

The National Survey of Sexual Attitudes and Lifestyles

Collecting national sexual health data in the post COVID-19 pandemic era: experiences of Natsal-4

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Natsal



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Britain's National Surveys
of Sexual Attitudes
and Lifestyles

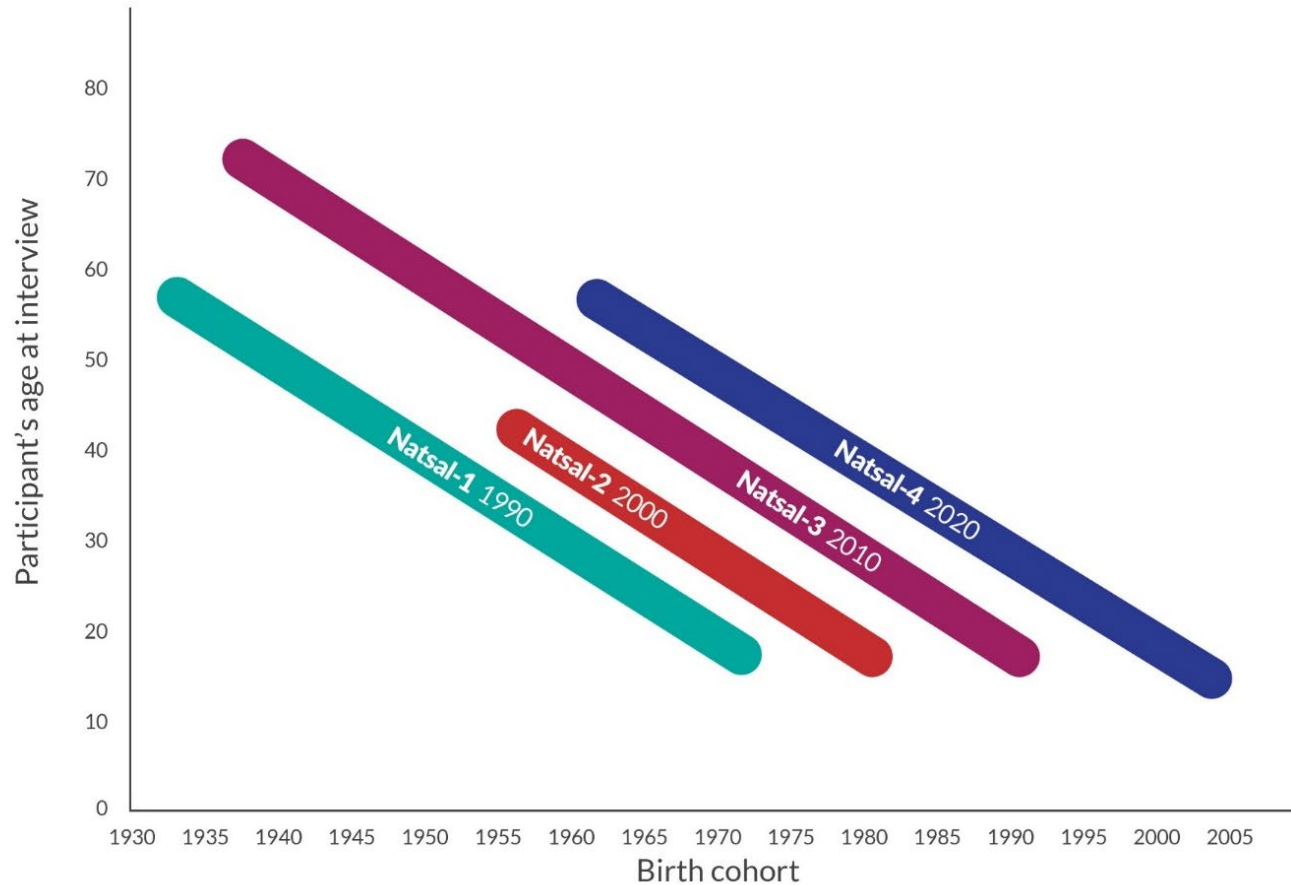
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[@NatsalStudy](https://twitter.com/NatsalStudy)

National Surveys of Sexual Attitudes and Lifestyles

- Among the largest scientific surveys of sexual behaviour in the world
- Large, representative, decennial, repeat cross-sectional population surveys
- Natsal-1 1990; Natsal-2 2000; Natsal-3 2010; Natsal-4 2022-24
- General population of Britain (England/Scotland/Wales)
- Individual-level data on sexual and reproductive health, including detailed sexual behaviour, service use, clinical outcomes, socio-demographics
- Natsal-2, Natsal-3, and Natsal-4 included biosampling

Natsal-1,-2,-3 and Natsal-4 (planned for 2020)



N-1: PAPI (face-to-face)

N-2: CAPI/CASI (face-to-face)
(+ Urine samples)

N-3: CAPI/CASI (face-to-face)
(+Urine and saliva samples)

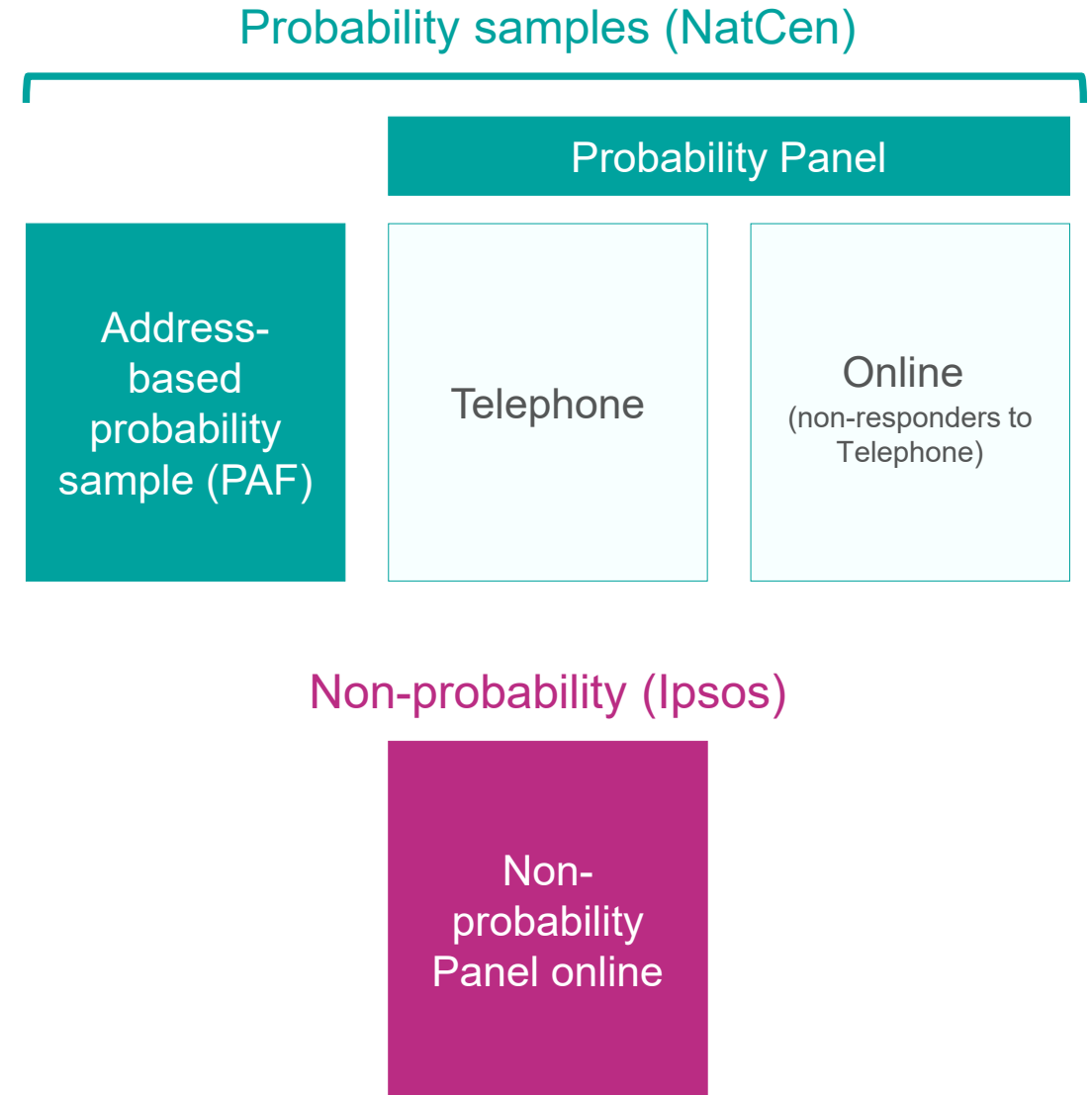
N-4: CAPI/CASI (face-to-face)
(+Vaginal swabs or urine samples)
(+ Data linkage consent)

How have previous Natsal data been used?

Some examples:

- HIV/STI prevalence monitoring
- Chlamydia screening programme
- HPV vaccination programme
- Relationships and sex education

Natsal-4 data collection overview



Natsal-4 data collection overview

Probability samples

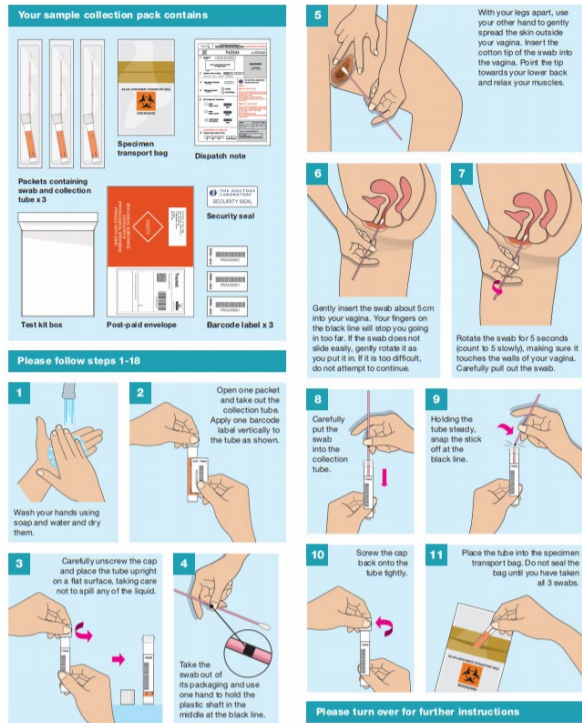
Natsal-4 data collection arms	Probability Panel			Non-probability
	Address-based probability sample (PAF)	Telephone	Online (non-responders to Telephone)	Non-probability Panel online
N	2,019	2,426	2,274	12,268
Mode	Interviewer administered (face-to-face or telephone) & self-completion (CASI/CAWI)	Telephone & online self-completion (CAWI)	Online	Online
Response rate	24%	61% (estimated cumulative response rate accounting for non-response to initial recruitment survey ~6%)		N/A
Length	60 min	60 min	~20 min	~20 min
Ages	16-59	18-59	18-59	18-59
Young person boost	Yes [n=931] Age 16-29	No	No	Yes [n=2,000] Age 18-29
Ethnic minority boost	No	No	No	Yes [n=2,401] <i>Black African, Black Caribbean, Indian, Pakistani, Bangladeshi, White other</i>
Dates in field	September 2022- November 2023	July 2023 - January 2024		March - April 2024

Natsal-4 survey topics

Sexual behaviours and practices	Partnerships	First sexual experiences	Relationships and sex education	Sexual orientation
STI prevalence and past diagnoses	Sexual health service uptake and access	STI/HIV prevention and intervention uptake	STI/BBV vaccination	STI symptoms
Reproductive health	Fertility	Contraception	Unplanned pregnancy	Menopause
Sexual wellbeing	Sexual function	Sexual violence	Paid sex	Technology and pornography
Attitudes	Demographics	Gender identity	General and mental health	Information and support

Biosampling: vaginal swabs and urine samples

Cis Women Vaginal swab samples



Those who refused to collect a vaginal swab were offered to collect a urine sample

Cis Men and Trans/Non-Binary participants

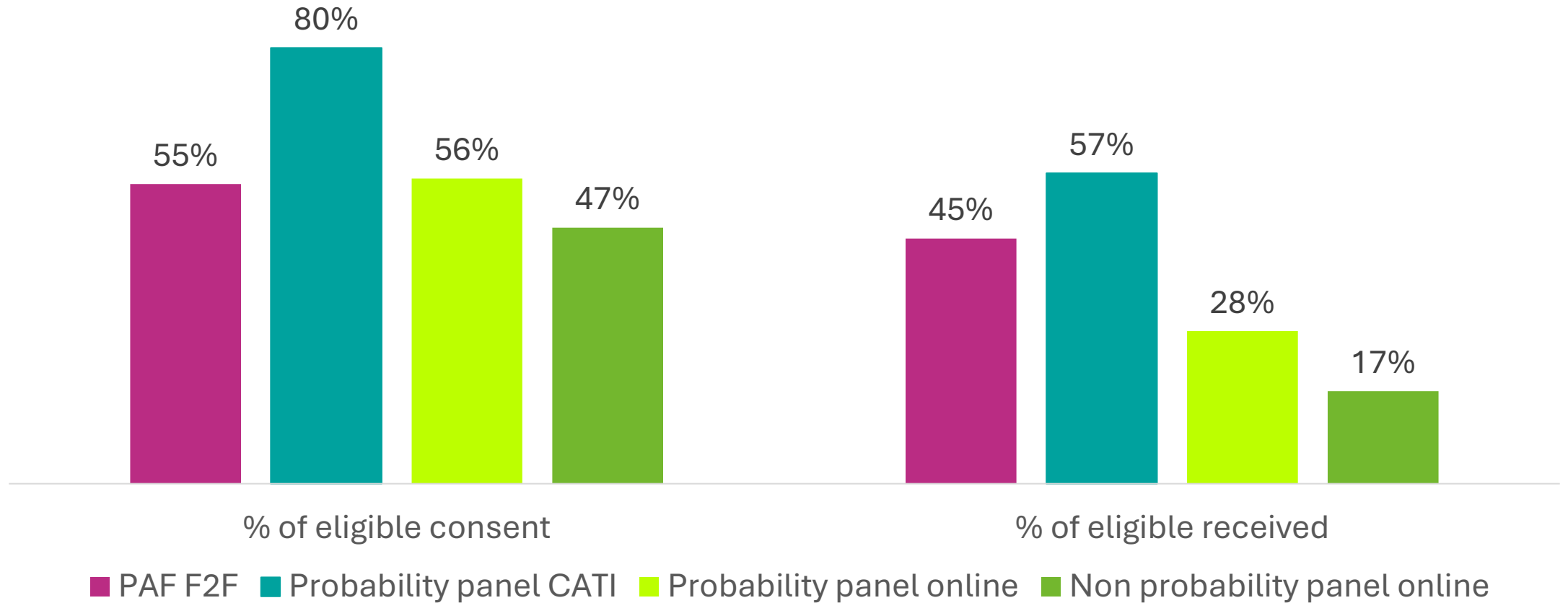
Urine samples*



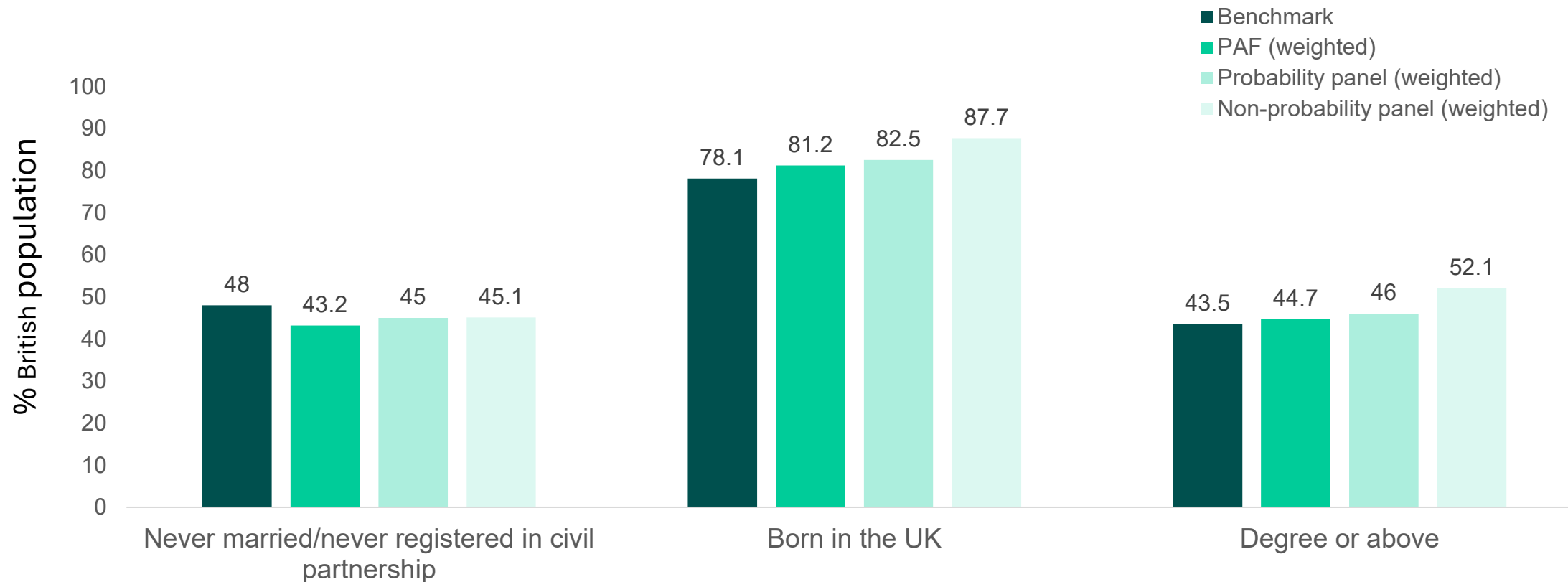
*Image from <https://biosmart.com/urine-collection-device/>

Biosampling response

Consent and samples received across all data collection arms



Benchmarking to Census21 Data



Using the data

- Following benchmarking, bias and mode effects analysis
- The Natsal team is producing a document for analysis recommendations
- Key recommendation is to use probability samples for prevalence estimates and include non-probability when looking at associations only
- The Natsal technical report includes information on data collection, response, weighting and questionnaire content. Available on the Natsal website: [Natsal-4 – NATSAL](#)

Summary

- Natsal-4 is a rich and complex survey dataset
- Biosampling and data linkage consent was possible in all data collection arms
- Combining multi-sample, multi-mode data is challenging
- Some biases likely; analysis recommendations
- Methods will inform future Natsal surveys and other general population surveys
- Data will be available on the UKDS in November 2026

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