Development of a Discrete Choice Experiment to Explore Preferences for Self-Sampling in a National UK Cervical Screening Programme

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Background

- The NHS Cervical Screening Programme currently involves a healthcare professional collecting a sample from the cervix in a clinical setting.
- There are limitations to this approach, including difficulty in accessing appointments and the discomfort or anxiety caused by speculum examinations.
- The introduction of human papillomavirus testing has enabled the development of self-sampling methods, including vaginal and urine collection.
- While the accuracy of these methods has been studied, it remains unclear which features of self-sampling influence preferences, acceptability, and screening uptake.

Aims

(1) To quantify preferences for cervical screening features among the UK population eligible for cervical screening;

(2) To estimate uptake under different sampling collection scenarios;

(3) To explore how preferences vary across sociodemographic groups

Methods

- A discrete choice experiment (DCE) was developed.
- Attributes and levels for the DCE were identified through a literature review, expert consultation, and input from a patient and public involvement group (n=6).
- The final survey includes 8 choice tasks per participant, asking them to choose between two hypothetical screening options, or no screening.
- Results will be analysed using conditional logit, mixed logit and latent class models, and uptake calculated.

Conclusion

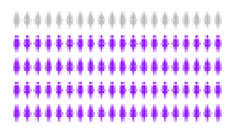
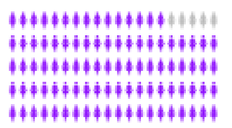
This study can help design a more acceptable and effective cervical screening programs tailored to the UK context, including consideration of how preferences differ between sociodemographic subgroups.

Results

The final survey includes the following attributes:

Attributes	Levels
Detection rate	80%
	85%
	90%
	95%
How the sample is taken	Healthcare practitioner smear test
	Healthcare practitioner takes a vaginal swab
	Self-taken vaginal swab sample
	Self-taken urine sample
Location	Home
	Healthcare setting
Pain	None
	Mild
	Moderate
	Severe
Contact with health practitioner	No contact
	Contact via phone
	Contact in person
Screening frequency	Yearly
	Every 2 years
	Every 3 years
	Every 5 years

Example choice task:

Screening features	Option 1	Option 2	No screening
Detection rate	80% 	95% 	No cell changes would be identified
How the sample is taken	Vaginal sample (take the sample yourself)	Healthcare practitioner collects a sample from the cervix (smear test)	Sample is not taken
Location	Home	Healthcare setting	Not relevant
Pain	Mild	Moderate	None
Contact with healthcare practitioner	No contact	Contact in person	None
Screening frequency	Every 5 years	Yearly	No screening

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