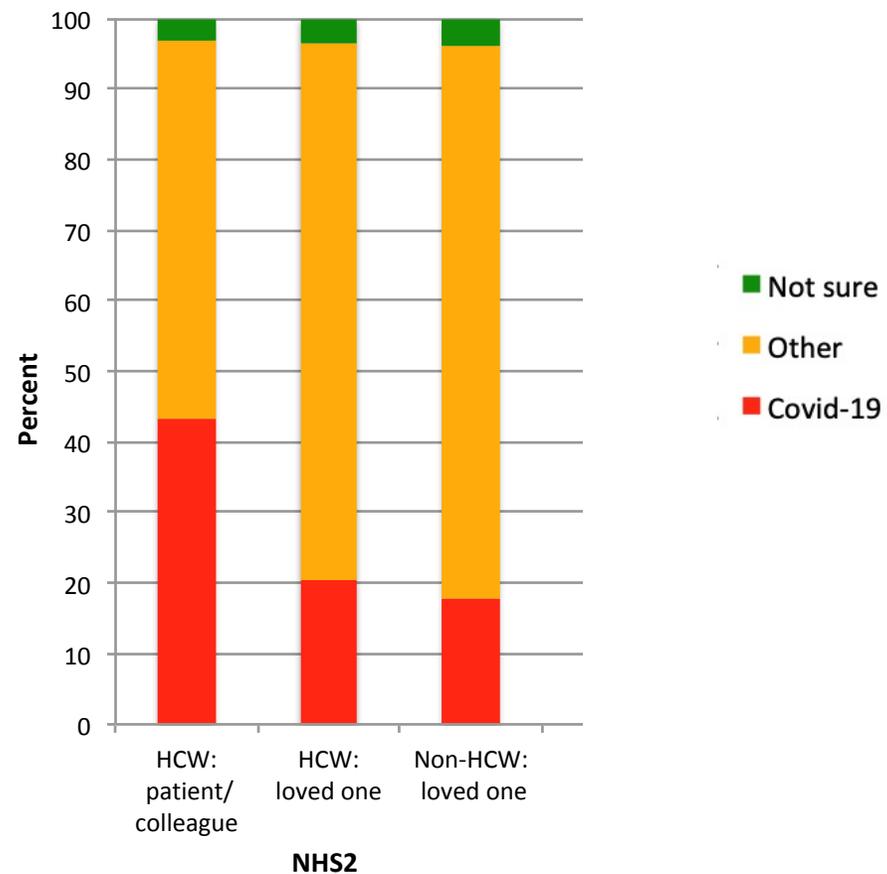
What was [the deceased] person's relationship to you?



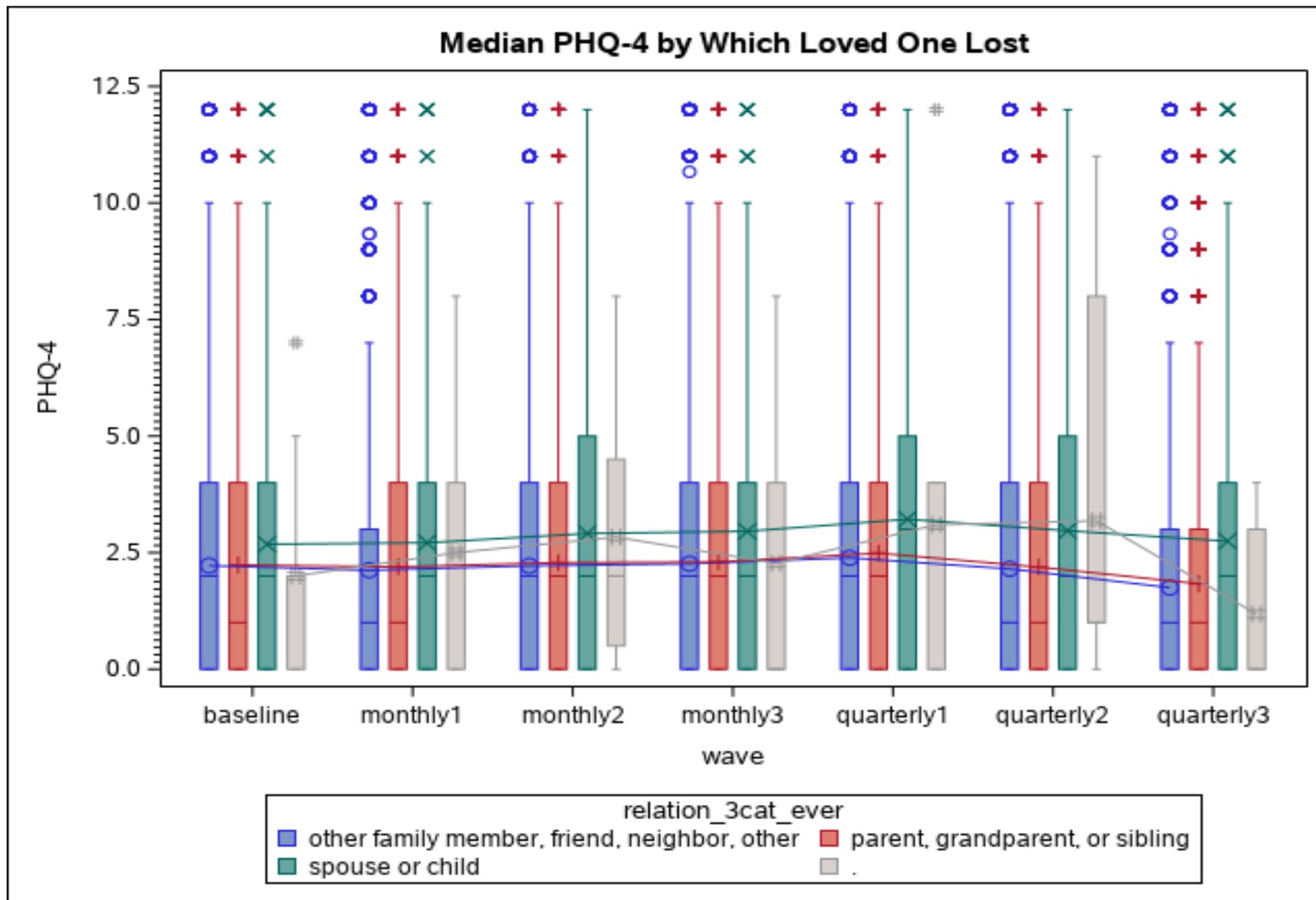
Slide courtesy of Jill Hahn, PhD.

NHS2

For those who died, what was the cause of death?



Slide courtesy of Jill Hahn, PhD.



Denckla, Hahn, Cowden et al. (in process)

## Bereavement and Mental Health: Association of Type of Memorial with Distress Outcomes

Table: Effect estimates<sup>1</sup>, among those where a loved one died in the first six months of the Covid-19 pandemic, for the association of type of memorial and Distress during Quarter 2 and Quarter 3 (cumulative average) of the pandemic.

	Total N (%)	Unadjusted model β (95% CI)	Adjusted model <sup>2</sup> β (95% CI)
<b>Continuous PHQ-4</b>	6901	N=6733	N=6618
Type of memorial:			
In person	506 (7.3)	-0.41 (-0.525, -0.294) <sup>3</sup>	-0.412 (-0.531, -0.293) <sup>3</sup>
Online	2834 (41.1)	-0.23 (-0.446, -0.013) <sup>6</sup>	-0.241 (-0.46, -0.021) <sup>6</sup>
None	3533 (81.0)	ref.	ref.

<sup>2</sup> Additionally adjusted for age, race (nonwhite/white reference), region (midwest, south, west, other, northeast reference), median census tract household income

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# Thank you!

## Support

NIMH K23 Early Career Award

NIMH Loan Repayment Award

Positive Health Seed Grant

Lee Kum Sheung Center for Health and Happiness

Harvard T.H. Chan School of Public Health

Radcliffe Institute for Advanced Study at Harvard  
University

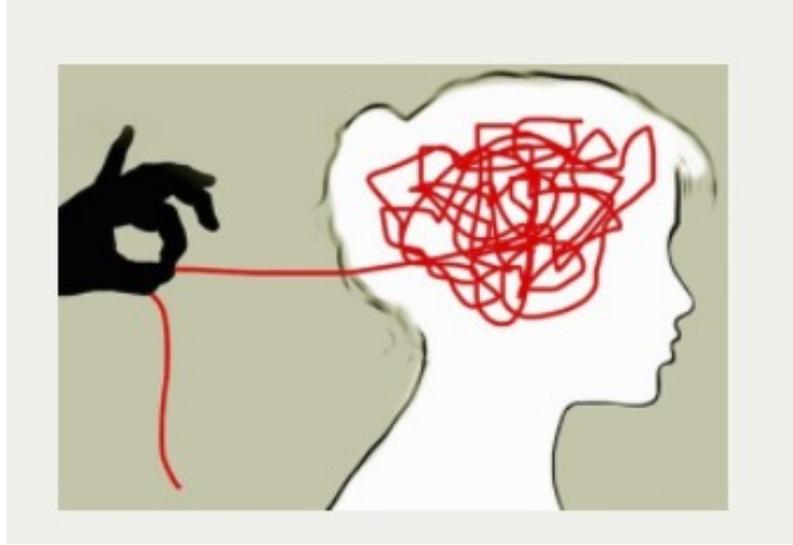
Stanley Center, Broad Institute of MIT and Harvard



Avon Longitudinal Study  
of Parents and Children



# Questions?



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Avon Longitudinal Study  
of Parents and Children

